Defense AT&L

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A PUBLICATION OF THE DEFENSE ACQUISITION UNIVERSITY

Focusing Programs, People, Production, and Improvement on the Warfighter's Mission

Assistant Secretary of the Army (Acquisition, Logistics and Technology) Claude M. Bolton Jr. talks to *Defense AT&L*

ALSO

Optimizing the Supply Process at the Defense Logistics Agency

Transformational Recapitalization: Rethinking USAF Aircraft Procurement Philosophies

Doing Less With More: The Pitfalls of Over Funding

Using Design for Manufacture and Assembly to Meet Advanced Precision Kill Weapon System Goals

Defense AT&L

A Publication of the

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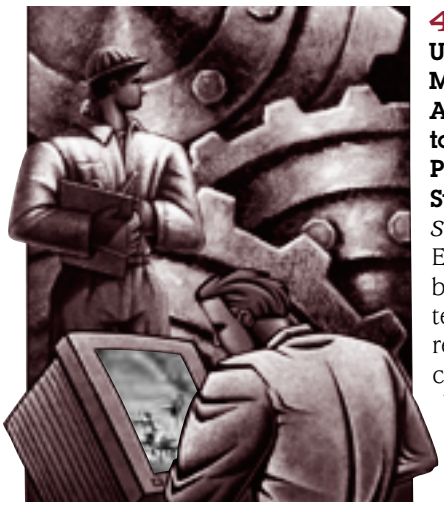

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Claude M. Bolton Jr.

Assistant Secretary of the Army (Acquisition, Logistics and Technology)

Talks to Defense AT&L

A former Defense Systems Management College commandant, Claude M. Bolton Jr., serves as the Army acquisition executive, the senior procurement executive, and the science advisor to the secretary of the Army. Bolton is also the senior research and development official for the Department of the Army. His responsibilities include appointing, managing, and evaluating program executive officers (PEOs) and program managers (PMs); managing the Army Acquisition Corps; and overseeing research, development, test, evaluation, and acquisition programs.

On Aug. 16, 2004, Paul McMahon, DAU liaison to the Office of the Secretary of Defense, with the assistance of Christina Cavoli, *Defense AT&L* contributing editor, interviewed Bolton in his Pentagon office. Bolton covered a broad range of topics, including new combat systems; budgetary and personnel challenges facing the Army; AT&L education and training; the basics of terminating a program; and a new uniform that he dubs "the best thing since sliced bread."

Q

Your office is responsible for providing weapon systems and equipment for the Army. You have often said that in your position, you serve the soldier. What are you doing to help soldiers accomplish their missions successfully and return home safely?

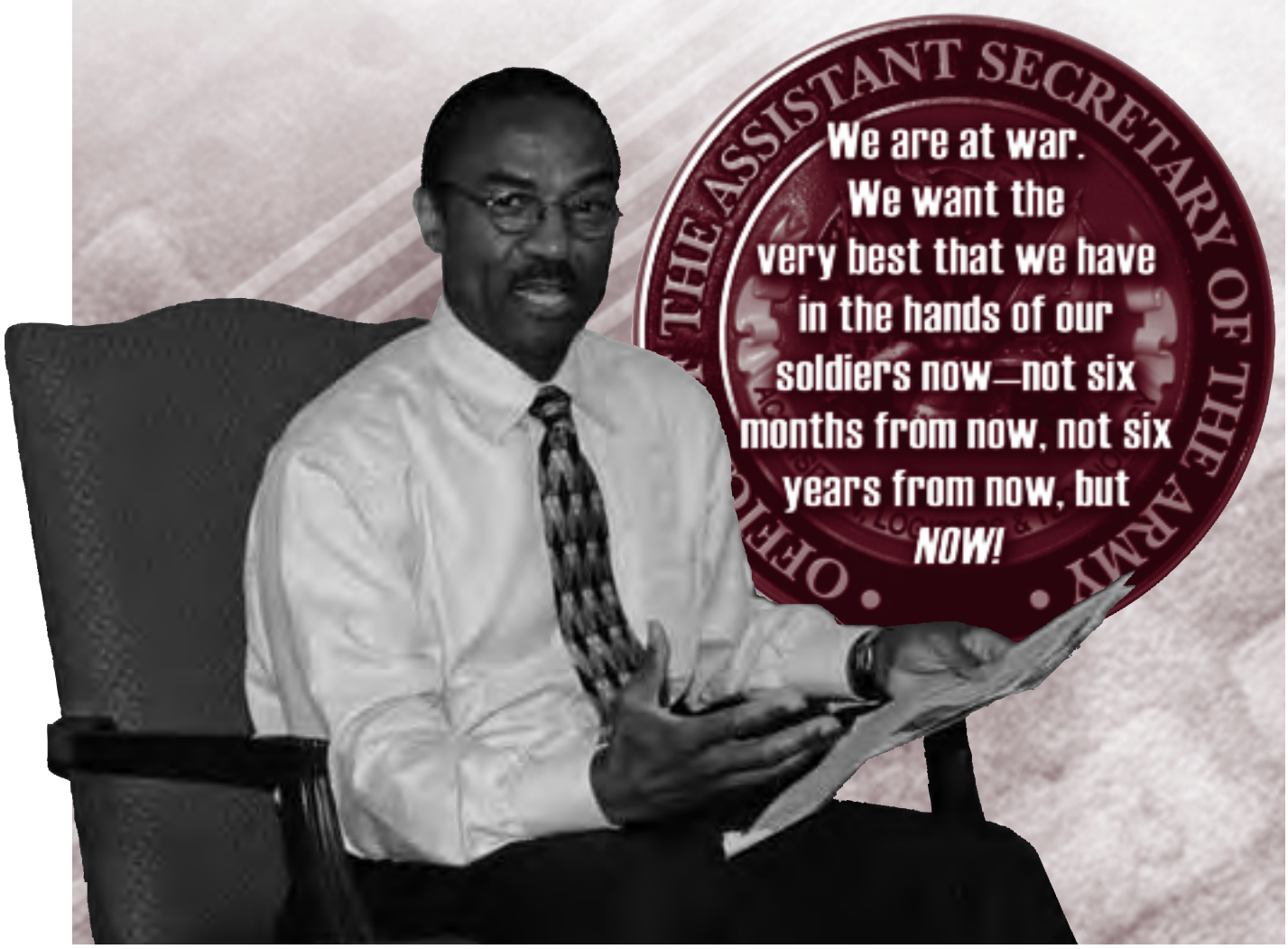
A

We have two focuses. One is the immediate concerns of soldiers, particularly those in Afghanistan and Iraq. For the past 18 months, we've had our acquisition and logistician folks on the ground. That involvement led to something we call the rapid equipping. We sent a colonel to Afghanistan to ask, "What do the soldiers here need?" What we needed in those days was to clear caves, which put soldiers' lives at risk. So he took over PackBots—robots that soldiers used to clear caves.

That became a larger initiative: we will field to the soldier from zero time to 90 days. We've fielded things to them in as little as 12 hours. When

Paul McMahon (left) and Christina Cavoli confer with Claude M. Bolton Jr., assistant secretary of the Army (AL&T), before the interview.

Photographs by Staff Sgt. Kevin Moses, USA



we needed to check wells for caches of weapons, we modified a camera and put it on a tether within six hours, and it was on a mission 12 hours later. Within the first mission or two, we were able to find large caches of weapons. This initiative provided shims to open locks. Locks may not be that expensive to you and me, but for homeowners in Afghanistan, locks *are* expensive. Initially, we had to destroy locks to gain access, but now, with a simple metal shim, we can open the locks, clear the building, and lock it back up. It helps everybody out.

The initiative that looks at the longer term is the RFI—the rapid fielding initiative—done by PEO Soldier [*Program Executive Office Soldier*]. A couple of years ago, we outfitted about 20,000 soldiers with about $3,000-worth each of arm pads, knee pads, weapons optics, and soldier-type items. This year, we will outfit over 176,000 soldiers.

IBA—interceptor body armor—consists of SAPI [*small arms protective inserts*] plates and the outer tactical vest that provide body armor for the soldier. We've gone from a couple of thousand sets a month to 25,000 sets a month and from two contractors to six contractors. A year-plus ago, we were producing about 12 fully up-armored Humvees® [*HMMWVs—high mobility multipurpose wheeled vehicles*] a month. Since then, we've accelerated production to 350 a month, and starting in October, we'll produce 450 a month with the same two contractors. I've been very impressed with the way industry has stepped up to the task of helping soldiers.

There are two parts to this. The first part is tactical: Got to have it right now. The second is more strategic: What are we going to do in the future? That really gets into how we are reorganizing acquisition and sustainment and how we are working with contractors and the industrial base to help ourselves in the long run.

Q

The Army is working to increase capabilities for the soldier by merging the sustaining and equipping sides of the house. Can you tell us about this initiative?

A

Gen. Paul Kern, commanding general of U.S. Army Materiel Command, and I recently signed an MOA [*memorandum of agreement*] that formalized the process of bringing together the sustainment part within the materiel command and the acquisition side. The idea is to grow the staffs and the processes together. What the commanders are doing now is writing an implementation

Claude M. Bolton Jr.

Assistant Secretary of the Army (Acquisition, Logistics and Technology)

Claude M. Bolton was sworn in January 2, 2002 as assistant secretary of the Army (acquisition, logistics and technology).

Bolton was formerly commander, Air Force Security Assistance Center, Headquarters Air Force Materiel Command (AFMC), Wright-Patterson Air Force Base, Ohio, where he managed foreign military sales programs with totals exceeding $90 billion that supported more than 80 foreign countries. As AFMC's center of excellence for international affairs, Bolton's responsibilities also included managing the command's international cooperative programs and its foreign disclosure policy.

Bolton received his commission in the Air Force in 1969 through the University of Nebraska's Air Force ROTC program, where he was honored as a distinguished graduate. He is a command pilot with more than 2,700 flying hours in more than 30 different aircraft. During the Vietnam War he flew 232 combat missions, 40 over North Vietnam. He was a test pilot for the F-4, F-111, and the F-16, and the first program manager for the Advanced Tactical Fighter Technologies Program, which evolved into the F-22 System Program Office. He has served in a variety of other positions during his career, including squadron and wing safety officer, instructor pilot, wing standardization and evaluation flight examiner, scheduler, and acquisition professional.

During his tour at the Pentagon, Bolton was the F-16 program element monitor and also saw duty in the Office of Special Programs. He was the deputy program director for the B-2 System Program Office, program director for the Advanced Cruise Missile System Program Office, then inspector general for Air Force Materiel Command. He served as commandant of the Defense Systems Management College, as special assistant to the assistant secretary of the Air Force for acquisition, and as director of requirements at AFMC headquarters. He also served as the program executive officer for Air Force fighter and bomber programs with the Office of the Assistant Secretary of the Air Force for Acquisition.

plan: How does this really work? What does the workforce really do? Even better, there are metrics—as you may recall, I like the big "M" word—and they allow us to understand how well we're achieving what we want to achieve and how to change it for the better.

Here in the Army, we have program evaluation groups, or PEGs, for the development and management of budgets in our separate functional areas—equipping, manning, installations, sustaining, and training. We're in the throes of rethinking our "equip" PEG. We're saying, for equipping and sustaining, "Bring 'em together!" One PEG, and call it "life cycle PEG." The job is to figure out what capability is needed over the program objective memorandum—DoD's five year planning horizon—by year for the soldier. Not, what is acquisition supposed to be doing? Not, what should logistics do? But, together, how do you put that to the field to make it work?

We see nothing that should stop us except ourselves. There are no statutes to prevent us from doing this. We've got support from Acting Deputy Under Secretary of Defense Mike Wynne's shop. We're going to make this work.

Q

How has the industrial base capacity been impacted by the ongoing, increased OPTEMPO [operations tempo]*?*

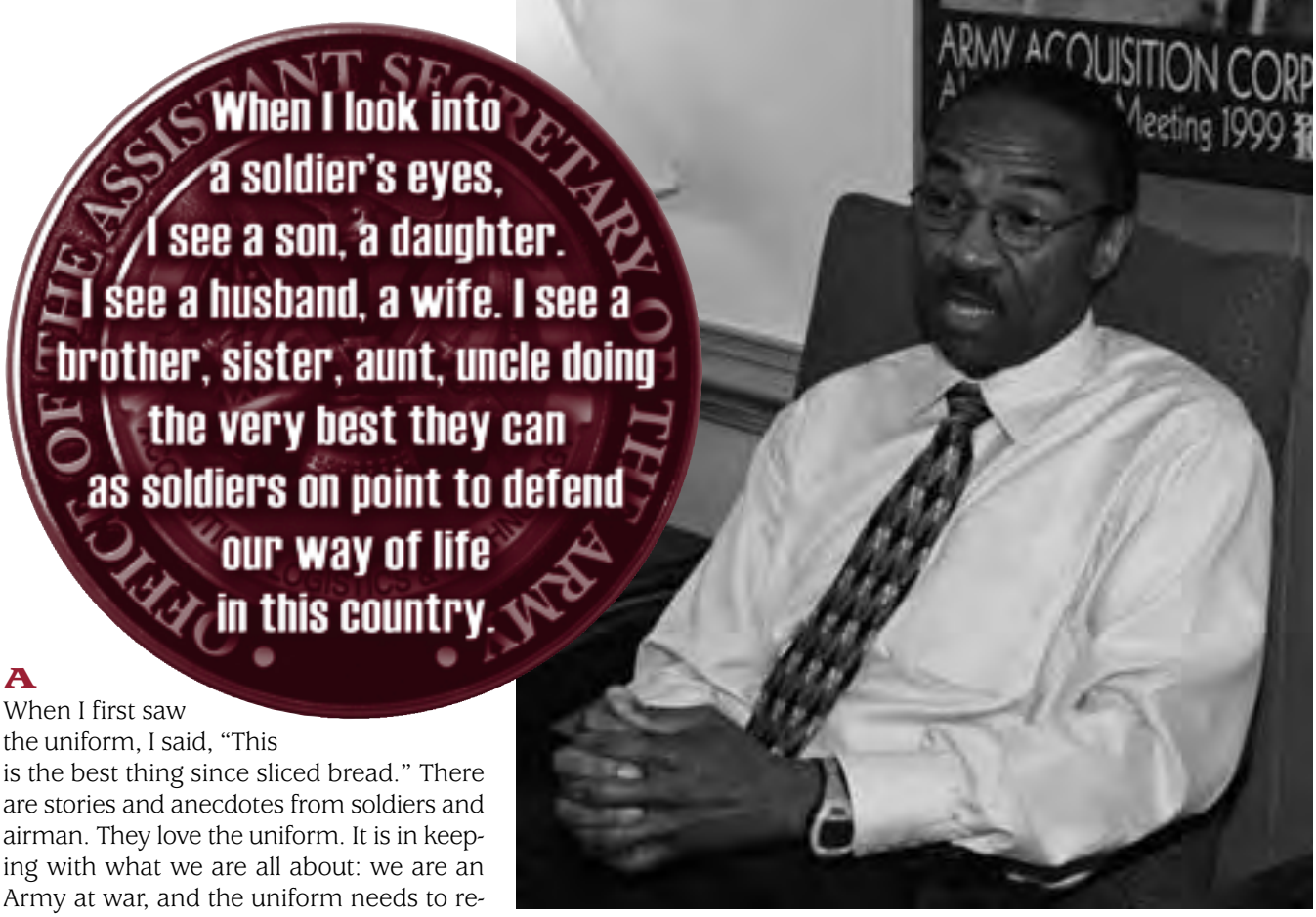
A

My way of looking at the industrial base is to include our organic capabilities—depots, arsenals, ammo plants—and defense contractors, commercial and foreign. I've got nothing but kudos for all in the way they respond to the soldier's needs. Everyone is leaning forward, anticipating what will be next.

The entire industrial base has stepped up to the plate. That's a tactical thing. I'm planning this fall to ask another question: How do we go from taking months to maybe a year to come up to speed to as little as days or weeks? And how do we do that when we are not at war? I think we can do it, but we obviously can't do it without industry and associations, so we'll sit down and think it through together.

Q

What has been the reaction so far to the new Army combat uniform?



When I look into a soldier's eyes, I see a son, a daughter. I see a husband, a wife. I see a brother, sister, aunt, uncle doing the very best they can as soldiers on point to defend our way of life in this country.

A

When I first saw the uniform, I said, "This is the best thing since sliced bread." There are stories and anecdotes from soldiers and airman. They love the uniform. It is in keeping with what we are all about: we are an Army at war, and the uniform needs to reflect that. The pockets are positioned so that you can actually use them; there's a lot of Velcro®, so you don't have to sew things on; you don't have to press this uniform because of the materials. It's a practical uniform.

The uniform was designed by an E7 and taken to the field during the design process to get input from deployed troops. I'm particularly pleased that the enlisted corps went out and created this. The troops have some recommendations to make it even better, and the next go-round we'll take a look at those.

Q

It seems that you have programs the soldiers like. The next question deals with Stryker, the highly deployable, wheeled armored vehicle that combines firepower, battlefield mobility, survivability, and versatility with reduced logistics requirements. Why is that so popular?

A

I tell folk—our critics too—they shouldn't talk to me. Talk to folks who are in the Stryker, both stateside and in Iraq. It sells itself. Why? First of all, we went from an idea to deployment in four years. Not, "Gee, we got a group here and we're ready to go," but in the field, fighting, in just four years. Just to get the vehicle normally takes us 10 to a dozen years, let alone getting war-fighting capability. We asked for 80 percent capability, and we got well over 90 percent. It's an infantry carrier, a recon vehicle, a command vehicle, a medical vehicle, a fire support vehicle, a mortar vehicle, an anti-tank vehicle, and it will also be an NBC—nuclear, biological, and chemical—vehicle and a mobile gun system. It provides far more protection than getting in the back of a truck, or, as we traditionally do, walking to the fight. Now soldiers can get in a vehicle that goes around 40 to 60 mph and is networked with the rest of the combat team. That's the most important thing. You can sit in a vehicle and know what you are supposed to do when the ramp goes down. The commander knows where he is, he knows where other folks are, and he has an idea where the enemy is. You've also got a lot of protection with the armor. Operationally, it's been superb. Very little damage has been sustained, even by RPGs [*rocket-propelled grenades*]. Since the 3rd Brigade's deployment, there have been 56 incidents associated with improvised explosive devices resulting in no hull penetrations and no loss of life. There have also been over 26 RPG attacks with the added protective armor defeating all but two of the RPGs. Again, no loss of life. And, because it moves quickly and quietly on wheels, not tracks, we're able to surprise the enemy.

But don't listen just to me. There are a lot of reports from veteran reporters and a lot of reports coming back from the troops themselves that extol the Stryker.

Q

You've had some experience with program terminations. Is there anything that comes to mind for the AL&T workforce in terms of lessons learned?

A

As a program executive officer in the U.S. Air Force, I was required to participate in an executive development course at DAU. During that program, I picked terminations as my project. I had looked around the Defense Department and noted that we have no process to terminate. You wake up one morning, you have no money, and someone says, "Okay, that's it!" I felt that we ought to have a bit more of a method, so I devised a one-page, three-column termination template.

The first column talks to the health of the program. I typically use a cumulative earned value that goes from that last major milestone of the program where the milestone decision authority said, "… and that's your baseline," to where you are today.

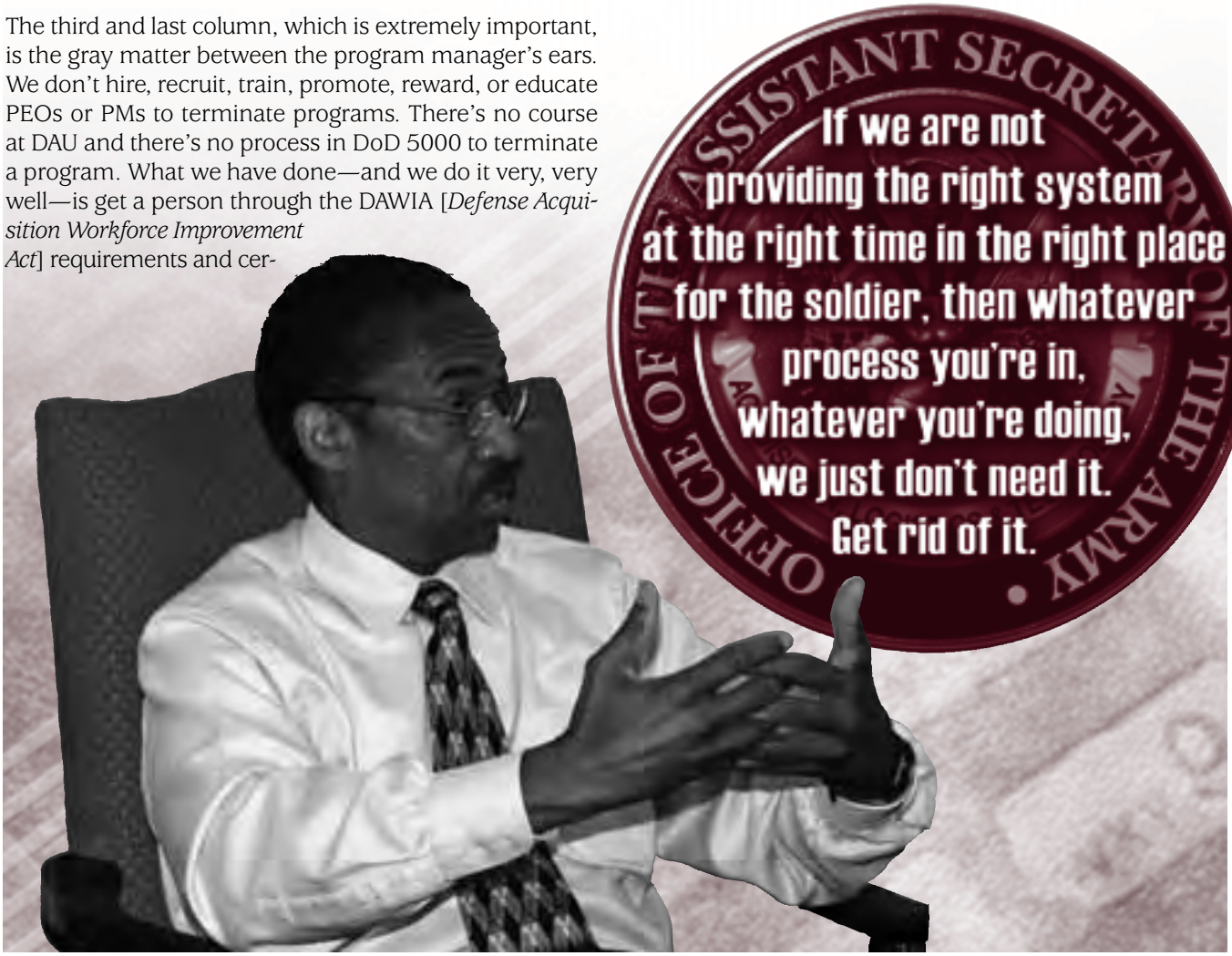
The second column deals with the politics. You go to whoever wanted the program, in the field, in the Pentagon, in the Services. You bring it to the Office of the Secretary of Defense, take it over to the Hill, to the contractors, the media, whoever was involved. That's probably the most difficult and the longest part, to soften the blow and get it just right.

The third and last column, which is extremely important, is the gray matter between the program manager's ears. We don't hire, recruit, train, promote, reward, or educate PEOs or PMs to terminate programs. There's no course at DAU and there's no process in DoD 5000 to terminate a program. What we have done—and we do it very, very well—is get a person through the DAWIA [*Defense Acquisition Workforce Improvement Act*] requirements and certifications and teach PMs how to pull rabbits out of a hat. They're very good at that, even when we take the rabbits away and they have to find a new hat.

I give the template to PEOs, not to PMs. It's not the PMs' duty: Their job is to concentrate on doing programs. I tell the PEOs, "You have a portfolio of programs here. Your job is to advise me on which of these we should press forward on and which we should terminate, based on this template."

In the Army, we have terminated some 72 programs since I walked in the door. No one's heard about most of them, except those people directly impacted, because we followed the template. On the day the president delivers his budget to the Hill, I call the affected members of Congress to tell them what is going on in this or that program, and what it means to them. In the two-and-a-half years I've been here, I've received only two letters. I wrote a note back to each explaining again what had happened, and there was no further inquiry after that.

The termination of Comanche is going along very well. Before it got to the media, we had talked to the contrac-



tors, we had talked to members of Congress, and we had talked to President Bush and the people in the Pentagon. We promised that every dollar that came out of Comanche—which is just over $14 billion—would be plowed back into aviation.

Things change. Comanche started its road in 1983. It was reprogrammed several times, but it was clearly a vehicle designed for the Cold War. When we looked at what was going on today and what we project in the future, it didn't fit anywhere. We can better use that money to retool Army aviation.

Even though we are fighting a war, we are in a budget-constrained environment, and we will be even more so when the fighting stops. We have to make sure we understand what's needed to accomplish what the people of this country want the Army to do. If programs don't contribute to that, then we have to get rid of them.

Q

I know that elimination of the chemical weapons program is near and dear to your heart. How is that program proceeding?

A

Over 50 years ago, the people of this country authorized the manufacture of chemical weapons. In the last decade-and-a-half, the United States has signed a treaty with the rest of the world that says we're going to get rid of them, and the Army has been put in charge.

We have four operational sites right now—one in Aberdeen, Md.; one in Tooele, Utah; one in Anniston, Ala.; and one in Umatilla, Ore.—that are progressing very well. The Umatilla facility processed its first chemical weapon on Sept. 8, 2004. Aberdeen will probably be finished by January 2005. Anniston, operating for only a year, has already destroyed all of its sarin rockets. Tooele has destroyed all of its sarin munitions and is expected to complete destruction of all of its VX [*nerve agent*] munitions next year. My hope is that by next year at this time, we'll have all six Army sites up and running. The idea is to get rid of this stuff as quickly as possible. It's not fine wine; it doesn't get better with age. We have leakers, and every time we get an alarm in a storage igloo, it means putting workers in harm's way.

The people involved with this program do an expert job. These facilities have logged millions and millions of man-hours without a lost workday and without harming the environment. We completed the elimination mission at Johnston Atoll in the Central Pacific Ocean and closed down that facility. According to independent environmentalist groups, the environment there is healthier now than it was before we got there years ago. The director of the Chemical Materials Agency, Mike Parker, showed me a letter today from the Sierra Club stating that he is going to be one of this year's awardees because of the job he has done.

It's not an easy job. We have to abide by federal rules, state rules, local rules. State and local rules are all different, and they change regularly; it's an enormous challenge. We are spending $1.62 billion on demilitarization this year. That's a lot of money, but there's no price you can put on this. Continued storage poses risk to the local communities. The stockpiles are terrorist targets. The sooner we get rid of our chemical weapons, the better off we are going to be.

Q

In the Army, there is a high visibility initiative to spiral technology to the current force in order to grow the future force. Can you elaborate on that?

A

When Army Chief of Staff Gen. [*Peter J.*] Schoomaker came in, he said he wanted the current force to grow into the future force *now*. If technology is ready today, it should be put in the hands of the force today. We are at war. We want the very best that we have in the hands of our soldiers now—not six months from now, not six years from now, but *now*! And so the rapid fielding and rapid equipping initiatives, along with what we've done with SAPI plates and up-armored Humvees, began.

As the staffs looked at that initiative, they started talking about taking technology from the FCS [*future combat system*] and spiraling it into the current force. While a good idea, it doesn't meet today's needs, and so a new process had to be created. Rather than relying on the technology from the FCS, it is necessary to go to the technology base where all the technology for the FCS originated. The concept had previously been to take technology from that base and put it into something that would show up somewhere. For us, that was the FCS, a system of systems, composed of a C4ISR [*command, control, communications, computers, intelligence, surveillance, and reconnaissance*] network and 18 manned and unmanned systems that are centered around the soldier.

Schoomaker's idea was to keep that going, but I want to take technology from the base and put it into the current force right now. Great idea. We have no money, and we have no process, but that's not the chief's problem, it's our problem. So we went off to put a process together. The first public view of that is what we've recently done with the FCS. We will start spiraling from the FCS into the current force starting about 2008. By around 2014, rather than one unit of action that is not quite capable with all the technologies, you can expect the better part of the Army to have at least some portion of what the FCS will have and one entire unit of action that has all the tech-

In two years, about half of the workforce is eligible [for retirement]. We don't just need to replace the people who're leaving. The workload continues to go up, so we must recruit new people with new tools, new education, new training, and new processes to make all this work.

nology. We think that's a better way of working the spirals, and now we are in the throes of once again working with all the contractors.

Q

The Army acquisition workforce has been reduced dramatically, and it's been reported that one-half of the current workforce will be eligible to retire within the next two to three years. What's your perspective on that?

A

If you go back 12 years or so, we had about 120,000 people in the Army acquisition workforce. We're now at about 47,500. Today about 19 percent of the workforce is eligible to retire. Today! In five years, another 18 percent will be eligible to retire and in 10 years another 22 percent. The various commands are working on recruiting folks. Some have teamed up with commercial sides, and there is a dot.com called <www.USAJOBS.com> to let folks know what's available in the Army. As part of our strategic plan, we have a campaign plan to work this issue. We don't just need to replace the people who're leaving. The workload continues to go up, so we must recruit new people with new tools, new education, new training, and new processes to make all this work.

Of all the things that we've talked about—aside from all the things that are impacting soldiers who are fighting today—the most critical thing is the workforce. Without the workforce, all the other things I've talked about do not happen.

Q

We appreciate that. I understand you have some other specific areas you might like to focus on and share with us.

A

When I walked in here, then Secretary of the Army Thomas E. White said, "Bolton, I'd like you to take a look at programs, the workforce, and the industrial base." I had to keep that simple in my mind, so I thought, "OK—three Ps and an I: programs, people, production, and improvement. P^3I."

These are the instruments that I use to provide the soldier the right product in the right place at the right time at the right price. About price: soldiers in the foxhole don't care, and that's OK. They shouldn't care about the cost. That's my problem and that's the Pentagon's problem. But soldiers *do* care that they get the right system at the right place at the right time.

The hardest part of that is deciding what's right. I boil it down to this: If we're not providing the right system at the right time in the right place for the soldier, then whatever process we're in, whatever we're doing, we just don't need it. Get rid of it. That means a lot of institutions have fallen—and a lot more will fall—by the wayside.

Because of this organization and because of what the Army did before I walked in, I'm able to take a look at acquisition, logistics, and technology from a policy standpoint all in one shot. Our job is to bring all this together so that we ensure we've captured the right product, right place, right time, and right price. That's what we're all about, and I haven't deviated from that since the day I walked in here.

Q

From your perspective, especially as the former commandant of the Defense Systems Management College, what can the Defense Acquisition University do to help the Army AL&T workforce?

A

My observation over the years is that DAU has been on the forefront of acquisition education and training in trying to understand what we need and providing it to the field. You see it in the distance learning courses that are available now, a lot more than when I was there, and you see it in the rapid deployment training, improvement in the various regions, and increased strategic partnering.

When I left DSMC, I said that in spite of all the good things we had done in the three years I was there, I was concerned that we were still behind the power curve. We obviously weren't getting out to the field enough because there were things going on in the field that were not part of the curriculum. You have to guard against that.

What about spiraling? How many courses do we have on spiraling? We are creating a process in the Army to do this, but it is more than just the acquisition. The requirements part has to change. The resourcing, acquisition, sustainment—they all have to change. Rapid equipping force. Every Service does it—until the shooting stops, then they stop. Every time the need arises, we have to reinvent the wheel. How do we keep it going when no one is shooting?

Consider the FCS. It's the most complex, the most ambitious project that the DoD has ever done—true systems of systems. My program manager didn't have one course in how to deal with a system of systems. Nor did the PEO. Where is the training for all this?

Training and educating the workforce for the challenges of today and for what is coming along in the future is absolutely paramount. There is no way we're going to be able to do the job that I see coming within as little as two years without taking care of business on the education and training side. That is where I think that DAU can continue to help us in the future: going out and pulsing the field to really understand what is going on.

Q

You're shaping the state of the art in terms of how acquisition is done and the training that's needed. You're creating it for the first time. You have to pick up on it as it happens and quickly turn it around.

A

That's the fun part! We get to make our own rules. It's a great time in our history. We just moved a quarter of a million folks. We haven't moved that many people since World War II. We've got nearly 300,000 people in 120 countries today. We're fighting a war. We're transitioning and transforming the Army. Modularity is alive and well. We're trying to do things that make sense to the soldier who is on the point: that's the whole focus.

At the same time, there are a large number of processes that haven't changed. They're still stuck in the Cold War. Some are in acquisition, certainly some in sustainment. If we don't change that, we will continue to be frustrated. [*"Transformational Recapitalization: Rethinking USAF Aircraft procurement Philosophies" on page 16 further examines this subject*.]

The uniform and the people wearing the uniform represents the number one Army on the face of the globe. No other Army can do what we're doing today—to be in 120 countries, to move 250,000-plus people the way we have, to be fighting and transforming at the same time.

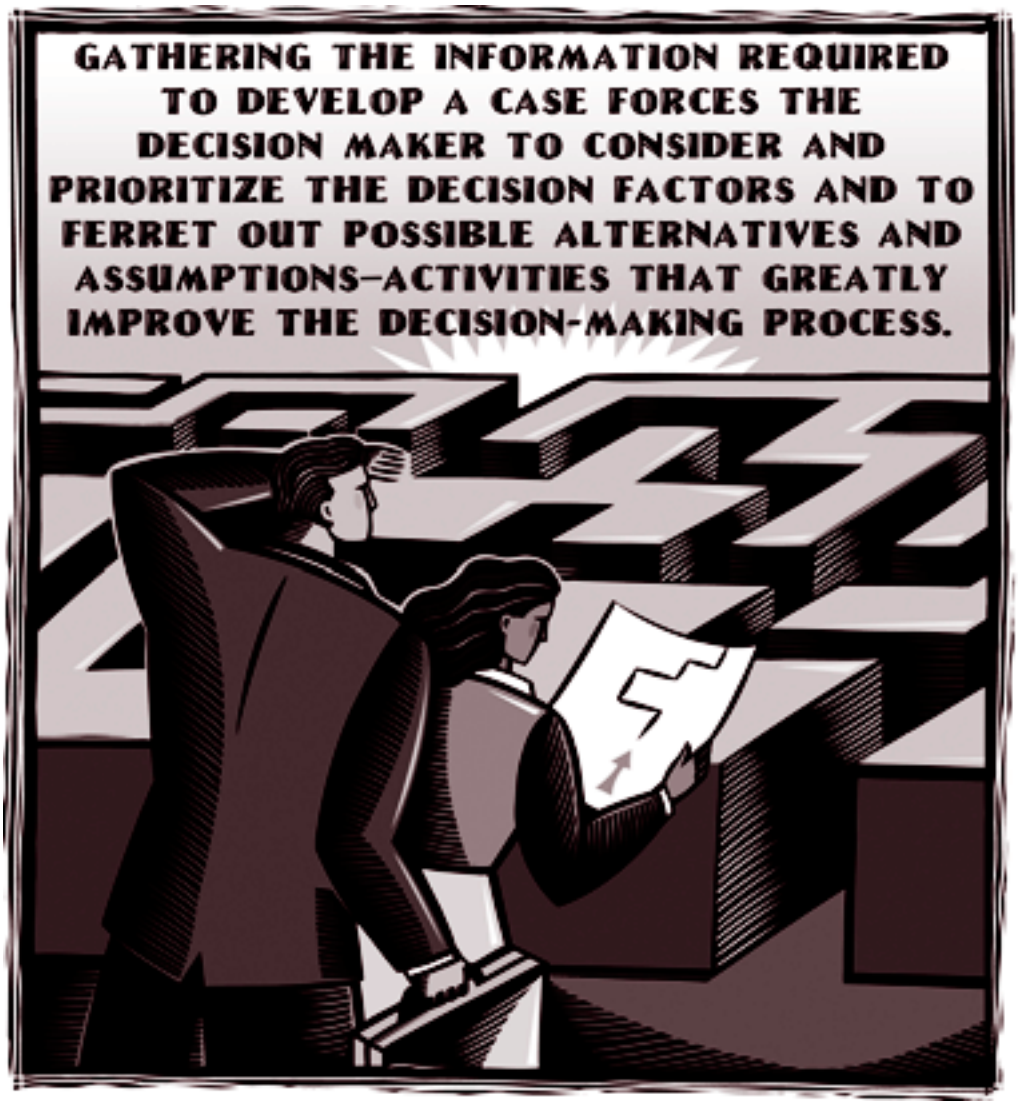
Someone once asked me why I'm here. I said, "All you have to do is look into the eyes of a solider."

When I look into a soldier's eyes, I see a son, a daughter. I see a husband, a wife. I see a brother, sister, aunt, uncle doing the very best they can as soldiers on point to defend our way of life in this country. My job is to make sure they have everything possible to allow them to accomplish their mission and come home safely. That's what it's all about. If it's not about doing that, I don't have time for it. I really don't.

Optimizing the Supply Process at the Defense Logistics Agency

A Case Study

John F. Horn



On April 14, 2000, Jerry McMahon, a Defense Logistics Agency (DLA) weapon system support manager (WSSM) at the Defense Supply Center in Columbus, Ohio, was reviewing March 2000 supply support metrics for the U.S. Army's Mustang scout vehicle. The average turnaround time for purchases of consumable spares had remained at 320 days, showing that his recent efforts to improve response time hadn't worked. In addition, the fully mission-capable operational readiness of the fleet was at 88 percent (below the critical 90 percent secretary of the Army reporting level) and a recent Army audit had spotlighted consumable spares as a significant contributor to the problem. McMahon decided that the current supply support process at the DLA Defense Supply Center was broken and the relationship with a primary defense contractor needed improvement. But what was the best approach to fix the problems? [*Editor's note: The identities of the program and the players have been changed.*]

The History of DLA

In 1952, a joint Army, Navy, and Air Force organization was formed to control the management of supply items. This marked the first time the military services bought, stored, and issued items using a common, cross-Service nomenclature. By 1961, it was apparent that additional benefits could be gained by this consolidation. Secretary of Defense Robert McNamara ordered the consolidation of the three Service agencies into a single entity and established the Defense Supply Agency (renamed

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the Defense Logistics Agency in 1977). In 1986, the Goldwater-Nichols Act established DLA as a combat support agency. Today the supply chain support mission extends worldwide. DLA manages consumable spares for the military services' 1,400 weapon system end-items, food and subsistence for troop sustainment, medical supplies, and bulk fuel and petroleum. In 1997, DLA adopted a more weapon system-centric support posture.

Team Mustang Partnership Forms

During September 1999, the U.S. Army Tank-Automotive and Armaments Command (TACOM) awarded a 13-month, $49.7 million base service contract with four one-year options to Zemora-Tudis Motors (ZTM). ZTM would provide logistics support for the Mustang scout vehicle. This contract, known as the Team Mustang Partnership (TMP), enabled TACOM to provide support of unique reparable electronic components and provided the potential to realize improved readiness rates. The benefits to be gained included reduced cycle times and associated reduction in pipeline/costs, no upfront customer funding requirement with 15 percent surcharge reduction, a standard retail supply system transparent to the soldier, and direct vendor delivery.

The Defense Supply Center, Columbus Land Group manages the consumables supply chain for approximately 600 land-based weapon systems. McMahon, as the Mustang WSSM, was responsible for ensuring that supply support issues didn't degrade the readiness of the Mustang weapon systems. He was the direct link to the Mustang program manager (PM). McMahon's responsibilities were to:

- Gather, analyze, and interpret Service and DLA readiness data; develop key issues and detailed action plans as necessary
- Maintain weapon and troop support system readiness metrics (external and internal)
- Recommend appropriate investment and acquisition strategies that enhance support of weapon and troop support systems
- Understand and disseminate weapon system configuration, technical, and safety issues impacting DLA support requirements
- Provide input to DLA Weapon System Support Branch on potential Service contractor logistic support initiatives that might impact any weapon and troop support systems
- Represent assigned PM/system program office (SPO)/industrial activity-type customers in resolving fleet-wide, program-impacting, critical national stock number (NSN) issues that diminish the readiness of an assigned weapon system [*NSN is the number assigned to a specific part by DLA for identification purposes*]
- Coordinate with other DLA supply centers to resolve multiple supply chain support issues.

McMahon's Dilemma

WSSMs used metrics to track the support posture of weapon systems. The metrics included system readiness, weapon system special purchase requests (SPRs), DLA-delayed parts readiness drivers, backorders, and supply materiel availability (SMA) for common and unique stocked NSNs. McMahon's quarterly report on March 15, 2000, showed a fully mission-capable (FMC) rate of 88 percent. He knew any FMC rate below 90 percent would require a "get well" action plan.

The supply problems had started two years earlier when the lead time to administer and award purchase requests began to creep upward. The turnaround time (time from receipt of requisition to delivery of goods to customer) for unique consumable spares purchase requests rose to 320 days, and efforts to improve that response time appeared ineffective. The purchase requests were being generated manually and forwarded to ZTM, the prime contractor and sole source for the Mustang system. The ZTM response (quote) would arrive on average 120 days later by mail or fax. The delivery time averaged 200 days.

After careful analysis, McMahon discovered that the primary reason for the long response time was ZTM's spares support production mentality. While the Mustang was in production, spares were not a significant portion of ZTM's business base, as they had few resources devoted to spare part delivery. When DLA couldn't get timely quotes from ZTM, they went directly to subcontractors or vendors to purchase the parts. This was becoming less of an option, as many of the vendors were going out of business or no longer producing the item. The customer wait time is illustrated in the graphic on page 13.

Desperate to maintain FMC levels, the maintainers in the field resorted to using their IMPAC (international merchant purchase authorization card) credit cards to purchase parts from any source. This workaround provided functional replacement parts, but it did not guarantee "certified" parts that were equivalent to NSN standards. Also, the Service lost the economic ordering quantity and configuration control advantages of the DLA system.

Reengineering DLA Business Processes

McMahon knew he was facing a problem during a unique period in the history of DLA. DLA was moving away from the old methods of buying, stocking, and issuing materiel. In the past, products purchased were made to strict military specifications and bought one at a time as the need arose. DLA adopted an initiative to reengineer its business practices to provide products to its customers better, faster, and cheaper. A simple philosophy emerged: capture and adapt current best-value commercial business practices and further enhance them by applying the latest emerging technologies. DLA advocated long-term partnerships with industry, direct vendor deliveries to cus-

tomers from commercial distribution systems, on-demand manufacturing arrangements, and electronic commerce. DLA was moving from a supply-based system relying on large stockpiles to a Web-enabled distribution system that exploited advances in commercial information systems to gain total asset visibility and to improve management of the entire supply chain. DLA's focus was shifting from managing inventories to managing information across the supply chain; from managing supplies to managing suppliers; and from buying inventory to buying response. Much of the impetus for DLA's process reengineering resulted from emerging technologies and acquisition reform initiatives—but DLA was also facing the reality that while its mission was increasing, it would experience a 68 percent reduction in manpower by fiscal year 2005 from the peak of 65,000 personnel in fiscal 1992.

McMahon's Objectives

McMahon's broad objectives were to:

- Optimize the Mustang supply process to minimize customer wait time (CWT)
- Build customer confidence in time-definite delivery
- Maintain total asset visibility with information technology
- Use Web-based systems
- Realize cost savings.

There was one additional concern McMahon wanted to address in his solution. The war in the Persian Gulf showed that the Mustang could experience an operating tempo 10 to 40 times the normal operating rate. In the past, DLA inventories had played a large role in meeting surge and sustainment (S&S) requirements. Any new methods he implemented must include a solution to satisfy S&S requirements.

Three Possible Solutions to McMahon's Dilemma

Three DAU professors, Chris Roman, Stephanie Possehl, and Jim Carter, present possible solutions for McMahon based on their assessment of the issues, their decision criteria, the solution, and how they would measure success.

Chris Roman

McMahon is doing everything he's supposed to do. He's monitoring requisitions, compiling metrics, and analyzing problems. What he can't seem to do is effect change. ZTM places a relatively low priority on consumable spares. As a company, their duty is to their bottom line, and consumable spares probably contribute little to it. The consumable spares (things like oil filters and windshield wipers) are manufactured by a host of subcontractors, and ZTM is essentially a conduit between the subcontractors and the Mustang fleet. ZTM probably marks up the price of the consumables to cover their overhead but otherwise reaps little profit.

It's hard for McMahon to effect change if the right incentives are not in place. Until ZTM feels a compelling reason to accelerate delivery of consumable spares, they won't.

The larger dilemma that McMahon faces is how to bring the Mustang consumables into the information age. Requisitions are still a manual process, subject to errors and delays. The business process that he oversees is an anachronism. Fortune 500 companies have long since modernized their supply chain management, creating seamless electronic value chains from the lowest tier suppliers of raw materials to finished customer products. In an era of rapid business process reengineering, ZTM and McMahon have remained stuck in paperwork.

Issues

First, McMahon must reduce lead time for consumables for Mustang. Readiness levels will not rise until lead time is shortened. Second, he must consider how to reengineer the Mustang supply chains to reflect the DLA21 initiative. The current paper-intensive process does not exploit modern information technology.

Decision Criteria

When McMahon is assessing his choices, he must consider three principal criteria: How much will the option cost? How long will it take to implement? How much will it reduce CWT?

Probably more important than the above criteria is the generation of options. Very often, decision makers fail to see the full spectrum of possible solutions, and analyzing criteria for the wrong solution set is not fruitful. One possibility has already been surfaced by ZTM itself—disintermediation. DLA should bypass ZTM and purchase directly from the manufacturers. ZTM delays the process and provides no value added. They have been hinting for some time that DLA should bypass them.

Proposed Solution

One short-term solution is to rewrite the supply contract with ZTM and transfer management of the consumable supply process to one of ZTM's subsidiaries, perhaps Zemora-Tudis Services Company (ZTSC), which is demonstrably more competent in supply chain management. The new contract should reward early delivery and penalize lateness. If ZTSC has an opportunity to make substantial profit by getting consumables to the field in six hours (as they do for reparable parts) instead of 320 days, they'll do it. How ZTSC accomplishes the CWT reduction should be left to them. They may choose to accumulate a standing inventory of consumable spares (at least for the immediate future).

Average Mustang Customer Wait Time

Action	Days
1. Customer transmits requisition to DLA	10
2. DLA processes requisition, determines out-of-stock condition, submits request for quotation to ZTM	10
3. ZTM processes request and submits no-quotation (or 200-day delivery)	120
4. DLA submits alternative request for quotation to potential vendor(s)	15
5. Vendor(s) process quote and submit to DLA	20
6. DLA processes quote(s) and places order	20
7. Vendor delivers product to DLA supply center	120
8. DLA processes requisition and ships supply to customer	5
Total elapsed days	**320**

Longer term, a modern system for placing orders electronically with the original manufacturers must be implemented at DLA. For this, McMahon needs to work within the overarching DLA21 initiative, which will involve implementing DLA-wide supply chain management systems.

Measures of Success

It's tempting to say that meeting readiness level is the measure of success, but McMahon has limited control of the readiness metric. The CWT for consumables is believed to be a factor in fleet readiness, and while it is one of many factors, it's the only one McMahon can control. So success should be measured by reduction in CWT. It is important to set a "stretch goal." Reducing the CWT from 320 days to 120 days is an improvement, but it is much too modest. The CWT goal should be based on benchmarks from industry where supplies are delivered in hours or a few days. The fact that ZTSC is delivering reparable parts in six hours suggests that the same can be accomplished for consumables.

Stephanie Possehl

There are no easy answers for McMahon. He's faced with poor operational readiness levels for the Mustang, a less than stellar relationship with the sole source prime contractor, and organizational changes within DLA. Additionally, shrinking defense budgets and acquisition reform initiatives are spurring him to make the supply support process significantly more efficient. There are many approaches to choose from, among them developing a partnership such as TMP, increasing DLA's inventory levels, working with the contractor to improve the existing process, choosing a different contract type, and so on. McMahon's previous approaches have failed, so he's going to have to take drastic steps.

Issues

The 88 percent fully mission-capable operational readiness level is McMahon's most immediate issue. The 320-day average turnaround time for purchase requests must be resolved. Underlying issues include the low priority given to spares support by ZTM and the fact that subcontractors and vendors have been going out of business with little advance warning. Field units' use of credit cards to purchase unqualified parts to keep their readiness levels up has led to both configuration and reliability problems that, in turn, contribute to the low readiness levels. McMahon must break the Catch-22 cycle. The question is, how?

Decision Criteria

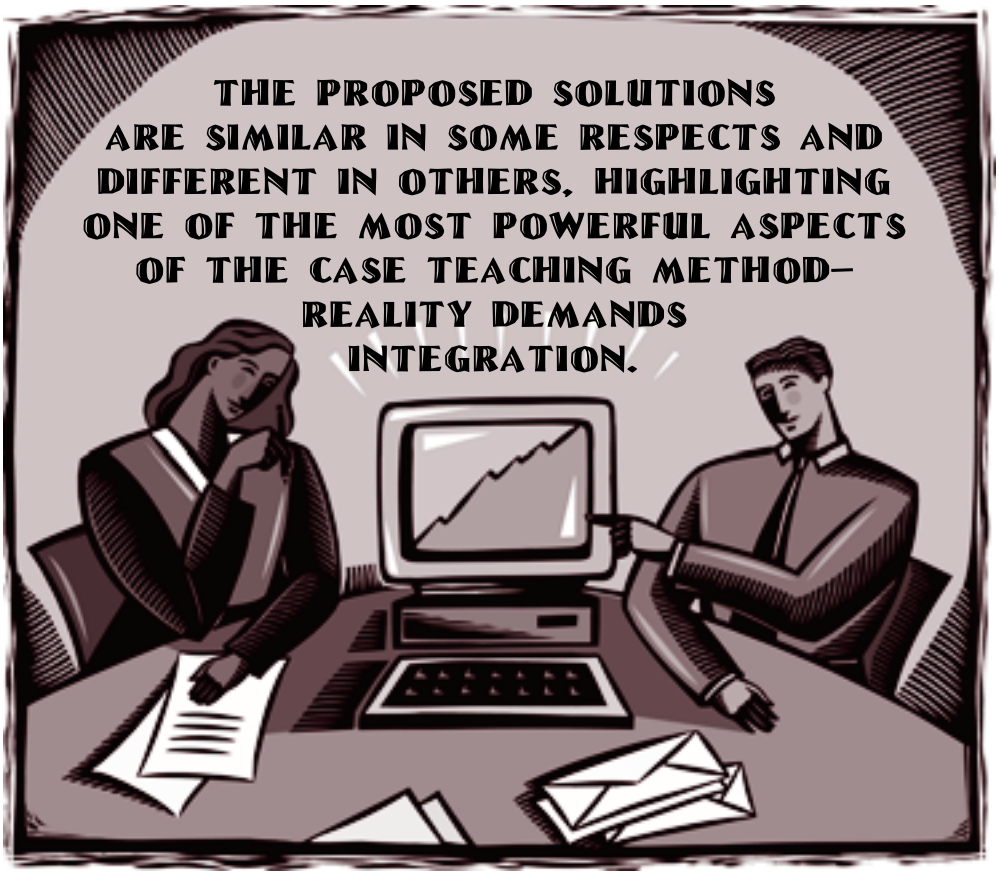
Overall process improvements are necessary to bring about the following: significantly improved turnaround time; only qualified parts in the field; the ability to meet S&S requirements; and an improved government/contractor relationship. The proposed solution is a long-term fix and will not realize immediate improvements in readiness levels. Some up-front investment is required to develop the predictive parts model, the obsolescence database, and the Web-based ordering system; however, lower unit costs can be anticipated.

Proposed Solution

McMahon must meet with his ZTM counterpart to improve their relationship. He must assure ZTM that a reasonable profit is available and make spare parts production easy and non-obtrusive (to the Mustang production line). As the sole-source prime contractor, ZTM is a good candidate for a long-term contractual relationship with DLA. Together they can determine the contract structure and establish incentives.

The practice of ordering parts one at a time must be fixed. Two options are available to address that: either ZTM can switch to a lean manufacturing process, or DLA can develop a predictive model to order parts in batches. As the predictive model is probably cheaper and easier to implement, that's what McMahon should pursue. DLA should start by assessing existing data as well as querying both ZTM and users to determine the frequency of need for the various spares. With this model, McMahon (and ZTM) will know the real need for consumable spares—which parts, how many, and how often. Together they should determine the minimum acceptable ordering quantities and automate the ordering when inventory levels merit it (with DLA intervention possible to account for fluctuations in actual usage, such as S&S situations). ZTM would maintain the inventory and use commercial shipping practices to deliver directly to the user.

A Web-based ordering system would cut down on both customer and DLA processing time but still allow DLA the insight capability to monitor the process and take cor-



rective action as necessary. Finally, ZTM should develop and maintain a database that monitors all parts and all subcontractors/vendors so that obsolescence issues can be addressed before they become critical.

Measures of Success

Although a reduction in the turnaround time from user request to parts receipt would be a good indicator for McMahon, an increase in the operational readiness level is the ultimate measure of success for the system. A DLA customer satisfaction survey would help to determine further opportunities for improvement. And continued communication with ZTM will allow for informal assessments of the government/contractor relationship.

Jim Carter

The advantages of modern information technology (IT) weren't employed for Mustang at DLA/ZTM. The improvements in turnaround time offered by modern IT would be a paradigm change for ZTM and DLA. ZTM and its subcontractors didn't use lean administration and Six Sigma. Should McMahon institute a massive change in the process, a lean administration transformation? Or should he simply work within the boundaries of the existing process to eliminate bottlenecks and accelerate it?

Issues

The time to get a requisition from the user to DLA to ZTM to a subcontractor is 140 days and could be reduced to five days with Web-enabled processes. When inventory reaches reorder point, parts could be ordered with normal lead time.

The use of IMPAC cards removes DLA and ZTM from the process and doesn't ensure purchase of certified (quality) parts. Furthermore, the Department of Defense (DoD) and the program management offices lose potential quantity discount savings.

The five-year service support contract awarded by TACOM to ZTM could influence and diminish any potentially out-of-the-box options McMahon may discover. It could be business as usual.

And finally, wartime operations tempo will multiply consumable spare parts use requirements by factors of 10 to 40 times. Without a Web-enabled process surge spares have to be maintained as inventory.

Decision Criteria

The obvious criteria are turnaround time, cost, schedule, and reliability, along with the potential to raise the FMC rate. Other criteria may not be as straightforward. Any far-reaching solution will require a culture change for ZTM, DLA, and their suppliers and customers. So part of the decision criteria must be the ease of overcoming the resistance to change, which could affect the viability of the solution.

Proposed Solution

In the short term, increase on-hand inventory from existing certified sources while initiating and streamlining a qualification program for new companies with replacement parts. This should immediately reduce turnaround time, improve reliability, improve FMC, and lower the costs of parts to DoD through economic quantity pricing. It may increase DLA's inventory storage costs.

In the long term, develop and implement a Web-enabled ordering process to reduce cycle time, and adopt other lean manufacturing measures. Set contractor incentives (award fees) based on FMC rates. Encourage the establishment of smaller companies to administer this process so that ZTM can focus on production. Make ZTM fully re-

sponsible for supplying parts as part of a total system responsibility program.

Measures of Success

Although it is difficult to measure, the evolution of the culture will be a critical factor. In the short term, success can be accomplished without a culture change, but not in the long term. Warfighter satisfaction and the reduction in work-in-process inventory are excellent measures. Measuring the added value and a waste-free value stream of each organization in the process will institute a focus on continuous improvement. The more typical metrics used to rate the TMP are important as well. People and companies focus their attention and efforts where leadership focus their attention and dollars.

The Mustang Case as a Teaching Tool

I use the Mustang case in my DAU classroom to give potential PMs an opportunity to make significant, reality-based decisions in a safe environment. Secondary objectives are to focus the students' thoughts on the role that DLA plays in the weapons systems acquisition process, make them consider how the mission of the program management office is intertwined with the mission of DLA, and to provide them with a personal understanding of the difficulties encountered by a WSSM. As a tertiary objective, the case also provides an opportunity to discuss how PMs influence contractor motivations with incentives.

The proposed solutions from Roman, Possehl, and Carter are similar in some respects and different in others, highlighting one of the most powerful aspects of the case teaching method: reality demands integration. That integration leads each student to interpret the scenario from his or her functional perspective, each understanding a slightly different situation. Equally important are student belief systems, personality preferences, and experiences—in other words, individual perspective. It is the differences between these factors that bring about the essence of the case method: tension or disagreement.

Classroom discussion encompasses an in-depth look at potential methods to improve the service DLA provides by examining alternatives available to McMahon. As the students discuss the dilemma in the case, my questions focus their attention on three main areas: contractor motivations; the support parts process; and IMPAC card ramifications. I ask, "Why isn't the contractor motivated to return quotes in a timely manner?" And then, "What can we, the acquisition, technology, and logistics workforce, do to motivate the contractor?" The questions lead to a debate/discussion of contractor priorities and financial profitability. The desired outcome is discussions of how the AT&L workforce impacts contractor priorities by incentives and of alternative ways to incentivize contractors considering the impact on each phase of the acquisition life cycle.

Another area ripe for discussion is the role of DLA in the acquisition process. "Is DLA's role obsolete?" I ask. The ensuing debate rages as each individual student must make some difficult ethical decisions. Does a PM make a decision that is best for his or her program or Service or for the DoD? Should a PM pay a higher price for a nonstandard part in a tight budget environment because it is more readily available on the local market? To the very astute students, these questions integrate DLA's role and the use of IMPAC cards, and they discover and share the adverse financial and quality impacts on the PMO and ultimately DoD of using IMPAC cards to purchase parts. But I am always prepared to play devil's advocate and ask the question, "How does the use of IMPAC cards decrease the effectiveness of DLA?" This discussion emphasizes how IMPAC card purchases mask true inventory control levels, and it highlights the higher price paid for the parts, helping students understand how a seemingly innocuous action—IMPAC card usage by one user—could degrade the efficiency and effectiveness of the DLA and DoD if adopted by all users.

Risk identification and mitigation are integral parts of solution implementation and when discussed in detail, force students to the foundation of critical thinking—questioning their beliefs and assumptions. It, along with the case assignment questions, is the basis of the entire discussion. Together, they lead students to answer the following questions: What are the most important decision factors? How do they influence my decision? And what is the associated risk?

Case Methodology Beyond the Classroom

The case method is a powerful learning tool because it integrates all aspects of an issue or decision. It forces students to work as a team and to consider different viewpoints. When it is set up properly, the case method is also a valuable problem-solving tool for a PM. Gathering the information required to develop a case forces the decision maker to consider and prioritize the decision factors and to ferret out possible alternatives and assumptions, activities that greatly improve the decision-making process. The Defense Acquisition University is available to assist the AT&L workforce in this endeavor by facilitating team discussions using the case teaching methodology.

Editor's note: The author welcomes comments and questions and can be contacted at john.horn@dau.mil.

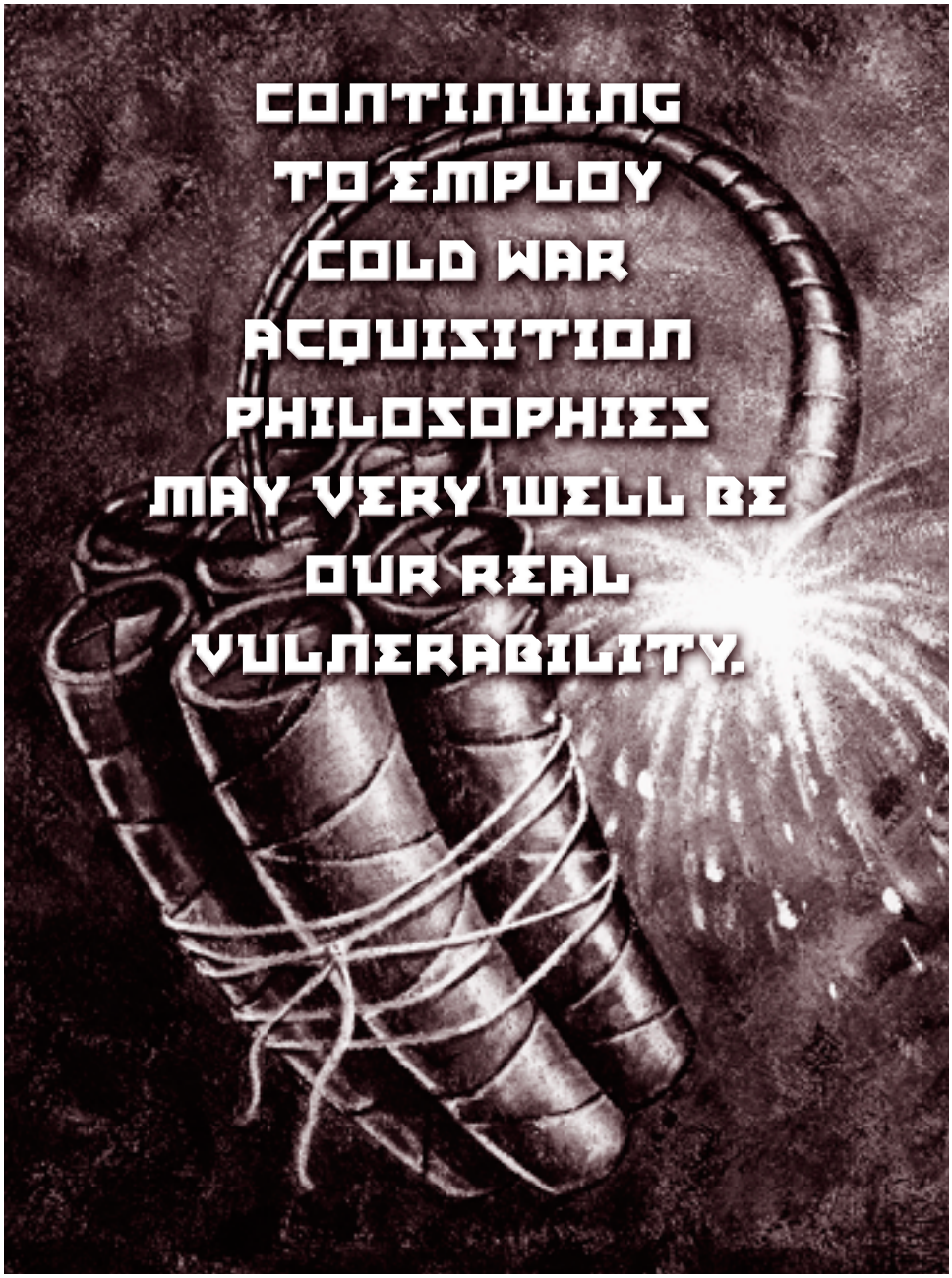
The author acknowledges the work of Robert Ivaniszek, author of the original case study, which contributed significantly to the preparation of this article.

Transformational Recapitalization

Rethinking USAF Aircraft Procurement Philosophies

Sheila R. Ronis

A dozen years have passed since the end of the Cold War, and a new world is emerging—one that is different from what many imagined. The struggle for economic power is becoming the focus of our allies, while terrorism is becoming the focus of our foes. With no near-peer competitor to keep military operations in check, we have seen increasing use of our forces to combat smaller uprisings and terrorism. Maintaining our economic strength and military superiority in this new world requires transformational thinking at the very core of our systems acquisition philosophy.



"Maintaining our unchallenged military superiority requires investment to ensure the current readiness of deployed forces while continuing to transform military capabilities for the future. Our adversaries will learn new lessons, adapt their capabilities, and seek to exploit perceived vulnerabilities. Therefore our military must transform and must remain ready, even while we are engaged in war." These words, spoken by the chairman of the Joint Chiefs of Staff, Air Force Gen. Richard B. Myers, in his most recent posture statement to the Senate Armed Services Committee, point to a strategy of transformation, a strategy that balances the need to re-capitalize aging Cold War systems while reducing budget deficits and strengthening our own industrial base. This is not an easy task, but it is one worth pursuing.

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As the Pentagon tries to transform itself for the 21st century, we're seeing mindset changes from threat-based responses to capabilities-based assessments. As a result, the Department of Defense has canceled Cold War programs like the Crusader and Comanche that are no longer of significant value. These decisions take courage, and DoD should be applauded for their efforts. The debate, however, needs to go even further. DoD should focus on whether investments in systems that were designed to counter a Cold War threat should be continued and on transforming the philosophies that drive the acquisition processes that produce those systems. Continuing to employ Cold War acquisition philosophies may very well be our real vulnerability.

Legacy of the Cold War Mentality

During the Cold War, our country's acquisition philosophy was straightforward: to use our robust industrial base to produce as many weapon systems as possible, as fast as possible, with the most advanced technology available. The country's industrial base was happy to oblige, as increased quantities meant reduced unit costs and increased profits. The government containment strategy in the Cold War used high quantities of systems with state-of-the-art technology to out-produce the Soviet Union. The United States overwhelmed the U.S.S.R. both economically and with global power projection. It was a great strategy for its time; it helped us win the Cold War.

In the 1990s, after decades of living in a Cold War environment, we put an emphasis on balancing the budget. Part of the transitional strategy in order to balance the budget in a world of peace and prosperity was not to change our Cold War acquisition philosophy, but just to put it on hold. We began looking for leaps in technology. We chose to modify and extend the life of existing systems while stretching out development programs in order to skip a technology generation. As a result, DoD now has too many old systems being extended way beyond their intended life. For example, according to Air Force officials, B-52s may be used more than 94 years; C-130s, more than 79 years; KC-135s, more than 86 years; and the F-15, more than 51 years. Obviously, none of these planes was designed to fly that long. With the unexpected increases in operations tempo since 9-11, our systems are aging even faster.

We now find ourselves with a looming problem. We cannot afford to recapitalize all our aging systems at the same time, yet each program is still being guided by the Cold War acquisition philosophy—to use our robust industrial base to produce as many weapon systems as possible, as fast as possible, with the most advanced technology available. Although budget constraints have limited what we can do (i.e., F-22 "buy to budget"), they have not yet changed our philosophical approach. It's time for a new philosophy that recognizes that we don't need the most advanced technology quickly, that we don't need to deliver as many units as fast as possible, but that we *do* need to preserve an industrial base that is not as robust as we would like to believe.

U.S. Aerospace Preeminence Threatened

With the rise of globalization, U.S. industrial base health and that of the defense industrial base and its organic component show signs of weakening.

The November 2002 *Final Report of the Commission on the Future of the United States Aerospace Industry* states: "The contributions of aerospace to our global leadership have been so successful that it is assumed U.S. preeminence in aerospace remains assured. Yet the evidence would indicate this to be far from the case. The U.S. aerospace industry has consolidated to a handful of players—from what was once over 70 suppliers in 1980 down to five prime contractors today."

Representative Curt Weldon, R-Pa., vice chairman of the House Armed Services Committee, was concerned enough about the report's conclusions (for example, that the nation stands "dangerously close to squandering the advantage bequeathed to us by prior generations") that he conducted a hearing in March 2004 to address DoD and Department of Commerce responses.

In the hearings, Joseph H. Bogosian, deputy assistant secretary of commerce for transportation and machinery, testified that "the United States is no longer the world's predominant supplier of large civil aircraft, having lost that mantle last year when Airbus delivered more aircraft than Boeing after three consecutive years of winning the majority of new aircraft orders. Our current status in the large civil aircraft business is a far cry from the days when we had two and three U.S. manufacturers fully supplying Western markets." In addition, the Aerospace Industries Association says that "the U.S. market share of global commercial sales dropped from 72 percent to 52 percent between 1985 and 2000, that aerospace profits are at their lowest level in eight years and that the aerospace trade surplus has experienced a 32 percent drop since its high of $41 billion in 1998." The conclusion is clear: there is no longer a robust aerospace workforce that has both depth and flexibility. In fact, there is an alarming trend in outsourcing capacity overseas through offset programs.

According to Frida Berrigan of the World Policy Institute: "Between 1993 and 1998 (the most recent year for which data is [*sic*] available), offsets generated $21 billion in aid to purchasing countries within 279 agreements to sell weapons and services." Berrigan writes, "Even though offset deals generate new sales, they don't necessarily generate additional profits for the companies. Many countries negotiate offset deals that include co-production agreements—meaning components of the weapons are

built in the purchasing country. For example, Boeing sold South Korea $3.3 billion in F-15 fighter planes. In the deal, Boeing transferred $1.5 billion in avionics, software and design technology to Seoul, essentially creating their future competition—by 2015 South Korea will be able to produce its own F-15.

"Lockheed Martin recently signed a $3.5 billion contract with Poland for 48 F-16 fighter planes (which Poland will purchase with $3.8 billion in loans from the U.S.). But *Aerospace Daily* reports that Poland is negotiating an offset package that could be worth more than $6 billion. ...William D. Hartung, Senior Fellow at the World Policy Institute, notes that 'there are twice as many workers employed building the F-16 in Ankara, Turkey (2000), as there are at Lockheed Martin's principal F-16 plant in Fort Worth, Texas (1,155).' The U.S. is losing more than 4,000 jobs each year as a result of offset agreements, according to a 2001 Presidential Commission." An offset is a form of U.S. aid, and although it may be a critical element of our foreign policy, it must be weighed and in balance, or we can jeopardize the health of our own industrial base capabilities, not to mention U.S. jobs.

Why should our friends have better and newer equipment than our men and women in uniform? Especially when the U.S. taxpayer is often paying the bill? Offsets may make changing U.S. and DoD policy a difficult process, but we need to learn how to balance the offset process with the needs of the nation to ensure we do not destroy our capabilities by giving them away and paying for that privilege in the process. The U.S. Department of Commerce says that 120 nations require offsets as part of weapons sales.

A New Philosophy: Transformational Recapitalization

It's time to adjust our acquisition strategy to one based on a philosophy of transformational recapitalization—the rethinking of aircraft procurement, technology insertion, resale, and reuse. We need a change that emphasizes maintaining our industrial base, stabilizing cash flows, and balancing globalization and that places less emphasis on high production rates, superior technology, and unit cost.

Transformational recapitalization would require the Air Force and Congress to fundamentally change the current acquisition philosophy. Instead, the Air Force should consider the following approach:

- Buy as few aircraft per year as economically possible but for a much longer period of time.
- Insert new technology into those weapon systems as it becomes available, and in defined increments.
- Do not retrofit or modify weapon systems; instead, while the older systems still have valuable life, sell them to foreign governments or commercial companies (if appropriate), and use the sale proceeds to offset the continued purchase of more capable replacements.

This approach would allow a leveling of production runs with long-term stability of the industrial base as opposed to the peaks and valleys currently experienced. It would also allow technology insertion by controlled spirals versus high-risk new platform development. Finally, the resale value not only provides income, but reduces aging aircraft costs, avoids modification cost, and allows us to provide offsets to foreign governments in the form of maintenance and modification capacity as opposed to high-end production capacity.

How the Strategy Works

To illustrate, let's apply this strategy to a fictitious Air Force need for a fleet of 300 aircraft. Instead of producing them at a very efficient rate of 75 per year for four years, produce them at a reasonably efficient rate of 20 per year for 15 years. Every four or five years, incorporate a technology spiral upgrade to new aircraft coming off the production line; however, do not retrofit existing aircraft. Near the end of the 15-year production, begin selling the oldest, less capable aircraft while they still have at least half their useful life remaining. Then, instead of closing the production line, continue producing new aircraft to replace those sold. Theoretically, the production line can continue indefinitely until either technology or requirements drive the need to produce an entirely new platform or when demand for the used aircraft dries up.

Although the unit price of each aircraft may be slightly higher, the lower production rate combined with used-aircraft sales revenue should decrease overall cash flow and provide much-needed stability to the budget and our industrial base. In addition, this strategy not only facilitates spiral development, but also ensures that the U.S. military flies the most capable aircraft while avoiding maintenance and operating costs for aging aircraft. Finally, although this strategy does not preclude foreign military sales (FMS) of new aircraft, it does reduce the leverage that FMS customers have for offsets, at the same time increasing the number of potential customers as a result of decreased acquisition cost of used aircraft.

This was not the strategy we employed with most of our current systems. For example, the U.S. Air Force bought over 2,000 F-16s between 1979 and 1993. The average rate was about 150 aircraft per year, with a high of 212 to a low of 118. FMS from 1979 through 2004 accounted for another 1,900 plus aircraft, allowing the production line to continue. But the volatility of the line from a high of 299 in 1987 to a low of 21 in 2002 adds to industrial base workforce instability and increasing unit cost. Since 1994, however, FMS customers, for whom most of the aircraft were produced, were in position to demand sig-

nificant production offsets. Not only did they get high-end production capacity offsets, they are now flying the newest block aircraft—planes that are more capable than those in the Air Force inventory.

Using today's threat environment and budget constraints, a better strategy might be to produce F-16s at 120 (100 U.S., 20 FMS) per year for 40 years. This would stimulate an FMS demand for used aircraft in addition to the small number of new ones. The Air Force could start selling used aircraft at the 10- to 15-year point and apply the value to the purchase of new, more capable aircraft. If offsets are needed for countries buying used aircraft, those offsets could be in the form of maintenance and modification/upgrade capacity, the foundation of economic stimulus, as opposed to high-end production offsets. The story is similar with the F-15 and C-130, large aircraft fleets with which we now have significant aging aircraft and re-capitalization bills looming.

Food for Thought—and Action

To begin now to apply this strategy, it's worth considering the following suggestions. Since production of the highly capable F-22 has already started, it is prudent to continue. However, instead of a buy-to-budget strategy, use a re-capitalization strategy—one that maintains a lower production rate for a longer, stable, multi-year period. The production stability alone should compensate for the loss of rate efficiency. Begin buying 24 F-22s per year with a 15-year production run. At the 10-year point, begin selling some used aircraft through FMS, allowing the production line to extend to 20 years or more.

For the F-35, maybe the solution is to slow down development of that platform and instead begin buying more F-16s at 50 per year. Then the F-35 can be introduced when ready and affordable instead of being forced into production because of F-16 aging problems.

For the 10-year-old C-17, now is the time to start selling older less capable craft and continue production of new ones for the Air Force. As the last major aircraft production line in southern California, it would be devastating to lose that industrial capacity in 2008 when the 180th aircraft is finished. Reducing the rate to 12 per year and selling off older inventory would not only allow the production line to continue for another 10 years, but applying the resale value and avoiding upgrade modifications would significantly reduce the cost of increasing the capacity of the fleet.

The C-17 also provides an additional incentive in that not only will FMS customers line up to buy a reduced-price, used C-17, but this aircraft has commercial potential as well. Recent studies completed by the Air Force indicate a market for 60 or more commercial C-17s. The problem

is that the high cost of a new aircraft is too risky for a new business venture. The cost of a used aircraft, however, should be low enough to offset that risk. But the most compelling aspect of commercial C-17s is that the aircraft would still be available to meet our total mobility requirement as part of the Civil Reserve Air Fleet (CRAF). This concept not only satisfies DoD's desire to rely more heavily on the CRAF, but also lowers Air Force aircraft acquisition cost while increasing capacity to meet wartime requirements.

The Air Force and DoD need to build on their capabilities-based acquisition movement and include a recapitalization philosophy from the outset of system development planning. This is in alignment with the new Air Force Interim Guidance for Capabilities Based Acquisition System that states evolutionary acquisition (EA) "is the preferred DoD and AF strategy. An evolutionary approach delivers capabilities in increments, recognizing, up front, the need for future capabilities improvements. The objective is to balance needs and available capabilities with resources, and to put capabilities into the hands of the user quickly."

Arthur Cebrowski, OSD director of force transformation, said in a March-April 2004 *Defense AT&L* interview, "Transformation has many elements. Perhaps one of the most important is that it involves creating or anticipating the future. Either you create your future or you become the victim of the future that someone else creates for you. The United States, by virtue of its position in history, has the ability to create a future that furthers the dignity of man and all the values we hold dear."

It is time to expand our critical thinking about the way we procure and support our military's weapon systems with a long-term vision for our future.

In today's world, with no near-peer competitor, the increase in globalization is a two-edged sword. We are still far superior in technology, and our economy is still the largest on the planet. But there are potential cracks in our industrial base that only policy can address. High deficit spending and the outsourcing of jobs in high-end manufacturing and technology may ultimately weaken our economy and military industrial base capabilities irrevocably. The United States needs a new philosophy and policy for re-capitalization, one that stabilizes production over a longer period, introduces technology in smaller, more spiral increments, and disposes of assets while they still have value to commercial enterprises or foreign governments.

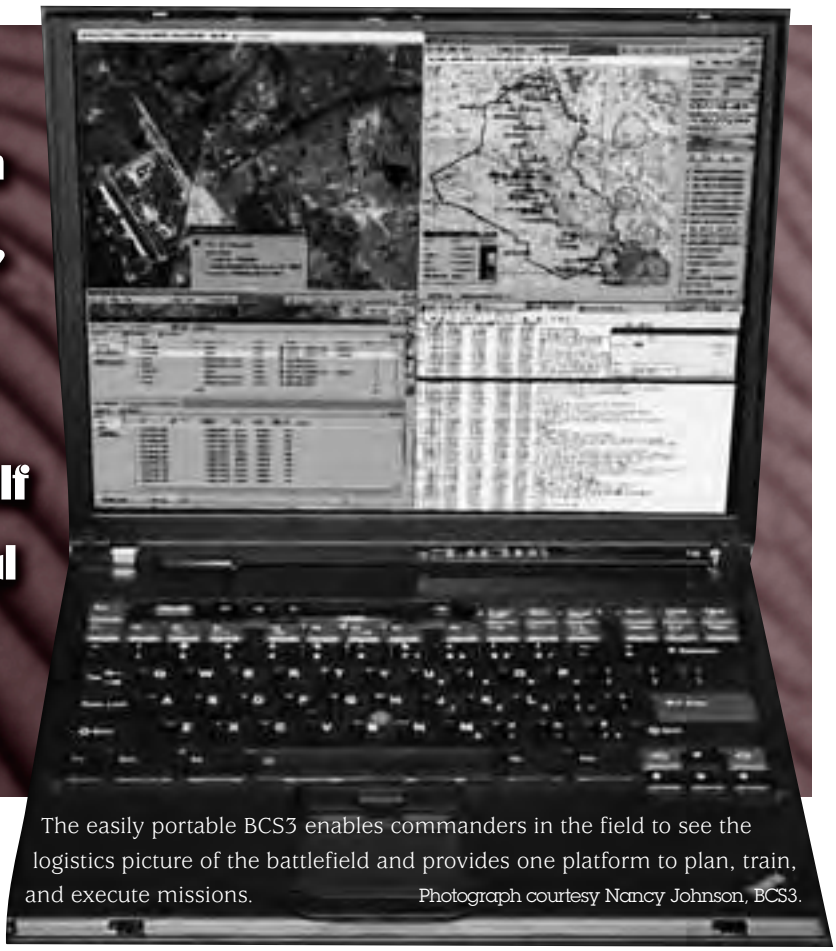
Editor's note: The author welcomes comments and questions. Contact her at sheilarr@aol.com.

BCS3 Provides Actionable Logistics Information to the Warfighter

A Story of Acquisition Innovation

Maj. Sandy Vann-Olejasz, USA

BCS3 represents a major step forward in acquisition innovation, combining spiral development, use of commercial off-the-shelf (COTS) technology, and end-user feedback in its design.



The easily portable BCS3 enables commanders in the field to see the logistics picture of the battlefield and provides one platform to plan, train, and execute missions. Photograph courtesy Nancy Johnson, BCS3.

Logistics support systems must support current warfighting requirements and provide a bridge to the Army's future force capabilities. BCS3—Battle Command Sustainment Support System—is a hardware and software technology insertion into an existing program that provides, for the first time, a map-based logistics picture on and off the battlefield. It is the Army's maneuver sustainment command and control (C2) system, and it fuses sustainment, in-transit, and force data to aid commanders in making critical decisions.

BCS3 represents a major step forward in acquisition innovation, combining spiral development, use of commercial off-the-shelf (COTS) technology, and end-user feedback in its design. Instead of delivering the warfighter a system *after* development, the BCS3 team gathered and incorporated end-user feedback from several sources. Unit input and lessons learned came from 4th Infantry Division testing and implementation of the Army's former digital logistics systems, the Stryker Brigade's use of the logistics common operating picture (LCOP) process, and user jury feedback from the 3rd Infantry Division. Additionally, students at the Army's Command and General Staff College were given instruction on a prototype version, which allowed for feedback in time to affect the development process.

Modular, tailorable, and scaleable to meet the full spectrum of operations, BCS3 interoperates with army battle command systems (ABCS) and with the emerging single

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Main Features and Benefits of the BCS3

- Provides latest available sustainment C2 on a map-based display
- Interoperates with Microsoft® Office products (Excel and PowerPoint®) to assist users in preparing briefings
- Provides for electronic messaging and data exchange with ABCS and movement tracking system
- Emphasizes interfaces with other DoD data sources employing a data warehouse strategy and access to national databases
- Assists users in executing distribution management and convoy control
- Provides reception, staging, onward movement, and integration visibility and status
- Provides log-related CCIR alerts
- Operates on classified as well as unclassified networks
- Operates in-garrison, enabling peacetime as well as wartime operations
- Provides combat power data to maneuver control system

army logistics enterprise (SALE) architecture. BCS3 is a force multiplier—the precision tool for logistics planning and execution—essential to achieving victory on the battlefields of today and tomorrow.

Defining New Capability to Meet Warfighter Needs

In the late 1980s, the Army created the Combat Service Support Control System (CSSCS) to allow commanders and their staffs to share critical logistics information digitally on the battlefield. Despite over a decade of development and fielding, the system never achieved user acceptability. It was extremely bulky, weighing in at 942 pounds. Lack of a secure guard meant it was unable to transfer data remotely between unclassified and classified systems. It was expensive, costing the Army over $56,000 to produce each unit, and had a lifetime development cost of around $555 million. In 2003, the inadequacies of CSSCS became painfully clear in the preparations for Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). Reprioritization in the Army's acquisition, technology, and logistics (AT&L) areas, lessons learned from OEF/OIF unit needs, and the increased capability in COTS hardware, led to a need for program redirection. CSSCS was pronounced DOA—dead on arrival—at the August 2003 Program Review Board. Subsequently, Army Lt. Col. Joseph Grebe took over as product manager and formed BCS3, using a technology insertion approach to rapidly develop the integrated logistical and maneuver sustainment C2 system. Some of the much-needed functionality is in-transit visibility, combat power reports and projections, and the ability to alert the user to critical logistics-related events.

Early in 2004, Army Chief of Staff Gen. Peter Schoomaker created a campaign plan to highlight the Army's priorities for the future:

- Get to the "good enough" battle command (i.e., capabilities required by the current forces).
- Move from current to future within 18 months (i.e., develop and field the "good enough" solution).
- Increase the use of COTS technology.
- Use redefined Department of Defense (DoD) acquisition policies.

Additionally, the deputy chief of staff for logistics (G-4) recently described four focus areas to create a path forward for all logistics that would:

- Connect our logisticians
- Modernize theater distribution
- Improve force reception
- Integrate the supply chain.

"Good Enough" User Acceptability On Time, Within Cost

To meet the challenges, BCS3 coupled accelerated acquisition methods—spiral development and the use of COTS hardware—to combine multiple software applications from several contractors into a new system that would become ready for testing within eight months.

The BCS3 development team changed the hardware from a 942-pound Unix®-based system into a 6-pound COTS laptop that uses a standard Microsoft Windows® operating system. Now, for the first time, commanders can see the logistics picture of the battlefield using BCS3's map-centric display. With the new software insertion and the ability to operate in an unclassified environment, commanders can plan, rehearse, train, and execute on one system. Most significantly, they do not have to carry disks around the battlefield to move data from unclassified to classified systems; they can conduct logistics operations on the unclassified network and, through the secure guard, migrate logistics information to the classified network to fulfill the logistics portion of the common operating picture.

BCS3 is the primary ABCS system to satisfy the chief of staff of the Army's battle command priority for the running estimate, which it accomplishes through current and future combat power reports, in-transit visibility, and the ability to track logistics-related commander's critical information requirement (CCIR) alerts.

Three-Phase Development and Fielding

Development and fielding will occur within a three-phased strategy:

Phase I. Build BCS3 running estimate to the "good enough" standard by April 30, 2004—this goal was met on time.
Phase II. Achieve complete joint interoperability fiscal years 05 – 09.
Phase III. Interface/integrate with enterprise resource planning (ERP)-based SALE architecture.

Maj. Sandy Vann-Olejasz (center) briefs an Army lieutenant colonel on the capabilities of BCS3 during the Association of the U.S. Army Logistics Symposium in Richmond, Va., in April 2004. Photograph by Nicole Kratzer

BCS3 delivered a product on April 30, 2004, that achieved "good enough" capabilities as follows:

- Running Estimate
  - Combat Power
  - Future Combat Power
  - In-Transit Visibility
  - Log-Related CCIR Alerts
- Display Friendly Locations
- Display correlated enemy situation.

Although the system is undergoing testing at the Central Technical Support Facility at Fort Hood, Texas, an early capability was fielded to the 3rd Infantry Division beginning in June 2004. BCS3 will be fully fielded to the division by the time it deploys to OIF. The 2nd Marine Expeditionary Force is also training on BCS3 prior to deployment, highlighting BCS3's value as a joint system. BCS3 fielding continues next with the 4th Infantry Division.

While working to achieve running estimate objectives, the team had to redirect its technical focus to the operational requirements document scoped to the "good enough" standard. BCS3 has used a broad concept laid out by Schoomaker and turned it into an acquisition strategy and performance benchmark. The benchmark incorporates findings from OEF/OIF and requires that commanders have a functioning, standardized, interoperable battle command system that will satisfy their C2 requirement across the spectrum of conflict for the next 10 years. Most important, however, the "good enough" standard has allowed the BCS3 team to streamline the development process through software insertion. Without having to perfect the system before actual testing, the team cut the development timetable from several years to less than eight months. The product manager also cut costs significantly by operating with 39 percent less government and contractor staff, reducing total life-cycle costs by 28 percent.

A Dynamic Combat Tool

Applying lessons learned from CSSCS and the LCOP process that was used in OIF, BCS3 provides commanders a current view of the battlefield coupled with a logistics picture of unit and supply-point status and in-transit visibility. BCS3 has immediate, high pay-off benefits to warfighters and additional future growth in its capabilities. It links operational planning to logistics status and provides a tool kit that will give users a platform to plan, train, and execute missions.

Through careful management, development creativity, and true teamwork, the BCS3 team has managed to transform a DOA system into a dynamic tool for the warfighter. Speaking before the House Armed Services Subcommittee on Readiness hearing, March 30, 2004, Army Lt. Gen. Claude Christianson said, "To plan and control logistics operations at the tactical level, the Battle Command Sustainment Support System will be the logistics component of the Army's battle command system." Logistics planning in today's dynamic contingency environment cannot be left to stubby pencil planning. BCS3 leverages the best of the commercial world's current and previously developed software support tools to deliver commanders the logistics portion of the common operating picture.

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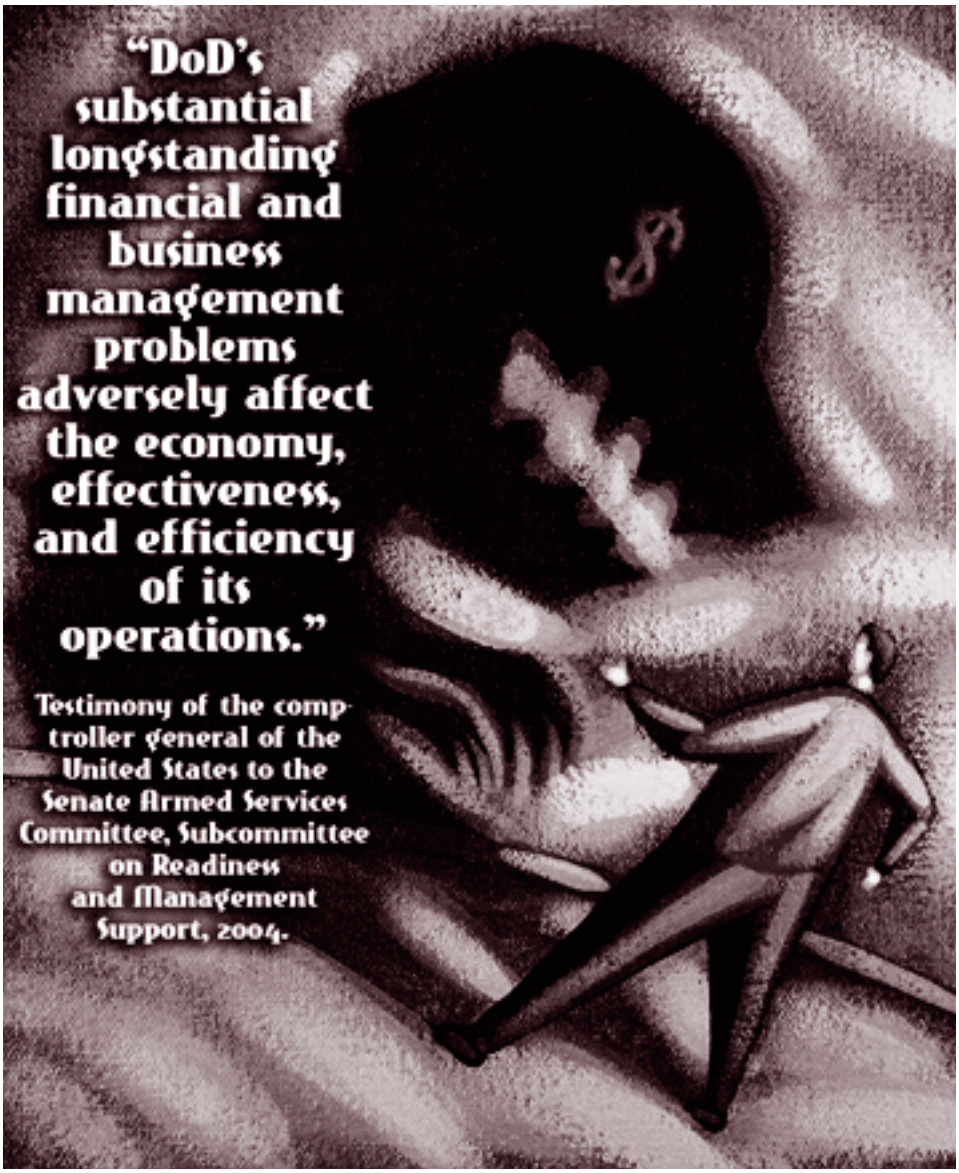
Military Equipment Valuation to Achieve a Clean Audit: Who Cares?

Richard K. Sylvester



The headline for a Feb. 27, 2004, article on <www.GovExec.com> reads, "Clean Government Audit Remains Elusive." The article opens with this statement: "Financial management problems at the Pentagon continue to prevent the federal government from earning a passing audit."

This is not the kind of publicity that the Department of Defense needs—particularly when the nation is fighting a war. That article and others like it were followed up by testimony from the comptroller general of the United States to the Senate Armed Services Committee, Subcommittee on Readiness and Management Support: "DoD's substantial long-standing financial and business management problems adversely affect the economy, effectiveness, and efficiency of its operations, and have resulted in a lack of adequate transparency and appropriate accountability across all major business areas. As a result, DoD does not have timely, reliable information for management to use in making informed decisions."

Where did the requirement for a clean audit originate? Is a clean audit important? Should program managers (PMs), contracting officers, logisticians, and industry care?

The Requirement for a Clean Audit

In 1990, the Chief Financial Officers (CFO) Act established a requirement that each executive agency of the federal government (DoD and the military departments are classified as executive agencies) will annually prepare and submit to the director of the Office of Management and Budget (OMB) a financial state-

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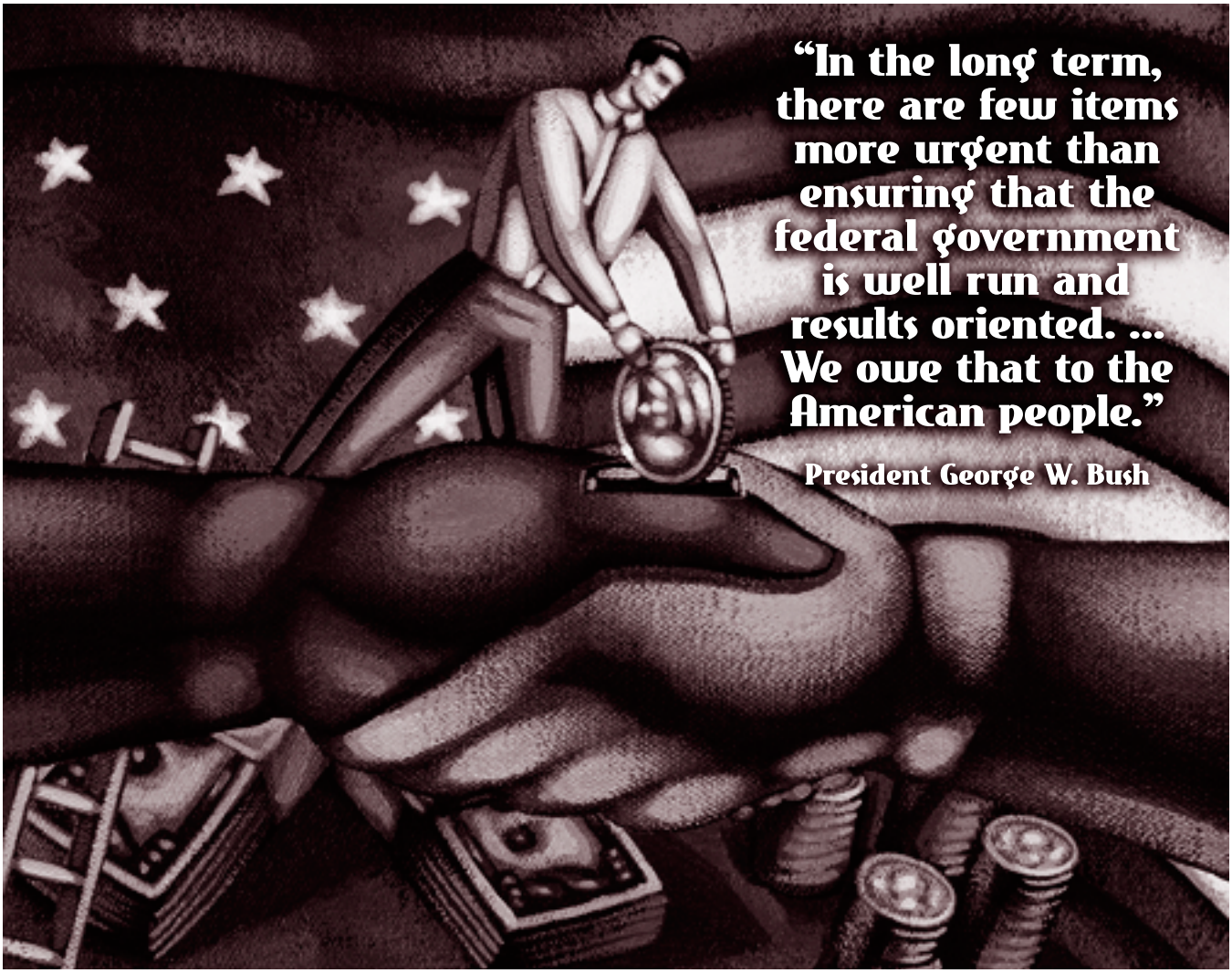

ment for the preceding fiscal year. In addition, the act required that each financial statement be audited by the inspector general of the preparing agency or by an external auditor determined by the inspector general. Further, the comptroller general of the United States can review any inspector general audit and make recommendations to Congress.

In 1996, Congress found that the federal government had made little progress in complying with the intent of the CFO Act over the previous five years. Federal accounting practices still didn't result in accurate financial reporting, nor could financial information generated through current accounting practices be used to determine the full costs of programs and activities to support decision making. To restore public confidence in the federal government, federal agencies needed to make more substantial reforms to their financial management systems. In 1996, Congress passed, and the president signed, the Federal Financial Management Improvement Act. Among other equally important objectives, this act required each executive agency to implement and maintain financial management systems that comply with accounting standards established by the Federal Accounting Standards Advisory Board (FASAB).

When President George W. Bush assumed office, one of his early actions was to develop the President's Management Agenda. In the agenda, President Bush said, "In the long term, there are few items more urgent than ensuring that the federal government is well-run and results-oriented. This Administration is dedicated to ensuring that the resources entrusted to the federal government are well-managed and wisely used. We owe that to the American people." The agenda laid out five initiatives, one of which was improved financial performance. Improving financial performance, according to the agenda, includes obtaining a clean audit opinion because "a clean financial audit is a basic prescription for any well-managed organization."

Getting to Green

In response to the president's direction to obtain a clean audit opinion and thereby "get to green" on the performance scorecard, the secretary of defense immediately established the Financial Management Modernization

Process and System Requirements

Acquisition Planning and Contract Writing

- Identify types of program items to be procured (e.g., deliverable end items, spares, manuals, government-furnished property (GFP), supporting equipment, etc.); and create a valuation template
- Establish a work-in-process (WIP) account
- Identify contracts that contain capitalizable assets
- For identified contracts, write contracts to price each asset type separately

Item Acceptance and Work-in-Process

- Uniquely identify military equipment end items and GFP
- Connect unique identification (UID) to unit acquisition value for end items and GFP at acceptance
- Upon end item delivery, allocate end item costs per contract line item number (CLIN) or sub-contract line item number (SLIN) structure
- Post valuation information to WIP

Military Equipment Valuation

- Upon delivery, perform the calculations required to establish end item full cost (based on valuation template)
- Generate the supporting information (i.e., accounting transactions) to relieve WIP and post to fixed asset accounts

Fixed Asset Accounting

- Account for adjustments to asset value, including major modifications that could change the useful (i.e., depreciable) life and asset disposition changes (disposed, lost, transferred)
- Relate subsequent modifications and upgrades to the original military equipment assets to which they apply
- Calculate depreciation expense

Asset Accountability

- Communicate selected asset disposition changes (disposal, loss, or transfer) to the fixed asset accounting system

Financial Reporting

- Report on DoD component and DoD's consolidated financial statements: WIP, depreciation expense, and net book value of military equipment

Program (FMMP) and directed the under secretary of defense (comptroller) and the assistant secretary of defense (network information infrastructure) to work together to get a clean financial audit opinion as quickly as possible. DoD's comptroller made a commitment to the director of OMB that DoD would begin implementing policy, process, and system changes in fiscal 2003 with the goal of completing implementation in time to achieve a clean audit opinion by the end of fiscal 2006.

After a year and a half, it became clear that the FMMP was misnamed. While the word "financial" captured the attention of all financial personnel throughout DoD, most of the other communities assumed it had little to do with them. In reality, *all* critical business systems in DoD are impacted by this initiative because they interface with financial systems and rely on accurate financial information to conduct business. So in May 2003, the program was renamed the Business Management Modernization Program (BMMP) to better reflect the scope of the initiative, which will impose strict standards on all business systems in DoD and require them to be compliant with DoD's business enterprise architecture (BEA). The BEA will ensure financial compliancy, data accuracy, streamlined processes, and improved decision making across DoD.

Gaining an unqualified audit opinion has been given top priority in BMMP. As President Bush stated, a clean audit opinion is a "good housekeeping seal of approval" that will demonstrate that DoD is a well-run business and is not fraught with "substantial long-standing financial and business management problems [that] adversely affect the economy, effectiveness, and efficiency of its operations." A clean audit opinion will demonstrate that DoD deserves the public's trust and confidence. Ultimately, the BMMP goals go far beyond getting an unqualified audit opinion The real benefits will come from reengineering business processes and integrating systems, which will improve interoperability, information availability, and decision making. Additionally, as we move into a net-centric and data-centric environment, data will travel across the network to be entered only once but used many times. This will eliminate unnecessary duplication, improve data accuracy, and—ultimately—reduce taxpayer costs.

The Balance Sheet

So what is being audited? At the end of the fiscal year, DoD as a whole and the military departments prepare a set of performance and accountability reports. The reports describe performance against strategic plan, strategic objective, annual performance goals, and annual performance results in accordance with the Government Performance and Results Act. The reports also show compliance with legal and regulatory requirements, summarize the status of the President's Management Agenda objectives, and provide financial statements.

One of the principal components of DoD's financial statements is the balance sheet, which provides a summary of DoD's assets and liabilities. The largest asset line item is general property, plant and equipment (GPP&E), which includes the value of real property (land, buildings, structures, utilities, and non-moveable equipment attached to buildings and structures) and personal property (items that are not held for sale or consumed in normal operations including such items as support equipment, plant equipment, vehicles, special test equipment, and special tooling). Prior to 2003, GPP&E did not include military equipment (aircraft, ships, satellites, tanks, for example); however, on May 8, 2003, the FASAB adopted Statement of Federal Financial Accounting Standards 23, which classified all military equipment as personal property. The impact of this change was significant because it required that military equipment be treated the same way as other personal property assets. In other words, military equipment (with a unit cost above the DoD-set capitalization threshold of $100,000) would now have to be valued, depreciated, and reported on DoD's financial statements in the GPP&E line. None of DoD's policies, processes, or systems supports this type of valuation, and as anyone working in acquisition or logistics knows, military equipment is exceptionally complex and very difficult to value.

Transaction-Based Valuation Approach: Towards a Permanent Solution

To satisfy the FASAB requirement to value military equipment, contracts awarded in FY 2007 will require information derived from accounting transactions, invoices, and other authoritative documents that support the actual cost of assets. The costs must be traceable by auditors to the authoritative source documentation. This approach is called the transaction-based valuation approach, and it will enable DoD to track the asset from cradle to grave and to account for the value of the asset.

On Sept. 30, 2006, 100 percent of the delivered DoD military equipment assets will be valued and reported using the baseline valuation approach. As new assets are delivered under contracts awarded on or after Oct. 1, 2006, an increasing number of military equipment asset values will be derived from the valuation methodology contained in the mid-term systems solution and, eventually, the valuation methodology contained in the BMMP solution. Because of the long useful lives of some equipment (ships, for instance), the transition from the baseline to the transaction-based methodology for certain assets may not be complete for as long as 30 years.

Connecting Linked Processes

The transaction-based valuation approach must address three areas: processes, systems, and data. The first area is a set of linked processes. Many of the processes necessary to support military equipment valuation exist today in DoD, although they may differ in operation among the military departments and defense agencies. In order to move to a transaction-based valuation approach, these processes must be linked within the DoD component and, in some cases, reengineered.

The second area is systems that support the processes. In the mid term, beginning in fiscal 2007, a system of systems to support the transaction-based valuation approach will be built using the systems currently in place (with one exception discussed below). In the long term, the system of systems will come out of the BMMP.

The third area is data. The data needed for military equipment valuation are all being collected today, often many times. This data set must be rationalized, integrated, verified, and entered once then used multiple times. The Property and Equipment Policy (P&EP) Office has identified 18 actions to be completed by policy writers, process developers, and system owners in order to implement an auditable, transaction-based valuation methodology. As of June 2004, the P&EP Office, with its business partner KPMG, has completed approximately 10 percent of the effort towards the achievement of these 18 actions. The remainder of this article will address the process reengineering needed to make the systems and data work.

Reengineering the Processes

Six key business processes must be modified and connected to implement this transaction-based approach: acquisition planning and contract writing; receipt, acceptance, and pay and work in process; military equipment valuation; asset accountability; fixed asset accounting; and financial reporting.

As part of the acquisition strategy, the program manager will include a program description at Milestone C for each acquisition program that will acquire end items with a potential full unit cost of over $100,000. The description will identify the end items being acquired (with an indication of those with a unit cost over $100,000), the government-furnished property (GFP) to be provided, and other types of items or services to be bought with program funding (initial spares, manuals, support equipment, special tooling and test equipment, production engineering support, for example). The description will be provided to the accounting specialist who will verify that the program contains end items that should be capitalized as GPP&E (based on the financial management regulations), and determine, based on accounting treatment, which items should be grouped together on one contract line item number in the contract. For example, the end item *manuals and technical data*, which will be capitalized, should be on one CLIN; *spares*, which will be put into inventory, should be on another CLIN.

As the acquisition strategy is translated into contracts, the contracting officer will identify the ones belonging to PMs

Attention Army AL&T Workforce!

2004 Product/Project Manager & Acquisition Commander Handbook

Is your goal to hold a key leadership position in the Army Acquisition, Logistics and Technology workforce? Would you like to hold a position that is at the crux of weapons development—a position that allows you to directly affect the Acquisition Corps mission? If the answer is "yes," set your sights on an assignment as a product/project manager (PM) or an acquisition commander (AC). To learn more about these challenging positions, download the Acquisition Support Center publication, *Product/Project Manager and Acquisition Commander Handbook* at:

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with capital assets (that is, PMs of programs in which the equipment they are buying meets the requirements for a capital asset). Within the identified contracts, separate types of items must be priced separately using separate CLINs or sub-line item numbers (SLINs). Industry will price each line item on a fixed-price contract and will estimate costs for each item on a cost-type contract. When items are delivered, these prices or updated estimated costs will be provided. Note that there will be no requirement for the contractor to accumulate costs or bill financing payments by separate line item for military equipment valuation purposes.

An identified contract will notify the accounting specialist to open a work-in-process (WIP) account and notify the logistician to open a physical property record. The WIP account will capture payments made to contractors during contract performance as well as the value of GFP provided to contractors for use in building the end item. For example, the value of GFP will flow to WIP and the GFP property record will be updated as the GFP is provided to the using contractor. The property record will include GFP used in the end item and will be tied into the unique identification (UID) registry.

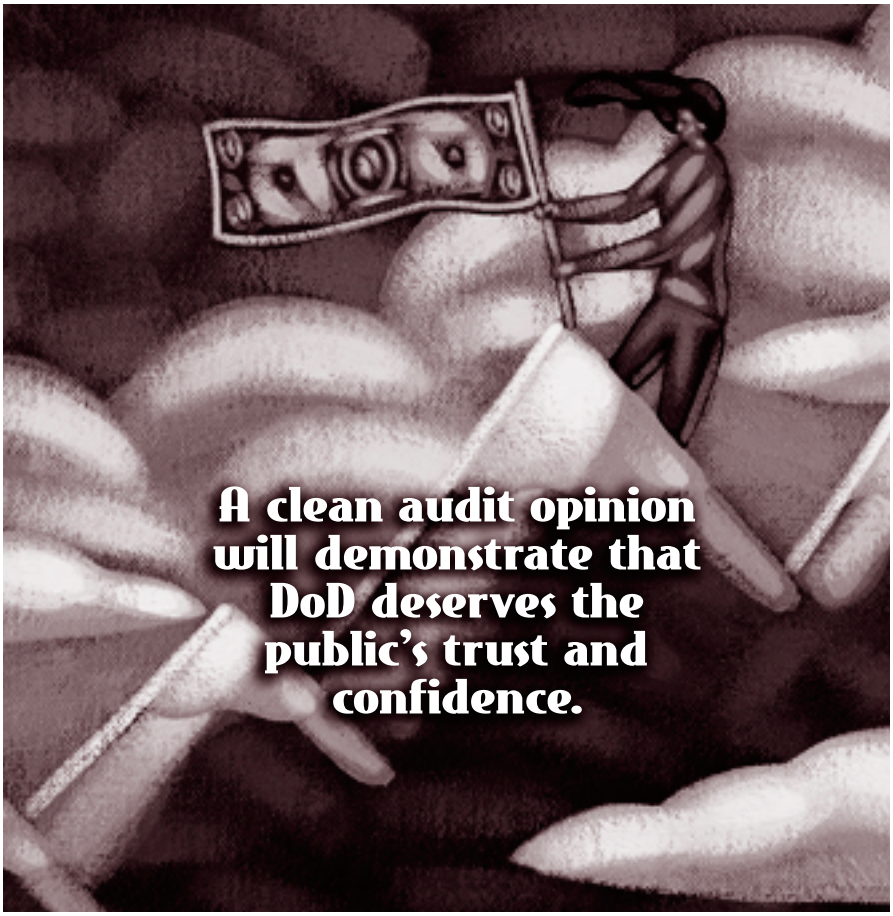
When the military equipment is delivered in its final form, the value of the end item and each item type delivered and billed with the end item (spares, support equipment, etc.) will be determined based on and derived from the separately priced item types in the contract. The capital costs of the items delivered will be added to the values of embedded GFP and any allocation of overhead costs (e.g., a share of program office operating costs) to arrive at the full cost of the individual asset. At the same time, the receipt and acceptance system will identify the UID of the end item and the UIDs of the embedded items. This end item information will update the physical property record.

Once the full cost is derived for an individual asset, the WIP account will be relieved. The value of the asset will be transferred to a fixed asset accounting system where the military equipment will be depreciated over its useful life (that is, until it is destroyed or processed for disposal). At the same time, the asset will be transferred to the appropriate Service's physical property accountability system, again to be tracked until the military equipment reaches the end of its operational life. (The fixed asset accounting and physical property accountability systems may be one and the same; for example, the Air Force will use Air Force Equipment Management System (AFEMS) for both processes.)

The amount of WIP, military equipment value, and depreciation will be identified quarterly in the balance sheets of each military department. These amounts will

be rolled up to be included in DoD's balance sheets and reported to OMB.

There are a number of process changes that need to be made in order to put a linked set of processes in place. The sidebar on the previous page identifies the process changes that the P&EP Office is pursuing.



So Who Cares?

Now to answer the question posed in the headline: Who cares about military equipment valuation? The simple answer is that everyone in the acquisition, logistics, and accounting communities and in those industries doing business with DoD should! Each community is involved in and affected by military equipment valuation.

Acquisition Community

The PM starts the valuation process by describing his or her program as part of developing the acquisition strategy prior to Milestone C. This description will be shared with the accounting specialist (a new requirement for the PM). The next step is for the contracting officer to identify which of the contracts will need to be "tagged" so that the accounting specialist can follow up. That information will be determinable by tagging all contracts from PMs with capital assets. And finally, for tagged contracts, the contracting officer will write separate CLINs or SLINs for each item.

Accounting Community

Much of the work of valuing military equipment and reporting it on balance sheets is the work of the accounting and finance community and much of this effort will be automated. However, once the PM has described his or her program, the accountants will work with the PMs to ensure that valuation templates are set up to guide how each procured item will be treated from an accounting standpoint. When a tagged contract is received, the accountants will need to open a WIP account so that as payments are made against contracts, the accounting system records them in the appropriate WIP account. Finally, accountants are responsible for assuring that the financial reports are completed and accurate.

Logistics Community

Once the new military equipment valuation processes and systems are in place, the logistics community will have better, more reliable data than in the past and will be relieved of some of the accounting for property values (which will be generated by the accounting system).

Industry

Most military equipment valuation work is done by the government. Nonetheless, contractors will have to price separately each type of asset in the contract bid. For fixed price-type contracts, this will be done as part of the contract negotiation. For cost-type contracts, an estimate will be provided during contract negotiation and updated for the specific asset upon delivery. There will be no requirement for the contractor to accumulate costs or bill financing payments by separate CLIN or SLIN.

Complex—But Well Worth the Effort

The whole process sounds complex—and it is. The good news is that acquisition and logistics professionals will not have to become accountants, and for the accountants, most of the detail work will be done by automated systems. While there is new work to do, that work will build on what the acquisition, logistics, and accounting communities, along with their industry partners, do every day to produce equipment for our warfighters. The end result of all this complexity will be better decisions and more confidence in us from our leadership, Congress, and the American taxpayer.

Editor's note: The author welcomes comments and questions and can be contacted at richard.sylvester@osd.mil.

Doing Less With More

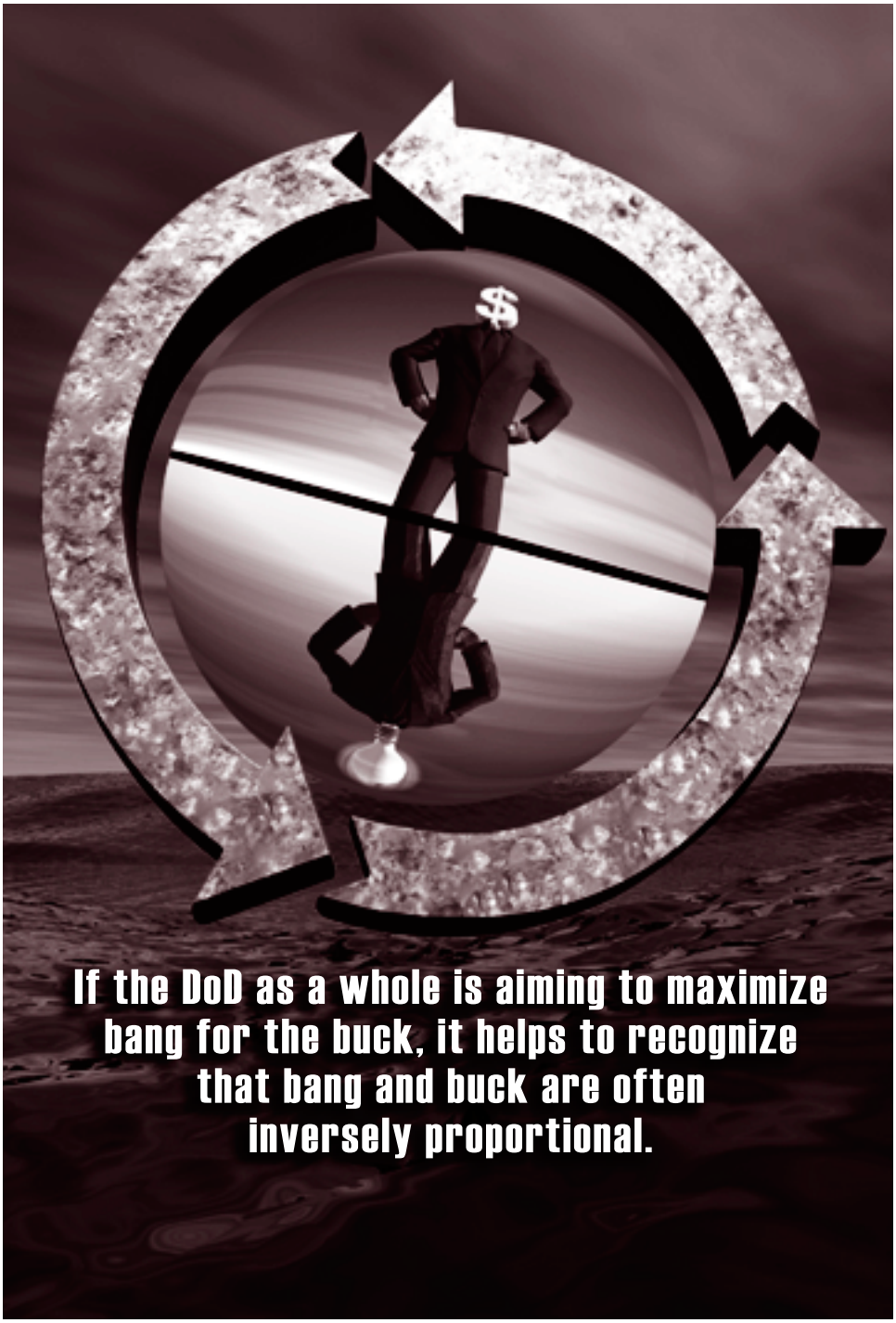
The Pitfalls of Overfunding

Capt. Dan Ward, USAF

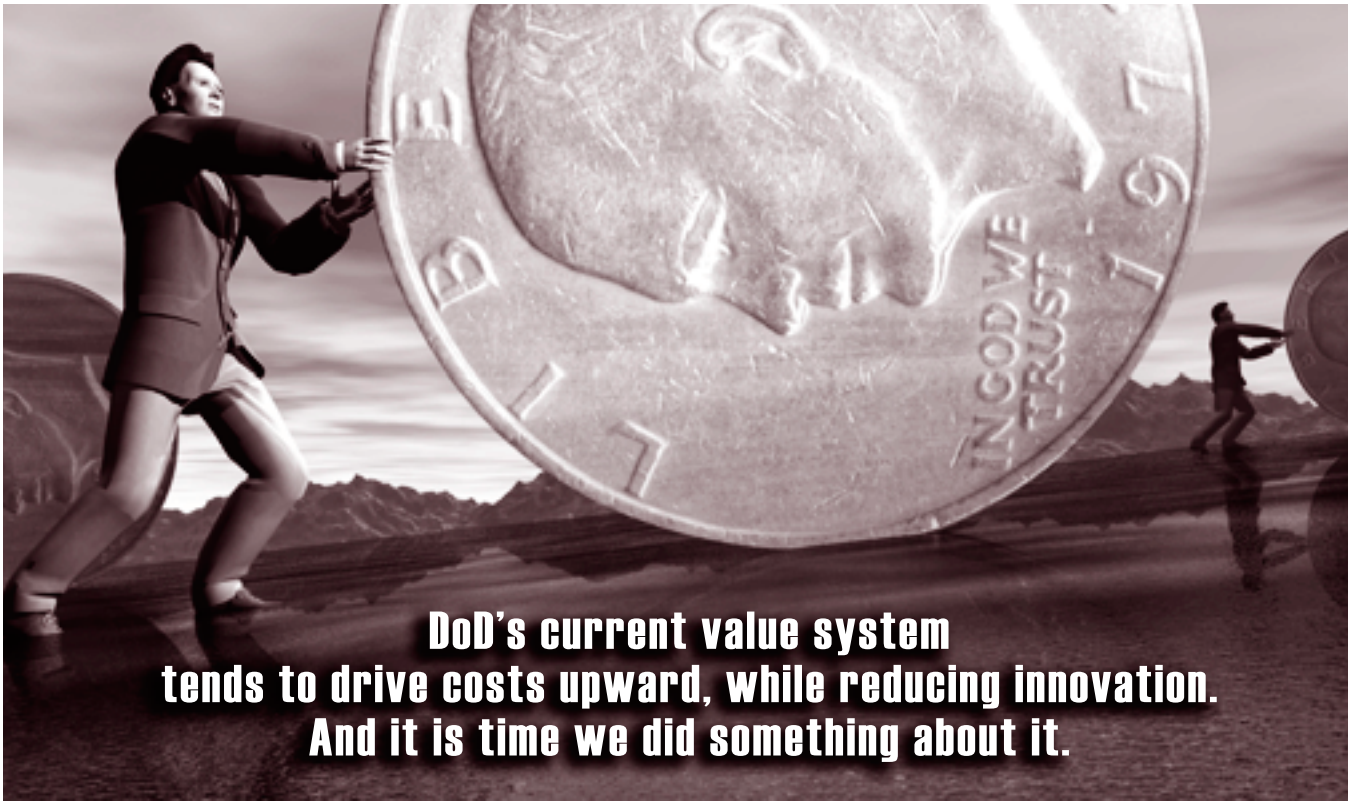
AUTHOR'S WARNING
This article may offend the professional opinions and sensibilities of certain individuals. Discontinue reading if any of the following occur: itching, aching, dizziness, ringing in ears, vomiting, giddiness, auditory or visual hallucinations, loss of balance, slurred speech, blindness, drowsiness, insomnia, profuse sweating, shivering, or heart palpitations. May be too intense for some readers and not intense enough for others. No program managers were harmed during the production of this article. Some restrictions apply.

Let me get right to it: the Department of Defense acquisition community today has too much money. There, I've said it, and it feels good. It may be a career-limiting opinion, but after 10 years in this business, I can confidently (albeit naïvely) conclude we have too much money. More important, I contend this overfunding is limiting our ability to innovate, which has negative consequences for America's warfighting capabilities. Now that I have your attention, let me explain how I reached this conclusion.

In a word, research. As I looked for common threads within innovative development projects, I quickly discovered something many readers probably knew



Ward *is assigned to the Air Force Research Lab in Rome, N.Y. He holds degrees in electrical engineering and engineering management. He is Level III certified in SPRDE and Level I in PM, T&E, and IT.*



DoD's current value system tends to drive costs upward, while reducing innovation. And it is time we did something about it.

already: I am not the first to contend DoD overfunding is a problem.

It's Been Said Before

Air Force Col. John Boyd and his collection of military reformers sounded a similar call in the early 1980s. In fact, Pierre Sprey, one of Boyd's acolytes, wrote *A Case for Better and Cheaper Weapons*, published in 1984. He compared "cheap winners" like the highly lethal AIM-9D/G Sidewinder ($14,000 each) to "expensive losers" such as the less effective AIM-7D/E Sparrow ($44,000 each). He argued that increased spending will yield less capability, particularly if we continue to buy complex, vulnerable weapons that are costly to operate. My research didn't stop there.

Navy commanders James Fitzsimonds and Jan van Tol observed in the Spring 1994 issue of *Joint Force Quarterly* that "revolutionary changes [in technology and concept of operations (CONOPS)] do not generally occur during war. … Militaries are driven to innovate during peacetime by the need to make more efficient use of shrinking resources." The article concludes: "Innovation is not necessarily or even primarily a function of budget. Many of the interwar innovations came at a time of *low* budgets and *small* forces" (emphasis added).

On the other side of the ledger we have the Cold War tactic of large defense spending, which was apparently an effective weapon against the now-defunct U.S.S.R. However, high rates of military research and development spending in that time period did not exactly produce the anticipated technological innovations—Strategic Defense Initiative, anyone? Instead, we find things like the Comanche helicopter's expenditure of 21 years and $8 billion with zero actual helicopters to show for it. And there's also the recently cancelled $11 billion Crusader, the on-again-off-again-on-again B-1, the on-again-off-again-on-again V-22, and so on. While the newspapers in the 1980s never did get those $900 hammer stories quite right, it's not clear that large Cold War R&D budgets delivered what was promised. Fortunately, the Soviets were able to accomplish even less—perhaps in part because they outspent the United States by $300 billion between 1970 and 1980.

A Tale Of Two Weapons

Wilber D. Jones' outstanding book *Arming The Eagle* lends further support to the overfunding thesis. First published in 1999, this book rigorously documents the history of U.S. weapons development and acquisition since 1775. It is full of fascinating snapshots and stories about successes and failures in military technology development. Let's take a look at the very different stories it tells about two infantry weapons: the Bazooka and the M16.

Early in World War II, the Bazooka went from drawing board to battlefield in 30 days—surely some kind of record. A contemporary article in *Liberty* magazine breathlessly opined the $19 rocket rifle "can almost duplicate the devastation wrought by a 155-mm howitzer that costs $25,000!" While the assessment of this weapon's effec-

tiveness is undoubtedly overstated, the Bazooka's impact on the battlefield was undeniable, and the cost was ridiculously low.

In contrast, the M16 took 20 years to go from concept to capability, at a pricetag many orders of magnitude beyond the 30-day wonder. It turns out both weapons had similar operational limitations upon deployment: neither performed as advertised. The important thing to note is the Bazooka's problems came to light quickly and were addressed quickly (the first major Bazooka upgrade was accomplished in six months). The M16's bugs took longer to find, longer to fix, and cost considerably more.

This doesn't establish a causal relationship between large budgets and low capability/low innovation—but hang on, we'll get there. It does show the M16's decades-long, disciplined, neat, orderly, and well-funded development effort didn't guarantee the system's operational effectiveness over the Bazooka's month-long, quick-and-dirty, low-cost approach. The key to field success in both situations was (drumroll please) actual field experience and direct user feedback. The inexpensive, rapid developmental approach of the Bazooka got the users involved much sooner, which may very well be the key to this whole thing.

War and Peace, Fact and Fantasy

Let's return to the assertion of Fitzsimonds and van Tol that most innovation happens during times of peace and small budgets. Specifically, let's focus on the peacetime dimension. Why would wartime not be a cauldron of innovation? What leads to peaceful innovation? And what's the connection to small budgets?

During wartime, new military technology development is left largely to technologists and engineers like me. We tend to know a lot about technology and its limitations and relatively little about combat environments and their requirements. Only when the shooting stops do adequate numbers of combat-experienced individuals have the opportunity to spend their intellectual capital on new system requirements and developments. Of course, in the case of the Bazooka, its absurdly short development timeline gave soldiers an opportunity to provide real-time combat truth to the developers, who could then address the weapon's shortfalls. But this is clearly an exception to the peacetime-innovation trend.

The principle behind the parable is this: technology developers tend to have facts about technology and fantasies about the operational (i.e., combat) environment. In contrast, users tend to have facts about the operational environment, and fantasies about what technology can do. Innovation seems to require the latter combination, which accepts the limitations of the foxhole and puts innovative pressure on technology, not the other way around. It leads to creative technologies and approaches that are well-suited for the environs in which they will be used. The alternative (and unfortunately, traditional) approach—technology facts and operational environment fantasies—tends to be neither as creative nor as effective and it often makes absurd assumptions or demands on combatants as they try to integrate new, rigid technologies.

Back To the Bazooka

What would have happened if the Bazooka budget had been larger? For starters, its development would have taken longer if only because it takes time to spend money. Larger budgets get more oversight, which takes more time, which—in a cruel irony—increases the overall cost. (More people overseeing more dollars requires more people and more dollars—a financial snowball effect). Also, the risk of analysis paralysis increases in direct proportion to the size of the R&D budget.

What does this have to do with low budgets? Just about everything. When something is expensive, there is a natural and understandable tendency to keep it away from the kids. Exquisite artifacts are treated with great care and shielded from those with grubby hands who might damage or break them. But a $19 piece of steel pipe with a few doodads welded to it (a Bazooka) can be sent into a rigorous combat environment without fear of breakage, in part because it is simple and robust, and in part because it is inexpensive enough that its builders don't mind if it breaks.

The conclusion is unavoidable: increased development costs tend to have an isolating effect, even for supposedly rugged military technology, because users are kept at arm's length and development times stretch into decades. This unfortunate attempt to disinvolve users may be rooted in good intentions, but ultimately it limits the systems' effectiveness by keeping ground truth out of the equation. Early user involvement is a prime driver for innovation and effectiveness, and rapid, cheap systems tend to bring users on board sooner. Large wallets just get in the way, blocking one of the key elements of successful technology development.

Reforming Rewards and Recognition

For the sake of argument let's say I've convinced someone that overfunding is a problem. The logical next question is "What do you propose we do about it?"

I'm glad you asked!

Most readers have probably noticed the DoD acquisition profession tends to use dollar figures to quantify job progression, equating increased program costs with professional maturity. If you managed a program worth $1 million last year, your chances for promotion are better if

you manage a program worth $10 million this year. That's a problem. We need a different set of values and metrics where dollar figures and professional maturity are not automatically equivalent, where an up-and-coming officer hears instead, "Well, Capt. Smith, you did good things with $10 million last year. Now let's see what you can do with $1 million."

The idea is not simply to slash budgets on existing programs, although that is often a good idea too. The point is to avoid turning our noses up at a program just because it's inexpensive, or overvaluing a program just because it costs a lot of money.

Redefining MDAPs

The situation is more pronounced at the higher levels. For example, take major defense acquisition programs (MDAPs). In order to be an MDAP, an acquisition program must either be designated by the under secretary of defense (acquisition, technology and logistics) as an MDAP or be estimated to require an eventual total expenditure for research, development, test, and evaluation of more than $365 million in fiscal 2000 constant dollars or more than $2.190 billion in procurement in fiscal 2000 constant dollars. That essentially means a system becomes an MDAP when it reaches a particular dollar value (Figure 1).

Shouldn't capability come into the equation somewhere? At the moment, it does not, and that is kind of embarrassing. Would it not make sense to designate a system as "major" based on the degree to which it contributes to national security, provides a new/necessary functionality, or otherwise makes our forces more effective? Currently, all it takes to be "major" is a big price tag, no matter how much or how little the system improves the users' capabilities.

The figures illustrate this point. In Figure 1, which system, A or B, is more prestigious and better for your career? The more expensive one (System A) of course, even though it provides the same increase in capability as the less expensive one (System B). In fact, a cost overrun for System B could push it over the line and turn it into a "major" program. This causes subtle (and not-so-subtle) environmental pressure (E) in the direction of increased cost, as depicted by the arrow. This may not be the only reason for the 18 percent average cost growth, but it is certainly a contributing factor.

There is a better way. You see it in Figure 2. In this approach, all the statutory requirements for reporting, testing, oversight, and so forth of programs costing more than $365 million would still apply, but we would now call those programs what they are—"expensive." Not good or bad, not major or minor. Simply expensive defense acquisition programs. EDAPs. Even if they are worth every penny or are a bargain at twice the price, they cost a lot of money and everyone knows it. What a refreshing change it would be to acknowledge that reality.

This wouldn't fix all our problems, nor would it guarantee innovation all the time, but it would be a step in the right direction. For example, in this proposed paradigm, which program (A, B, or C) is more prestigious and better for one's career? The MDAP (C) of course, which delivers a significant improvement in capability at a low cost. Who would want to be the manager of System A (the EDAP)? One implication of this approach is that cost overruns could result in the loss of MDAP status, unless there is a corresponding improvement in capability. Environmental pressure in this scenario is down and to the right, in the direction of lower costs and improved capabilities, as it should be.

In an interview with NASA's *ASK* magazine, Terry Little, (acquisition advisor of the Missile Defense Agency) addressed a common misconception that "if you emphasize something like speed or cost, everything else goes in the toilet." Contrary to that often-held belief, Little's experience indicates that "people working the problem won't let that happen. … What you give up [by focusing on speed or cost] is very modest in comparison to what you gain." All I can say is, "Amen, Mr. Little. Amen."

FIGURE 1. **MDAP Defined**

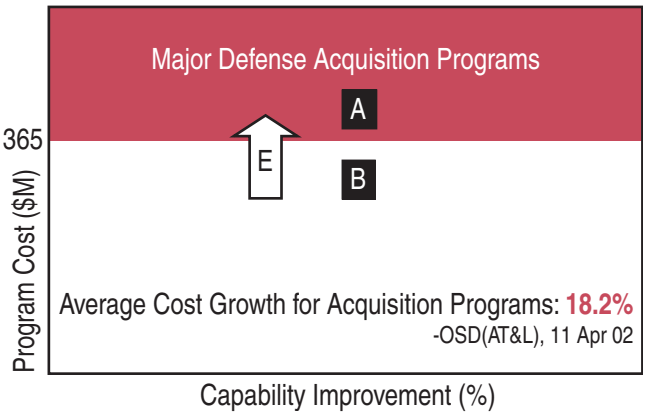
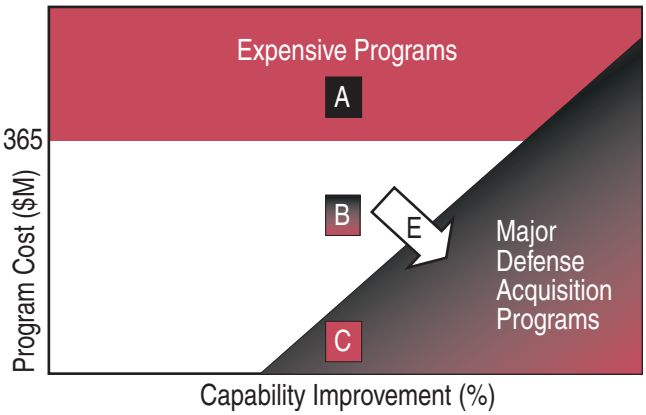


FIGURE 2. **MDAP Redefined**



Time To Act

The history of military innovation clearly points to the value of small budgets and the dangers of large ones. I think the M16 and the Bazooka are interesting examples, but the 21st century is already full of similar situations we could have discussed, particularly in the areas of information technology and unmanned aerial vehicles.

High technology is not terribly expensive these days, and maybe it never was. But this whole thing is really not about high or low tech. Our mission is to deliver innovative, effective capabilities to our users, and it's amazing what you can do with $19 worth of steel pipe and assorted parts. I don't expect ever to see a $19 aircraft carrier; there will always be a need for expensive systems. I simply contend the DoD's current value system tends to drive costs upward, while reducing innovation. And it is high time we did something about it.

My own, admittedly limited, experience with both expensive and inexpensive development efforts resonates with the academic research. My teams and I typically did more with less and the most when we had the least. That is to say, our innovation and our impact on operations were most significant when our resources were the most limited. It is hard to avoid concluding that small teams + thin budgets + short timelines tends to = significant innovation and combat effectiveness. If the DoD as a whole is aiming to maximize bang for the buck, it helps to recognize that bang and buck are often inversely proportional.

This is not a call for fiscal discipline in a political sense, and it's not about the government's spending less money for thrift's sake, although that's not a bad idea. It is about spending less money for technology's sake and for the warfighter's sake. Counterintuitive though it may be, if we want to provide America's soldiers, sailors, airmen, and Marines with innovative capabilities, we need to spend less money developing systems.

Reducing R&D budgets is not a cheap fix, but nor is increasing spending. Frankly, there is no sure-fire way to produce innovative technologies, and spending lots of money is perhaps the least effective approach imaginable. Getting actual feedback from combat-experienced users tends to be highly productive, and large budgets usually get in the way of that communication.

How much should we cut from the budget? More than we will. The longstanding cultural standards within the DoD acquisition community place such high value on large budgets that any effort to decrease them will be met with fierce opposition. One way to begin influencing the culture is by redefining MDAPs as outlined here. One might reasonably ask how we would recognize and reward our people for doing good work if dollar figures are no longer used to measure professional competence. Look again at Figure 2. The top performers should be moving down and to the right (or at the very least, to the right) as their careers progress.

What should we do with the money we save? Frankly, I don't care, as long as nobody tries to give it to me.

Editor's note: The author welcomes comments and questions (but not budget increases). He can be contacted at daniel.ward@ rl.af.mil.

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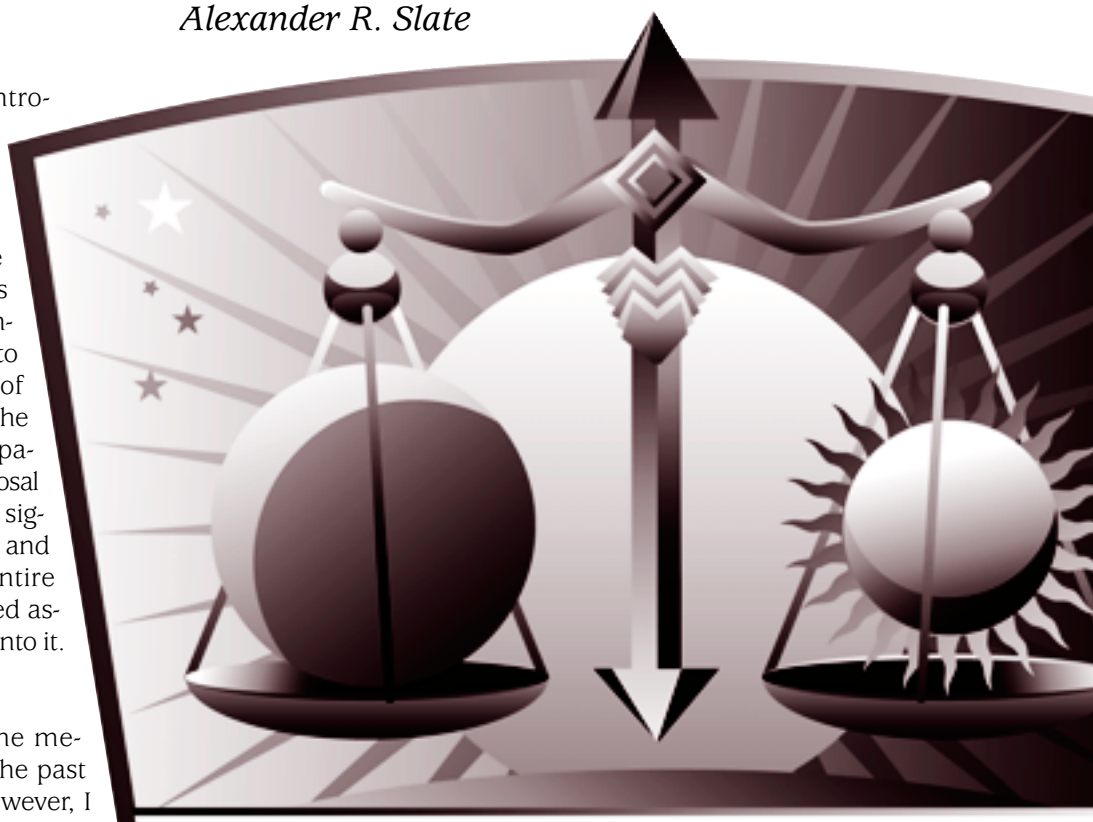
Best Value Source Selection: The Air Force Approach, Part II

Alexander R. Slate



Part I of this article introduced the Air Force method for conducting best value source selections, a process that doesn't use qualitative numbering formulas but takes instead proposal strengths, inadequacies, and deficiencies to come up with a color rating of red, yellow, green, or blue at the subfactor level of mission capability. Part I also discussed proposal risk. Part II briefly covers the significance of past performance and addresses the crux of the entire source selection: the integrated assessment and how cost plays into it.

Past Performance

I do not intend to explain the mechanics of how we conduct the past performance assessment. However, I will say that it is based upon the assessment of relevant and recent experience on the part of the offerors and their sub-contractors and that the ratings used are from the Air Force Supplement to the Federal Acquisition Regulation (AFFARS), Part 5315 as follows:

- **Exceptional/High Confidence**—Based on the offeror's performance record, essentially no doubt exists that the offeror will successfully perform the required effort.
- **Very Good/Significant Confidence**—Based on the offeror's performance record, little doubt exists that the offeror will successfully perform the required effort.
- **Satisfactory/Confidence**—Based on the offeror's performance record, some doubt ex-

The non-quantitative system provides the evaluation team and SSA with greater flexibility in assessing the various benefits and impacts of the different approaches taken by offerors to the requirement.

Slate *is a facilitator at the Brooks City-Base Acquisition Center of Excellence. He has been a program manager, test manager, and laboratory principal investigator during his civil service career.*

ists that the offeror will successfully perform the required effort.

- **Neutral/Unknown Confidence**—There is no performance record identifiable (see FAR 15.305(a)(2)(iii) and (iv)).
- **Marginal/Little Confidence**—Based on the offeror's performance record, substantial doubt exists that the offeror will successfully perform the required effort. Changes to the offeror's existing processes may be necessary in order to achieve contract requirements.
- **Unsatisfactory/No Confidence**—Based on the offeror's performance record, extreme doubt exists that the offeror will successfully perform the required effort.

The Integrated Assessment

Once all the proposal evaluations are completed, the final ratings are documented and presented to the Source Selection Authority (SSA). One of the documented reports is the proposal analysis report, which documents the results of the evaluation and provides a comparative analysis of the competitive offerors. The SSA determines what combination of ratings provides the best value based on what was approved in the source selection plan and what was said in section M of the request for proposal (RFP). Let us look at an example; for simplicity's sake, we will say that there was only one subfactor in the mission capability factor, giving us only a single color rating for this factor. The factor ranking of importance is as follows: mission capability is co-equal with past performance, and cost/price is co-equal with risk. The example is shown in the chart at the foot of the page.

Given that we do not use quantitative relationships between the factors, a case could be made for any of the four offerors winning this award, though it is not likely that we would award to offeror D. If the risk for D was low and the past performance was exceptional, maybe we would award to offeror D—but not as it is presented in the chart. However, A, B, and C are good candidates for award. The question the SSA needs to answer is this: Is the combination of the mission capability and past performance of offerors A or B enough to override the lower cost and low risk of offeror C?

Now let's change the factor ranking of importance so that mission capability and cost/price are coequal, and past performance and risk are co-equal but of lesser importance. Keeping the same assessments, it tends to raise the likelihood that offeror C would be the best value and perhaps even offeror D, but it lowers the likelihood of award to offeror B, especially as compared to A.

Of course, in real life things are not so simple, and we typically have color ratings for two to three subfactors under mission capability to integrate into our overall assessment. The practical result of this is sometimes a de facto rollup (as discussed under "Color Ratings Step 2" in Part I of this article, *Defense AT&L*, September-October 2004), even though it is understood that we do not really roll up to a factor rating.

Some may take issue with my example, pointing out that according to the AFFARS, ratings of yellow should really be used as interim or initial ratings: "Through exchanges, the government evaluators should be able to obtain the necessary information from offerors with interim Yellow/Marginal ratings to determine if the proposal inadequacies have been satisfactorily addressed. Yellow/Marginal ratings should be rare by the time of the final evaluation" (Part 5315). To answer the critics: that means the assessments I used for Offeror D should be different, and mission capability should either be green or red in the final assessment; however, it doesn't mean that a color rating *can't* be yellow.

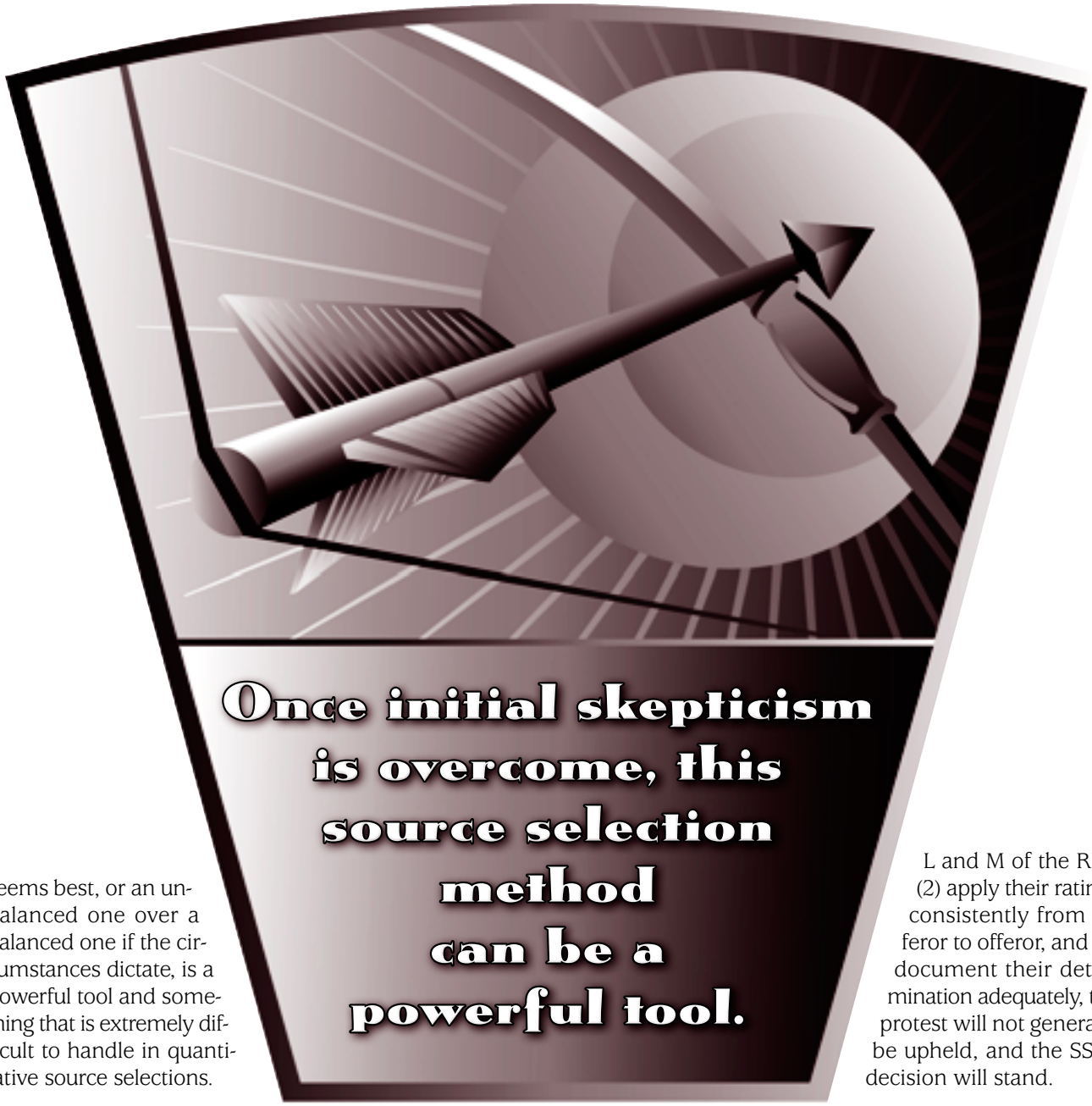
The Better Choice?

Is non-quantitative source selection better than quantitative source selection? The answer (like the answers to so many other questions) is "it depends." Both systems have their applications. But for the majority of source selections I am aware of, particularly in new system or services acquisitions, I believe the non-quantitative system as the Air Force applies it is better. Why? Because the non-quantitative system provides the evaluation team and SSA with greater flexibility in assessing the various benefits and impacts of different approaches taken by offerors to the requirement. The narrative justifications of each strength, weakness, inadequacy, and/or deficiency provide clear detail and rationale for the decision, with the result that there's less second-guessing.

No two source selections are the same; the needs of the government and the particular circumstances of the acquisition need to be taken into account when selecting a contractor. In my experience, the Air Force system is more flexible in this regard. Using color rating scales to choose a more balanced proposal over an unbalanced one if it

The Integrated Assessment

Offeror	Mission Capability	Past Performance	Cost	Risk
A	Blue	Satisfactory/Confident	High	High
B	Blue	Very Good/Significant Confidence	Very High	Medium
C	Green	Very Good/Significant Confidence	Medium	Low
D	Yellow	Satisfactory/Confident	Low	Medium



Once initial skepticism is overcome, this source selection method can be a powerful tool.

seems best, or an unbalanced one over a balanced one if the circumstances dictate, is a powerful tool and something that is extremely difficult to handle in quantitative source selections.

The blue rating is another advantage of the color system since blue ratings flow from strengths. A strength requires two things: that it offer some operational enhancement or other benefit to the government, and that the offeror be willing to incorporate that level of performance in the contract. So a statement from an offeror to the effect that "it might be possible to enhance the performance of X under certain conditions" can't warrant a blue rating because "it might" indicates that the offeror isn't willing to make the performance level contractually binding.

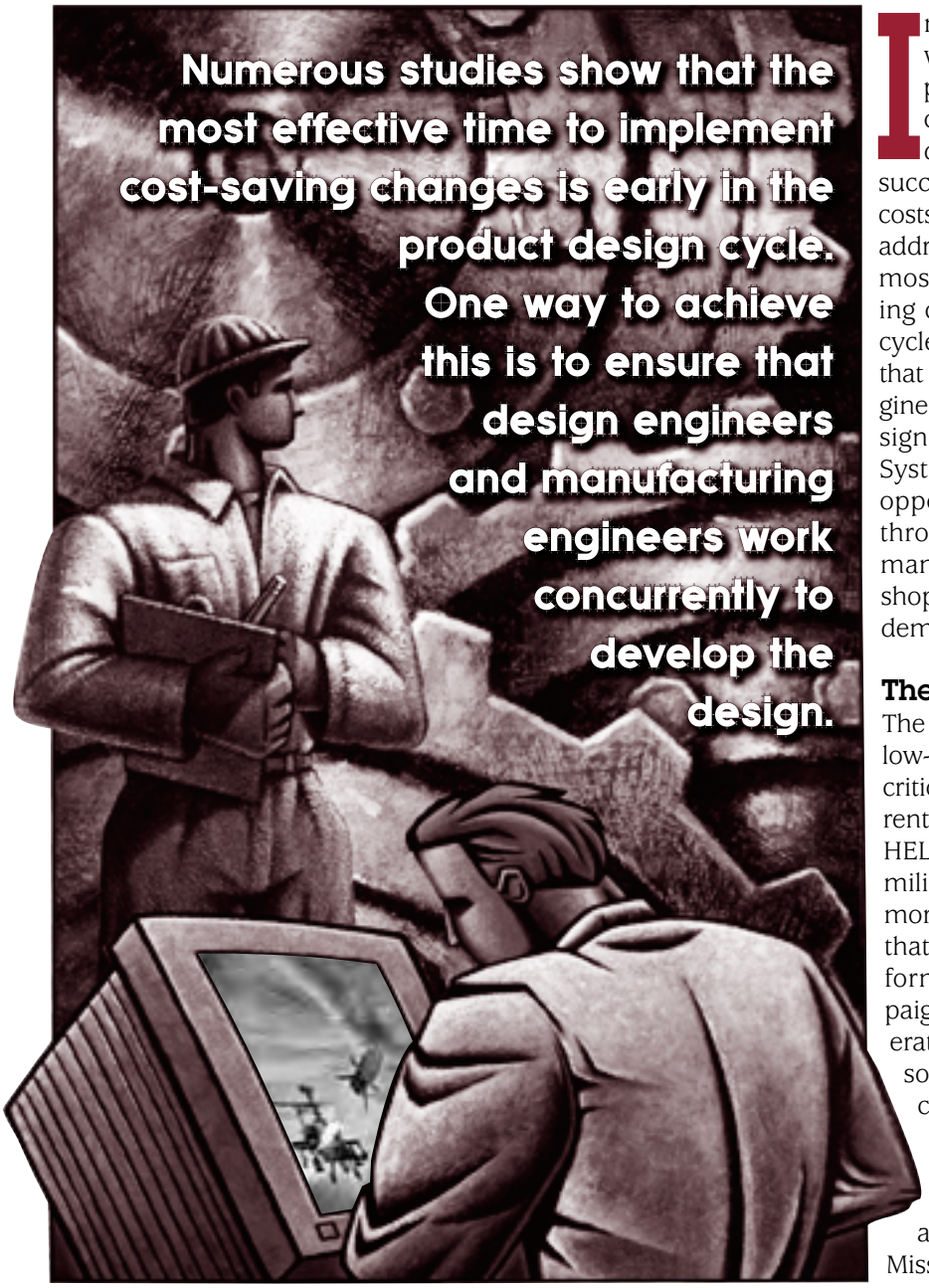
What about protests? There may be a protest, but as long as teams (1) follow the source selection plan in evaluating subfactors exactly as they said they would in sections L and M of the RFP, (2) apply their ratings consistently from offeror to offeror, and (3) document their determination adequately, the protest will not generally be upheld, and the SSA's decision will stand.

For these varied reasons, it is actually easier to defend a decision based upon a color rating determination than one based upon a numerical analysis—even if intuition tells you otherwise. The perception may be that color ratings seem fuzzy (though they aren't), and so engineers and scientists tend to distrust them. But as someone who has been both scientist (principal investigator in an Air Force lab) and engineer (project engineer for the ALCOA Corporation and test manager for the Air Force), my experience is that once initial skepticism is overcome, this source selection method can be a powerful tool.

Editor's note: The author welcomes questions and comments and can be contacted at alex.slate@brooks.af.mil.

Using Design for Manufacture And Assembly To Meet Advanced Precision Kill Weapon System Cost Goals

Steve Watts



In our environment of state-of-the-art weapon systems development, the emphasis is largely on ensuring technological feasibility to meet performance requirements. However, for overall program success, the manufacturing processes and costs associated with the design must also be addressed. Numerous studies show that the most effective time to implement cost-saving changes is early in the product design cycle. One way to achieve this is to ensure that design engineers and manufacturing engineers work concurrently to develop the design. The Advanced Precision Kill Weapon System (APKWS) Program has created the opportunity for this type of environment through the implementation of design for manufacture and assembly (DFMA) workshops during the system development and demonstration (SDD) phase.

The Genesis of APKWS

The Army has identified a requirement for a low-cost precision weapon system to fill the critical weapon system gap between the current aimed Hydra-70 rocket system and the HELLFIRE anti-armor missile. Our nation's military strategy requires systems that are more precise, lighter, more deployable, and that produce higher ratios of kills per platform. The future projected military campaigns will be characterized by military operations in urban terrain, a proliferation of soft to lightly armored targets, fighting in close proximity to noncombatants, and a high potential for collateral damage.

In February 2003, the Aviation Rockets and Missiles Project Office of the Tactical Missiles Program Executive Office, Redstone

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Arsenal, Ala., awarded General Dynamics Armament and Technical Products a 30-month (incentivized to 25-month) SDD contract to develop the APKWS. General Dynamics has contracted with BAE Systems, Nashua, N.H., to develop a newly designed guidance section that integrates with the existing Hydra-70 components and launch equipment. Using a semi-active laser-guided seeker, the APKWS will be a highly accurate weapon that complements the HELLFIRE missile in a precision strike by offering a lower-cost alternative against soft-point targets, while minimizing collateral damage. This system will provide improved accuracy over the current Hydra-70 munitions used on the AH-64 Apache, the OH-58 Kiowa Warrior, as well as various other rotary and fixed-wing aircraft platforms. The APKWS fully embodies the Army's vision for a lighter, versatile, and decisively lethal force.

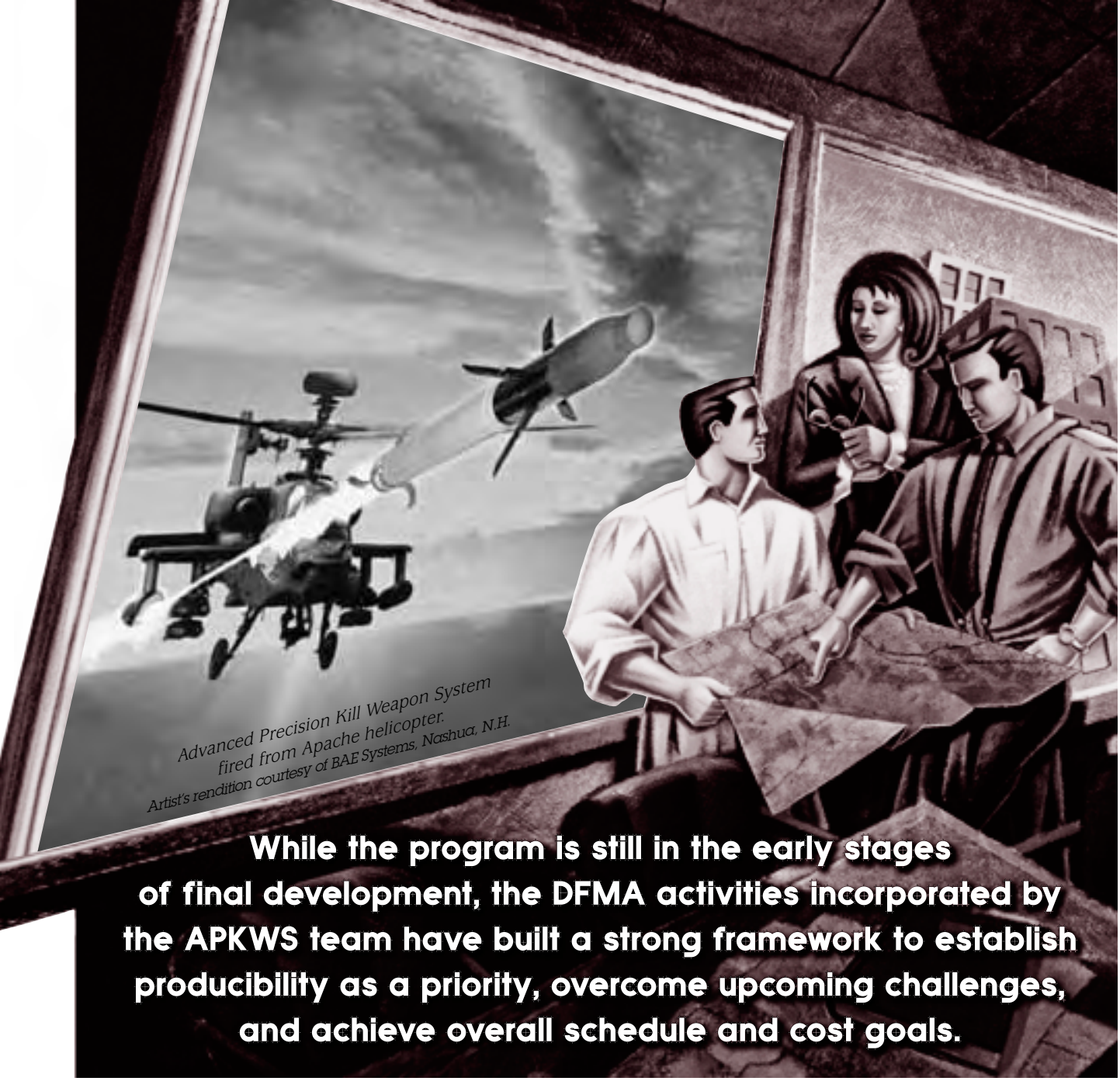
In September 2002 (five months prior to SDD award), the Army conducted an independent engineering and manufacturing readiness level (EMRL) review of the advanced technology demonstration (ATD) phase design of the APKWS. There is an ongoing effort by the Missile Defense Agency (MDA) and Future Combat Systems (FCS) to establish EMRLs to assess the manufacturing process maturity of a design—similar to the way the technology readiness levels address the technology maturity of a design. The review of APKWS was conducted by the production engineering division of the Aviation and Missile Research, Development, and Engineering Center at the U.S. Army Research, Development, and Engineering Command, Redstone Arsenal, Ala. It represents the first application to a major Army missile system. The purpose of the review was to assess the maturity of the manufacturing processes and materials associated with the design, identify producibility issues early, and assess the program's readiness to transition into SDD.

The conclusion from the EMRL review was that all the manufacturing processes and materials associated with the APKWS design were relatively mature, and no issues would preclude this program from transitioning into SDD. However, given the schedule constraints in SDD and the average unit production cost goals, producibility emphasis would need to be placed on several assemblies in order to meet rate requirements. The most significant concern was with the seeker optics assembly. The design was very complex, consisted of numerous parts, required substantial manual assembly by skilled optics technicians, and was not readily conducive to automated assembly processes. In addition, there were concerns with critical characteristics that made the design difficult and costly to manufacture and prone to breakage in handling and assembly of the optic fibers. The control actuation system also presented producibility concerns because it, too, consisted of numerous parts and required extensive manual assembly. Many of the parts were very intricate, requiring tedious assembly processes, and included an area that required match-drilling operations between two parts. The recommendation from the EMRL review was that several assemblies needed to undergo an extensive DFMA process to reduce the number of parts associated with the designs and to generate ideas that would make the designs more cost effective to manufacture.

The APKWS program has an aggressive 30-month SDD phase and challenging cost targets for the production unit price. These factors drive the need for innovative approaches during the SDD phase like DFMA workshops and other concurrent engineering techniques to quickly and efficiently focus the development team on meeting the schedule and cost targets.

DFMA: Principles and Benefits

DFMA is a process where a cross-functional team concurrently and proactively evaluates a design early in the development process. As a result, attention is given to the manufacturing process associated with a design, and potential manufacturing problems can be averted, thereby reducing manufacturing costs. It also promotes team buy-in and increases organizational ownership. The benefits include a simplified design with reduced cycle times and engineering changes, resulting in a reduced life cycle cost with improved quality.



Advanced Precision Kill Weapon System fired from Apache helicopter.
Artist's rendition courtesy of BAE Systems, Nashua, N.H.

While the program is still in the early stages of final development, the DFMA activities incorporated by the APKWS team have built a strong framework to establish producibility as a priority, overcome upcoming challenges, and achieve overall schedule and cost goals.

A major benefit of DFMA is that it enables product design engineers and manufacturing design personnel to come together and brainstorm the design. The best results are realized when there is a structured approach to these workshops and an independent party facilitates the DFMA process. General Dynamics and BAE Systems selected Boothroyd Dewhurst Inc. to facilitate their DFMA workshops. Boothroyd Dewhurst, regarded as one of the pioneering companies in the area of DFMA, provides initial training on DFMA and has developed several software tools that provide structure to the brainstorming activity and assist in the step-by-step evaluation of the design.

Boothroyd Dewhurst's DFMA® software provides a metric tool for analyzing and evaluating product designs for ease of assembly and manufacturing efficiency at the earliest stages of design. The early and accurate cost understanding provided by DFMA enables product development teams to manage product cost and consider alternative designs. The software is based on two interlocking approaches: design for assembly (DFA) and design for manufacture (DFM).

The DFA software guides engineers to evaluate the functional purposes of each component in the design of a total product. Data accumulate as the engineers question the relationships between items in the design according to the DFA methodology. DFA software also enables the designers to rate each component on its ease of orientation and assembly. The DFA software-generated data guide the design teams to focus on part count to achieve cost reduction through product simplification.

Boothroyd Dewhurst's DFM Concurrent Costing® software identifies the major cost drivers associated with manufacturing and finishing parts; it helps engineers choose the most cost-effective shape-forming process for a part and consider how individual part features might be modified to optimize manufacturing costs. The software contains an extensive library of data for varied materials, operations, and processes. A key benefit of DFM software is that in just a few simple steps, it quickly generates an initial cost estimate at any stage of design.

Longbow HELLFIRE Proves Value of DFMA

The Aviation Rockets and Missiles Project Office and BAE Systems have already experienced the benefits of a successful DFMA exercise on the Longbow HELLFIRE system. In the early 1990s, the program was experiencing difficulty in developing a receiver design that could be transitioned to rate production. In March 1995, the prime contractor, Lockheed Martin, facilitated a DFMA at BAE Systems as part of a cost reduction program. The DFMA methodologies and lean manufacturing activities have contributed significant cost reductions to the program. These initiatives have resulted in reduced parts count, increased test yields, reduced hours per unit by 20 percent, reduced number of operations by 20 percent, reduced layout square footage by 20 percent, and increased production output from 52 units per month to 220 units per month. The Longbow HELLFIRE program has now delivered over 10,000 receivers. The combination of these enhancements has established the program as a cost-effective solution for continued multi-year deployment.

Applying DFMA to APKWS

The APKWS team (the Army, General Dynamics, and BAE Systems) decided on a course of action for DFMA implementation on the guidance section and its major subassemblies, including individual workshops held at the source of the major subassembly or system. A cross-functional team of program managers, design engineers, producibility engineers, manufacturing engineers, design to cost engineers, and assembly technicians was established. Gerry Burke of J&J Engineering facilitated the workshops using the Boothroyd Dewhurst DFMA software.

Key to the success of the workshop is doing the required pre-work to establish a baseline: establishing a level breakdown, developing a product structure including detailed parts lists and data, and generating a complete assembly process. Loading these data into the tool prior to the workshop saves valuable time and accelerates the learning process. The software assigns assembly standards and tooling costs to the individual parts and operations by considering commodity, size, and complexity. The team then reviews the baseline data to find opportunities for part reductions and assembly simplifications. The next step is to agree on the ideas and perform a re-design analysis to determine potential cost savings and quality improvements. A concurrent cost model is then established for both the original and proposed re-designs to identify potential savings. The team agrees on a list of action items to incorporate the ideas developed during the workshop.

This process was instrumental in identifying significant cost reduction opportunities on the control actuator system and the guidance section of APKWS. Several other workshops are planned, and action item closure is being monitored to capture real savings.

DFMA parameters were also used to address producibility concerns on the seeker optics assembly. The team brainstormed alternative designs and fabrication technologies to aggressively reduce the number of separate piece parts in the seeker optics assembly. Fasteners were eliminated. Some parts were redesigned so they would be symmetrical and easier to install. Parts were also designed to be self-aligning, further reducing the complexity of the assembly process.

Early Results Show Promise

While the final results of the DFMA activities on the APKWS will not be fully realized until rate production is achieved several years down the road, the program has already generated several tangible and intangible benefits. The tangible benefits are the incorporation of significant simplifications to the preliminary design: things such as elimination of fasteners, overall parts count reductions, redesigns for ease of assembly, and self-alignment features. In addition, numerous ideas are still being evaluated. The intangible benefits have been the establishment of a true concurrent engineering environment for this program that has resulted in overall team buy-in and ownership and improved communication. While the program is still in the early stages of final development and several challenges remain, the DFMA activities incorporated by the APKWS team have built a strong framework to establish producibility as a priority, overcome upcoming challenges, and eventually achieve overall schedule and cost goals.

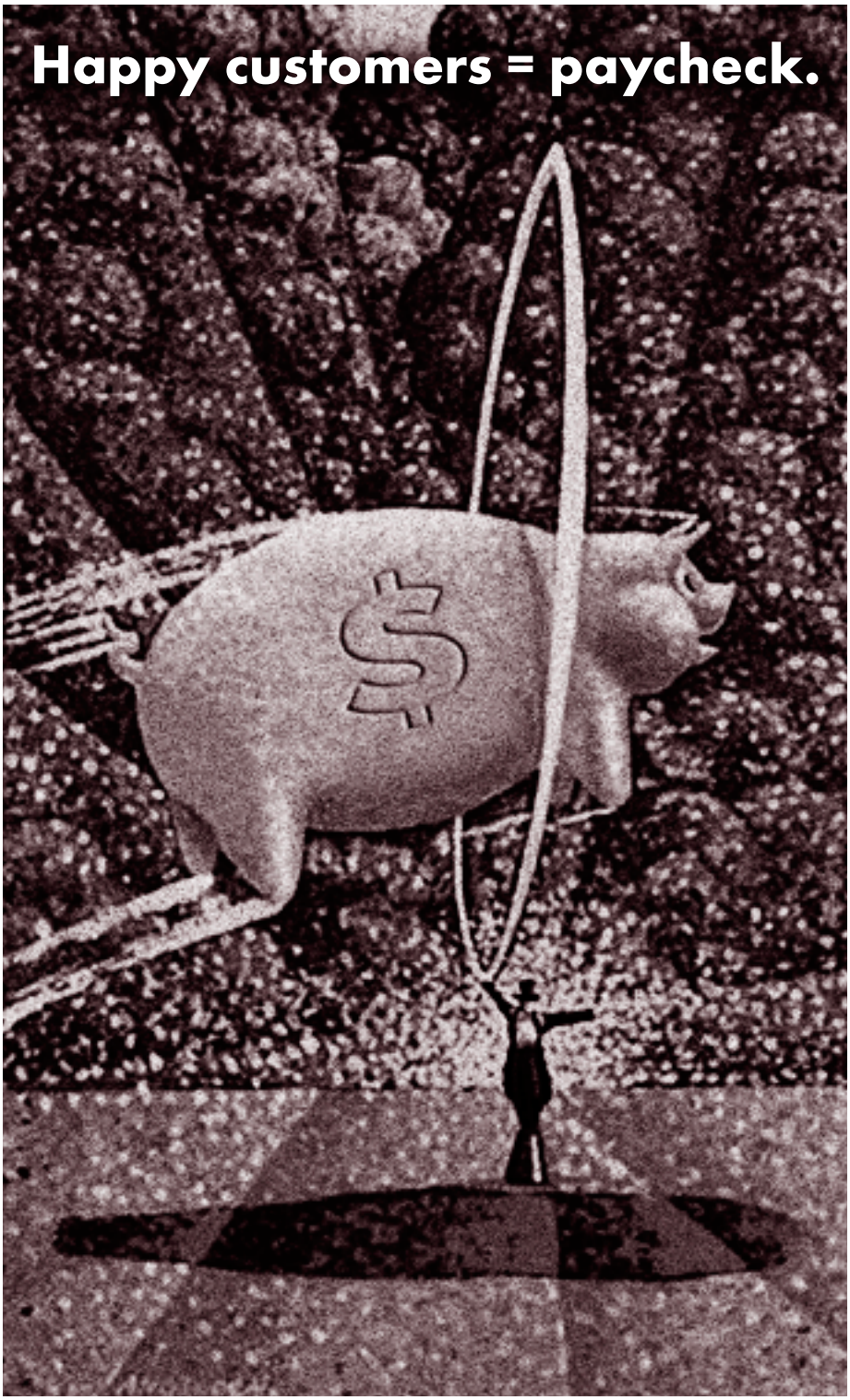
Editor's note: The author welcomes comments and questions and can be contacted at charles.s.watts@us.army.mil.

The author acknowledges contributions from Fritz Gordon of the Aviation, Rockets, and Missile Project Office; Ron Payson and Steve Griffiths of General Dynamics Armament and Technical Products; Kim Cadorette and Joe Tiano of BAE Systems; and Nick Dewhurst and John Gilligan of Boothroyd Dewhurst Inc. For further information on APKWS, contact Carol Frazier, project manager, aviation rockets and missiles, carol.frazier@msl.redstone.army.mil.

Keeping Your Customers Happy

A Customer Service Refresher

Elizabeth A. Lunch



What do program managers, professional sports teams, doctors, and circus clowns have in common? That's right! Customers! Unless you're a professional (or even amateur) hermit, you deal with customers. You need them to keep you and/or your organization in business, which in turn gives you a paycheck.

Happy customers = paycheck.

If you keep your customers happy, you'll have repeat business and repeat paychecks. Does this sound like a plan?

Who Are Your Customers?

Have you, as a program manager (PM) or supervisor, thought about who your customers are? You may not realize it, but you have customers internal to your organization. Your boss, your boss's boss, your peers, your teammates, your secretary, the phone guy, the janitor—everyone with whom you come into daily contact. Keeping internal customers happy will give you untold dividends. You may never know how you change someone's life through your little niceties, but someone, somewhere will. It's the concerned listening to someone's problem, the "Hey, how's it going?" or the box of candy you brought in for everyone for no special reason that garner good will.

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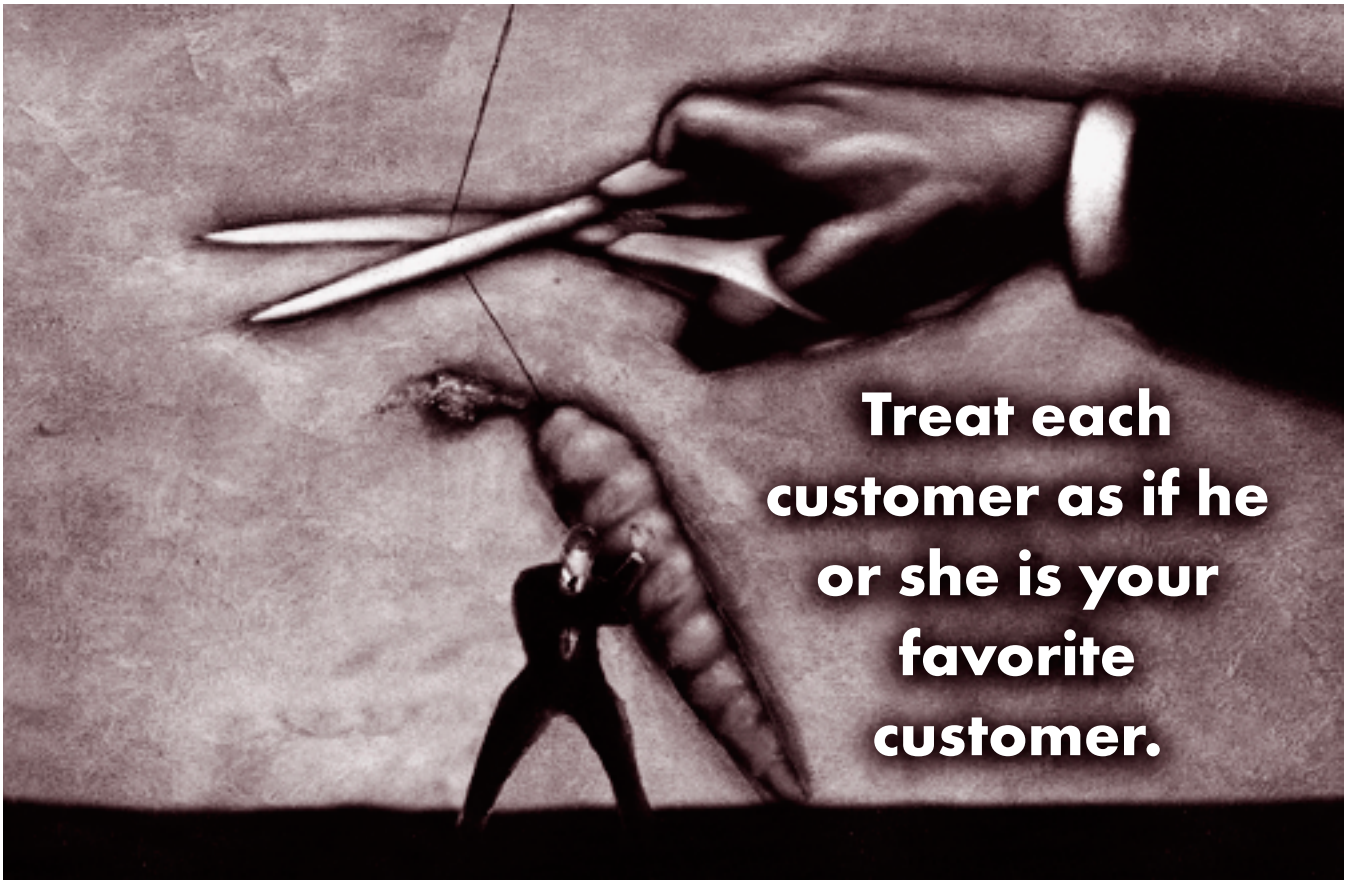


Your external customers are, of course, those people or organizations with whom you do tangible business—the receivers of your products and/or services. How do you treat these people? Maybe you're not thrilled to have to deal with Col. Blowhard from NAGCOM, but since he funds half of your budget, you'd better practice your happy dance (or at least project an enthused voice) when he calls.

Every Customer is Your Favorite Customer

Treat each customer as if he or she is your favorite customer. Put enthusiasm in your voice when Favorite Customer calls you for the 75th time in a week asking where his document or her training device is. It's tough to be cheerful all the time, but put your best attitude out there. Nobody wants to deal with a cranky, grouchy, bad-asp (you know, Cleo's snake) attitude. Remember that happy dance? (By the way, if a customer's called 75 times, what did you do after the other 74 calls to resolve the problem?)

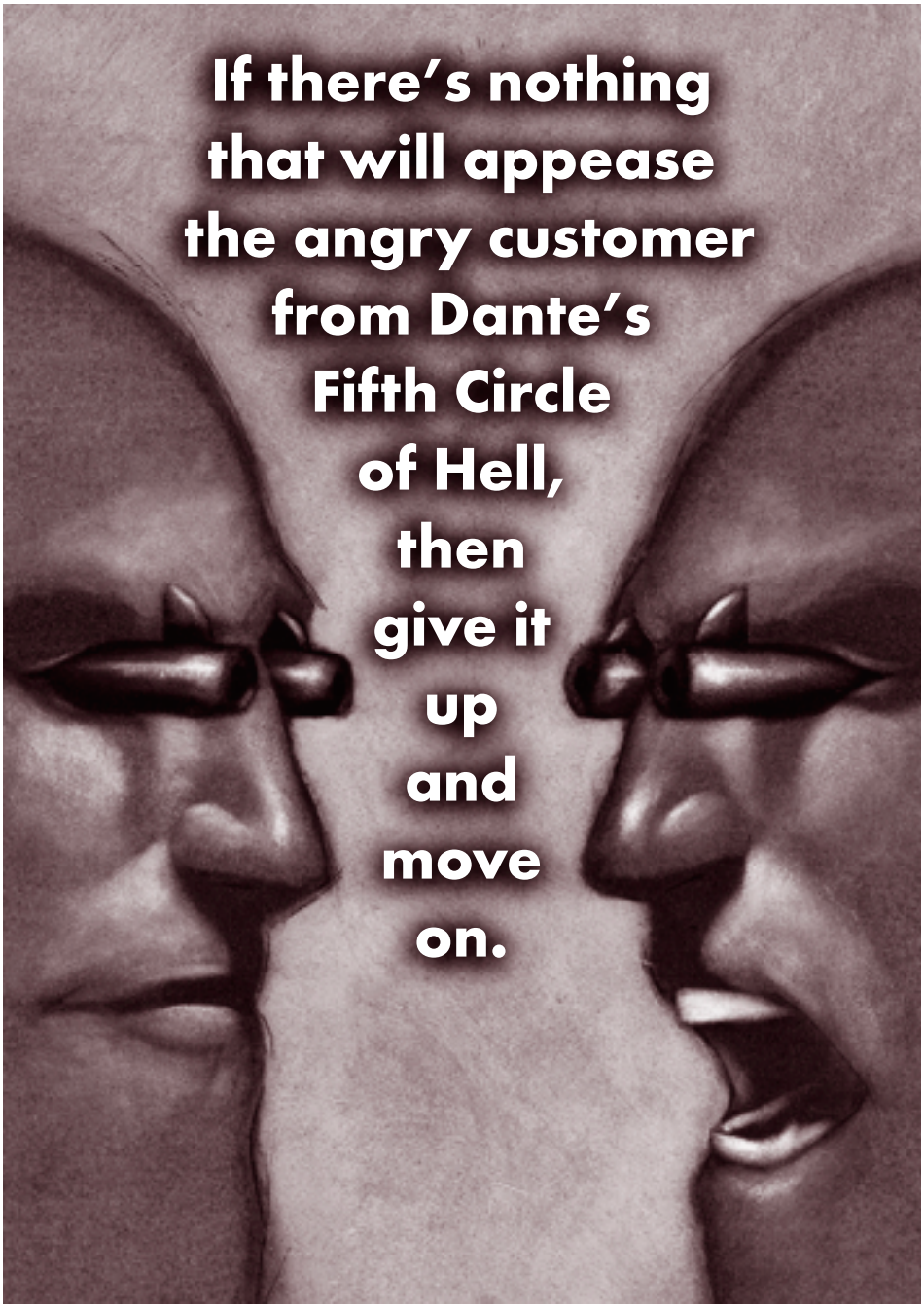
Never say "never," "no," "can't be done," "it's policy," "it's against the rules," "you're wrong," "well, duh," or anything of that ilk to the customer. Find a positive way to state negatives. You may *want* to say, "You can't direct us to give you that report at the end of the month (our busiest time) and expect us to jump right on it. Whaddya think we are—your personal staff?" But instead, in your most professional, dulcet tones, you *do* say something like, "Though it will be difficult to prepare that report quickly because of end-of-the-month obligations, I will try to rearrange the workload and see if we can't accommodate you as quickly as possible." Then do your best. And, of course, never promise anything you can't deliver.

Remember what two-year olds are taught. Say "please," "thank you," and "you're welcome," however much of a hurry you're in. Everyone appreciates courtesy, especially paying customers, and the least you can do is say "thank you" as you whisk their money away to the company coffers.

Take soft skills refresher training frequently, even if you are the company instructor. Soft skills are the "make nice with the customer" abilities that can make or break your business. Call the customer by name, offer a cup of coffee, and chat informally for a few minutes.

Watch What You Say

Consider generational and knowledge gaps as you communicate with a variety of customers. To the battle command director, the 22-year-old software engineer on your team may be speaking gibberish even though he's probably perfectly understandable to another engineer. As the PM, make sure communication is occurring. Check eyeballs often for that deer-in-the-headlights stare of incomprehension.



trying to get new or continued business. It may well be that Crystal has an IQ that would rival that of a turnip (no maligning of turnips intended), but keep your opinion to yourself.

The Customer from the Black Lagoon

There will be times when you just can't please a customer. The product wasn't right, the report wasn't written quickly enough, it rained the day the device was installed, your suit was garish, Mars wasn't aligned with Jupiter—whatever. You've apologized and tried to make amends. Nothing worked.

As a manager, you know that your people are your most valuable asset. With your talented staff, you should be able to get more business, but it's hard to replace dedicated workers. If there's nothing that will appease the angry customer from Dante's Fifth Circle of Hell, then give it up and move on. Your people are more important.

Keep a record of your best and worst customer experiences. Analyze how they could have been better handled (even the successes). Make a "lessons learned" file on your company's intranet that's available to all of your staff. Frequently update the file with new situations, and try to ensure there are no repeat problems. If Ralph is still promising ridiculous things to customers because he'd rather be bungee jumping, then help him jump on out the door.

Always look your customer in the eye, and pay attention to what's being said. Don't let your gaze or your mind wander—and keep an eye on your teammates. You really don't want your logistician, Ralph, to say, when asked if you can ship 20,000 collimators overnight from Pomona to the Horn of Africa, via Fort Drum, "No problem," because he just zoned out from Planet Earth and you didn't notice.

Never criticize anyone on your team to anyone inside or outside the organization. Why? Because that dunce Crystal might be Uncle Fred's favorite niece. And the person you're talking to might play golf with Uncle Fred. And Uncle Fred could be Gen. Fred at the post where you're

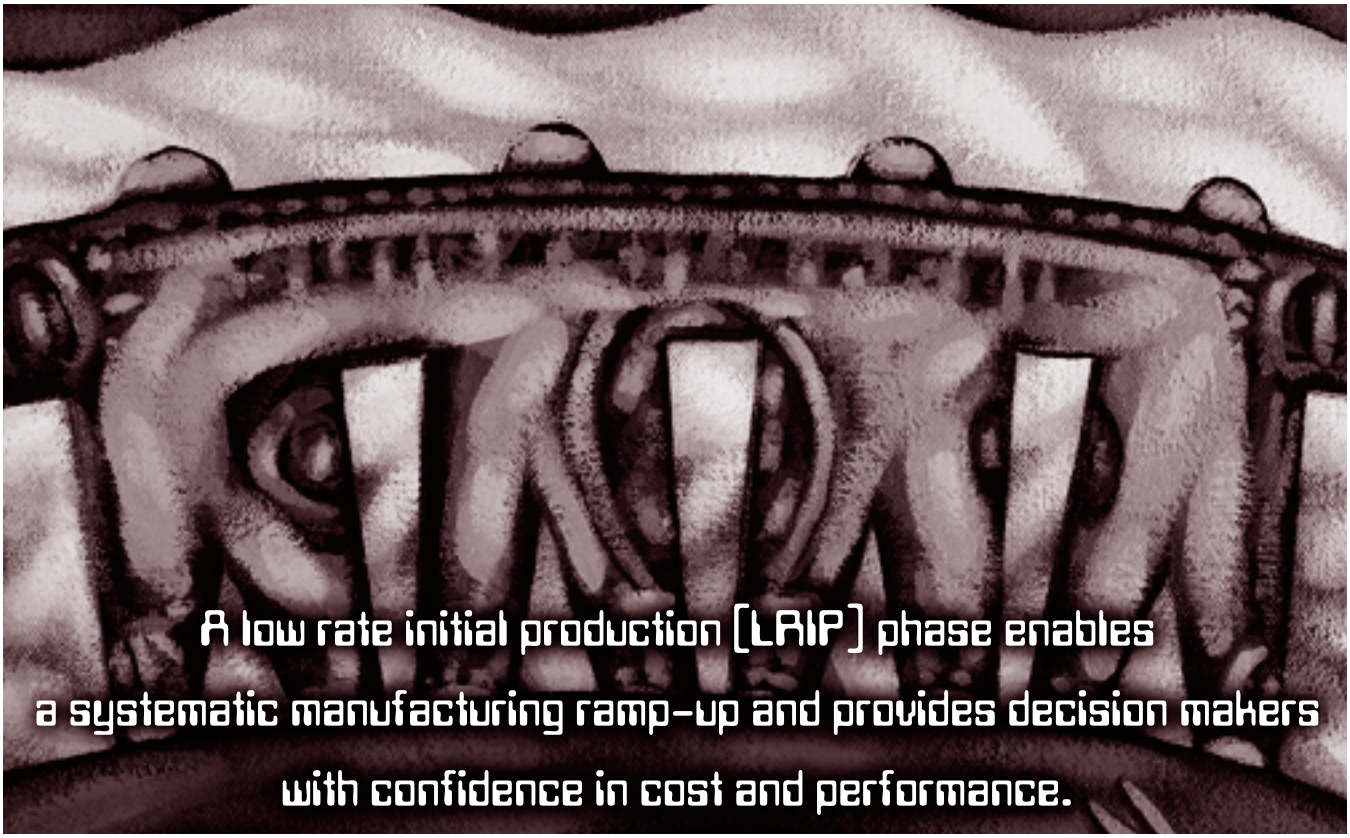
Nothing Personal

Remember, it's just business—it's not personal. Whether you work alone or are part of a team, you're a professional who can deal with anyone the business throws at you. Keeping customers happy isn't always an easy job, but it can be less difficult if you keep a cheerful, can-do demeanor and treat them as you would treat yourself.

Editor's note: The author welcomes comments and questions. She can be reached at betty.lunch@peostri.army.mil.

Low Rate Initial Production Quantity Determination

Jack L. Strauss ▪ Robert T. Dorr



Maximizing value to the warfighter comes through rapidly achieving efficient product delivery rates that minimize program cost and schedule. Full rate production statutory and regulatory requirements, which were designed to assure meeting performance requirements before deployment, can delay efficient production and increase program cost. A low rate initial production (LRIP) phase enables a systematic manufacturing ramp-up and provides decision makers with confidence in cost and performance. LRIP quantity determination can be straightforward; however, it may also be difficult to balance the needs of all stakeholders. Understanding the role of the LRIP provision creates a basis for quantitative analysis leading to an equitable approach to quantity determination. The result should maximize the benefits of LRIP, while minimizing program cost, schedule, and execution risks and impacts.

Discussions of LRIP are usually replete with acrimony and misconception. Most major system program managers have been told (or assume) that LRIP quantity is 10 percent of the production quantity. But this is a guideline, not a rule. Further, the interrelationship between the operational test and evaluation (OT&E) requirements and the PM's program strategy development and planning as approved by the Milestone Decision Authority (MDA) is also often confused. The test community wants to make sure the product is right and minimize the dollars spent on non-performing systems. The MDA wants to field the best capability as soon as practical and at minimum cost. Understanding the role of the LRIP provision limits the conflict and provides boundary conditions for quantitative analysis. The quantitative analysis will, in turn, provide decision support in maximizing the benefits of LRIP while minimizing program schedule and cost impacts.

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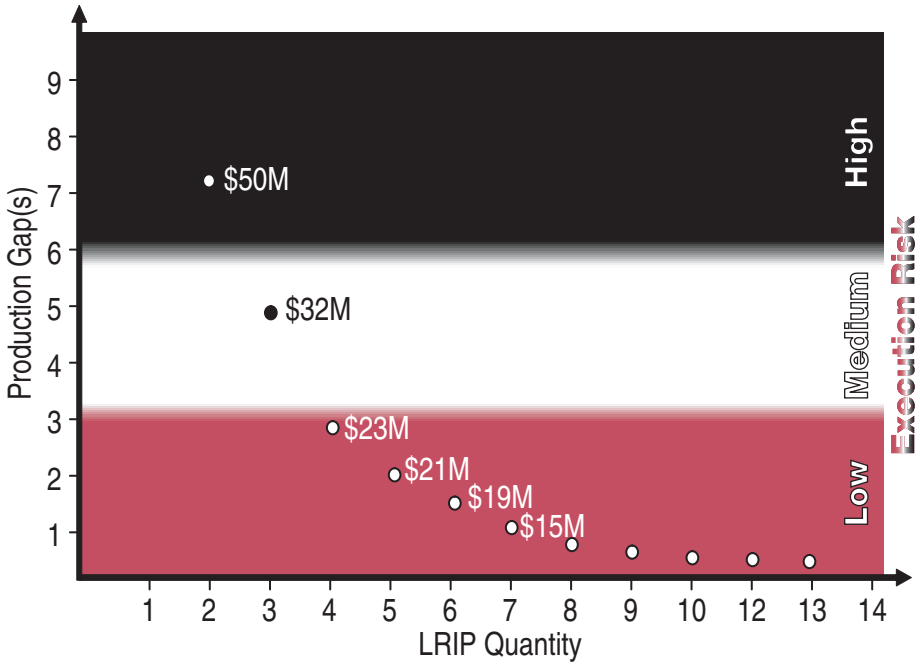
LRIP Quantity Impact Analysis Summary



Understanding LRIP

Title 10 of the United States Code defines the role of LRIP as determining the minimum quantity of articles necessary to:

- Provide production configured or representative articles for operational tests
- Establish an initial production base for the system
- Permit an orderly increase in the production rate for the system, sufficient to lead to full-rate production upon successful completion of operational testing.

Sections 2399 and 2400 of Title 10 address LRIP quantity determination from the perspectives of the director, OT&E (DOT&E), and MDA respectively. The two sections define the acquisition responsibility/authority and control process in which the LRIP quantity is determined. Section 2399 provides for the DOT&E to establish the quantity of articles required for operational testing; Section 2400 provides for the MDA to determine the quantity of articles to be procured as LRIP. The MDA's determination (architected by the PM) must consider factors that include the OT&E requirement as well as program risk and cost effective program execution. The two quantities will almost always be different, with the MDA's selection usually being higher to provide additional production units above the minimum DOT&E quantity. At times, the MDA number exceeds 10 percent of the production quantity.

The 10 percent guideline provided by the law is just that: a guideline, not a fixed maximum or minimum. The nature and structure of the program must be considered and analyzed to weigh the requirements of the acquisition process constituents, while balancing cost, schedule, risk, and execution performance of the program. The law states explicitly that if the quantity exceeds 10 percent of the total number of articles to be produced, the secretary of defense must include in the statement (part of the first selected acquisition report) the reasons for such quantity. While the law further defines special cases for ship and satellite acquisitions, this article doesn't specifically address those issues.

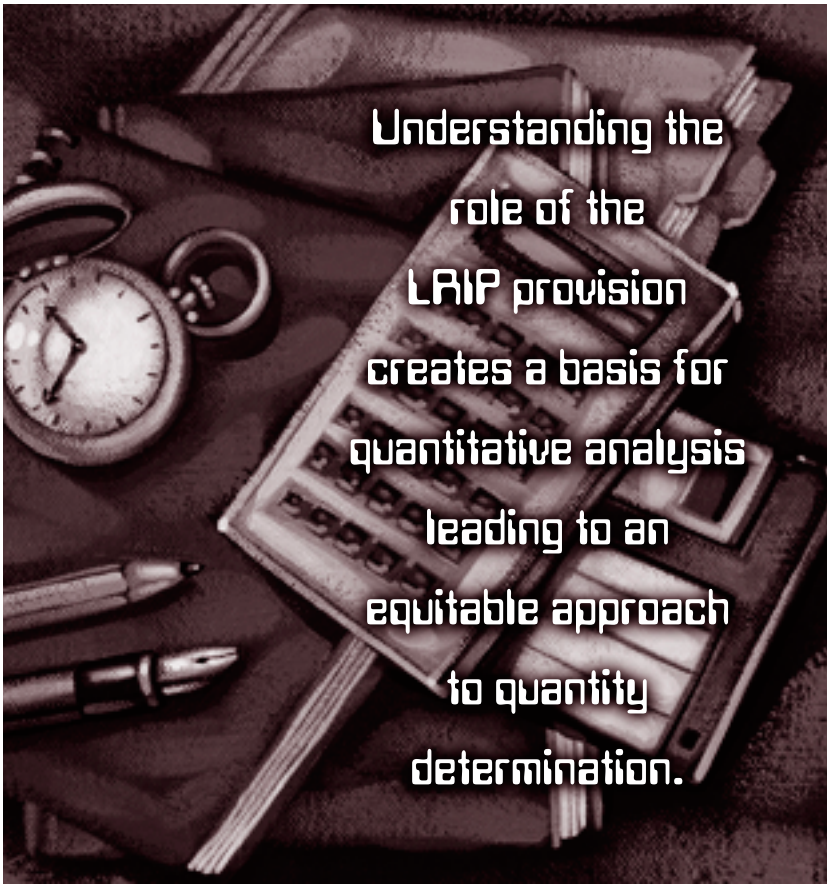
The traditional approach to LRIP determination goes something like this: First take the DOT&E requirement and add the quantity the program requires for transition to production; second, see if that the number is less than 10 percent of the total production quantity, and if it is, press on. But what if the number is greater that 10 percent, or the production lot size is small—so small that 10 percent makes no programmatic or economic sense? Or what if the resulting production break seriously and negatively impacts the program cost and risk? This is where the acrimony begins, and the resulting negotiations with constituents of competing priorities usually serve to harden their positions.

A Quantitative Approach to LRIP

A method successfully employed on a recent major defense acquisition program (MDAP) acquisition category (ACAT) 1D program used a quantitative approach. [*An ACAT ID is one for which the MDA is the under secretary of defense (acquisition, technology and logistics).*] The program was an electronics modification effort to a small fleet of combat assets. Program schedule was constrained to meet an external statutory mandate. The high-cost technical infrastructure required for development and testing was at risk of going idle and accruing cost if an extended production break occurred. The DOT&E requirements were met within the 10 percent guideline, but the cost and schedule impact risk of the anticipated production break had initial LRIP estimates as high as 80 percent of the production quantity (because of the small fleet size) to eliminate the production gap.

The method took the form of a risk analysis incorporating expected monetary value (EMV) techniques for management decision support. The steps of the analysis generally were as follows:

- Develop an integrated master schedule (IMS). The level of IMS detail must provide prime and subcontractor de-



velopment, lead time, fabrication, assembly, test, and installation activities with well-defined resource utilization and cost deltas.

- For decreasing LRIP quantities, starting at a quantity that does not cause a production break, determine and document the length of the production break for each LRIP quantity.
- Determine the cost or delta cost from a baseline of the LRIP and production phases of the program for each scenario.
- Assign risk metrics (high, medium, low) to qualitative factors such as parts obsolescence per unit time (e.g., 0–3, 3–6, above 6 months) and skilled worker retention per unit time (e.g., 0–3 months, 3–6 months, above 6 months).
- Lay out the resultant data as shown on page 49.

At this point, we can use EMV techniques to establish a cost-avoidance, worst-case value. Let's assume the development effort was on the order of $100 million and that the probability of OT&E's surfacing a deficiency that would cause a total redesign of the item is 50 percent. Then by EMV, we have a $50M risk ($100M x 50 percent = $50M). This is clearly an extremely conservative worst-case scenario, but it's what was actually used for this analysis.

Keep in mind that the combined Title 10 Section 2399/2400 goals are structural (program) risk reduction with checks and balances—that is, structuring the program such that maximum risk reduction/avoidance results. In this case, the underlying concept is to reduce the commitment to early production activities until OT&E reports suitability for use. We established above that the worst-case risk value we attribute to the OT&E activities is $50 million. The price paid for this risk reduction is the resulting production gap that accrues from the LRIP. With the data laid out as we did on page 49, we can now clearly determine how much we want to pay for this "insurance policy." Is it reasonable to pay a $50 million premium for an insurance policy with a $50 million payoff, while at the same increasing program execution risk (high) because of the qualitative factors of parts obsolescence and skilled worker retention? Definitely not. How about a $24 million premium and lower risk? Perhaps. It's important to remember that the cost outlined above is only the cost accrued to the production gap; other costs associated with OT&E testing and other government fixed and variable costs during the testing and gap period must be accounted for too. The method provides a way to structure and depict complex and interrelated data such that a decision maker can clearly visualize cost, schedule, and program execution risk issues in a single illustration.

For our example, it was determined reasonable to set the LRIP quantity to four, which represented 20 percent of total production and maximized the goals of and benefits to the OT&E team, while reducing the cost, schedule, and program execution risk to an acceptable level. There are no generally accepted guidelines for addressing reasonable EMV impact resulting from LRIP. This means each case is a negotiation. Methods as described in this paper increase clarity by simplifying the analysis and presentation of LRIP quantity determination.

Major system PMs have to address many issues in developing and coordinating their program plans and accomplishing their acquisition milestones. LRIP quantity determination is one key aspect of program planning. A quantitative risk analysis approach based on IMS and EMV and risk assessment techniques will result in an LRIP quantity that is clear, defendable, and that maximizes the benefits of the provision for LRIP, while minimizing the cost, schedule, and execution performance impacts to programs.

Editor's note: The authors welcome questions and comments. Contact Strauss at jstrauss@xcelsi.com and Dorr at robert.dorr@ngc.

U.S. Navy Bureau of Medicine and Surgery: Leaders in Implementing Wide Area Work Flow

Abhijit Dhumne ▪ Stanley G. Wade

In fiscal year 2001, the Department of Defense (DoD) paid $36 million in interest penalties to its vendors, making a clear case for an improved invoicing process with higher data efficiency. To meet this need, Section 1008 of the 2001 National Defense Authorization Act requires that claims for payment under a contract be submitted in electronic form. A 2002 memo from the under secretary of defense (comptroller) stated the goal of reducing interest penalties in fiscal 2003 by 40 percent from the fiscal 2001 amount.

In fiscal year 2001, the DoD paid $36 million in interest penalties to its vendors, making a clear case for an improved invoicing process.

Based on that directive, the U.S. Navy Bureau of Medicine and Surgery (BUMED) began the deployment of wide area workflow (WAWF) in early fiscal 2003. The BUMED WAWF team is steadily moving toward the implementation of WAWF at most BUMED sites. In nearly two years, the number of BUMED sites using WAWF has increased from only three in October 2002 to 32 in June 2004, and the total number of invoices received per month through WAWF has increased from 60 in October 2002 to 1,436 in June 2004. Out of all the Navy claimancies, BUMED currently has the largest number of invoices received and paid using WAWF.

A Cumbersome, Out-of-date Paper Billing Process

BUMED's paper-based billing process is considerably outdated (Figure 1). The requiring activity or organization contracts with a vendor to perform services or deliver goods, then various documents (e.g., the contract, invoice, receiving report, and certifying report) are generated. In the standard process, the activity requiring the supplies or services is, in many cases, different from the activity contracting. Many BUMED activities recently went through a reorganization of their contracting procedures, resulting in some losing their contracting authorities as part of the consolidation. In such cases, the customer provides the purchase requisition to the contracting officer, who in turn administers the contract. Upon contract award, the vendor provides the goods or services to the customer. Depending on the funding source, the invoices are sent to the requiring activity, the contracting activity, or directly to the Defense Finance and Accounting Service (DFAS) by mail, e-mail, fax, courier, or in some cases, the vendor will drop the invoices off in person. Sometimes the vendor provides the supporting documents, such as receiving reports, time sheets, travel receipts, or DD250s (material inspection and receiving reports). The government staff are required to coordinate the goods or services receipt internally and to obtain acceptance from the customer. To confirm the quantities, price, and other details, staff must refer to the contract award document.

The next step is to certify the invoices according to the funding document. Each line item on the invoice needs a long line of accounting to specify the funds. The certifier (a.k.a. the voucher examiner) must check the particular accounting system—for instance the standard accounting and reporting system field level (STARS FL)—to make sure there are funds obligated to the contract/delivery order then complete and sign a "cert sheet." Usually three to five copies of the cert sheets and invoices are distributed within the activity and kept for recording purposes. The originals are mailed to the DFAS office for pay processing. At DFAS, the commercial vendor billing staff manually keys the invoice data into the pay system. If funds are available and the proper accounting data are

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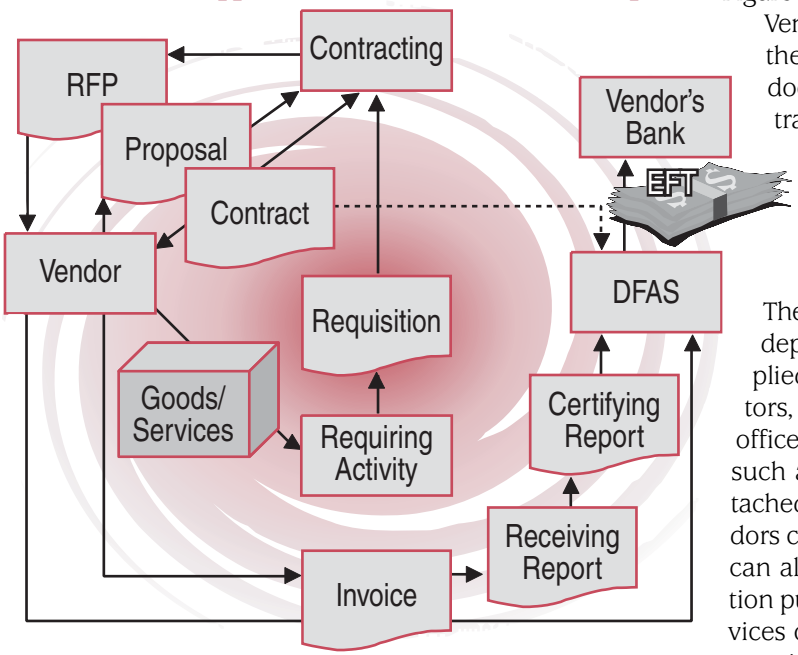
FIGURE 1. **A Typical DoD Procurement Cycle**



provided by the activity, the DFAS office transfers the allotted funds to the vendor's bank via electronic funds transfer (EFT) within the pay terms specified in the contract (for example net 30 days). But if there are paperwork errors or the activity has not provided correct or complete data, the vendor doesn't get paid in a timely fashion, and the government acquires interest penalties under the Prompt Pay Act.

The current paper-based invoice certification process has the potential to cause frustration and inefficiency all round. There is no oversight for vendors, resulting in calls to the receipt control department to check the status of invoices and payments. Coordinating a receiving report with the departments/branch clinic is taxing on the voucher examiners. Laborious processes, such as paper tracking, mailing, and photocopying, reduce everyone's overall productivity.

Faster, Simpler, More Accurate Electronic Invoice Handling

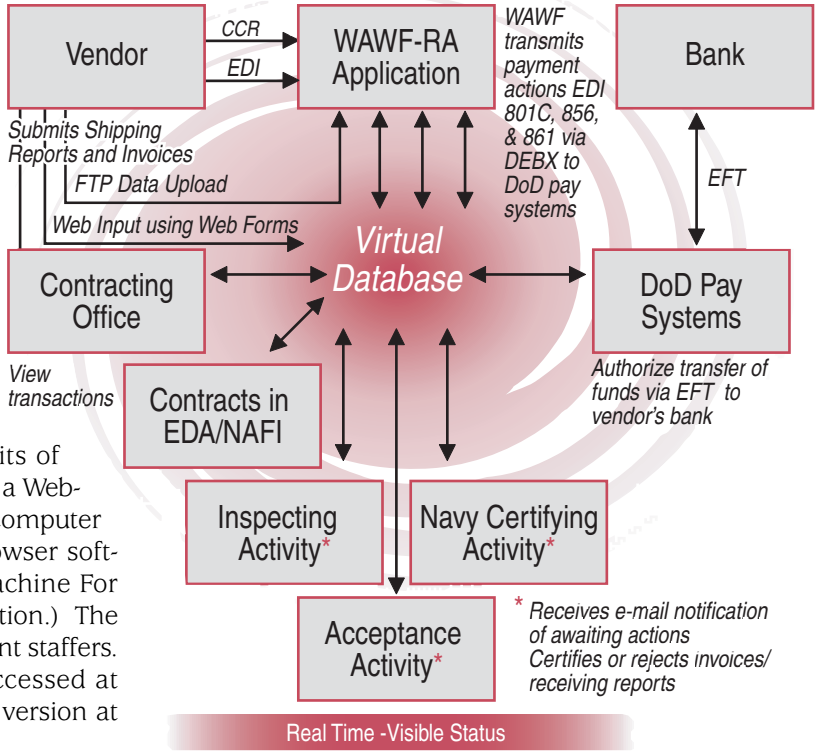
BUMED decided to implement the WAWF system to reduce the prompt pay interest penalties and to realize the all-round benefits of speedy electronic invoice processing. WAWF is a Web-based system that can be accessed from any computer with an Internet connection and specific browser software. (Refer to the link "Setting Up Your Machine For WAWF" at <https://wawf.eb.mil> for information.) The use of WAWF is free to vendors and government staffers. The production version of WAWF can be accessed at <https://wawf.eb.mil/>, and the training/test version at <https://wawftraining.eb.mil>.

Figure 2 shows the WAWF invoice certification process. Vendors submit the invoices either manually into the Web-based system or by mapping electronic document interchange (EDI) to WAWF, or using file transfer protocol (FTP). The system acknowledges the invoice submission and stores it. The workflow then triggers notification e-mails to the acceptors, certifiers, or pay officials, depending on the type of invoice.

The invoice data remain in the database server, and depending on the invoice routing information applied by the vendors, can be viewed by the inspectors, acceptors, certifiers (a.k.a. the local processing officers), and/or pay officials. Supporting documents, such as timesheets or shipping records, can be attached to the invoice in any type of file format. Vendors can create several different types of invoices and can also add comments to the invoices for clarification purposes. Limited by their pay office and the services or supplies they offer, vendors can create commercial invoices, services invoices (services 2-in-1), supply invoices (combo: receiving report and invoice), and/ or cost vouchers, etc. Government local processing officers can administer invoices in real time. If an invoice is rejected, the vendor can correct and resubmit it quickly.

Any legitimate WAWF users with passwords and access to the Internet can observe the documents for their associated activities. Users experience a reduction in laborious, error-prone re-keying of information since some

FIGURE 2. **The WAWF Business Process**



Vendors Talk About WAWF Invoicing

Tonya Sauls, Naval Hospital Jacksonville, says, "I've thoroughly enjoyed using the WAWF system instead of the paper system. I am able to quickly look up past invoices and keep track of payments with much ease. It has reduced the amount of paperwork I have to do and it is much more confidential. With the paper system, there was always a possibility of someone getting a peek at my charges. The only down side is that WAWF takes a little longer since all of the blanks have to be filled in. However, the pros significantly outweigh the cons."

Nancy P. Walsh, head of the contract services department logistics directorate at the National Naval Medical Center Bethesda, and the WAWF group administrator and acceptor, enjoys the availability of the implementation team, describing implementation as "seamless and transparent." With the new electronic process, the margin for human error is gone since the system finds the errors. "I love WAWF. It has simplified our lives incredibly and made our invoicing so clean and clear," Walsh says

Initially skeptical of the upcoming WAWF implementation at the Naval Medical Logistics Command (NMLC), Chris Cullen quickly changed his opinion once he experienced the WAWF advantages. "WAWF has a direct impact on reducing interest," he says. "Before implementing WAWF, NMLC was always near the top of the list in BUMED for interest payments, but since implementing WAWF, we have steadily dropped on the list. It [WAWF] saves both time and money, and the vendors I deal with love the system because it is easy to use, and they get paid a lot faster."

fields are pre-populated with information drawn from the electronic document access (EDA) contracts database. WAWF completely automates the process of submission, inspection, acceptance, certification, and payment. Chris Cullen of Naval Medical Logistics Command in Fort Detrick, Md., says of WAWF, "I have more time to devote to other areas of my job rather than spending the time certifying invoices manually."

Vendors can view the status of their invoices in the WAWF system. The workflow keeps the vendor abreast of every action taken by the government (inspection, acceptance, certification, etc.), reducing the number of vendor calls to the receipt control staff. The system is up and running 24 hours a day (with occasional pre-announced downtime for updates or maintenance).

After invoices are accepted and certified, they are submitted by EDI to the DFAS One Pay system. If all the provided accounting and invoice data are correct, the invoice is put into "Q" status, and is scheduled for pay based on the contract terms—for instance, net 30 days. At this stage, vendors can view the payment distribution data at the <www.dfas.mil> Web site under the "Commercial Vendor Pay" link.

Proof in the Savings

In addition to improving the productivity of the staff, WAWF provides direct and immediate financial savings to the Navy. The invoices are processed in real time, so prompt pay interest penalties are very unlikely. In fact, in January of fiscal 2004, such payments were only $9,935.00 as compared with $48,210.00 in fiscal 2003, saving nearly $38,279.00.

Other direct savings are realized in the reduction of the service fees paid to DFAS. For fiscal 2005, BUMED will pay $3.66 per line of account (LOA) for electronic invoicing using WAWF versus $19.08 per LOA for paper invoicing. BUMED processes nearly 60,000 paper invoices every year, so if all invoices were submitted in paper and with an average of three CLINs (contract line item numbers) per invoice, the service fee cost to the Navy would be about $3.43 million. But if all the invoices were processed through WAWF, the paperless alternative, the service fees would drop to $658,800.00, saving approximately $2.78 million per year.

A Win-win Solution

With BUMED's implementation of WAWF, the process of accepting and certifying invoices from vendors becomes simpler and more effective, resulting in an increase in the efficiency of government and vendor staffers and a continuing reduction in interest penalties and service fees paid to DFAS.

The efficiency of WAWF lies in its inherent accessibility, simplicity, and accuracy, making it a suitable invoicing answer for most government contracts. The advantages to the vendor and the government are clear. Vendors create and submit the invoices as they would normally, have a continuous connection to the status of the invoice, and are paid more promptly. The efficiency of the government acceptors and certifiers increases and the prompt pay penalties decrease.

Editor's note: The authors welcome comments and questions. Dhumne can be contacted at adhumne@universal-inc.net and Wade at sgwade@nmlc.med.navy.mil.

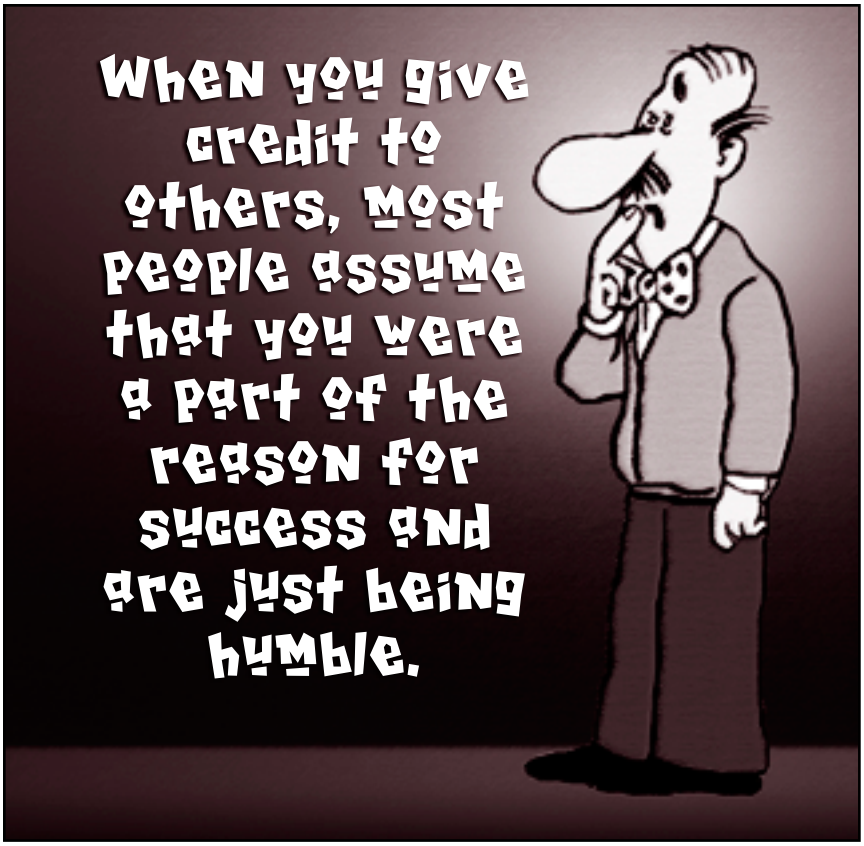
To learn more about WAWF and its implementation, visit <www.nmlc.med.navy.mil/gov_only/acquisitions/bumed_wawf/wawf.htm> or e-mail wawf@nmlc.med.navy.mil.

The processes, documents, systems, and interfaces referred to in this article are pertinent to the BUMED claimancy only.

Dear Wayne ...

Advice from the PM Trenches

Wayne Turk



As a project manager and someone who has been around for a while, people frequently ask me for advice. Whether you are new to the workforce or a seasoned employee, the following pointers can help you do a better job, move up in the organization, and keep out of trouble. For you managers, they may also be worthwhile ideas to pass on to those who work for you. At the worst, the suggestions won't hurt and, I hope, will help someone during a working career. Most of my tips come from my own experiences (not always positive experiences, I have to admit). Why not learn from my mistakes or those that I have seen, rather than making them yourself?

Take the jobs that nobody else wants

How to stand out and maybe even become the office shining star: Take on the jobs or projects that nobody else wants—those that are difficult or the ones where others have failed.

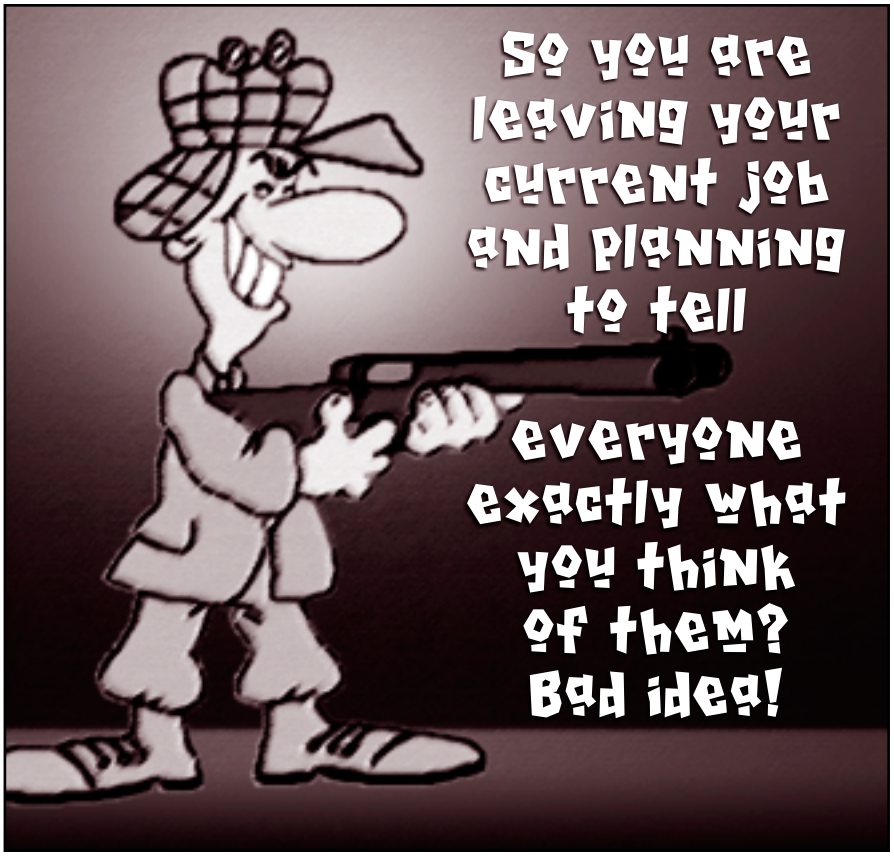
Some people shy away from taking on a project where others have had problems. They don't want to taint their records with possible failure. But it's actually a win-win situation. If you *do* find a way to achieve success, you'll make a name for yourself. If you don't, nobody expected you to anyway—but if you've made a significant effort, the boss will notice your hard work (assuming that he or she is a good boss). A warning, though: Don't take on one of these jobs or projects and just kiss it off because you know you aren't expected to succeed. That won't help you at all and may hurt you.

I can think of one young man who was assigned to be the coordinator for charitable contributions for a government organization. It was considered a trivial job by some and a lot of work for no real reward. He got the job because he was the new guy, and nobody else wanted it. He didn't either, but once he was assigned the job, he decided to give it his best effort. He ended up surpassing the organizational goal by a large percentage. Not only his boss noticed, but other senior managers did too. It wasn't long before the young man was tapped for another project, this time a desirable one that many others *did* want. He was given the project because he'd been noticed for his hard work on the charity drive. He went on to become a success with a number of promotions along the way. All because of the jump start that he got from doing a good job on that one project that no one else wanted. Of course, he also continued to work hard, and that helped.

Don't burn any bridges

So you are leaving your current job and planning to tell everyone exactly what you think of them? Bad idea!

Turk *is a retired Air Force lieutenant colonel and a project manager with SRA International. He has provided consulting and supported projects for DoD, the military services, other federal agencies, and non-profit organizations.*



It's a very small world out there. Unless you have won the lottery and are going off to live in splendor, there is too much chance that you may need some of these people in the future, that you'll see them professionally or socially, or that they'll know someone in your new job or the one after. At most, it is seven degrees of separation between any two people in the United States, and if you are staying in the same field or place, it can be a lot fewer than seven. People remember and—innocently or maliciously—may say something that could damage you or your reputation. Why take the chance? Even if you are changing professions and geographic locations, don't burn any bridges. The good feeling you get from telling off one or a few people is temporary, and it's not worth the potential repercussions. The same goes for other scenarios that involve doing something based on your emotions that others might perceive as unprofessional.

Reach out a helping hand

Be willing to assist others, especially if you have knowledge that can help them do their jobs.

Helping others shouldn't be allowed to negatively impact your own work, but taking the time to assist coworkers usually has a very positive payback. Answering questions, providing ideas, editing a document, helping on someone else's project, mentoring, giving advice, welcoming a new person into the organization and helping him or her get settled—even something like helping to move furniture—all make others feel in your debt. Then they are more willing to help you when you need it. And you *will* need help at some point. A helping hand doesn't only support the person you helped, but it also helps your organization. All of that reflects well on you.

Give credit, don't take it

Learn to give accolades to those around you when they do something good or are helpful to you. This goes for recognizing the contributions of those under you and your peers. It it especially true for managers but also pays dividends no matter where in the chain of command you fall.

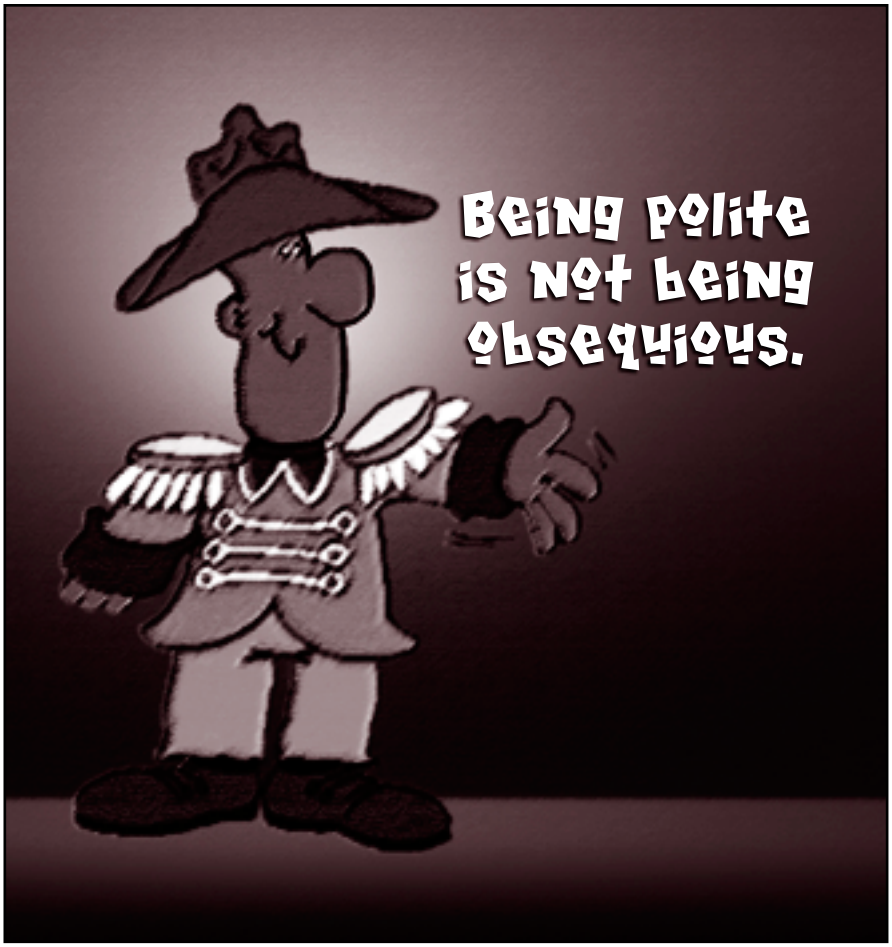
Be quick to share the credit for a job well done. Trying to hog the credit for an idea or a successful project might get you recognition or help you move up in the short run, but it certainly won't help over the long term. Word will get around, and people won't want to work with you on the next project. Another thing: When you give credit to others, most people assume that you were a part of the reason for success and are just being humble. Perceived humility is a good thing. Perceived egotism for claiming the credit due others is not.

In the same vein, a letter or e-mail or private word of appreciation to the boss of someone who has done something significant or helpful can really win friends and influence people. If you choose letter or e-mail, don't forget to copy the person about whom you're expressing appreciation. It takes only a few minutes, shows your professionalism and lets the helpful person know you did something nice in return.

Be creative, and speak up

I heard a story many years ago about a too-tall truck that got jammed in an underpass on a military base. All the senior people stood around giving their ideas on how to get the truck out. The ideas weren't practical, and all involved doing damage to the truck or the underpass. Finally, a very junior person spoke up. "Why not let air out of the tires," he said. "That will lower the truck and allow it to be backed out." It was a simple, creative, and practical solution to the problem that impressed his boss and got the man a promotion.

When you have ideas, speak up. It is always a good practice to look for ways to make improvements. Whether it's processes or products, almost anything can be improved. Don't be obnoxious about it, but don't hold back for fear of rejection. Make sure that you have your case built and



can present it coherently. Even a suggestion for change that is rejected initially sometimes plants a seed that will bear fruit later.

Change is difficult, and people can be very hesitant. If you are the manager, listen to suggestions. A suggested improvement from one of your people can make you look good too if it is put into practice and is successful. One of the worst reasons in the world for not changing something is "we've always done it that way." Keep an open mind. Stability can lead to stagnation. Change may be painful or disruptive, but the results frequently justify the pain.

Learn to write

You don't have to be the world's greatest writer, but learn to put words on paper in a way that is readable, grammatical, and gets the idea or point across. The ability to write well is a highly valued skill. Surprisingly few people can do it—or maybe the rest are just not willing to take the time or make the effort. A well-written proposal, report, technical document, request for resources, or some other document will get you noticed and put you in demand. Managers at every level are looking for people who can communicate well. While the written word is only one aspect of communication, it's the one that leaves a permanent record.

Treat everyone respectfully

How you act toward those around you can have an impact on your career. It's not just the people above you, but anyone with whom you have contact—your peers, those under you, and those in what can be considered service positions, like waiters, secretaries, the mailroom clerk, and so on. People notice how you treat others. If you are rude, demanding, or demeaning, people within earshot or those who hear about it secondhand can—justifiably—make harsh judgments about you. It probably won't cost you your job, but it can make people wonder whether you should ever be in a position of authority. It's the same when you are nice to people: others notice and judge you accordingly. Being respectful or nice doesn't mean letting people roll over you. You can be strong but tactful and polite, even if others aren't.

There can be other, more direct consequences, good or bad, of the way you treat people. It may influence how your needs are handled or the priority applied to your work or requests. Everyone you work with has influence somewhere. Being rude to the mail clerk could well mean that your next priority package gets "forgotten" for two or three days. Someone else you mistreated could sabotage or undermine your work even more seriously.

Kindness and politeness pay great benefits. People want to help you. You might be surprised how something as simple as holding an elevator for someone, a cheerful "good morning," or a polite "thank you" can lead to assistance in a time of need. The words "please" and "thank you" should be a frequent part of your vocabulary with everyone. Being polite is not being obsequious.

Network and communicate

Meet people and talk to them. Get to know the people in your organization. They can help you to do your job faster and better. They can tell you what's happened in the past, what's worked, and what hasn't. They can tell you about the other people in the organization. Share information with them. Learn from them. What you learn may not help you today, but it might in the future.

There are those who won't share knowledge because they feel that having knowledge provides them with a certain power. They hoard information, sharing it only when they think it will benefit them to do so. Don't be one of those

people. It hurts your ability to do your job and the organization's ability to get the mission accomplished.

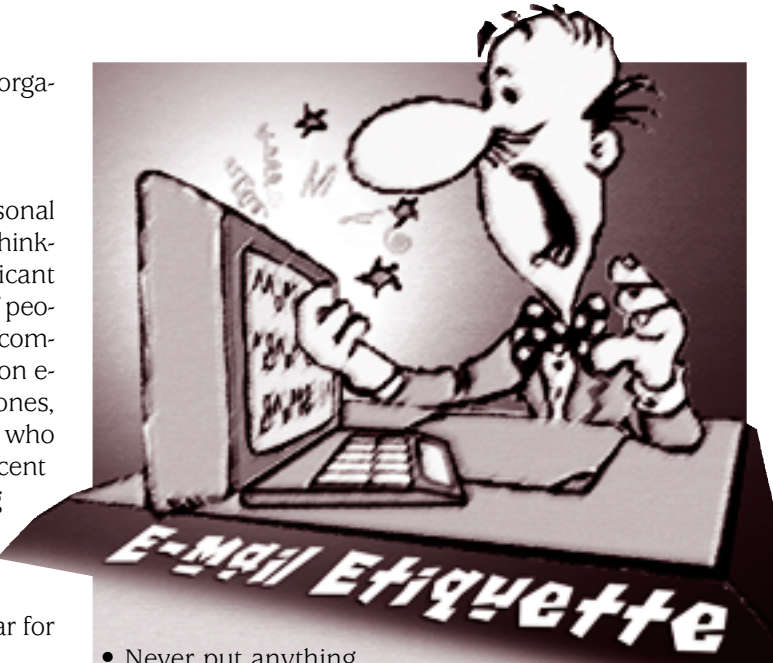
E-mail is forever

E-mail has become such an integral part of our personal and professional lives that we use it almost without thinking. It is a great business tool, but it has some significant pitfalls associated with it. We have all heard stories of people who sent out e-mails in anger or shared negative comments or rumors and lived to regret it. People pass on e-mails, especially the funny, juicy, dumb, or unusual ones, but e-mails can easily and quickly get back to those who are mentioned or impacted in some way. Even innocent e-mail errors can come back to haunt you, making you appear unprofessional or just plain dumb. Old e-mails don't die. They are kept on file, sometimes by the recipients but always by the Internet service provider and/or your organization. Check the sidebar for some e-mail tips.

It's mostly common sense

Knowledge, training, and experience are important to your career. But basic politeness and common sense cost nothing and can work wonders too.

Editor's note: The author welcomes questions and comments. He can be contacted at wayne.turk@sra.com.



E-Mail Etiquette

- Never put anything in an e-mail that you wouldn't want to read on the front page of your local newspaper or see somewhere on the Internet. Nowadays those are distinct possibilities.
- Don't fire off an e-mail while you are angry. Wait until you cool down. Some people say that they write e-mails while they're angry to get it out of their systems then erase them. That may be a good form of catharsis, but what happens if you accidentally click "send" instead of "delete"? It happens.
- Always be professional. Use spell checking, and read over what you wrote (remember that the spell checker doesn't catch misused words). Poor grammar and spelling or instant messaging slang can make a bad impression and ultimately hurt you.
- There's no tone of voice or body language in an e-mail. If there is more than one way to take something, it's a given that someone will take it the wrong way (another reason to write carefully and read it over).
- If you make a comment as a joke, it's not a bad idea to let people know you're joking. Someone will be sure to miss the point and be offended. Probably a better idea is to keep the work e-mails professional.
- The proliferation of e-mails, the number of messages you're copied on, and the steady stream of spam make it a constant challenge to filter e-mails for what is really important. Try to answer, or at least acknowledge, e-mails in a timely manner. (That goes for telephone messages, too.) If people don't hear back, they're left wondering if the message got lost in cyberspace or if you're ignoring them.
- Don't clog bandwidth and mailboxes by forwarding virus warnings, medical horror stories, or dire predictions without first visiting a couple of e-mail hoax identification Web sites to check if they are genuine. Most are not.

Adding to the Acquisition Alchemy Mix

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

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

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

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

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

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

If we are not competing the following spirals, how do we avoid stealing intellectual property and handing it to our contractor to implement? In fact, how do we entice good ideas from other than our contractor, with the other party knowing it may not reap some tangible benefit?

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

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

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

Alex Slate

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

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

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

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

Proposal Evaluation

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

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

Management Bias

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

Our recommendation is to have project leaders present frequent in-house reviews—and even for independent offices, such as the legal office, comptroller, contracts office, and merit pay supervisors—prior to the award of a contract.

Level of Funding

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

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

Dr. Ronald W. Armstrong, professor emeritus, University of Maryland, College Park, Md.
Dr. Roger B. Clough, (retired) National Institute of Standards and Technology, Gaithersburg, Md.
Dr. Laszlo B. Kish, associate professor, Texas A&M University, College Station, Texas.
George K. Lucey, project leader (retired) Army Research Laboratories, Adelphi, Md.

Thought-provoking Writings

Heroics and Process Article Timely

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

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

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

The authors respond: *We think you're definitely onto something about the need for heroes to share their knowledge (i.e., the old saying about teaching a man to fish...). One of the best things heroes can do is spread their heroic attitude and establish more heroism. One thing to keep in mind: There is something special about a hero that often can't be reduced to a process or checklist. We just need to be careful that our attempts to document and imitate heroism don't end up creating a less effective, watered-down version.*

Management Fads Resonate

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

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

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

Al Kaniss, Naval Air Systems Command

AMERICAN FORCES PRESS SERVICE (JULY 22, 2004)
ARMY ACCELERATES FUTURE COMBAT SYSTEM

Jim Garamone

WASHINGTON—For the Army, the future is now. Army officials are accelerating the delivery of selected future combat systems to the current force. Under the program, the Army will speed up deployment of some segments of the system. They will begin reaching the field in fiscal 2008, rather than in fiscal 2014.

"We are an Army at war for a nation at war," said Lt. Gen. Benjamin Griffin, the Army's deputy chief of staff for force development. "The technological improvements inherent in the future combat systems can and should be incorporated into the current forces as they become available."

In addition, the number of brigades equipped with future combat systems technology will speed up. The first FCS unit will be fielded in fiscal 2008, with 32 brigades so equipped by fiscal 2014. Under the old plan, the first unit was set for 2012.

"The Army is committed to providing our soldiers the best equipment possible, and the future combat systems will remain the cornerstone of the Army's transformational program," Griffin said.

The Service took the lessons learned from combat actions in Afghanistan and Iraq, he noted, and applied them to the future combat system. "These changes will mature and accelerate the most promising technologies within the FCS," Griffin said. The systems will cost $92 billion through 2014, officials said. The money to speed up the deployment comes from the canceled Comanche helicopter and Crusader artillery systems, Army officials said.

The five technologies that will be accelerated are the non-line-of sight cannon, the non-line-of-site launch system, the unattended ground sensors, two classes of unmanned aerial vehicles, and armed robotic vehicles.

At the system's heart is an integrated network that gives unprecedented situational awareness to soldiers. The move will increase the connectivity and intelligence sharing within combat formations, Griffin said. This "spiral development" approach allows the Army to incorporate technological developments as new technologies mature, while allowing the Army to work on how to incorporate the changes in the new brigade combat teams.

> "When the 3rd Infantry Division goes back to Iraq, they will have a much different networking capability than they had when they went north (to Baghdad) the first time."
>
> —Army Lt. Gen. Joseph Yakovac military deputy to the assistant secretary of the Army (acquisition, logistics and technology)

"We are already growing that network," said Lt. Gen. Joseph Yakovac, military deputy to the assistant secretary of the Army (acquisition, logistics and technology). "When the 3rd Infantry Division goes back to Iraq, they will have a much different networking capability than when they went north (to Baghdad) the first time."

Part of what is driving this is the hothouse growth of technology. Yakovac cited the growth of wireless technologies as an example. The Army now, for example, has a tactical operations center running wireless.

AMERICAN FORCES PRESS SERVICE (JULY 23, 2004)
DOD USHERS IN NEW MISSILE DEFENSE CAPABILITY

Sgt. 1st Class Doug Sample, USA

WASHINGTON—A historic moment took place July 22 at Fort Greely, Alaska, as the first ground-based missile interceptor (GBI) was placed in an underground silo at the missile defense complex there.

Army Maj. Gen. John W. Holly said the emplacement of the interceptor "marks the end of an era where we have not been able to defend our country against long-range ballistic missile attacks." He is the director for the Missile Defense Agency's Ground-based Midcourse Defense Joint Program Office.

Holly noted there are countries that possess weapons of mass destruction and have the ability to launch ballistic missiles that could impact the United States.

The Alaska interceptor emplacement took place the same day that the House and Senate approved the $417 billion fiscal 2005 DoD budget. About $10 billion of that

money goes for missile defense. The defense authorization bill now goes to President Bush for signature.

Missile Defense Agency (MDA) spokesman Chris Taylor said up to five more interceptors will be emplaced at Fort Greely, located 100 miles from Fairbanks, by the end of 2004. The agency hopes to have up to 10 more interceptors emplaced by the end of 2005, he added.

The July 22 event signaled the first interceptor in the ground for the MDA, the outcome of President Bush's December 2002 directive that the secretary of defense provide an initial capability in 2004. The system was developed in response to a near-term ballistic missile threat to the United States, deployed forces, and allied countries.

The emplacement of the first GBI does not mean the missile defense system is operational, according to an MDA release. This will happen after more interceptors are emplaced and the interconnected architecture of radars, sensors, battle management and command, control, and communications is activated.

The first ground-based interceptor is lowered into its silo at the missile defense complex at Fort Greely, Alaska, July 22. The interceptor is designed to destroy incoming intercontinental ballistic missiles before they reach U.S. airspace.

DoD Photo

In December 2001, President Bush gave Russia six months' notice that the United States was withdrawing from its Anti-Ballistic Missile (ABM) Treaty in order to pursue an ABM system.

DoD's initial plan for a missile defense capability called for up to 20 GBIs capable of intercepting and destroying intercontinental ballistic missiles during the midcourse phase of flight, a period that offers the greatest opportunity for a "hit to kill."

In addition to those planned for Fort Greely, another four are slated for Vandenberg Air Force Base, Calif., by 2005. The plan also calls for sea-based interceptors to be employed on existing Navy Aegis-class ships for a shoot-down capability against short- and medium-range ballistic missiles threatening the United States.

Up to 15 Aegis-class destroyers and three cruisers will be equipped with a long-range surveillance and tracking capability by the end of calendar 2006. The cruisers will also have the capability of shooting down potential enemy threats with the Standard Missile-3.

The department also seeks to deploy air-transportable Patriot Advanced Capability-3 systems as another means to stop short- and medium-range missiles.

The plans also call for targeting incoming missiles by using land-, sea-, and space-based sensors and existing early-warning satellites, as well as upgraded radar now located at Shemya, Alaska. By the end of calendar year 2005, a sea-based x-band radar will also be in place at Adak, Alaska.

In addition, DoD requested that the United Kingdom and the Kingdom of Denmark upgrade early-warning radars on their territory.

AMERICAN FORCES PRESS SERVICE (JULY 27, 2004)

FUTURE WARRIOR EXHIBITS SUPER POWERS

Phil Copeland

WASHINGTON—The Army's future soldier will resemble something out of a science fiction movie, members of Congress witnessed at a demonstration on Capitol Hill July 23.

The newest concepts for lightweight, lethal uniform systems to be worn by the future soldiers in battle were displayed at the Russell Senate Building in Washington, D.C.

Two uniform systems are under development. The Future Force Warrior system will be available for fielding to soldiers in 2010. The Vision 2020 Future Warrior system, which will follow on the concept of the 2010 Future Force Warrior system, is scheduled to be ready 10 years later.

The two new uniform systems are being developed under the Future Combat System program. "This Army initiative will develop and demonstrate revolutionary capabilities for the future soldiers in battle," said Jean-Louis "Dutch" DeGay, a Soldier Systems Center representative.

The new systems include a weapon, head-to-toe individual protection, onboard computer network, soldier-worn power sources, and enhanced human performance.

U.S. Army Staff Sgt. Raoul Lopez (left) poses in the new 2020 Future Warrior uniform system, while Army Sgt. Dan Harshman dons the 2010 Future Force Warrior uniform system. They were part of the Future Warrior exhibit for congressmen and their staff members on Soldier Modernization Day, July 23, on Capitol Hill in Washington.

Photo by Phil Copeland

"The Future Force Warrior will be a responsive and formidable member of an invincible battlespace team," DeGay explained, describing the system scheduled to be fielded by 2010.

"The 2010 Future Force Warrior system will meet the more immediate, short-term demands of our fighting warriors in the battlespace, while the 2020 model will remind you of an ominous creature out of a science fiction movie," DeGay said. He added that the system will leverage all the technologies and lessons learned from Afghanistan and Iraq.

Soldiers deployed to Afghanistan and Iraq carry large amounts of external weight, often 120 pounds or more, to be battle-ready. DeGay said the new uniform system—from head to toe—weighs 50 pounds.

The body armor of the new uniforms will absorb the shock of a bullet much better than current bulletproof vests. "The hard body armor has been stood off the body by 2½ to 3 inches, so when the soldier is shot, the force is more evenly distributed to decrease injuries such as broken ribs," DeGay described.

Soldiers will be able to chat online with each other while they are walking down a jungle trail. The new system has the ability for each soldier to be tied into tactical local and wide-area networks with an onboard computer that sits at the base of the soldier's back. "We essentially call the 2010 soldier an 'F-16 on legs' because it gives soldiers the same capabilities as they would normally have on aircraft and other platforms," DeGay explained. The F-16 is an Air Force fighter jet.

Soldiers will also be able to share data with vehicles, aircraft, and other individual soldiers. "If an Apache helicopter was deployed forward and recorded real-time video of the enemy, the helicopter can send the video back to an individual soldier to observe," he said, with obvious enthusiasm and excitement for the new uniform system.

As has been seen in science-fiction movies, a dropdown piece of eyewear from the helmet allows the soldier to see a 17-inch computer screen displaying anything relayed to the soldier. "This eyewear device is see-through, so it hangs out in space," DeGay said. This allows soldiers to take in all supporting data while keeping both hands on their weapons.

Soldiers wearing the new system will have no need for an external microphone to communicate. "The helmet

has sensors that register vibrations of the cranial cavity so I don't have to have a microphone in my mouth. That allows the soldier to control the entire computer via voice-activation," DeGay explained. Soldiers will be able to cycle through onboard menus via their eyewear device.

The onboard computer will monitor soldiers' overall physiological picture of how they are performing in the battle zone. "Warrior Physiological Status Monitoring System gives the soldier's body core temperature, skin temperature, heart rate, whether the soldier is standing or prone, and how much water the soldier has drunk," DeGay said.

A medic, who can be miles away, will now be able to diagnose and treat a soldier who is about to have sunstroke, without even physically seeing the soldier. "So a medic can see how the soldier's core body temperature is rising (and) heart rate is falling, and the soldier then knows to go directly to the medic for treatment," DeGay said. "The computer will drop down a map to direct the soldier where to find the medic for help." He pointed out that with the new system commanders will be able to consider each soldier, aircraft, and vehicle as part of a node of a tactical network that shares data with each other, sending and receiving data inside the battlespace.

The second uniform system, the Vision 2020 Future Warrior concept, will follow the 2010 Future Force Warrior with more advanced nanotechnology. Nanotechnology deals with the creation of incredibly small materials, devices, or systems with a scaled-down size of 100 nanometers or less. A nanometer is a metric measurement equivalent to one billionth of a meter.

"If we were in Detroit, the 2020 Future Warrior system would be the concept car. It leverages a lot of the nanowork being done by the Massachusetts Institute for Technology," DeGay said, noting the Army just awarded MIT a five-year, $50 million program to establish the Institute for Soldier Nanotechnologies.

Think about a good action movie that shows an average person walking down a street with a nice designer suit. All of a sudden, gunshots are heard and just before a bullet hits this person, his soft fabric suit transforms into an incredible display of alien armor that deflects bullets. If Natick engineers are successful, this movie will become a reality in the future U.S. Army.

"What we hope to gain from this program is body armor that wears like a traditional textile impregnated with nanomachines connected to an onboard computer, DeGay explained. "So when you shoot a round into the uniform system, it's normally pliable until it senses the strike of a round—it becomes rigid, defeats the strike of the round and becomes soft again."

A shortcoming of traditional body armor is that it can only absorb so many strikes from machine-gun rounds. "When you have a uniform with this new nanotechnology, it can absorb unlimited numbers of machine-gun rounds," DeGay pointed out.

Another potential development is inserting "nanomuscle fibers" that can actually simulate muscles, giving soldiers more strength. Fabric is impregnated with nanomachines that create the same weight, lift, and feel as a muscle. "So I coat the outside of the armor with a nanomuscle fiber that gives me 25 to 35 percent better lifting capability," DeGay explained.

The uniform from the waist down will have a robotic-powered system that is connected directly to the soldier. This system could use pistons to actually replicate the lower body, giving the soldier "upwards of about 300 percent greater lifting and load-carriage capability," DeGay said. "We are looking at potentially mounting a weapon directly to the uniform system, and now the soldier becomes a walking gun platform."

The Future Force Warrior is the Army's short-term change, with a complete rebuild of the soldier from skin out being planned through the Future Warrior system. "We are already starting to look at the 2020 Future Warrior concept, which is integrating stuff that is just starting to show promise in the lab," DeGay concluded. He said researchers hope to see this developing technology mature in the next 15 to 20 years. "Future Warrior is a visionary concept of how the individual warrior may be equipped in the 2015-2020 timeframe," he said.

AMERICAN FORCES PRESS SERVICE
ROBOTS PUT DISTANCE BETWEEN TROOPS, DANGER (JULY 26, 2004)

K.L. Vantran

WASHINGTON—U.S. troops are using remote-controlled assistants to find and disable improvised explosive devices in Afghanistan and Iraq.

The Omni-Directional Inspection System, ODIS, searches the underside of vehicles for improvised explosive devices and can see things a hand-held mirror doesn't, said Bill Smuda, a research engineer with the U.S. Army Tank Automotive Research, Development and Engineering Center, in Warren, Mich.

Another device, the Percussion-Actuated Non-electric Disruptor, uses a high velocity of water to disable improvised explosive devices, noted David Kowachek, project engineer with the center. The PAN Disruptor can be mounted on a small unmanned ground vehicle, such as a Talon, to give explosives experts access via remote control to suspected bomb sites.

Both remote-controlled vehicles allow troops to do their jobs from a distance. Examples of both vehicles were on display in the Russell Senate Office Building in Washington, D.C., July 23.

ODIS stands about 4 inches high, weighs 40 pounds, and is like a "hovercraft on wheels," said Smuda. "It can move in circles or go sideways."

The operator can be up to 100 meters away from the vehicle being inspected as he or she maneuvers the robot underneath the chassis. "Robotics is a good tool to save people's lives," said Smuda. "It gets kids out of harm's way. It gets soldiers out of the line of fire, out of the blast zone."

The controls for the robot are portable. The control panel may be strapped to the operator's leg, while the case for the small video screen, which shows images from the robot, can be worn as a vest.

Smuda and coworkers recently spent two months in Iraq and Afghanistan testing and making some refinements to the system. They trained 40 soldiers on how to operate the robot. After about a half-day of hands-on training, Smuda said, the soldiers get a good feeling for operating the small robot.

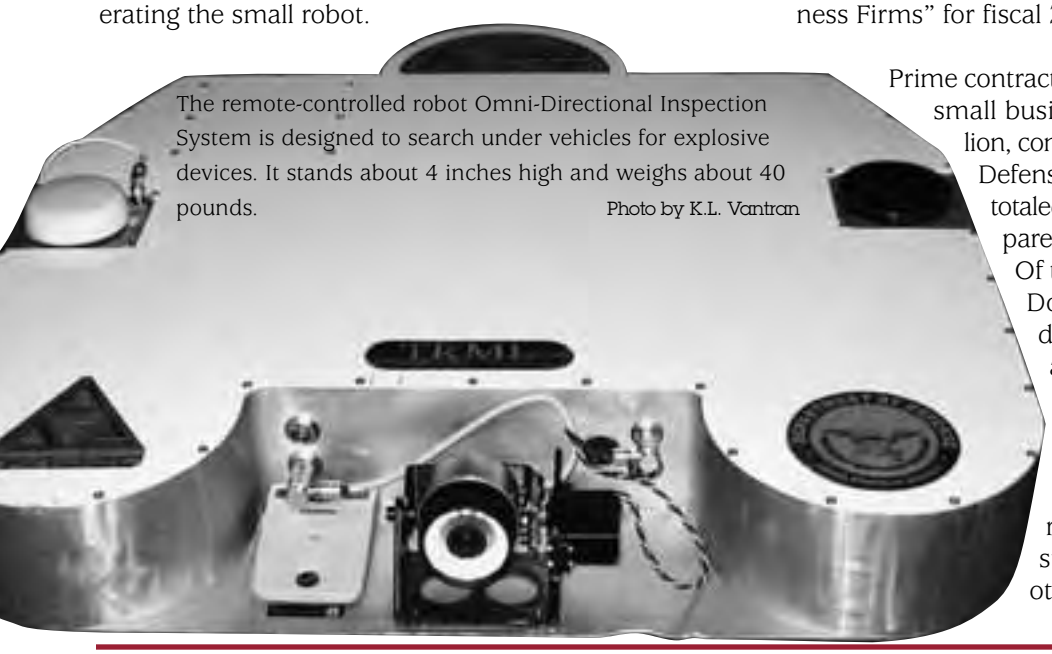
"They learn what to look for—especially clean areas, especially dirty areas, loose wires," he added.
The Talon, which weighs about 80 pounds, can hold up to seven cameras that feed images back to screens on a control box. The range of the robot varies with the environment, noted Kowachek. "On flat terrain, soldiers can be as far as a mile away."

The Talon also has lights to enhance night maneuvers and is quite rugged, he added. "It can climb rocks, go through sand and mud."

There are about 50 Talons with the mounted disruptor in theater now, said Kowachek.

Although the Talon is one of the larger unmanned ground vehicles, the engineer said the soldiers like it. "It does what they need it to do," he added.

The remote-controlled robot allows troops to investigate suspected explosive devices while minimizing the danger. "It keeps troops away from vehicles or from being lured into places where they could be shot at by snipers," said Kowachek.



The remote-controlled robot Omni-Directional Inspection System is designed to search under vehicles for explosive devices. It stands about 4 inches high and weighs about 40 pounds. Photo by K.L. Vantran

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 30, 2004)

DOD RELEASES ANNUAL REPORT ON "PROCUREMENT FROM SMALL AND OTHER BUSINESS FIRMS"

Acting Under Secretary of Defense for Acquisition, Technology and Logistics Michael W. Wynne today released the Department of Defense annual report on "Procurement from Small and Other Business Firms" for fiscal 2003.

Prime contract awards during fiscal 2003 to U.S. small business concerns totaled $42.0 billion, compared with $33.3 billion for 2002. Defense awards to all U.S. business firms totaled $187.5 billion during 2003, compared with $157.1 billion during 2002. Of the $187.5 billion awarded by the DoD to all U.S. business concerns during 2003, 22.4 percent of the awards were made to small business concerns, versus 21.2 percent in fiscal 2002. The increase is attributed to greater small business participation in acquisitions related to ships, services, construction, commercial items, and other major hard goods.

For 2003, large business prime contractors reported subcontracts totaling $86.5 billion, of which $32.0 billion or 37.0 percent was awarded to U.S. small businesses. This compares to fiscal 2002 subcontracts totaling $75.5 billion, of which $25.8 billion or 34.1 percent was awarded to small business concerns.

Small businesses significantly contribute to the U.S. defense industrial base through their offerings of innovative technology and quality supplies and services at reasonable prices. The annual report can be found at the following Web site: <http://www.dior.whs.mil/peidhome/procstat/procstat.htm >.

Additional information regarding small business procurement opportunities with the DoD can be found at its Office of Small and Disadvantaged Business Utilization website: <http://www.acq.osd.mil/sadbu >.

AMERICAN FORCES PRESS SERVICE (AUG. 2, 2004)

COAST GUARD MODERNIZATION MOVES FULL STEAM AHEAD

Donna Miles

WASHINGTON—With the approach of its 214th birthday this week, the U.S. Coast Guard is undergoing the largest and most sweeping modernization in its history, the Coast Guard commandant said during a joint interview with the Pentagon Channel and the American Forces Press Service.

Adm. Thomas H. Collins said Operation Deepwater, a long-term project designed to replace all the Coast Guard's major aircraft and vessels, will bring new capabilities to the force needed at a time when operational tempo is "very, very high."

Plans call for the Coast Guard to replace all ships in what the Service calls its "white hull fleet"—the patrol boat, law enforcement and security fleets that Collins acknowledged are "old and tired."

In fact, Collins said, the Coast Guard's fleet is among the oldest in the world. "If you count the major maritime nations of the world and their navies and coast guards, we are 39 out of 41 in terms of having the oldest fleet on this planet," he said. "So it's with some sense of urgency

Artist's rendition of the Maritime Security Cutter, Large, which will be produced by Northrop Grumman's Ship Systems sector under the U.S. Coast Guard's Deepwater program.
Photo courtesy Northrop Grumman

This is an artist's rendition of the Deepwater Program's Fast Response Cutter (FRC) design concept. Upon approval by the U.S. Coast Guard, this ship will be the first in a series of 150-foot fast patrol vessels that will eventually replace the Service's aging fleet of Island Class boats. A partnership has been established with Northrop Grumman's Ship Systems sector and Kockums AB and its parent company, Howaldtswerke Deutsche Werft AG to include cooperative work in the design and construction of this composite lead ship technology demonstrator. Photo courtesy Northrop Grumman

for us to replace them, particularly in today's world when we are working them hard in the national interest."

Earlier this year in his "State of the Coast Guard" address, Collins pointed to serious "warning signals" that show this "aging and technologically obsolete" fleet may threaten the Coast Guard's ability to sustain its readiness in the future.

"We are experiencing system failure at a steadily increasing rate," he said. For example, the Coast Guard's HH-65 helicopters, which Collins called the "core of our helicopter fleet," have experienced 70 in-flight power losses since October. As a result, he said, the Coast Guard has had to institute operational flight restrictions to maintain safety.

Last year, the Coast Guard had 676 unscheduled maintenance days for its cutters, a 41 percent increase over the previous year. "This is equivalent to losing the operating hours of four cutters," Collins said. And the Service's 110-foot cutters, "all well beyond their planned service lives," have experienced 20 hull breaches. "Yes, that's water coming in—resulting in emergency dry docks," the commandant said.

To address these and other shortcomings in its vessels and aircraft, the Coast Guard is undergoing the biggest acquisition in its history. This "big gulp theory of acquisition" will continue over a 20-year timeframe, but Collins said it "can't come fast enough in my mind."

When completed, the Coast Guard's new Integrated Deepwater System will include three classes of new cutters and their associated small boats, a new fixed-wing manned aircraft fleet, a combination of new and upgraded helicopters, and both cutter-based and land-based unmanned aerial vehicles.

Collins said this "network-centric system" will go a long way toward enhancing the Coast Guard's coastal and deepwater maritime capabilities, as well as its ability to conduct surveillance and tracking—all vital to the Service's missions.

Among projects on the drawing board, he said, is a 150- to 160-foot patrol boat, to be built with composite hull materials that will make the vessels lighter, faster, and easier to maintain. "That's exciting," Collins said. "We are trying to accelerate it."

In addition, construction is expected to begin soon on a new 4,000-ton national security cutter, with delivery slated for fiscal 2006.

As part of this modernization, the Coast Guard recently replaced its seagoing and coastal buoy tender fleet, which Collins said are affectionately referred to in the Service as the "black hulls" due to their paint color. Also new are

some of the Service's 47-foot motor lifeboats, designed for first-response rescues in high seas, surf, and heavy weather environments. Both new additions are "terrific, terrific platforms," Collins said.

The commandant said these new vessels and other anticipated additions through Operation Deepwater are arriving at what he called "an incredibly important inflection point in the evolution of the Coast Guard."

"We are in the midst of decisions and actions that will lay the groundwork in determining the Coast Guard of tomorrow," he said. "We are also defining and developing the competencies our people must have to continue operational excellence in tomorrow's missions, using tomorrow's equipment."

AMERICAN FORCES PRESS SERVICE (AUG. 3, 2004)

EXPERTS DEVELOP FUTURE FOOD FOR FUTURE WARRIORS

Phil Copeland

WASHINGTON—The Defense Department's Combat Feeding program at the U.S. Army Soldier System Center in Natick, Mass., is a "one-stop shop for all combat-rations development, field food-service equipment, and total combat feeding systems," according to the Defense Department's combat-feeding director.

Gerald Darsch said the joint-service program is an effort to provide not only the appropriate types and distribution of food needed by the military services, but also to supply food products to astronauts at the International Space Station.

Combat rations and their distribution have improved considerably over the last five to seven years, Darsch said. The Combat Feeding program elicits "what soldiers like to eat and what they don't like to eat. All of the rations are soldier-requested, soldier-tested, soldier-approved."

When servicemembers ask for a certain food item, such as Spanish rice or Thai chicken, food specialists develop recipes that will meet the request.

Test panels are randomly selected to evaluate recipes during development. Once a recipe is finished, it is field tested with soldiers to ensure the goal is met.

One type of ration, the Meal, Ready-to-Eat, or MRE, is currently used by the military to sustain individuals in the field until an organized food facility is established.

Two pieces of the new "Jolt" caffeine energy gum are equal to a cup of coffee for U.S. warriors in the battlefield to help sustain a high energy level. This gum is included as part of the prototype "First Strike" rations that provide highly mobile ground troops with total eat-on-the-move capability. Photo by Phil Copeland

At present, mobile troops, who may not have much time to eat, take out only certain food components from the MRE rations. "They leave up to 50 percent of the unused portion behind, only to be thrown away," Darsch noted.

The prototype "First Strike" ration program provides highly mobile ground troops with total eat-on-the-move capability. He said the idea is to provide a single ration per day containing only food items that are easy to use and consume.

Recently, both the Marines and Army soldiers have requested First Strike rations developed by the Combat Feeding program.

"The Marines have asked for these rations to use in Afghanistan and Iraq," Darsch said. "[The Army's] 1st Cavalry Division in Iraq has also requested to try these rations for their soldiers." Both Services said it would provide a capability they really don't have, he added.

Darsch said this ration package includes a pocket sandwich with a three-year shelf life at room temperature, developed by the Army Soldier Center. This sandwich is a good idea for those who can't take a microwave or refrigerator out in the field, he added.

"We put three zip-lock bags in with the rations, so the person can break it up into three separate meals and easily store unused portions in the uniform pockets, wherever is most comfortable and fits the best," he explained. "The beverage mix included with the rations is in a flexible package so you can reconstitute it right in the package and consume it directly from the package."

Tube food, another type of ration, has been provided for the Air Force's U-2 long-range surveillance aircraft pilots during their reconnaissance flights. According to Air Force officials, the U-2 is the most difficult aircraft to fly because of its unusually challenging takeoff and landing characteristics. Due to its high-altitude mission, pilots must wear full pressure suits.

The Combat Feeding program, in a joint effort with the Air Force Research Lab, developed two foods that actually enhance the pilots' cognitive performance.

After the pilots have been flying their aircraft for a long period of time, they can become lethargic and sluggish when they try to land. Darsch explained that adding a certain naturally occurring food ingredient to the tube foods ensures a safe landing.

The Natick research center also has launched a robust program to upgrade food-distribution systems for the Navy fleet. Darsch described how they recently used a new modular process to install a piece of food-distribution equipment on two Los Angeles-class submarines.

In the past, crewmembers would have had to cut up the equipment deckside and lower in the pieces one at a time through a 30-inch hatch and reassemble all of those pieces down in the galley, he said. This old process required up to 500 manhours. And once everything was put back together, it didn't always work or didn't work as well as intended.

The Combat Feeding program worked with a commercial company to come up with equipment designed and built in modules.

"The new idea is to lower the modules down through the hatch and then put the pieces together again, like LEGO® bricks, in the galley," Darsch said. "This now reduces the 500 manhours down to possibly less than 75 manhours to complete this task. And now, everything works the way it is supposed to work."

The bottom line, he concluded, is that the Combat Feeding program covers the gamut of everything required for feeding the armed forces "from deep sea to deep space."

ARMY NEWS SERVICE (AUG. 3, 2004)
TASK FORCE LOGISTICS RESTRUCTURES THEATER SUPPORT

John Runyan

WASHINGTON—A Task Force Logistics conference July 28-30 at Fort Lee, Va., asked operations officers from the field to provide their take on the new Theater Sustainment Command.

This conference was the most recent phase of Task Force Logistics' design of a new organizational structure that will help the Army be more effective and efficient in its battlefield operations, officials said.

"We're bringing in the best and brightest from the field to get the field's expertise," said Col. John Wharton, Task Force Logistics deputy.

A 3rd Corps Support Command convoy moves supplies north toward Baghdad during the combat phase of Operation Iraqi Freedom in April 2003. U.S. Army photo

Field attendees include operations officers from major military commands, the current theater support commands, and joint commands, Wharton said. The invited joint commands represented a push to involve all the Services in the development of the joint-capable TSC.

"Certainly [Army Chief of Staff Gen. Peter Schoomaker] has made it clear that he is a joint soldier first," Wharton said.

The changes in logistics have been in the making since February when the chief of staff approved the separate focus area task force for logistics.

The new TSC will eliminate layering of commands by combining operational level functions of the current corps support command and the theater support command, officials said.

"[Theater Sustainment Command] is going to work on [eliminating] redundancy and maximizing flexibility," said Maj Chris Stolz, Task Force Logistics operations officer. "We want to maximize throughput by knowing demands and tailoring to the needs of the units of actions."

TSC will be a modular organization with a standard headquarters and subordinate support units tailored for the mission requirements of specific operations. Modular subordinate units will provide capabilities for theater opening; theater distribution; medical; petroleum, oils, and lubricants; aviation; civil engineering; and multifunctional supply, maintenance, and transportation support.

Wharton emphasized the collaboration with Combined Arms Support Command at Fort Lee, Va., to develop new standard requirement codes, known as SRCs, that are associated with tables of organization. He said SRC teams as small as one or two soldiers will be able to provide support based on their specific capabilities. Currently, a whole unit would be required to be mobilized to provide support for a job that could be done by a few.

TSC will work under the new unit of employment operational headquarters known as the UEy, with the TSC commander serving as the senior Army logistics commander in the UEy. TSC headquarters will provide command and control of assigned, attached, and operationally controlled units.

Sustainment brigades will provide support to operational-level units in the UEy's area of operations and sustainment support to tactical-level forces engaged in combat in forward areas. This will allow throughput of critical sustainment, like fuel and ammunition, from the theater logistics hubs at ports to brigade units of action engaged in combat, Stolz said

Right now, both corps support commands and TSC have to funnel supplies and services through different layers of management before getting to soldiers in the rear and forward of the battle areas. With the new technology, trucks will be able to transport materiel right from the ports to the brigade or units of action where they are needed, officials said.

Eventually, predictive technology will even be able to tell where units of action will be and what they will need, officials said. Consequently, UAs will have their necessary supplies even sooner. This technology is still in the conceptual phase, officials added, but said the prediction will take into account the operational environment of the units and anticipate their needs, Stolz said.

The big difference is in the way that the logistics systems will operate, according to Stolz. He called the present systems "stove-piped systems" that do not talk to each other. The emerging systems have integrated communications, Stolz said. This means that the logistics information system will receive all requirements and the computer network will show that.

"The big difference is everybody will see what everyone else sees," Stolz said. In the past, units could only see what affected their specific segment, he said. With integrated communications, it will be possible to look down the entire pipeline and speed the process by prioritization and reallocation, Stolz said.

The objective is to get rid of the layering of commands and redundant combat services support activities to get the necessary services to the field, Stolz said.

"The soldier is going to see that he or she is not going to have to ask for the same thing two or three times," Stolz said. "Soldiers will see shortened echelons of support, but the support that is forward with them is much more robust."

The goal is have much more rapidly deployed equipment, and the way to do that is through visibility to the soldier and the command, Stolz said. The command will be able to know where the soldier is and what he or she needs, and the soldier will know when he or she will be receiving the supplies needed.

"We are going to have Amazon.com type of visibility," Stolz said, explaining that soldiers will know the status of their orders and have confidence in when they will arrive.

TF Logistics is working with the Army Logistics community (Army Staff, the Army Materiel Command, the Army theater support commands) to develop the required capabilities based upon tasks, functions, and missions. Collaboration includes work with the Joint Forces Command and several regional combatant commands, according to Stolz.

"Everybody knows we have to do this, everybody wants to see it done, and everybody is working to get it done as quickly as possible," Stolz said.

The new modular structure is under way with brigade combat teams and the 3rd Infantry Division, which now has four units of action, Stolz said. He said it's now imperative to implement an end-to-end distribution system that can support the modular Army. TF Logistics hopes to have 80 percent of the TSC design in place no later than Sept. 30, Wharton said.

AIR FORCE PRINT NEWS (AUG. 3, 2004)

ARMY, AIR FORCE SHARING BATTLE INFORMATION

1st Lt. James L. Bressendorff, USAF

NELLIS AIR FORCE BASE, Nev.—Parked under camouflaged netting in the heat of the Nevada sun is an extended cab Humvee equipped with all the modern comforts of home: vinyl seats, air conditioning, tinted windows, and four 23-inch plasma displays.

It is not the Army's version of a stretch limousine, but an element of the Army's Future Combat Systems program that is taking part in the Joint Expeditionary Force Experiment 2004 here. The Air Force-sponsored experiment assesses new and emerging technologies.

"The Future Combat System-equipped unit of action (brigade-level force and below) will be more joint," said Army Col. Jon Maddux, product manager for unit-of-action network systems integration at Fort Monmouth, N.J. "That's one of the reasons we're here at JEFX using some very early developmental software. We're demonstrating early interoperability with joint systems and laying the foundation toward network-centric enterprise services."

The FCS also serves as the basis for combining multiple platforms and systems to create a force multiplier for the Army's future unit of action.

"FCS is the Army's leading transformation program for unit-of-action tactical systems," said Army Maj. David

Future Combat Systems
DoD Image

"Future Combat Systems is the Army's leading transformation program for unit-of-action tactical systems. It integrates combat platforms, networks, and sensors—everything a unit-of-action commander needs to execute the mission."

—Army Maj. David Bassett
product manager for
Unit-of-Action Software Integration
Joint Expeditionary Force Experiment 2004
Nellis AFB, Nev.

Bassett, product manager for unit-of-action software integration. "It integrates combat platforms, networks, and sensors—everything a unit-of-action commander needs to execute the mission."

Part of that system includes the Warrior Machine Interface, an intuitive graphic-user interface to the FCS Battle Command System, acting as an electronic liaison between the soldier on the battlefield and the Air Force's Air Support Operations Center.

"We (WMI operators) run reconnaissance and surveillance with the unmanned aerial vehicles and unmanned ground vehicles," said Army Staff Sgt. Steven Dugan, from the unit-of-action maneuver battlelab at Fort Knox, Ky. "When we find a target that needs to be eliminated, we run a close-air support request through the tactical air control party and the Air Support Operations Center."

Because of the unprecedented battlespace awareness supported by the WMI, friendly fire incidents will be significantly reduced.

"When CAS is requested, the WMI operator should be able to see an aircraft icon on the screen and see the location of the aircraft's strike run. That helps eliminate fratricide on both fronts," said Terry Steinhebel, the subject-matter expert for the lead system integrator's FCS. "We'll be able to light up or ID the targets that we want the strike aircraft to engage as a red icon in the cockpit so the pilot can choose the best method to eliminate the threat."

Dugan also said that a combination of electronic tracking and following proper procedure helps promote better situational awareness and prevent fratricide.

"I have a checklist that I follow to make to sure I have everything set as far as the location of the enemy unit, its direction, and the location of my unit, so we can avoid friendly fire or fratricide incidents," he said.

Aside from battlespace awareness and fratricide prevention, another major benefit of the system is its remote operability.

"One of the main advantages of the WMI is we can operate the UAVs and UGVs from a remote base," Dugan said. "We can remain focused on the mission objective while spotting enemy units from a relatively safe distance. We don't have to place individuals in harm's way, only equipment."

When fielded, the system and WMI will provide the Army's future force with unprecedented network-centric capability and joint operability.

"What we're here for in JEFX is to start integrating with the Air Force at the infancy of FCS," said Steinhebel. "We're trying to make joint interoperability a cornerstone of the system so literally every person on the battlefield can talk to each other and know where everyone is positioned—total situational awareness."

Bressendorff is with Joint Expeditionary Force Experiment 2004 Public Affairs.

AMERICAN FORCES PRESS SERVICE (AUG. 5, 2004)
TRANSFORMATION CHIEF OUTLINES STRATEGY FOR NEW BATTLEFIELD

Samantha L. Quigley

WASHINGTON—Fighting on the new battlefield means a new strategy is in order, the Defense Department's director of force transformation said here Aug. 4 in an address to the Research and Development Partnership Conference.

The military is moving from the old, monolithic, bounded Red Zone of the Cold War to a huge, diffuse, and diverse Red Zone that is hardly monolithic and defies containment, said retired Navy Vice Adm. Arthur Cebrowski.

This shift requires a change in strategy, Cebrowski added. "It calls for a … strategy of connectedness," he said. "So the issue then is not so much how one contains it, as how one, indeed, connects to it."

In this case, "connects" means not only tangibly, but, as Cebrowski put it, by becoming competent for the age.

The networking of troop communications, both within and among the Services, is just one of the ways the director mentioned. Lightening the loads the forces carry and speeding transport abilities were also mentioned as methods to fight more effectively on a changing battlefield.

Cebrowski said the time has come to turn old models upside-down. The nation has always been strategically defensive and operationally offensive, he said. As problems like the possibility of weapons of mass destruction move in closer to home, he explained, it's becoming obvious that being operationally defensive is more advantageous. And because the consequences are so grave, strategic offense may be necessary, he added. "This is a

"[National security] is indeed global. It spans every element of human enterprise. It is social, it is political, it is technical, it is scientific, it is economic."

—Retired Navy Vice Adm. Arthur Cebrowski
Director, Office of Force Transformation

switch. It defies all the thinking we've had … for American diplomacy for a long time," he said.

The focus on intelligence has changed, too, he said. Social intelligence—an in-depth knowledge of local culture and customs—is being valued much more over military intelligence.

The issue of national security is all encompassing, Cebrowski said. "It is indeed global. It spans every element of human enterprise. It is social, it is political, it is technical, it is scientific, it is economic."

Since it is a global concern, there is an increased movement to open up the defense industry to a different kind of international relationship, he said. Opening up the defense industry keeps it from being limited to the ideas, technologies, and research that comes from within the United States.

These changes in the way wars are being fought are bringing about force transformations as well, Cebrowski said. More small units are becoming the norm, he added, and technology is making it easier and safer for servicemembers to do their jobs with greater effectiveness and accuracy.

"We're in the age of the small, the fast, and the many," Cebrowski said.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 18, 2004)
DOD ACCEPTS FIRST UID ITEMS

Acting Under Secretary of Defense for Acquisition, Technology and Logistics Michael W. Wynne today announced that the Department of Defense has accepted its first deliveries under the new unique identifier (UID) policy that requires contractors to mark and identify the cost of items delivered to the department. The accepted items are helicopter replacement cables ordered by the Defense Supply Center Richmond, Richmond, Va., from Lockheed Martin Corp. The cables were delivered on Aug. 9.

Wynne said that UID serves two purposes. It provides valuable business intelligence throughout the life cycle of an item, and it acts as the accurate source of data for valuation of property and equipment. The UID policy was started in July 2003 to enhance inventory management. It promotes greater accuracy in the tracking and control of spare parts.

Additional information on UID is available at <http://www.acq.osd.mil/uid/>.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 19, 2004)
SARS REPORT

The Department of Defense has released details on major defense acquisition program cost and schedule changes since the December 2003 reporting period. This information is based on the Selected Acquisition Reports (SARs) submitted to the Congress for the June 30, 2004, reporting period.

SARs summarize the latest estimates of cost, schedule, and technical status. These reports are prepared annually in conjunction with the president's budget. Subsequent quarterly exception reports are required only for those programs experiencing unit cost increases of at least 15 percent or schedule delays of at least six months. Quarterly SARs are also submitted for initial reports, final reports, and for programs that are rebaselined at major milestone decisions.

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operations and maintenance (except for pre-Milestone B programs, which

are limited to development costs pursuant to 10 U.S.C. §2432). Total program costs reflect actual costs to date as well as future anticipated costs. All estimates include anticipated inflation allowances.

The current estimate of program acquisition costs for programs covered by SARs for the prior reporting period (December 2003) was $1,332,027.2 million. After adding the costs for new programs and subtracting the costs for final reports (shown here) from the December 2003 reporting period, the adjusted current estimate of program acquisition costs was $1,267,552.2 million. There was a net cost increase of $1,524.9 million (+0.1 percent) during the current reporting period (June 2004), which was due primarily to higher cost estimates for the CVN 21 and Space-Based Infrared System (SBIRS) High programs.

For the June 2004 reporting period, there were quarterly exception SARs submitted for 14 programs. The reasons for the submissions are provided below.

CURRENT ESTIMATE ($ IN MILLIONS)	
December 2003 (78 programs)	**$1,332,027.2**
Plus three new programs (COBRA JUDY, MP RTIP, and SDB)	+4,856.6
Less final reports (ABRAMS UPGRADE, COMANCHE, the FCR portion of LONGBOW APACHE, the BLOCK I-III portion of SM-2, AWACS RSIP, and JSTARS)	-69,331.6
December 2003 Adjusted (77 programs)	**+1,267,552.2**
Changes Since Last Report:	
Economic	$ +18.5
Quantity	-6,119.0
Schedule	+72.1
Engineering	-412.0
Estimating	+7,949.0
Other	0.0
Support	+16.3
Net Cost Change	$+1,524.9
Plus initial procurement cost estimate for CVN 21 Future Aircraft Carrier (previous reports limited to development costs per 10 U.S.C. 2432)	+31,748.7
June 2004 (77 programs)	**$1,300,825.8**

Army

Chem Demil (Chemical Demilitarization)—The SAR was submitted to report schedule slips of six months or more since the December 2003 report. Specifically, the start of operations at Pine Bluff Chemical Agent Disposal Facility is expected to slip seven months from July 2004 to February 2005. The completion of operations at the Aberdeen Chemical Agent Disposal Facility is expected to slip 10 months from July 2005 to May 2006. The 100 percent agent destroyed milestone at Newport Chemical Agent Disposal Facility is expected to slip 16 months from January 2006 to May 2007. Finally, the start of construction at the Blue Grass Chemical Agent Destruction Pilot Plant is expected to slip eight months from January 2005 to September 2005. There were no cost changes reported since the December 2003 SAR.

Navy

AIM-9X Missile—The SAR was submitted to rebaseline from a development to a production estimate following the May 2004 approval of full-rate production (Milestone III) by the assistant secretary of the Navy for research, development, and acquisition. There were no cost changes reported since the December 2003 SAR.

ASDS (Advanced SEAL Delivery System)—The SAR was submitted to report a schedule slip of approximately 17 months (from May 2004 to October 2005). The production decision (Milestone C) was postponed until successful demonstration of the new lithium ion battery in ASDS-1 and testing of other design changes made to improve acoustic signature and reliability. There were no cost changes reported since the December 2003 SAR.

CVN 21 (Future Aircraft Carrier)—The SAR was submitted to rebaseline the program from a planning to a development estimate following approval of entry into system development and demonstration (Milestone B) in April 2004. Program development costs increased by $727.6M (+20.2 percent) from $3,605.8 million to $4,333.4 million, due primarily to a revised estimate of development costs approved at Milestone B. As a result of Milestone B approval, the program entered into the system development and demonstration phase in April 2004, and $31,748.7 million of procurement for three carriers has been added to the SAR. Previously, the CVN 21 SAR was limited to development costs only (per 10 U.S.C. §2432).

H-1 Upgrades—The SAR was submitted to report schedule slips of six months or more. Completion of integrated testing slipped by eight months (from August 2004 to April 2005) and the start of full-rate production (Milestone III) slipped by six months (from August 2005 to

February 2006), due to the tailboom annealing issues and associated schedule growth. Initial operational capability (IOC) for the AH-1Z slipped by 15 months (from March 2008 to June 2009), due to a change in the Marine Corps procurement profile to expedite replacement of the aging UH-1Y fleet. There were no cost changes reported since the December 2003 SAR.

MIDS-LVT (Multi-Functional Information Distribution System-Low Volume Terminal)—The SAR was submitted to rebaseline the program from a development to a production estimate following Navy approval of full-rate production (Milestone III) in June 2004. There were no cost changes reported since the December 2003 SAR.

V-22—The SAR was submitted to report a schedule slip of 30 months (from September 2004 to March 2007) in initial operational capability of the MV-22, and a schedule slip of 15 months (from June 2006 to September 2007) in initial operational test and evaluation completion of the CV-22. These delays were due to a new and expanded definition of IOC for the MV-22 in a change to the V-22 Joint Operational Requirements Document, and to a delay in developmental test of the CV-22 due to late return to flight, parts shortages, and transfer of test points from MV to CV. There were no cost changes reported since the December 2003 SAR.

Air Force

EELV (Evolved Expendable Launch Vehicle)—The SAR was submitted to report a schedule slip of six months (from March 2005 to September 2005) in the heavy lift vehicle first operational flight. This delay was due to scheduling conflicts at the Spacecraft Processing and Integration Facility at Cape Canaveral Air Force Station. Program costs decreased $557.1 million (-1.7 percent) from $32,346.5 million to $31,789.4 million, due primarily to variances between previous and new launch vehicle prices (-$8,249.0 million), launch quantity reductions (-$6,119.0 million), and shifts in payloads between vehicle classes (-$135.0 million). These decreases were partially offset by increases for infrastructure sustainment payments (+$12,791.3 million), program office technical support and operation expenses (+$908.4 million), and amortization of construction cost for the west coast launch pad (+$231.0 million).

SBIRS (Space Based Infrared System) High—The SAR was submitted to report a Nunn-McCurdy unit cost breach (i.e., a unit cost increase of 15 percent or more) and schedule delays of six months or more. Program costs increased $1,354.4 million (+15.7 percent) from $8,631.2 million to $9,985.6 million, due primarily to an increased engineering and manufacturing development estimate associated with technical performance challenges (+$1,118.4 million). Other cost increases are due to a one-year slip in geosynchronous earth orbit (GEO) satellites 1 and 2 deliveries (from September 2006 to September 2007, and from September 2007 to September 2008, respectively) (+$45.0 million), an extension of the contract beyond FY 2010 (+$131.8 million), an increased requirement associated with GEO satellites 3, 4, and 5 parts obsolescence due to program delays (+$182.0 million), addition of GEO 4 (FY 2012) and GEO 5 (FY 2013) funding due to restoration of launch support capability (+$66.2 million), and increased sustainment costs (+$111.6 million). These increases were partially offset by decreases associated with removal of Block II redesign funds that were reported in the last two annual SARs but were not included in the approved acquisition program baseline (-$412.0 million). The under secretary of the Air Force signed a Nunn-McCurdy Unit Cost breach notification letter to Congress on June 17, 2004.

New SARs (As of June 30, 2004)

The Department of Defense has submitted initial SARs for five new programs (listed here). These reports do not represent cost growth. Baselines established on these programs will be the point from which future changes will be measured. The current cost estimates are provided to the left.

For more detailed information on the SARs report, please go to <http://www.defenselink.mil/news/Aug2004/d20040819PP.pdf>.

CURRENT ESTIMATE ($ IN MILLIONS)	
Program	
JCM (Joint Common Missile)	$8,141.3
JTRS (Joint Tactical Radio System) CLUSTER 5	10,717.0
LCS (Littoral Combat Ship)	1,211.7
MMA (Multi-Mission Maritime Aircraft	31,428.6
TSAT (Transformational Satellite Communications System)	17,661.3
Total	**$69,159.9**

Pre-Milestone B program reporting development (Research, Development, Test and Evaluation) costs only in accordance with the provisions of 10 U.S.C. §2432.

ARMY NEWS SERVICE (AUG. 20, 2004)

NEW TECHNOLOGY IMPROVES HELICOPTER LIFECYCLE

Raini Wright

WASHINGTON—New technology being installed on helicopters provides preventive maintenance information that will increase the lifespan of its components. The 101st Airborne Division and the Utility Helicopter Project Office co-hosted a demonstration of the Integrated Mechanical Diagnostic Device Health Usage Monitoring System (IMD HUMS) at the Pentagon Heliport Aug. 19.

The primary goal of the IMD HUMS is to enhance maintenance by collecting and processing data about the critical mechanical systems and life-limited components on the aircraft. Aircraft parts will no longer need to be replaced based on their predicted lifespan; instead, parts will be replaced as needed. "This is the first system that recognizes regime profiles, which allows us to extend component lives," said Army Col. Cory Mahanna, project manager for utility helicopters. "The system monitors in real time what the aircraft does."

The information collected by the IMD HUMS is stored on a data card. That information can be downloaded onto the battalion's intranet so that the status of all aircraft can be monitored. In remote locations without intranet access it can be downloaded onto a stand-alone computer. The system also generates e-mails regarding flight maintenance.

Maintenance officers, pilots, commanders, and safety and standards officers view data collected by the IMD HUMS. The information collected shows restrictions, inefficiencies, inspections, and service schedules of aircraft. Additionally, the system directs signals and data to the Cockpit Voice/Flight Data Recorder to meet flight safety objectives.Not only will the IMD HUMS create changes for aircraft maintenance, but the system could also affect operations. Col. Will Harrison, 159th Brigade commander, predicts that the turnaround time between combat missions will decrease.

The cost of IMD HUMS installation is $150,000 per aircraft. Congress has allocated $56 million through 2005 for the project. Funding was not derived from the termination of the Comanche re-modernization project.

IMD HUMS were first installed on 20 UH-60L Black Hawk helicopters between September 2003 and January 2004 in Mosul, Iraq. The program started before Sept. 11 but was delayed. When the 101st Airborne Division re-deployed from Iraq, IMD HUMS were installed on the last 10 helicopters.

"We realized we needed as quickly as possible the benefits from the IMD HUMS—great reduction in manpower costs while in theater and the opportunity to take real measurements in combat, not measurements based on projected data," said Harrison.

A Department of Defense employee checks out an Army Black Hawk helicopter equipped with new technology, which will improve the life cyle of critical components Aug. 19 at the Pentagon heliport. Photo by Alicia Pettit

DAU TAKES TRAINING TO NAVAL RESERVISTS SERVING IN ACQUISITION-RELATED BILLETS

Recently, a group of Naval reservists, including senior officers from the Naval Air Systems Command (NAVAIR) Air Systems Program (ASP), attended a weeklong Defense Acquisition University (DAU) intermediate systems acquisition course (ACQ-201B) at Naval Reserve Forces Command in New Orleans, La. This was the first time that the course was offered to reservists drilling in acquisition-related billets.

The course is the second of three required to complete the academic portion of the Defense Acquisition Workforce Improvement Act (DAWIA) Level II certification in Program Management. DAWIA Level II Certification is critical in certain Naval Reserve communities in order to attain and maintain job-related qualifications that mirror those of their active duty counterparts, most of whom are Level II or Level III certified.

The 650 Naval Reserve officer and enlisted men and women of the ASP train constantly to respond to evolving NAVAIR missions, enabling the organization to harvest tangible cost reductions for fleet recapitalization. Reserve participation in ACQ-201B further underscores NAVAIR's alignment with the Navy's larger transformation of the entire Naval Reserve force and the active Reserve integration plan. "This training will ensure that reservists are always working on Naval aviation enterprise priorities and allow our Naval reservists to become more capabilities-based and to measure themselves by our number fleet-driven metric—'aircraft ready for tasking at reduced cost,'" said Vice Adm. Walter Massenburg, commander, NAVAIR.

"As members of the Reserve component, our intent in the ASP for many years was to become interchangeable with the active component regarding skills, experience, and training to support NAVAIR in a time of crisis or war," said course attendee Rear Adm. Richard J. Wallace, who assumed duties as the new ASP director in June 2004.

For more information on the Air Systems Program, contact Lt. Mike Randazzo, ASP public affairs officer, at asppao@yahoo.com.

DAU FACULTY MEMBERS ATTEND LOCKHEED MARTIN PROGRAM MANAGEMENT INSTITUTE

Bill Lankford

The Lockheed Martin (LM) Program Management Institute (PMI) is a four-day program that serves as the capstone course for the program management education offered LM employees at the LM Center for Leadership Excellence located in Bethesda, Md. The course is conducted three times a year.

LM recently invited DAU faculty members Bill Lankford, Bob Carlson, and Navy Cdr. Larry Haukenes to participate in the PMI as part of the DAU/LM exchange program. Just as DAU invites contractor/industry participants to join its courses to enhance the learning experience of both groups, LM believes that having DAU participants in the PMI is valuable for enhanced understanding of the two organizations' shared and respective processes and to provide DoD/ DAU/customer perspectives.

The PMI lists as its program objectives: to provide experienced program managers with insight into critically important aspects of program management, including business, financial, and customer relations issues; to discuss program management challenges with senior corporate executives; to share lessons learned and best practices in program management techniques; to network with peers and customers who will be leading major programs in the future; and to strengthen inter-company program management cooperation and teamwork.

Lankford is a systems engineering professor with the DAU, Mid-Atlantic Region, located at Patuxent River, Md. His career has included acquisition tours in the Pentagon, Naval Air Command, and the Federal Bureau of Investigation. He has served as DAU course manager for both SYS-201 and SYS-301. Lankford holds a bachelor's degree in marine engineering and master's degrees in systems management and national security and strategic studies.

DAU AND SBA SIGN INTERAGENCY AGREEMENT

Marcia Richard

On July 12, Hector Barreto, administrator, Small Business Administration (SBA), and Frank J. Anderson Jr., president, Defense Acquisition University, signed an interagency agreement establishing a flexible framework between the organizations to provide fair and equitable treatment of government employees with respect to educational opportunities relating to small business programs and acquisition training; to make reasonably uniform administration of educational and training opportunities, consistent with the missions of government departments and agencies; and to leverage federal agency resources by providing existing educational and training opportunities to federal employees

at no additional cost to the individual employee or the government.

Effective Aug. 23, DAU launched CON 260, "The Small Business Program," the first Department of Defense small business course. CON 260 is a hybrid consisting of 12 online hours and three classroom days. An example of the commitment of the two organizations was demonstrated in the course development support provided by SBA to DoD/DAU and the participation of one of the SBA's small business specialists in the upcoming CON 260 student pilot.

The Federal Acquisition Institute is currently reviewing the SBA/DAU interagency agreement to determine if they can piggyback on the agreement and work with both organizations to modify the course for use throughout the civilian agencies.

Richard is the associate director for performance support, DAU Curricula Development and Support Center, Fort Belvoir, Va.

INTERNATIONAL TEST AND EVALUATION ASSOCIATION PARTNERS WITH DEFENSE ACQUISITION UNIVERSITY

Dr. John D. Claxton

On July 7, Dr. Jim McMichael, vice president of the DAU and Gary L. Bridgewater, president of the International Test and Evaluation Association (ITEA) signed a memorandum of understanding (MOU) to share a mutual commitment to excellence in the training and education of the test and evaluation (T&E) professional community. Among other initiatives, the agreement includes sharing of training resources and collaboration on T&E training opportunities.

Dr. John D. Claxton, DAU program director for T&E curriculum will be working closely with the ITEA staff headed by Alan Plishker, the ITEA executive director, in the implementation of the MOU provisions. The signing of the MOU follows closely upon the Defense Acquisition University's joining many other commercial and defense industry organizations in their commitment as corporate members of ITEA.

ITEA is a not-for-profit educational organization founded in 1980 to further the exchange of technical information in the field of test and evaluation. Its international members include professionals from industry, government, and academia, who are involved in the development and application of policy and techniques used to assess the effectiveness, reliability, and safety of new and existing systems and products. The association provides an ongoing program of workshops, symposia, short courses, awards, and scholarships. Many of ITEA's events contribute to the continuous learning required of the Department of Defense acquisition workforce.

Claxton is the program director for T&E curriculum, learning programs and technology, DAU Capital and Northeast Region, at Fort Belvoir, Va.

AIR FORCE PERSONNEL CENTER NEWS SERVICE

AIR FORCE INTERN PROGRAM DEVELOPS FUTURE LEADERS

RANDOLPH AIR FORCE BASE, Texas (AFPN)—The Air Force Intern Program Central Selection Board convened here Sept. 20 to 24. The program lets 30 junior captains study the application of air and space power and observe senior Defense Department leaders in critical decision-making processes.

The fast-paced 18- to 24-month program is designed to develop tomorrow's leaders, officials said. While the program is available to line and nonline officers, a maximum of three slots are available to nonline officers.

"[It] is another great opportunity for young officers to continue their development," said Capt. William Schlichtig, chief of the Air Force Personnel Center's developmental education section here. "It's a method of preparing our very best officers for future key leadership positions."

The program combines hands-on experience as an intern in the offices of the Joint Chiefs of Staff, secretary of defense, and/or the Air Staff as well as an opportunity to earn an Air Force-funded master's degree in organizational leadership from George Washington University.

"Selection for [the program] is based on potential for greater achievement as demonstrated by an officer's ability to handle more challenging jobs," Captain Schlichtig said.

The program consists of two phases for interns not enrolled in GWU and three phases for those who are.

Officers incur a three-year active-duty service commitment upon completion of the program. Those who have not attended Squadron Office School in-residence will be allocated a quota to do so before starting the program.

For application instructions and more information, visit the officer professional developmental Web site at <http://www.afpc.randolph.af.mil/pme/>.

NDIA TO SPONSOR DEFENSE SYSTEMS ACQUISITION MANAGEMENT COURSE OFFERING FOR INDUSTRY MANAGERS

The National Defense Industrial Association will sponsor an offering of DAU's Defense Systems Acquisition Management (DSAM) course to interested industry managers Nov. 29–Dec. 3 in Orlando, Fla. DSAM uses the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for formal acquisition certification. It is designed to meet the needs of defense industry acquisition managers in today's dynamic environment, providing the latest information related to:

- Defense acquisition policy for weapons and information technology systems including discussion of the new DoD 5000 series (directive, instruction, and guidebook)
- Defense acquisition and logistics excellence initiatives
- Defense acquisition procedures and processes
- The planning, programming, and budgeting system and the congressional budget process
- The relationship between requirements generation, resource allocation, science and technology activities, and acquisition programs.

For further information, contact Christy O'Hara (703) 247-2586 or e-mail cohara@ndia.org. Government students interested in attending should contact Bruce Moler, (703) 805-5257 or e-mail bruce.moler@dau.mil.

OVERVIEW OF USD(AT&L) CONTINUOUS LEARNING POLICY

Acquisition personnel in Defense Acquisition Workforce Improvement Act (DAWIA) billets who are certified to the level of their position must earn 80 continuous learning "points" to meet Continuous Learning Policy requirements issued by the USD(AT&L) on Sep. 13, 2002. Continuous learning augments minimum education, training, and experience standards. Participating in continuous learning will enhance your career by helping you to:

- Stay current in acquisition functional areas, acquisition and logistics excellence-related subjects, and emerging acquisition policy
- Complete mandatory and assignment-specific training required for higher levels of DAWIA certification
- Complete "desired" training in your career field
- Cross-train to become familiar with, or certified in, multiple acquisition career fields
- Complete your undergraduate or advanced degree
- Learn by experience
- Develop your leadership and management skills.

A point is generally equivalent to one hour of education, training, or developmental activity. Continuous learning points build quickly when you attend training courses, conferences, and seminars; complete leadership training courses at colleges/universities; participate in professional activities; or pursue training through distance learning. Continuous learning points are assigned to distance learning courses <http://clc.dau.mil> based on their academic credits or continuing education units. Other activities such as satellite broadcasts, viewing a video tape, listening to an audio presentation, or working through a CD-ROM or Internet course can earn continuous learning points on a 1 point per 1 hour of time devoted to that activity. On-the-job training assignments, intra- and inter-organizational, rotational, broadening, and development assignments may also qualify toward meeting the continuous learning standards.

INTERACTIVE DOD 5000 SERIES DOCUMENTS

The Defense Acquisition University has activated an interactive DoD 5000 Web site as a useful tool intended to allow users to easily navigate among the following three interactive DoD 5000 series documents: DoD Directive 5000.1, DoD Instruction 5000.2, and the *Defense Acquisition Guidebook*.

The interactive DoD 5000 documents at <http://dod5000.dau.mil/dod5000%20instructions.htm> contain internal and external links to sources of information based on subject matter and topic areas, and are integrated with the AT&L Knowledge Sharing System (AKSS) and Acquisition Community Connection (ACC) Web sites at <http://deskbook.dau.mil/jsp/default.jsp> and <http://acc.dau.mil/simplify/ev_en.php> respectively.

AMERICAN FORCES PRESS SERVICE (JULY 8, 2004)

NEW CIVILIAN PERSONNEL SYSTEM TO ADD EFFICIENCY, SATISFACTION

Donna Miles

WASHINGTON (AFPN)—The new National Security Personnel System will improve the working environment within the Defense Department while creating a more satisfied, more prod uctive workforce, Navy Secretary Gordon England said July 7.

"That's what this is about: great job satisfaction," England said. "We want everybody to go home every night and brag about the great job they accomplished that day. That is what we are trying to accomplish."

Congress authorized the new personnel system as part of the fiscal 2004 National Defense Authorization Act. It will introduce sweeping changes to the way the department hires, pays, promotes, disciplines, and fires its 700,000 civilian workers, doing away with antiquated practices England said have bogged down the department for decades.

For example, it will consolidate nine separate personnel systems that now govern DoD civilian workers. Streamlining these systems into one "will make it easier to manage and certainly [will be] better for our employees," England said.

The system will include faster procedures for hiring new workers, pay based on performance rather than tenure, and "pay bands" to replace the current general-service pay scale, he said.

Details are still being worked out, said England, who was tapped by Defense Secretary Donald Rumsfeld to put NSPS into place. He said valuable input has come from a variety of pilot projects, which he called "learning exercises to make sure we've got it right before we start."

By the year's end, England said he expects to publish in the *Federal Register* proposed regulations for the new civilian human resources, labor-management relations, and employee appeals and grievance systems.

The first DoD civilians are expected to come under the new system in summer 2005, and DoD will phase in the system through late 2008, England said.

Despite these projected timetables, England said the implementation will be "event-driven, not time-driven. When we are ready we will do it, and not before."

In the meantime, officials are seeking input from people throughout DoD to make sure they come up with the best civilian personnel system possible, England said.

"It's a collaborative process; it's not negotiating to an answer," he said. "It is getting input from literally thousands of people around the country and around the world so we can understand their views."

Putting the new system into place while continuing DoD's mission will be a bit of a challenge, the secretary said.

"It's a little like maintaining an airplane while it's flying," he said. "The process has to be thoughtful and reasonably measured."

The new system, when fully in place, will benefit employees while making the department better able to respond to the challenges ahead, including the terrorism threat, England said.

"The whole premise is to have a highly effective workforce ... that dearly loves to work for the Department of Defense, is well-trained and highly competitive," he said. The result, he said, will be "a system that best represents our most valuable asset: our people."

AIR FORCE PERSONNEL CENTER NEWS SERVICE (JUL 17, 2004)

FORCE DEVELOPMENT INCLUDES CIVILIANS

RANDOLPH AIR FORCE BASE, Texas—Career civilian employees will soon have more focused career guidance and expanded opportunities because of a new initiative taking place at the Air Force Personnel Center here this summer.

Civilian career field management is a part of force development that will align civilian and military career fields to develop future leaders.

"This is a big change in Air Force civilian career management," said Gregory Den Herder, the center's executive director. "We've realigned civilian management to provide a systematic approach to developing and sustaining the civilian workforce.

"The foundations of [the new program] were already in place within our civilian career program directorate," he said. "Now we've tied development, analysis, and employment together."

Under the new program, all civilian positions have been assigned to a specific career fields similar to military specialties. Each career field will have a career path that helps employees determine where to go or what to do to advance in their careers.

Similar to the officer corps, civilian career fields have development teams located at the personnel center. Twenty-four teams will fill positions and manage specific career fields.

The new program will enhance current opportunities for civilian professional education, advanced academic degrees, broader assignment experiences, and upward mobility, personnel officials said. It will also identify cross-functional paths to expose civilians to a broader scope

of operational activities to prepare them for senior-leadership positions.

"The main goal ... is to ensure that the right employee gets to the right job with the right skills," Den Herder said.

ARMY NEWS SERVICE (AUG. 1, 2004)
CORPS OF ENGINEERS RECRUITING FOR IRAQ

Denver Beaulieu-Hains

WASHINGTON—The Army Corps of Engineers is recruiting soldiers who are leaving the Army, retired military, family members, and Department of Defense civilians to work in Iraq and Afghanistan.

The Corps now has 328 civilian positions to fill in Iraq and Afghanistan. The goal is to have all of the positions filled by December, if not sooner, officials said.

"We're pulling out the stops to try to recruit people," said Shelia Dent, chief of the Corps' employment and compensation management division. "The Corps is using every hiring tool at its disposal, including recruitment bonuses, hardship pay, direct hiring authority, and dual compensation waivers to entice soldiers leaving the Army and retired federal employees back to work.

Since the war on terrorism began, the Corps has deployed about 2,000 personnel.

Pat Burgess, national emergency program manager for the Corps' South Atlantic Division, said she volunteered to deploy to Iraq because she wanted to do something different and add to the mission. Burgess has spent eight months in Kuwait and Iraq during two separate tours.

"I'm an adrenaline junkie, and I'm in the twilight of my career," said Burgess, who has 35 years of federal service and is eligible for retirement. "I felt I needed to do one more good thing in my career before I retired. I wanted to utilize my operational background—to see how the work I do in rear support serves at the other end."

Before joining the corps, Burgess worked as a reserve mobilization specialist for the U.S. Army Reserve Command. She had ample opportunity to see the relationship between stateside planning and overseas execution, but never had the opportunity to deploy personally.

"We believe there are soldiers who may be leaving the military, retired military, and even family members who have critical skills and experiences that make them a perfect fit for some of the positions we're filling," Dent said.

"Most people don't realize, out of the 300 personnel in theater, there are only about four dozen U.S. military noncommissioned officers and officers working for the Corps in Iraq," said Maj. Gen. Ronald Johnson, the first commander of the Corps' Gulf Region Division.

During a recent interview with the Fox television network, Johnson credited the Corps' success to its civilian volunteers, which is the much larger population.

"The civilians are making a great sacrifice, and they are making a difference," Johnson said.

Employees of the GRD in Iraq are improving the oil infrastructure, power supply, water resources infrastructure, hospitals, education, roads, and bridges—all the things needed to build a strong society. The Corps also supports the military by constructing buildings and facilities.

In Afghanistan, the Afghanistan Engineer District is building new structures including power, water, sewage, barracks, and other facilities for the Afghan National Army, and repairing runways and base camp improvements for the coalition military. They are also providing technical and quality assurance support to the U.S. Agency for International Development.

The Corps seeks engineers, engineer technicians, program and project managers, resource managers, accountants, contracting officers, auditors, administrative support staff, and safety and health officials. Other openings include logistics and information technology.

To find out more information or apply for the Army Corps of Engineers, a link is available on the Army's Civilian Personnel Online Web site at <http://www.CPOL.army.mil>, which provides employment opportunities.

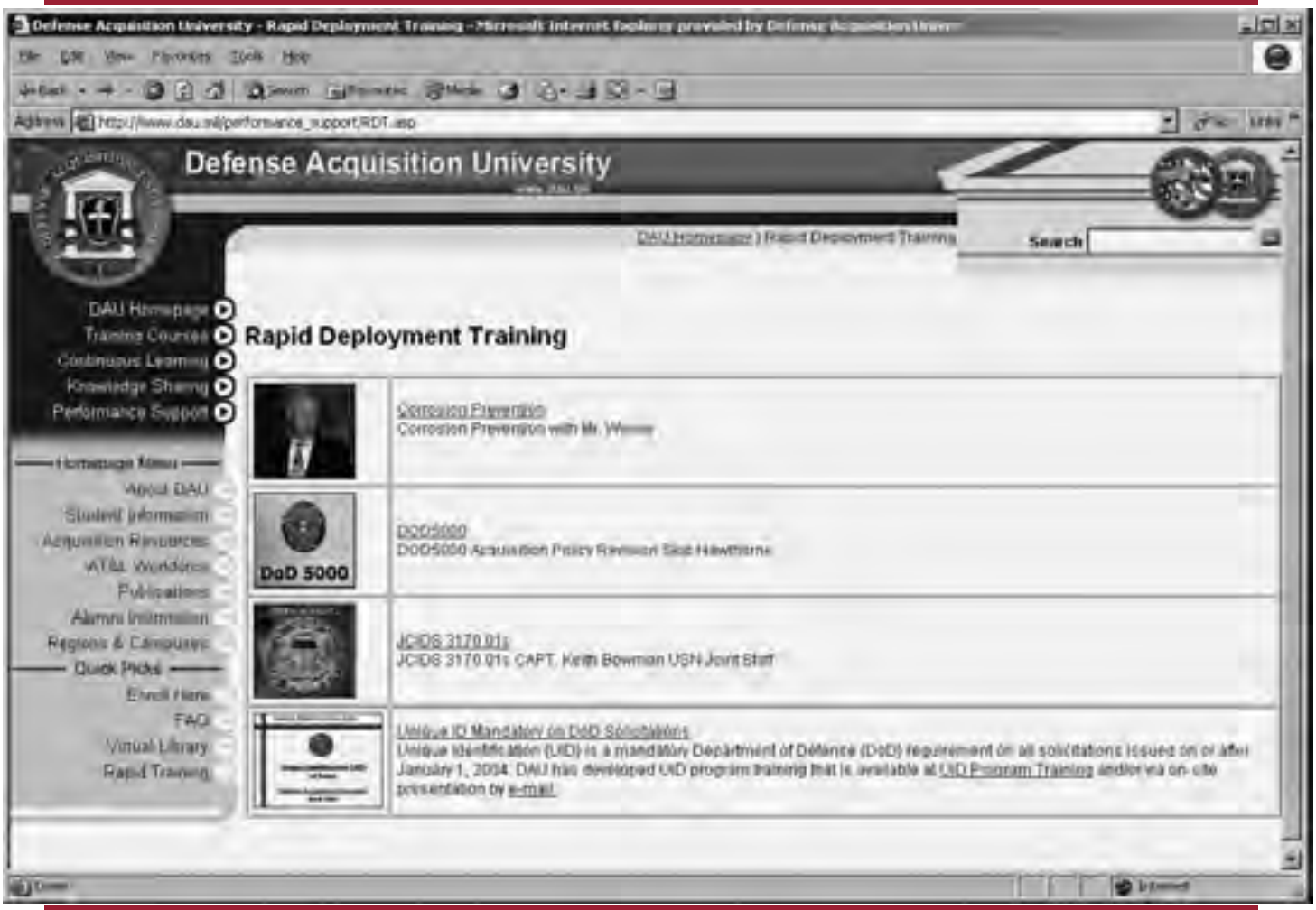
For more information, contact the U.S. Army Corps of Engineers Human Resources Office by e-mail at CEHEC-CP@hq02.usace.army.mil or call (202) 761-1885.

The Defense Acquisition University (DAU) Introduces New Web Site on

Rapid Deployment Training (RDT)

Check out DAU's RDT course offerings at:

http://www.dau.mil/performance_support/RDT.asp



NEW DEPARTMENT OF DEFENSE WIRELESS COMMUNITY OF PRACTICE WEB SITE

The Department of Defense Directive 8100.2, *Use of Commercial Wireless Devices, Services, and Technologies in the DoD Global Information Grid (GIG)*, directs the development and use of a knowledge management (KM) process to promote the sharing of wireless technology capabilities, vulnerabilities, vulnerability mitigation strategies, lessons learned, and best practices throughout the Department of Defense (DoD). This directive prompted the creation of the DoD Wireless Community of Practice (CoP) Web site to enable DoD components, agencies, and appropriate groups and individuals to share knowledge pertinent to the emerging and dynamic commercial wireless environment in an online workspace.

The DoD Wireless CoP Web site will enable wireless community members to capture and share information pertaining to the acquisition and use of commercial wireless devices, services, and technologies that operate either as part of the DoD Global Information Grid or as part of DoD non-GIG information technology stand-alone systems. This new community invites the acquisition community to participate and contribute any information that would assist government agencies and services desiring to acquire wireless technology. The community is also looking for members to volunteer as content area managers/editors for the acquisition content area of the CoP.

The DoD Wireless CoP <http://acc.dau.mil/simplify/ev_en.php> has achieved initial operating capability and is available for the wireless community to contribute information to and to conduct research about policy, security, acquisitions, research and development, and academia/industry. There will be several instantiations of the DoD Wireless CoP on the Internet, uNclassified but Sensitive Internet Protocol Router Network (NIPRNet), and Secret Internet Protocol Router Network (SIPRNet). An additional site containing information about wireless vulnerabilities will be accessible via the SIPRNet.

Please contact the community's editor, Peter Zarrella, zarrellp@ncr.disa.mil, to volunteer, ask questions, or provide comments about the DoD Wireless CoP.

USD(AT&L) PUBLISHES THE DEFENSE ACQUISITION GUIDEBOOK

The *Defense Acquisition Guidebook* is now complete, approved, and ready for use at <http://akss.dau.mil/DAG>. The *Guidebook* contains discretionary information, complementary to the DoD Directive 5000.1 and DoD Instruction 5000.2 signed May 12, 2003. The *Guidebook* was completely re-written, chapter by chapter, by content owner-editors from various responsible staff agencies, under the leadership of the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics). Each chapter was written with the other chapters in mind, to enable users to link to pertinent information in each chapter as well as related material in other chapters. The new *Guidebook* replaces the *Interim Defense Acquisition Guidebook* as an interactive Web-based tool. An on-site tutorial will assist users in the capabilities and navigation of the *Guidebook* Web site. Various scenarios illustrate how users might use the *Guidebook* to find relevant information to meet specific milestone or readiness requirements. Users in the AT&L community can navigate interactively through key terms and requirements in DoD Directive 5000.1and DoD Instruc-

tion 5000.2 and to discretionary guidance in the *Defense Acquisition Guidebook*.

Users also have the option to navigate via the Life-cycle Phase and Milestone Framework model, which details information required, templates and examples, and guidebook and interactive Web links. By selecting the phase or milestone in the interactive graphic, users can quickly determine the planning and document requirements for a given program. Interactive links within the tables assist users by providing explanation of the documentation, as well as templates and practical examples.

In addition, users can select the "Functional/Topical View" link at <http://akss.dau.mil/dag/DoD5000.asp?view=functional> to find information related to each major functional discipline within the acquisition process. Selecting from the functional topics (shown above as they appear online) leads users directly to a listing of topically relevant paragraphs and sections within the guidebook. Users can easily access information as it relates to a specific functional area. All information has been collated and organized so that users can quickly determine what material is available in the guidebook to assist in meeting program requirements, plans, and milestones.

We Need Your Feedback

The *Guidebook* consists of hundreds of interactive pages and thousands of links. It is imperative that the user community participate in the management and maintenance of this tool. All discrepancies should be brought to the attention of the *Guidebook* management team at DAU. Users are encouraged to explore the *Guidebook* and provide feedback, suggestions, and corrections. Questions on *Guidebook* content should be submitted via the Ask-a-Professor link (using the Acquisition Policy Category) in AKSS. System performance issues should be addressed to the Web Help Desk at ISSC@dau.mil.

AIR FORCE *ACQ NOW* UPDATE
FY 2005 DAU SCHEDULE NOW AVAILABLE FOR STUDENT REGISTRATION

The FY 2005 Defense Acquisition University (DAU) schedule has been loaded and is now available for student registration. Air Force students may submit their applications via *ACQ Now*, the Air Force registration system for DAU acquisition training. Student registration is available only for classroom (resident/on-site) courses and quota-managed Web courses (PMT-250/BCF-102). Rolling admission Web courses for FY 2005 became available on Oct. 1, 2004. Students wishing to enroll in Web-based training should continue to use FY 2004 from the drop down menu until the new fiscal year starts; then they may use FY 2005. IRM-201 and IRM-303 courses have not yet been loaded into the schedule but should be available shortly. Please check the *ACQ Now* bulletin board at <https://www.atrrs.army.mil/channels/acqnow/default.asp> for information about availability of these courses in FY 2005.

ACQUISITION, TECHNOLOGY AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010

14 JUL 2004

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY
(ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE
(ACQUISITION)
DIRECTORS, DEFENSE AGENCIES

SUBJECT: Acquisition Domain Transition Planning

To begin the Acquisition Domain's transition planning process, the Interim State Procurement Enterprise Systems have been defined as previously briefed to the Acquisition Governance Board (AGB) and the Business Management Modernization Program (BMMP) Steering Committee. The Interim State defines the Federal and DoD systems that provide procurement and procurement-related capabilities to the DoD Military Departments and Defense Agencies. Since the Interim State is procurement-focused, it will expand to include the entire acquisition process as the inventory of acquisition enterprise business systems expands. As the Domain manages the investment in duplicative solutions, this Interim State defines the solution set that each Military Department and Defense Agency will use to procure goods and services and conduct other procurement-related activities.

Each Military Department and Defense Agency will transition to these solutions no later than October 31, 2005. Systems providing duplicative capabilities to the Interim State systems without an Acquisition Domain approved compliance package will not receive Acquisition Domain endorsement to the Office of Secretary of Defense, Comptroller (OSD(C)) for obligation authority, required per the 2004 DoD Authorization Act. The Interim State is also documented in several architecture products that can be found at the Acquisition Domain portal, https://portal.acq.osd.mil/portal/server.pt. I have detailed specific deployment goals for the Standard Procurement System (SPS) Version 4.2.2 and Version 4.2.3 in a separate memorandum.

Your endorsed plan for incorporating the Domain Interim State systems to the business processes and systems architecture within your Military Department or Defense Agency is due August 31, 2004. This plan should incorporate technical integration, process re-engineering, deployment timeline and retirement plans for duplicative systems. Transition planning guidance is available through the Acquisition Domain. Please ensure your Military Department and Defense Agency plans are provided, as requested, to Ms. Diane Morrison, diane.morrison@osd.mil, 703-614-3883, my action officer for this effort.

Michael W. Wynne
Acting

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

14 JUL 2004

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY
(ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE
(ACQUISITION)
DIRECTORS, DEFENSE AGENCIES

SUBJECT: Standard Procurement System Deployment

The deployment of the Standard Procurement System (SPS) Procurement Desktop-Defense (PD2) application continues to be a key initiative of the Department. However, numerous other contract writing systems continue to be utilized by the Military Departments and Defense Agencies, contrary to previous direction. Please be advised again that SPS/PD2 is the interim state solution for contract writing capabilities within the Acquisition Domain.

Formidable upgrades are currently in the process for SPS/PD2. Version 4.2.2 is the most current deployed version. Combined with the SPS Adapter, Version 4.2.2 is now more flexible and responsive to the integration needs of the Military Departments and Defense Agencies. Additionally, representatives from all Military Departments and Defense Agencies are supporting the SPS Joint Requirements Board to outline and review the requirements for Version 4.2.3, due for delivery to the government in Q1FY06. This release will be web-based and more easily accessible and manageable to the contracting community. Both versions also fulfill key requirements of the Department's Business Management Modernization Program (BMMP) including the ability to obtain a clean audit opinion.

All Military Departments and Defense Agencies should plan for the deployment of each of these versions of SPS/PD2. Upgrades of the current SPS/PD2 user base to Version 4.2.2, as well as the Defense Contract Management Agency (DCMA)'s planned initial deployment, shall be completed by April 30, 2005. Military Departments and Defense Agencies should also deploy Version 4.2.2 to new user bases in order to retire legacy contract writing systems. Given Version 4.2.3's development and delivery schedule, each Military Department and Defense Agency should also plan to upgrade its user base and deploy to all remaining procurement users by October 1, 2006, retiring all remaining legacy contract writing systems.

Please provide or update your Military Department's or Defense Agency's deployment plans for SPS/PD2 with the SPS Joint Program Management Office (JPMO) to account for these dates by August 31, 2004. Deployment plans should indicate if an Acquisition Domain-endorsed application other than SPS will be used for contract writing capabilities. Ms. Debbie O'Rourke, deborah.orourke@eis.army.mil, (703) 460-1290, is the point of contact for the SPS JPMO. My action officer for SPS is Ms. Lisa Romney, lisa.romney@osd.mil, (703) 614-3883. Additionally, please ensure your deployment plans are captured in your Component Transition Strategies, directed by separate memorandum, to be provided to the Acquisition Domain.

Michael W. Wynne
Acting

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

21 JUL 2004

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
COMMANDER, U.S. SPECIAL OPERATIONS COMMAND
DIRECTOR, MISSILE DEFENSE AGENCY

SUBJECT: Insensitive Munitions (IM) Strategic Planning

This memorandum establishes Department of Defense policy for the annual submission of Insensitive Munitions Strategic Plans to the Joint Requirements Oversight Council (JROC) and the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) (OUSD(AT&L)). The first submission is due February 15, 2005.

Section 2389 of Title 10, United States Code, requires the Secretary of Defense to "ensure, to the extent practicable, that insensitive munitions under development or procurement are safe throughout development and fielding when subjected to unplanned stimuli." The JROC monitors and keeps me informed with respect to compliance with IM requirements policy through the established waiver process; however, this process is sub-optimized, limiting the JROC's view to individual munition programs without insight or recognition of other/related IM efforts or investment priorities. This new policy will serve to increase our visibility into the total Program Executive Office (PEO) munitions portfolio and enable decisions to be made in a broader context. The transition towards a totally IM-compliant munitions inventory becomes more clearly defined by this perspective. To this end the Secretaries of the Military Departments, Director, Missile Defense Agency, and Commander, Special Operations Command will ensure that PEOs with weapon responsibilities develop and submit annual IM Strategic Plans to the JROC and OUSD(AT&L). The Plans will be co-signed by the appropriate Acquisition Executive and Comptroller (or Resource Sponsor), thus conveying a commitment to execution and funding.

Starting in February 2005, annual IM Strategic Plans will be the vehicle to submit and consolidate IM waiver requests. However, addressees will retain the flexibility to submit individual waiver requests, in the unusual case where such a request is needed, to meet specific urgent program milestones in a timely manner. All out-of-cycle requests shall be reported in the next annual plan submission. All other aspects of the current IM waiver request review and approval process remain unchanged.

The OSD point of contact for additional information on IM Strategic Planning policy and development is Mr. Tony Melita, (703) 695-1382, Anthony. Melita@osd.mil. The JROC point of contact is: Division Chief, J8 Capabilities and Acquisition Division, (703) 614-3682.

Michael W. Wynne
Acting

cc:
Director, Defense Research and Engineering

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

July 30, 2004

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Radio Frequency Identification (RFID) Policy

In my capacity as the Defense Logistics Executive (DLE), this memorandum issues the policy for implementing Radio Frequency Identification (RFID) across the Department of Defense (DoD). This policy finalizes the business rules for the use of high data capacity active RFID (Attachment 1) and finalizes the business rules for the implementation of passive RFID and the use of Electronic Product Code™ (EPC) interoperable tags and equipment (EPC Technology) within the DoD supply chain (Attachment 2). Attachment 3 prescribes the implementation approach for DoD suppliers/vendors to apply passive RFID tags. This policy memorandum applies to the Office of the Secretary of Defense (OSD); the Military Departments, the Joint Chiefs of Staff and the Joint Staff; the Combatant Commands; the Inspector General of the Department of Defense; the Defense Agencies; and the DoD Field Activities (hereafter referred to collectively as the "DoD Components"). An internal implementation strategy for DoD Components to read and apply passive RFID tags will be issued in a separate Defense Logistics Executive (DLE) decision memorandum. This policy supersedes two previous issuances of policy dated October 23, 2003, and February 20, 2004.

DoD Components will immediately resource and implement the use of high data capacity active RFID in the DoD operational environment. Attachment 1 outlines the detailed guidance on active tagging. DoD Components must ensure that all consolidated shipments moving to, from, or between overseas locations are tagged, including retrograde, and must expand the active RFID infrastructure to provide global intransit visibility. In order to take advantage of global RFID infrastructure not within DoD's control, the DoD Logistics Automatic Identification Technology Office will assess the ability to leverage any compatible active RFID commercial infrastructure that commercial entities may establish. This should not be viewed as direction to commercial carriers and port operators to establish an active RFID infrastructure.

Attachment 2 contains the detailed guidance on implementation of passive RFID capability within the DoD supply chain as well as the data constructs for the tags. DoD will use and require its suppliers to use EPC Class 0 and Class 1 tags, readers and complementary devices. DoD will migrate to the next generation tag (UHF Gen 2) and supporting technology. When the specification for UHF Gen 2 is finalized, the Department will announce a transition plan to this technology, but we expect use of EPC Class 0 and Class 1 technology for approximately two years.

Radio Frequency Identification will be a mandatory DoD requirement on solicitations issued on or after October 1, 2004, for delivery of materiel on or after January 1, 2005, in accordance with the supplier implementation plan at Attachment 3. Contracts with DoD shall require that passive RFID tags be applied to the case, pallet and item packaging for unique identification (UID) items in accordance with Attachment 3. The Defense Logistics Board (DLB) will review the internal implementation plan, benefits, compliance requirements, and requisite budget requirements annually based on an assessment of the implementation to date. This review will include an updated analysis of implementation success as well as provide guidance for expansion of RFID capabilities into additional applications and supply chain functional processes. A DLE decision memorandum will provide funding guidance for DoD Component implementation.

In order for the DoD Components to meet the requirements of this policy, we have developed a Department-wide RFID Concept of Operations (CONOPS) to outline the transformational role of RFID technology in DoD logistics and to articulate the specific uses of both active and passive RFID throughout the DoD supply chain. Components will prepare a supporting RFID implementation plan that encompasses both active and passive RFID technology in a cohesive environment to support the DoD vision. Active RFID implementation plans are already due and an update to include passive RFID implementations is due to the ADUSD(SCI) by October 29, 2004, to ensure total interoperability and standardized implementation throughout the Department.

To support the purchase of passive RFID technology and leverage the purchasing power of the Department, the Army's Program Executive Office Enterprise Information Systems (PEO EIS) continues development of a multi-vendor contract mechanism to procure EPC technology. This contract will include competitive vendors providing RFID equipment/infrastructure in accordance with current published EPC specifications (Class 0 and Class 1) and, when published, specifications for UHF Gen 2.

To institutionalize RFID as a standard way of doing business, this policy will be incorporated into the next update of the DoD Supply Chain Materiel Management Regulation (DoD 4140.1-R), the Defense Transportation Regulation (DoD 4500.9-R) and the Military Standard 129. Likewise, DoD Components will incorporate this policy into Service/Agency-level publications as well as Component strategies to achieve compliance with the DoD Business Enterprise Architecture–Logistics (BEA-LOG).

The following policy also applies to take full advantage of the inherent life cycle management efficiencies of this technology: Beginning in FY 2007 and beyond—only RFID-capable AIT peripherals (e.g., optical scanners, printers used for shipping labels) will be acquired when these peripherals support RFID-capable business processes. Beginning in FY 2007 and beyond—logistics automated information systems (AIS) involved in receiving, shipping and inventory management will use RFID to perform business transactions, where appropriate, and AIS funding will hinge on compliance with this policy. Managers of all major logistics systems modernization programs will update appropriate program documentation to include the requirement for RFID capabilities as part of the system operational deployment in conformance with the business rules and initial timeline set forth in this policy. Managers of major acquisition programs will update programs as required to include the requirement for RFID capabilities where applicable. The DLB will review these requirements prior to FY 2007 implementation.

We will continue to partner with your staffs as well as our suppliers on this critical initiative. RFID remains part of the larger suite of AIT technologies and the Department will leverage all of these technologies, where appropriate in the supply chain, to improve our ability to support the warfighter. However, an RFID-capable DoD supply chain is a critical element of Defense Transformation and will provide a key enabler for the asset visibility support down to the last tactical mile that is needed by our warfighters. Your continued efforts are vital to our success in meeting this requirement. For further information, please refer to our website at <http://www.dodrfid.org >.

Michael W. Wynne
Acting

Attachments:
As stated

Editor's note: To view the distribution and attachments to this memorandum , go to <http://www.acq.osd.mil/log/logistics_materiel_readiness/organizations/sci/rfid/assetts/Policy/RFID%20POLICY.PDF >.

ACQUISITION, TECHNOLOGY AND LOGISTICS

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

AUG 16 2004

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS

SUBJECT: Performance Based Logistics: Purchasing Using Performance Based Criteria

The Deputy Secretary of Defense memorandum of February 4, 2004, "Implementation of the Defense Business Practice Implementation Board (DBB) Recommendation to the Senior Executive Council (SEC) on Continued Progress on Performance Based Logistics," directed that my office issue clear guidance on purchasing weapon system logistics support using performance-based criteria. That guidance follows.

DoD 5000.1, the Defense Acquisition System, requires program managers to develop and implement performance based logistics (PBL) strategies that optimize total system availability while minimizing cost and logistics footprint. PBL strategies may be applied at the system, subsystem, or major assembly level depending upon program unique circumstances and appropriate business case analysis. PBL arrangements will be constructed to truly purchase performance, as detailed in this memorandum.

Those purchasing PBL should follow Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) guidance, as appropriate, for the acquisition of logistics services and support and should seek to utilize FAR Part 12--"Acquisition of Commercial Items" to acquire PBL as a commercial item. Additional information regarding PBL implementation is included in the DoD Interim Defense Acquisition Guidebook.

For PBL, "performance" is defined in terms of military objectives, using the following criteria:

(1) Operational Availability. The percent of time that a weapon system is available for a mission or ability to sustain operations tempo.

(2) Operational Reliability. The measure of a weapon system in meeting mission success objectives (percent of objectives met, by weapon system). Depending on the weapon system, a mission objective would be a sortie, tour, launch, destination reached, capability, etc.

(3) Cost Per Unit Usage. The total operating costs divided by the appropriate unit of measurement for a given weapon system. Depending on weapon system, the measurement unit could be flight hour, steaming hour, launch, mile driven, etc.

(4) Logistics Footprint. The government/contractor size or "presence" of logistics support required to deploy, sustain, and move a weapon system. Measurable elements include inventory/equipment, personnel, facilities, transportation assets, and real estate.

(5) Logistics Response Time. This is the period of time from logistics demand signal sent to satisfaction of that logistics demand. "Logistics Demand" refers to systems, components, or resources, including labor, required for weapon system logistics support.

PBL metrics should support these desired outcomes. Performance measures will be tailored by the Military Departments to reflect specific Service definitions and the unique circumstances of the PBL arrangements.

The preferred PBL contracting approach is the use of long-term contracts with incentives tied to performance. Award term contracts should be used where possible to incentivize optimal industry support. Incentives should be tied to metrics tailored by the Military Departments to reflect their specific definitions and reporting processes. Award and incentive contracts shall include tailored cost reporting to enable appropriate contract management and to facilitate future cost estimating and price analysis. PBL contracts must include a definition of metrics and should be constructed to provide industry with a firm period of performance. Wherever possible, PBL contracts should be fixed price (e.g., fixed price per operating or system operating hour). Lack of data on systems performance or maintenance costs, or other pricing risk factors may necessitate cost-type contracts for some early stage PBLs. Full access to DoD demand data will be incorporated into all PBL contracts. PBL contracts should be competitively sourced wherever possible and should make maximum use of small and disadvantaged sources. PBL contractors should be encouraged to use small and disadvantaged businesses as subcontractors, and may be incentivized to do so through PBL contractual incentives tied to small and disadvantaged business subcontracting goals.

The Defense Acquisition University (DAU) website (www.dau.mil) provides courses in performance based service acquisition and PBL as well as PBL "lessons learned." Maximizing use of these DAU resources will increase our ability to support the warfighter.

This guidance is effective immediately and will be incorporated into the Defense Acquisition Guidebook.

Michael W. Wynne
Acting

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3000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301 - 3000

ACQUISITION, TECHNOLOGY AND LOGISTICS

JUL 07, 2004

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Instructions for Modular Open Systems Approach (MOSA) Implementation

A Modular Open Systems Approach (MOSA) is a means to assess and implement, when feasible, widely supported commercial interface standards in developing systems using modular design concepts. It is an integral part of the toolset that will help DoD achieve its goal of providing the joint combat capabilities required in the 21st century, including supporting and evolving these capabilities over their total life cycle. The USD(AT&L) memorandum, dated April 5, 2004, states: "commencing 1 Oct 04 all programs subject to milestone review shall brief their program's MOSA implementation status to the Milestone Decision Authority (MDA) for compliance." The purpose of this memorandum is to describe how this requirement will be addressed for systems and systems-of-systems in the formal acquisition process.

Given the enabling relationship of a modular open systems approach to evolutionary acquisition, DoD acquisition programs should address Modular Open Systems Approach (MOSA) early in their program and acquisition planning, and should discuss MOSA implementation in the context of their overall Acquisition Strategy and to the extent feasible in the Technology Development Strategy. MOSA implementation issues should be identified and addressed via the IPT process and presented as issues to the MDA only when unresolved at a lower level.

The Open Systems Joint Task Force (OSJTF) is my lead for MOSA and has developed the Program Assessment and Rating Tool (PART) for your use in conducting your internal MOSA implementation assessments. Program Managers should either use the PART, or an equivalent method of assessment, to generate objective data on the success of their MOSA implementation. The OSJTF Program Managers MOSA guide and PART are available at http://www.acq.osd.mil/osjtf/html/mosa_assessment.html. Additionally, pertinent MOSA and PART information will be provided in the next update to the DoD Acquisition Guidebook.

The OSJTF is responsible for the development and oversight of MOSA policy to include emerging system-of-systems policy to develop open integrated architectures for capability areas. If you have any questions or need further guidance on required reporting, my point of contact is COL Ken Flowers, Director, OSJTF. He can be contacted at 703-602-0851 x116, or via e-mail at Kenneth.flowers@osd.mil.

Glenn F. Lamartin
Director
Defense Systems

cc:
Defense Systems Warfare Offices
Defense Systems Systems Engineering
As stated

Editor's note: To view the distribution and an associated action memorandum, go to <http://akss.dau.mil/docs/Dr%20Lamartin%20MOSA%20Memo%20(signed%207%20July%2004).pdf >.

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3000

ACQUISITION, TECHNOLOGY AND LOGISTICS

JUL 08 2004

DPAP/EB

MEMORANDUM FOR DIRECTORS OF THE DEFENSE AGENCIES
DEPUTY ASSISTANT SECRETARY OF THE ARMY (POLICY AND PROCUREMENT), ASA(ALT)
DEPUTY ASSISTANT SECRETARY OF THE NAVY (ACQUISITION MANAGEMENT), ASN(RDA)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE (CONTRACTING), SAF/AQC
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY
DEPUTY DIRECTOR FOR LOGISTICS OPERATIONS (DLA)
DIRECTOR, ARMY CONTRACTING AGENCY

SUBJECT: Transition to the Federal Procurement Data System—Next Generation

The Department of Defense (DoD) fully supports the move to the real-time, validated contract reporting environment that will be available with the full implementation of the Federal Procurement Data System—Next Generation (FPDS-NG). FPDS-NG replaces the legacy FPDS with a web-based application, and is a part of the eGov Integrated Acquisition Environment (IAE) initiative. DoD is aggressively working toward ensuring that our contract writing systems are able to successfully transition to the new reporting environment when work on FPDS-NG is finished. However, since there is still programming work on FPDS-NG to be completed and validated, I determine that it is impractical to require full transition to the new reporting environment by our original goal, October 1, 2004. Despite this change in schedule, DoD is committed to implementing direct, machine-to-machine interfaces between our contract writing systems and FPDS-NG as expeditiously as possible, with a revised goal date for the entire Department of February 1, 2005. Everyone's diligence and focus on this important initiative is requested.

DoD is planning a phased-in implementation schedule during FY05, where we transition one contract writing system at a time to the new, machine-to-machine reporting environment. To ensure an orderly transition, we require updated, detailed implementation schedules from each of the Components to address both contract writing systems used by the Components and plans for any manual contract reporting locations. Each Component should provide their implementation schedule to my action officer, Lisa Romney, 703-614-3883, lisa.romney@osd.mil, by July 26, 2004.

For your planning purposes, DoD will submit FY04 award data to FPDS-NG via frequent data file submissions from the existing Defense Contract Action Data System (DCADS) and feeder system process that use the DD350 and DD1057 forms. From this time forward, the Information Technology Management Directorate (ITMD) (formerly the Directorate for Information Operations and Reports (DIOR)) and those

responsible for providing ITMD with contracting data need to be prepared to compile, validate, and provide FY04 data submissions to FPDS-NG on a semi-monthly basis through September 15, 2004, and then more frequently as necessary through the end of the FY04 reporting period. In order to effectively close FY04 reporting, DoD will adhere to the following year-end schedule: (1) submission of FY04 reports to ITMD will be completed not later than October 22, 2004; (2) corrections may be submitted until November 8, 2004; and (3) DUNS number corrections may be submitted until November 19, 2004.

We intend to submit FY05 data via a similar process until each contract writing system completes its transition to the machine-to-machine environment. This approach includes several key requirements: (1) as of October 1, 2004, all FY05 reportable contract actions must be submitted via a DD350; summary reporting DD1057s will not be accepted for FY05 actions; (2) full use of DoDAACs, as required by the Defense Federal Acquisition Regulation Supplement (DFARS), is mandated beginning October 1, 2004; and (3) Components must either program their contract writing systems for very limited FY05 edits (which will be provided from ITMD by July 16, 2004) or must establish another method to collect and report the data required by the FY05 edits to FPDS-NG in conjunction with ITMD. Please note for planning purposes that the Procurement Desktop-Defense (PD2) application will not be programming these FY05 edits, as the development for FPDS-NG machine-to-machine interface is expected to be delivered to the government in Q1FY05.

As DoD completes this challenging transition to full FPDS-NG implementation, it is essential that everyone is aware of the responsibilities we all share in making this undertaking a success. In the real-time, machine-to-machine reporting environment, inaccurate reporting of contract actions is magnified. Without the historic layers of review, the contracting officer is now the sole individual responsible and accountable for ensuring the accuracy of all socio-economic and other reportable information for each contract action at the time of award. In the FPDS-NG reporting environment, data initially submitted by our contracting professionals is the same data that will be immediately relied upon by Congress, the Office of Management and Budget, the Department, and the Small Business Administration for evaluating DoD contracting and socio-economic performance.

Once FPDS-NG programming and testing is complete, training materials for work in the new reporting environment will be provided. Until then, a computer-based training module is available at http://beta.fpdsng.com/, under Award CBT and IDV CBT. Additionally, we are developing a policy case that captures associated policy and process changes, which will be published in the new ***Policy, Guidelines and Information (PG&I)*** manual to accompany the DFARS.

The move to FPDS-NG is a dramatic, federal-wide transition, enabling us to more efficiently and effectively manage our activities. I thank you all for your cooperation and support. Again, my action officer for FPDS-NG is Lisa Romney, lisa.romney@osd.mil, 703-614-3883. Joyce Allen, joyce.allen@eis.army.mil, 703-460-1507, is the Standard Procurement System (SPS) point of contact for the PD2 application. Additionally, please contact your designated DoD FPDS-NG Transition Team representative identified below for specific Component information:

- Army and Other Defense Agencies: Brian Davidson, brian.davidson@hqda.army.mil, 703-681-9781
- Navy: Patricia Coffey, patricia.coffey@navy.mil, 202-685-1279
- Air Force: Kathryn Ekberg, kathryn.ekberg@pentagon.af.mil, 703-588-7033
- Defense Logistics Agency: Judy Lee, judy.lee@dla.mil, 703-767-1376
- Defense Contract Management Agency: Barbara Roberson, barbara.roberson@dcma.mil, 703-428-0856

Deidre A. Lee
Director, Defense Procurement
and Acquisition Policy

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3000

ACQUISITION, TECHNOLOGY AND LOGISTICS

JUL 9 2004

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Contract Pricing and Cost Accounting—Compliance with DFARS 252.211-7003, "Item Identification and Valuation"

The Department of Defense is pursuing the implementation of unique item identification to assure that we reap the significant benefits offered by this initiative. As part of this initiative, an interim rule was issued on December 30, 2003. This interim rule included an implementing contract clause at DFARS 252.211-7003.

Questions have been raised concerning the pricing and accounting for costs necessary to comply with DFARS 252.211-7003. The attached guidance should be used by all DoD contracting personnel in pricing and accounting for DoD contracts subject to the provisions of FAR Part 31 and the applicable Cost Accounting Standards.

If you have any questions regarding this memorandum, please contact Mr. David J. Capitano, Senior Procurement Analyst, at (703) 847-7486, or via e-mail at david.capitano@osd.mil.

Deidre A. Lee
Director, Defense Procurement
and Acquisition Policy

Attachment:
As stated

Editor's note: To view the attachment, go to the Director, Defense Procurement and Acquisition Policy Web site at <http://www.acq.osd.mil/dpap/policy/policydocs.htm >.

DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20040608

DoD published the following interim, final, and proposed DFARS rules in the *Federal Register* on June 8, 2004:

Interim Rules

WRITTEN ASSURANCE OF TECHNICAL DATA CONFORMITY (DFARS CASE 2003-D104)

Applies to contracts that require the contractor to deliver technical data to the government. Eliminates the requirement for the contractor to provide a written statement that the delivered technical data are complete, accurate, and comply with all requirements of the contract. The change will reduce paperwork for contractors but will not diminish the contractors' obligation to provide complete and accurate technical data that satisfy contract requirements. Implements Section 844 of the National Defense Authorization Act for Fiscal Year 2004. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d104i.txt>.

CONTRACTING FOR ARCHITECT-ENGINEER SERVICES (DFARS CASE 2003-D105)

Applies to contracts for architect-engineer services for military construction or family housing projects. Increases, from $85,000 to $300,000, the threshold below which acquisitions for these services must be set aside for small business concerns. Implements Section 1427 of the National Defense Authorization Act for Fiscal Year 2004. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d105i.txt>.

Final Rules

FISH, SHELLFISH, AND SEAFOOD PRODUCTS (DFARS CASE 2002-D034)

Applies to contracts for fish, shellfish, and seafood products. Revises the interim rule published on Feb. 14, 2003 (DFARS Change Notice 20030214), that requires the acquisition of domestic fish, shellfish, and seafood, including fish, shellfish, and seafood manufactured or processed or contained in foods manufactured or processed in the United States. Clarifies that fish, shellfish, and seafood delivered under a DoD contract must be taken from the sea by U.S.-flag vessels or obtained from fishing in the United States. Implements Section 8136 of the DoD Appropriations Act for Fiscal Year 2003 and Section 8118 of the DoD Appropriations Act for Fiscal Year 2004. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2002d034f.txt>.

FOLLOW-ON PRODUCTION CONTRACTS FOR PRODUCTS DEVELOPED PURSUANT TO PROTOTYPE PROJECTS (DFARS CASE 2002-D023)

Applies to production contracts for DoD weapons and weapon systems. Authorizes the contracting officer to award a follow-on production contract without competition, if the "other transaction" agreement for the prototype project provides for a follow-on production contract and meets certain other statutory requirements. The contracting officer may continue with the existing contractor or may determine that further competition is appropriate. Implements Section 822 of the National Defense Authorization Act for Fiscal Year 2002. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2002d023f.txt>.

PRODUCTION SURVEILLANCE AND REPORTING (DFARS CASE 2002-D015)

Eliminates requirements for a contract administration office to perform production surveillance on contractors that have only Criticality Designator C (low-urgency) contracts, and for monitoring of progress on any Criticality Designator C contract, unless production surveillance or contracting monitoring is specifically requested by the contracting officer. The change will permit proper allocation of contract administration resources to critical and high-risk contracts. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2002d015f.txt>.

Proposed Rules

The following proposed rules are a result of DFARS Transformation, which is a major DoD initiative to dramatically change the purpose and content of the DFARS. The transformed DFARS will contain requirements of law, DoD-wide policies, delegations of FAR authorities, deviations from FAR requirements, and policies/procedures that have a significant effect on the public. Additional information on the DFARS Transformation initiative is available at <http://www.acq.osd.mil/dpap/dfars/transf.htm>.

REPORTING CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES (DFARS CASE 2004-D001)

Proposed change applies to solicitations and contracts with a value exceeding $500,000. Clarifies requirements for contractor reporting of contract performance outside the United States and establishes two separate clauses to eliminate confusion between two reporting requirements presently contained in one clause. Relocates text pertaining to contracting officer distribution of reports to the new DFARS companion resource, *Procedures, Guid-*

ance, and Information (PGI). A proposed rule describing the purpose and structure of PGI was published on Feb. 23, 2004 (DFARS Change Notice 20040223). The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2004d001.txt>.

ACQUISITION OF COMMERCIAL ITEMS (DFARS CASE 2003-D074)

Proposed change applies to contracts for the acquisition of commercial items. Deletes unnecessary text pertaining to structuring of contracts; and updates a FAR reference. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d074p.txt>.

DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20040625

DoD published the following interim, final, and proposed DFARS rules in the *Federal Register* on June 25, 2004:

Interim Rule

FIREFIGHTING SERVICES CONTRACTS (DFARS CASE 2003-D107)

Permits the award of contracts for firefighting functions at military installations or facilities for periods of one year or less if the functions would otherwise have to be performed by members of the armed forces who are not readily available due to a deployment. Implements Section 331 of the National Defense Authorization Act for Fiscal Year 2004. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d107i.txt>.

Final Rules

DESIGNATED COUNTRIES—NEW EUROPEAN UNION MEMBERS (DFARS CASE 2004-D006)

Applies to acquisitions subject to the Trade Agreements Act. Adds 10 new European Union member states to the list of countries whose products contracting officers can acquire without application of the Buy American Act evaluation factor. The new member states are Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic, and Slovenia. The change implements a determination of the U.S. Trade Representative that suppliers of eligible products from these countries may participate in U.S. government procurements without discriminatory treatment. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2004d006f.txt>.

INFORMATION ASSURANCE (DFARS CASE 2002-D020)

Applies to contracts involving the acquisition or use of information technology. Updates requirements for the protection of information that is entered, processed, stored, displayed, or transmitted through computer systems. Implements policy issued by the National Security Telecommunications and Information Systems Security Committee. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2002d020f.txt>.

USE OF FAR PART 12 FOR PERFORMANCE-BASED CONTRACTING FOR SERVICES (DFARS CASE 2003-D111)

Deletes obsolete text on the use of FAR Part 12 (Acquisition of Commercial Items) procedures for performance-based contracting for services. The statutory authority upon which this text was based has been superseded by broader, governmentwide authority provided in Section 1431 of the National Defense Authorization Act for Fiscal Year 2004. Interim FAR changes implementing Section 1431 were published in Item I of Federal Acquisition Circular 2001-24 on June 18, 2004. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d111f.txt>.

Proposed Rule

POLYACRYLONITRILE (PAN) CARBON FIBER – RESTRICTION TO DOMESTIC SOURCES (DFARS CASE 2004-D002)

Proposed change applies to acquisitions for major systems that are not yet in development and demonstration (Milestone B as defined in DoD Instruction 5000.2). Extends the ending date, from May 31, 2005, to May 31, 2006, for inclusion of PAN carbon fiber domestic source requirements in solicitations and contracts. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2004d002p.txt>.

PAYMENT AND BILLING INSTRUCTIONS (DFARS CASE 2003-D009)

Proposed change improves contract payment and billing instructions. The changes include: (1) addition of a clause addressing contract line item information needed in financing and interim payment requests; (2) amendment of Material Inspection and Receiving Report instructions to address electronic submissions; and (3) relocation of text addressing distribution of contracts and numbering of contract line items to the new DFARS companion resource, *Procedures, Guidance, and Information (PGI)*. In addition, to eliminate the need for non-standard local payment clauses, PGI will contain a menu of standard

payment instructions from which the contracting officer will make a selection for inclusion in Section G of the contract. A proposed rule describing the purpose and structure of PGI was published on Feb. 23, 2004 (DFARS Change Notice 20040223). The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d009.txt >.

ARCHITECT-ENGINEER SERVICES (DFARS CASE 2003-D035)

Proposed change applies to contracts for architect-engineer services. The changes include: (1) deletion of unnecessary text on preselection boards and selection authorities; (2) replacement of references to Standard Form 254, Architect-Engineer and Related Services Questionnaire, with references to the replacement Standard Form 330, Architect-Engineer Qualifications; and (3) relocation of text on the establishment of selection criteria to the new DFARS companion resource, *Procedures, Guidance, and Information (PGI)*. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d035.txt >.

SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (DFARS CASE 2003-D063)

Proposed change applies to contracts awarded under the Small Business Competitiveness Demonstration Program. The FAR presently requires a statement on the face page of contracts to identify awards under the program. To accommodate the use of automated systems, the proposed DFARS change specifies that when it is not practical to mark the face page, alternate means may be used to identify a contact as an award under the program. The *Federal Register* notice for this rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d063.txt >.

DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20040802

On Aug. 2, 2004 , DoD published the following proposed rule resulting from the DFARS Transformation Initiative. Additional information on the DFARS Transformation Initiative is available at <http://www.acq.osd.mil/dpap/dfars/transf.htm >.

Proposed Rule

TAX PROCEDURES FOR OVERSEAS CONTRACTS (DFARS CASE 2003-D031)

Proposed change relocates DFARS text to the new DFARS companion resource, *Procedures, Guidance, and Information (PGI)*. A proposed rule describing the purpose and structure of PGI was published on Feb. 23, 2004 (DFARS Change Notice 20040223). The relocated text contains procedures for contracting officer use in obtaining tax relief and duty-free import privileges for acquisitions conducted in Spain and the United Kingdom. No substantive change has been made to the relocated text.

The *Federal Register* notice for this proposed rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003d031p.txt >.

DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20040810

On August 10, 2004 , DoD published the following proposed rules resulting from the DFARS Transformation Initiative. Additional information on the DFARS Transformation Initiative is available at <http://www.acq.osd.mil/dpap/dfars/transf.htm >.

Proposed Rules

RESOLVING TAX PROBLEMS (DFARS CASE 2003-D032)

Proposed change relocates DFARS text to the new DFARS companion resource, *Procedures, Guidance, and Information*. A proposed rule describing the purpose and structure of PGI was published on Feb. 23, 2004 (DFARS Change Notice 20040223). The relocated text contains guidance on resolution of tax issues and information on tax relief agreements between the United States and foreign governments. The *Federal Register* notice for this proposed rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003-D032p.txt >.

BONDS (DFARS CASE 2003-D033)

Proposed change updates DFARS text on the use of bonds for financial protection against losses under DoD contracts. The change clarifies that fidelity and forgery bonds are authorized for use when necessary for protection of the government or the contractor or when the investigative and claims services of a surety company are desired. The *Federal Register* notice for this proposed rule is available at <http://www.acq.osd.mil/dpap/dars/dars/fedregs/2003-d033p.txt >.

DEPARTMENT OF DEFENSE NEWS RELEASE (SEPT. 1, 2004)

DOD ISSUES GREEN PROCUREMENT POLICY

The Department of Defense today announced an important step forward in its efforts to align mission and environmental stewardship by issuing a new "green procurement" policy. The policy affirms a goal of 100 percent compliance with federal laws and executive orders requiring purchase of environmentally

friendly, or "green," products and services. The policy also outlines a strategy for meeting those requirements along with metrics for measuring progress.

In taking this step, DoD is reemphasizing its commitment to the environment and its position that simply complying with environmental laws and regulations is not enough. "Employing the department's purchasing power to conserve energy and natural resources can have a substantial positive impact on the long-term sustainability of the DoD mission and its facilities, as well as our nation as a whole," said Ray DuBois, deputy under secretary of defense for installations and environment.

Key to the policy's issuance and ultimate success is the close partnership between the environmental and procurement communities across DoD. Deidre Lee, director of defense procurement and acquisition policy, said, "The green procurement program is designed to enhance and sustain mission readiness through cost-effective acquisition that not only meets regulatory requirements, but also reduces resource consumption and waste generation. Our new policy calls for procurement and environmental organizations across the department to assist purchasers in making the right decisions that result in cost-effective, mission-enabling and environmentally sound purchases."

The new policy also has been well received outside of DoD. Edwin Pinero, the administration's acting federal environmental executive, said, "We have been recommending that agencies take a holistic approach that addresses all components of federal green purchasing. DoD is the first to fully embrace this approach. As the new model for the federal government, it holds great potential for sustainable environmental stewardship in DoD and other federal agencies."

The department and the Environmental Protection Agency view the policy as an example of the increasing alignment of the national security and environmental stewardship missions. "We laud DoD's environmental stewardship, initiative and leadership in issuing a comprehensive green procurement policy," said Steve Johnson, EPA deputy administrator. "We look forward to continuing to work closely with DoD on our mutual efforts to improve our nation's environmental quality."

GENERAL ACCOUNTING OFFICE (GAO) REPORTS

The GAO Reports listed below can be downloaded from the General Accounting Office Web site at <http://www.gao.gov >.

Defense Acquisitions: Challenges Facing the DD(X) Destroyer Program, GAO-04-973, Sept. 3, 2004

Defense Management: Opportunities to Enhance the Implementation of Performance-Based Logistics, GAO-04-715, Aug. 16, 2004

Defense Inventory: Analysis of Consumption of Inventory Exceeding Current Operating Requirements Since Sept. 30, 2001, GAO-04-689, Aug. 2, 2004

Contract Management: Guidance Needed to Promote Competition for Defense Task Orders, GAO-04-874, July 30, 2004

Information Technology: DoD's Acquisition Policies and Guidance Need to Incorporate Additional Best Practices and Controls, GAO-04-722, July 30, 2004

Military Education: DoD Needs to Develop Performance Goals and Metrics for Advanced Distributed Learning in Professional Military Education, GAO-04-873, July 30, 2004

Defense Acquisitions: The Global Information Grid and Challenges Facing Its Implementation, GAO-04-858, July 28, 2004

Defense Inventory: Navy Needs to Improve the Management Over Government-Furnished Material Shipped to Its Repair Contractors, GAO-04-779, July 23, 2004

Military Operations: Fiscal Year 2004 Costs for the Global War on Terrorism Will Exceed Supplemental, Requiring DoD to Shift Funds from Other Uses, GAO-04-915, July 21, 2004

Defense Acquisitions: Space-Based Radar Effort Needs Additional Knowledge before Starting Development, GAO-04-759, July 19, 2004

Military Operations: DoD's Extensive Use of Logistics Support Contracts Requires Strengthened Oversight, GAO-04-854, July 19, 2004

Military Operations: Recent Campaigns Benefited from Improved Communications and Technology, but Barriers to Continued Progress Remain, GAO-04-547, June 28, 2004

DOD E-BUSINESS/SPS JOINT USERS' CONFERENCE 2004 (NOV. 15-19, 2004)

The Department of Defense (DoD) E-Business/Standard Procurement System (SPS) Joint Users' Conference, to be held in Houston Nov. 15–19, 2004, is the premiere event for DoD procurement professionals to hear about the Department's acquisition domain, see Version 4.2 Increment 3 demonstrated, and share lessons learned and valuable tips with other SPS users worldwide from across the military services and defense agencies. More than 1,000 SPS users and managers are expected to attend the conference. Honored speakers include Kay Coles James, director, Office of Personnel Management, and Deidre Lee, director, Defense Procurement and Acquisition Policy. Additionally, military services and defense agencies each have several days devoted to specific breakout sessions in which they tackle topics of interest unique to their Service/agency. Don't miss out: space is limited, so reserve your ticket today at <http://www.spscoe.sps.eis.army.mil>.

INTERSERVICE/INDUSTRY TRAINING, SIMULATION AND EDUCATION CONFERENCE (DEC. 6-9, 2004)

The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) will be held Dec. 6-9, 2004, in Orlando, Fla. I/ITSEC promotes cooperation among the armed services, industry, academia, and various government agencies in pursuit of improved training and education programs, identification of common training issues, and development of multiservice programs. Initiated in 1966 as the Naval Training Device Center/Industry Conference, the conference has evolved and expanded through increased participation by the Army, Air Force, Marine Corps, Coast Guard, and industry.

For more information or to register, go to the I/ITSEC Web site at <http://www.iitsec.org>.

DAU PILOTS SUCCESSFUL PROGRAM STARTUP WORKSHOP

Although years of work may precede it, the real beginning for most acquisition programs occurs when a funded requirement is finally put on contract for system development. A common tendency for the government team, after a long and intense source selection, is to think, "Now we've got a prime contractor, and the ball's in their court to deliver on the program." This is a mistake, of course. Program management is always a partnership, with both government and industry teams contributing to successful program execution.

As part of strategic partnering with industry, the Defense Acquisition University and Raytheon jointly developed a new Program Startup Workshop to facilitate better government and industry teaming after contract award on defense acquisition programs. Workshop objectives are to:

- Educate government and industry teams on effective program startup actions
- Produce key program startup products
- Build an environment of trust, collaboration, teamwork, and communication
- Establish the foundation to execute a successful program.

The workshop, whose design is tailored to match the specific needs of each program, is intended to:

- Be held two to four weeks after contract award
- Be conducted jointly with the government and contractor teams
- Be a high-energy concentrated effort over three to five days
- Provide training on essential start-up activities
- Be based on best practices of successful programs,
- Create an environment of teamwork, communication, and trust
- Lead to successful program execution.

Pilot with SLAMRAAM

Raytheon and DAU conducted the pilot offering of the workshop for the Surfaced-Launched Advanced Medium Range Air-to-Air Missile program (SLAMRAAM) from March 16-19, 2004, in Huntsville, Ala. The agenda for the workshop was tailored in a preliminary meeting with the Army and Raytheon program managers (PMs). Real products were developed in the workshop, including joint program vision, values, mission, and goals; the contract change process; validation of program risks; and integrated product team (IPT) charters.

First Workshop with MMA

The first DAU offering of the workshop was held from July 13-15, 2004, in Seattle, Wash., with the Boeing Company and the Navy on the Multi-mission Maritime Aircraft (MMA) program. There were over 55 attendees from Boeing, as well as Boeing subcontractors, the Navy program office, Navy headquarters staff and fleet sponsors, and the Defense Contract Management Agency (DCMA). The agenda was tailored to fit the needs of the program in a planning meeting with the Navy and Boeing MMA staff. Workshop topics included program requirements, vision and mission, contract baseline, change manage-

DAU and Raytheon's jointly developed Program Startup Workshop is a best practice that can contribute to the success of any acquisition program.

ment, the program's integrated digital environment (IDE), risk management, planning and deliverables for the upcoming integrated baseline review (IBR), IPT structuring and chartering, and program metrics. The workshop sessions and development of products were facilitated by a small team of DAU faculty.

Commenting on impact of the MMA workshop, James Lackey, the Navy's deputy IPT lead, said, "Our evolved agenda, which allowed the Fleet and OPNAV to express their viewpoints on why MMA exists, was critical for contractor awareness and understanding of the warfighter big picture. … We did deliver products: face-to-face meetings to establish 'running rules,' the way ahead, program issues, and formulation of joint team charters. … The key accomplishment was to have Navy and Boeing team lead counterparts sit down with one another in a relaxed forum to discuss broad-based and team-focused challenges."

One workshop participant said, "I enjoyed the workshop. It is great being able to meet the people from all areas that you will be working with to make this program a success." Another participant agreed, adding, "DAU was a great forcing function to make this critical event happen. Thanks!"

Putting the Workshop to Work

DAU intends to make the workshop available throughout the defense acquisition community. Workshop materials will also be made available to government and industry through the DAU Acquisition Community Connection (ACC) at <http://acc.dau.mil> so that others can deliver the workshop. The Program Startup Workshop is a best practice that can contribute to the success of any acquisition program.

USSOCOM CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) CONFERENCE AND EXHIBITION

The U.S. Special Operations Command Chemical, Biological, Radiological, and Nuclear (CBRN) Conference and Exhibition will be held Dec. 13-16, 2004, in Tampa, Fla. This year's overall conference theme is "From Evolution to Revolution—Breaking the CBRN Paradigm While Winning the Global War on Terrorism." To meet the future threat head on, USSOCOM must continuously develop and improve its material and non-material CBRN concepts by analyzing the nation's future CBRN capability requirements in a worst-case CBRN environment. Future technology investment decisions will be based on that analysis.

Industry, academia, other governmental agencies, and individuals can help USSOCOM make these tough decisions by attending this conference and sharing thoughts and ideas on the future of CBRN. To register, visit the National Defense Industrial Association Web site at <http://register.ndia.org/interview/register.ndia?#November 2005>.

THE INTERNATIONAL SOLDIER SYSTEMS CONFERENCE 2004

The International Soldier Systems Conference 2004 (ISSC 2004) will be held Dec. 13–16 in historic Boston, Mass., and will commemorate the 50th anniversary of the Natick Soldier Center. ISSC 2004 is the fourth in the series of conferences jointly sponsored by the Natick Soldier Center and the U.K. Ministry of Defence, Director of Defence Equipment Capability (Ground Maneuvers)—(DEC DBE).

The 2004 event is designed to provide a forum for all those involved with soldier and soldier-support items and systems and the technologies that support them, with the aim of making the allied soldier the best equipped, best clothed, best fed, and the best protected in the world.

Attendees will include representatives from NATO governments, research organizations, military personnel, academia, and industry. The objective of ISSC 2004 is to focus on technical presentations of cutting-edge technologies. Also showcased will be the soldier systems equipment used in recent military operations.

To register for ISSC 2004, go to the National Defense Industrial Association Web site at <http://register.ndia.org/interview/register.ndia?#November2005>.

AGILE ACQUISITION (JULY 2004)

ACQUISITION TRANSFORMATION AND LEADERSHIP AWARDS FOR CY2003

Grant Cole

The Acquisition Transformation and Leadership Awards are newly established individual and team awards designed to recognize top performers in the leadership of defense acquisition programs. These are annual awards governed by Air Force Instruction (AFI) 36-2835, *Annual Acquisition Awards Program*.

The inaugural winners by category are:

Agile Acquisition Transformation Leadership Award

Team—NAVSTAR GPS Advanced User Equipment Branch Integrated Product Team, Los Angeles AFB, El Segundo, Calif. The team successfully transitioned the Frequency Domain Interference Suppressor Appliqué from a laboratory demonstration system to production and installation on weapon delivery platforms. The team's innovative acquisition strategy provided a quick-response solution to real-world jamming threats against the Global Positioning System, thereby allowing unimpeded navigation capability in the extremely challenging electronic warfare environments encountered during Operation Iraqi Freedom. This ensured warfighters' ability to successfully execute their missions with fewer sorties, fewer munitions, and significantly reduced collateral damage and unintentional loss of life.

Individual—Kathy Brockholdt, deputy program manager, PEO/CM. Brockholdt expertly led a diverse team of professionals in a complex, high-visibility, $600 million acquisition to outsource the AF Pentagon Communications Agency workload. Her professional agility, adaptability, and strategic vision were instrumental in ensuring that military support of the agency's vital national security interests was seamlessly transitioned to contract performance.

Outstanding Air Force System Program Office

Reconnaissance Systems Program Office (RSPO)—Wright-Patterson AFB, Dayton, Ohio. The RSPO continually satisfied customer needs while delivering capability to the warfighter. Their Big Safari team supported hundreds of combat sorties and thousands of flight hours across a diverse fleet of airborne intelligence, surveillance, and reconnaissance weapons systems. While Global Hawk was an integral part of the RSPO for the majority of 2003, Global Hawk's success went beyond direct warfighter support, pioneering new gains in acquisition processes by implementing multiple evolutionary acquisition initiatives, which resulted in better intelligence, surveillance, and reconnaissance capabilities for warfighters. Meanwhile, the RSPO team continued developing new systems promising dramatic improvements in warfighter capabilities.

Outstanding Air Force System Program Directors

Military—Col. Joseph Smyth, system program director, E-10A. The outstanding professional skills, leadership, and tireless efforts of Smyth singularly resulted in the creation of the E-10A acquisition program, which turned the Air Force chief of staff's vision into a reality. Smyth leads development of the next generation radar and battle management command and control that will provide combatant commanders cruise missile defense as well as the means to strike time-critical targets within minutes of detection. Engaging the warfighter in key design decisions, Smyth established a close relationship between the warfighter and program office ensuring delivery of an effective weapon system.

Civilian—Thomas Robillard, director, Counterair Joint System Program Office. His active and insightful actions effectively implemented the principles of agile acquisition on the weapons systems assigned to the program office and served as successful examples to other acquisition programs. Robillard's ability to form a cohesive, collaborative team with the joint warfighters, contractor, and all other stakeholders was instrumental in designing a portfolio of programs that contained realistic, achievable requirements, that were executed at an acceptable level of risk, and that delivered meaningful capabilities when required and as promised.

Outstanding Air Force Program Manager Award

Military—Lt. Col. Timothy Morris, PM, Next Generation AMRAAM. Morris led a team of 42 military, civilian, and support contractor personnel in the development and production of the next generation capabilities for the Advanced Medium Range Air-to-Air Missile (AMRAAM). He implemented numerous acquisition management initiatives designed to decrease the cycle time for fielding new capabilities. Additionally, he instituted a new risk management construct with a highly collaborative program decision-making process to ensure that program commitments are achieved and credibility is fostered with joint service warfighters.

Civilian—Dr. John Corley, director, AMRAAM International. Corley led a team of 31 military, civilian, and support contractor personnel in administering foreign military sales of the AMRAAM. He led all aspects of the sales of the missile to 27 foreign customers, representing over

$200 million in missile and support contracts. The economic order quantity advantages from this volume of foreign sales enabled the Air Force and Navy to purchase 37 percent more missiles than they would have otherwise been able to acquire. Corley led a team to find ways to upgrade existing foreign missile inventories and secured the OSD's endorsement to pursue this international effort. His actions assure coalition interoperability for the next decade.

Outstanding Air Force Program Managers

Military—Capt. James Dobbs, PM, Tactical Automated Security System. Dobbs efficiently organized and led the source selection process for a $498 million contract designed to modernize and transform AF security system installations worldwide, resulting in a successful contract award in less than eight months. In response to urgent security requests in support of Operation Iraqi Freedom, Dobbs oversaw the deployment of an installation team to employ the first-ever Air Force ground radar security system at Tallil Air Base, Iraq. Dobbs also managed a U.S. Air Forces, U.S. Central Command (CENTAF) contract in direct support of operations Enduring Freedom and Iraqi Freedom, equipping seven forward operating bases with the latest security technology, including improved thermal imagery and detection sensor devices.

Civilian—Kathleen Joly, PM, Classified Programs. Joly managed Big Safari's $52 million robust special projects capability that played a pivotal role in the global war on terrorism. She also led Team Phoenix in building a partnership between two defense contractors in response to a $42 million operational Class A Mishap. She provided critical program and aircraft security during the investigation and accelerated a follow-on aircraft's modification by three months to meet all operational taskings.

Outstanding Air Force Acquisition Staff Officer

Lt. Col. Joseph McWilliams, deputy chief, Acquisition Policy Management Division. McWilliams' leadership, knowledge, and initiative were the catalysts that focused the talents and energies of the individuals, groups, and teams he nurtured. His support was crucial during the DoD's revision of the DoD 5000 series. The acting USD (AT&L) recognized his abilities and worked personally with him to conduct a line-by-line review of DoD 5000. Of equal importance to Air Force acquisition's support of the wargfighter was his development of acquisition policy training courses that were precisely tailored to headquarters, major command, and base needs. McWilliams' leadership provided the foundation as the Collaborative Process Team set the standard for all future collaborative efforts and produced the first-ever set of common terms, definitions, and graphic depictions of processes used by the acquisition, executive office, and test and evaluation communities. He inspired the design and implementation of a structured yet responsive process that makes synergy the bedrock for warfighter, tester, and developer cooperation in requirements development and capability production.

AMERICAN FORCES PRESS SERVICE (AUG. 16, 2004)

MAGAZINE RECOGNIZES DEFENSE LOGISTICS AGENCY'S IT OPERATIONS

FORT BELVOIR, Va.—*CIO* magazine, published to meet the needs of chief information officers (CIOs) and other information executives, has named Defense Logistics Agency (DLA)'s information operations directorate as a recipient of the "2004 CIO 100."

DLA's information technology (IT) capabilities and its chief of information operations, Mae De Vincentis, and her staff are profiled in the Aug. 15 issue of the magazine.

Every year, *CIO* recognizes 100 organizations for their operational and strategic excellence in information technology. This year's theme was "Agile 100," and organizations were evaluated on their ability to respond quickly to changing business environments, showing measurable results in how they used information technology to enable and support agility across the organization. The magazine covers private and public sector IT practices from an executive perspective.

"At a time when the country's military is meeting numerous challenges, this award means a great deal to all of us at DLA," said Navy Vice Adm. Keith W. Lippert, DLA's director. "It is particularly meaningful because it is based on ways that IT's agility contributes to the agility of the whole organization and thus reflects how IT makes us more responsive to warfighters' needs worldwide."

Among the other companies and government agencies included in this year's Agile 100, are Dell, the Dow Chemical Company, 7-Eleven, FedEx, General Motors, the Harvard Business School, Northrop Grumman, Raytheon, and Staples.

"I am proud of the contributions we have made in IT that help DLA meet its many commitments to America's armed forces," said DeVincentis, who reports directly to Lippert.

The recipients of the CIO 100 award were selected through a three-step process. First, companies filled out an online application form detailing their agile practices in both business and IT. Next, teams of CIO magazine editors and writers reviewed the applications in depth, looking for unique practices and substantial results. Finally, the teams met for a day-long meeting to debate the merits of each nominee and vote on the final 100.

While DLA officials are understandably pleased with the recognition, De Vincentis said, they also understand that their IT capabilities are only a part of the whole picture.

"IT can be a great enabler of faster, more flexible responsiveness, but only if it is part of an integrated cross-functional approach," she said. "DLA is constantly striving to quickly and consistently muster all its strengths across the enterprise to meet customers' needs. This type of strategic approach to leveraging IT's potential is not easy to implement and sustain, particularly in a large global organization like DLA, given the number of competing priorities and the daily challenges of operational commitments. So this award provides an important reinforcement that we are on the right track as we continue to refine our approach to be increasingly agile and effective."

De Vincentis and several members of her team will be present at the sixth annual awards ceremony Aug. 24 in Colorado Springs, Colo. She said she would accept the award not only on behalf of her IT staff, but also on behalf of the entire DLA team.

"Our work force understands the needs of DLA's external customers, and they do a great job of providing IT support that is effectively focused on the related business process requirements of our internal DLA customers. Thus they play a key role in ensuring DLA provides strong service across its several mission areas," De Vincentis said. "We also receive support from other organizations within the Department of Defense and from various private sector firms. So this award honors all of those who help make IT a valuable contributor to DLA's vital role in providing a broad array of logistics support functions for our military services and numerous other customers, every minute of every day."

From its headquarters at Fort Belvoir, Va., the Defense Logistics Agency is the one source for nearly every consumable item the U.S. military uses, whether for combat readiness, emergency preparedness, or day-to-day operations.

ARMY NEWS SERVICE (AUG. 6, 2004)
UNITS RECEIVE DA MAINTENANCE AWARDS

WASHINGTON—Twenty-three Army units from around the world received the 2003 Army Award for Maintenance Excellence at a ceremony Aug. 4 in Alexandria, Va.

"These guys are like linemen on the Army's football team. They pound it out every day to keep units combat ready and they don't normally get the glory," said Brig. Gen. William "Mike" Lenaers, commandant of the U.S. Army Ordnance Center and School. "We're taking the time to recognize them."

Awards were presented by Lenaers, Lt. Gen. Claude Christianson, deputy chief of staff, G-4 (Logistics); and CW5 James Wynne, regimental chief warrant officer of the Ordnance Corps.

Winning units received a plaque, a Chief of Staff of the Army Star Note, and a note from the sergeant major of the Army congratulating them for their outstanding accomplishments.

The Army Award for Maintenance Excellence was established in 1982 to recognize units from all Army components for outstanding maintenance programs that increase operational readiness and enhance mission capability.

Army units are better because the competition causes them to take a hard look at themselves, to identify their weaknesses and to build on their strengths, Lenaers said.

Units that received the award displayed competence in maintenance above the standard regulations by improving technical proficiency, increasing operational readiness, and enhancing mission capability, officials said.

"We had a good program to begin with; we just raised the bar to achieve excellence," said Maj. Kira Terhune of the 297th Military Intelligence Battalion, Fort Gordon, Ga., runner-up in the category for active large deployable units.

The improvements these units make and the training they implement serve the entire force and are integral to mission success, according to program documents.

"We developed maintenance and driver training programs to improve operator proficiency and equipment readiness," said Maj. Nicole Spruill, who accepted the

award for the HHC, 807th Medical Command from Seagoville, Texas. "Our training also benefits subordinate units."

Competition for the award is intense and demanding, participants said. Units from the active Army, Army Reserve, and National Guard submit nomination packages through their major commands for review. Selected packages then advance to the U.S. Army Ordnance Center and School at Aberdeen Proving Ground, Md., for thorough evaluation. Semifinalists are chosen and scheduled for a rigorous on-site inspection by a team of experts.

The experts, selected by the U.S. Army Ordnance Center and School examine the unit's maintenance programs, observe maintenance activities, and inspect maintenance records and safety programs. They also review tool inventories and interview key members within maintenance operations.

Winners and runners-up are then selected for the Chief of Staff, Army Award for Maintenance Excellence. Six of the winning units are also nominated to compete for the Secretary of Defense's Maintenance Award.

"This took months of preparation, from the ground to the battalion commander," said 1st Sgt. Hopeton Staple of the 532nd Military Intelligence Battalion from Seoul, Korea.

"This award really means a lot to those soldiers on the ground from our unit," he said. "The mechanics and supply clerks are the ones who make it happen; without them none of this would be possible."

The award program is co-sponsored by the National Defense Industrial Association. Units awarded:

ACTIVE ARMY TABLE OF ORGANIZATIONAL ELEMENTS (TOE) UNITS

Small Category

Winner: 11th Signal Detachment, 2nd Signal Brigade (Network Enterprise Technology Command) (Advanced to DoD competition)
Runner-up: Headquarters and Headquarters Company (HHC), 501st Military Intelligence Brigade (Intelligence and Security Command)

Medium Category

Winner: 3rd Military Intelligence Battalion (Intelligence and Security Command) (Advanced to DoD competition)
Runner-up: 524th Military Intelligence Battalion (Intelligence and Security Command)

Large Category

Winner: 532nd Military Intelligence Battalion (Intelligence and Security Command) (Advanced to DoD competition)
Runner-up: 297th Military Intelligence Battalion (Intelligence and Security Command)

NATIONAL GUARD TABLE OF ORGANIZATIONAL ELEMENTS (TOE) UNITS

Small Category

Winner: Headquarters and Headquarters Detachment (HHD), 690th Maintenance Battalion (North Carolina)
Runner-up: 5694th Engineer Detachment (Ohio)

Medium Category

Winner: 732nd Maintenance Company (North Carolina)
Runner-up: A Company, 434th Maintenance Support Battalion (Minnesota)

Large Category

Winner: 2nd Battalion, 156th Infantry Regiment (Louisiana)
Runner-up: 690th Maintenance Battalion (North Carolina)

TABLE OF DISTRIBUTION AND ALLOWANCES (TDA) UNITS

Small Category

Winner: Aviation Flight Detachment, Headquarters and Headquarters Company (HHC), Operations Group, Combat Maneuver Training Center (CMTC) (U.S. Army Europe) (Advanced to DoD competition)
Runner-up: Equipment Concentration Site 66 (Forces Command)

Medium Category

Winner: 58th Transportation Battalion, 3rd Chemical Brigade (Training and Doctrine Command) (Advanced to DoD competition)
Runner-up: Maintenance Activity Pirmasens (U.S. Army Europe)

Large Category

Winner: Maintenance Activity Kaiserslautern (U.S. Army Europe) (Advanced to DoD competition)
Runner-up: 527th Military Intelligence Battalion (Intelligence and Security Command)

ARMY RESERVE TABLE OF ORGANIZATIONAL ELEMENTS (TOE) UNITS

Small Category

Winner: 912th Medical Company (Forces Command)

Runner-up: 842nd Quartermaster Company (Forces Command)

Medium Category

Winner: Headquarters and Headquarters Company (HHC), 807th Medical Command (Forces Command)
Runner-up: Headquarters and Headquarters Company (HHC), 160th Military Police Battalion (Forces Command)

Large Category

Winner: 94th General Hospital (Forces Command)
Runner-up: None selected

AIR FORCE PRINT NEWS (AUG. 5, 2004)
ROME ENGINEER RECEIVES HAROLD BROWN AWARD

ROME, N.Y.—H. John Mucks, an electronics engineer for the Air Force Research Laboratory's information directorate, is the recipient of the 2004 Harold Brown Award, the Air Force's highest honor for research and development.

The award, named for the former secretary of the Air Force and later secretary of defense, recognizes significant achievements in research and development. It is awarded through the Air Force chief scientist's office to a researcher who has made a substantial improvement to the operational effectiveness of the Air Force.

Mucks, a 22-year member of the Rome staff, was selected for the honor in recognition of his development and application of the Web-based Time Line Analysis System.

WebTAS provides a capability to rapidly connect to diverse data sources and combine the data in multiple analytical/visualization tools, with the goal of providing alerts or warnings of developing situations. Currently, WebTAS supports operational users in the tracking of events, individuals, and/or organizations supporting counterinsurgency, counterdrug, counterterrorism, and law enforcement. It was also used by the Department of Defense Columbia Investigation Support Team to correlate, validate, and visualize multiple databases of sensors and related information involving the Feb. 1, 2003, breakup of the space shuttle.

In June 2003, Mucks was honored by the Department of Defense's counterdrug technology development program office with its John J. Pennella Award, presented annually to recognize individuals whose dedication and performance have made a significant contribution to the counterdrug program. He was also one of two engineers from the directorate's information and intelligence exploitation division to share the 2001 DoD Counterdrug Technology Development Program Technical Agent of the Year award, recognizing an individual or individuals who are "effective, efficient, and proactive in executing technology programs that meet the needs of the counterdrug community."

OSD AWARD FOR EXCELLENCE GOES TO DEIDRE LEE, MARK KRZYSKO, LISA ROMNEY

Deidre Lee, director, defense procurement and acquisition policy (DPAP), Mark Krzysko, deputy director, DPAP, e-Business, and Lisa Romney, senior procurement analyst, DPAP, e-Business were presented with the Office of the Secretary of Defense (OSD) Award for Excellence. Each recipient was given a plaque signifying the honor during a ceremony on Aug.30, 2004.

Lee, Krzysko, and Romney were recognized for providing outstanding leadership on the Federal Integrated Acquisition Environment (IAE) initiative. Through this initiative, common acquisition functions that can benefit all federal agencies will be managed as a shared service. IAE has provided such benefits as reducing purchase transactions costs and cycle times for acquisition actions, which enables managers to make better strategic and planning decisions.

The OSD Award for Excellence was presented to the DoD principals and lead action officers for their exceptional leadership and support of the President's Management Agenda/E-Gov for the period January 2002 through July 2004, as well as for supporting innovative approaches for improving the efficiency and effectiveness of the Chief Information Officer (CIO).

USD(AT&L) AWARDS

Acting Under Secretary of Defense (Acquisition, Technology and Logistics) Michael Wynne has instructed the department's acquisition leaders at all levels to recognize and reward individuals and teams whose efforts contribute to the improved acquisition of the products and services underpinning the warfighting and peacekeeping capabilities of the military services.

To review his "Policy on Recognition and Awards for Acquisition Personnel," visit the Director, Defense Procurement and Acquisition Policy Web site at <http://www.acq.osd.mil/dpap/award/opportunities.htm>.

DEFENSE FINANCE AND ACCOUNTING SERVICE PRESS RELEASE (JULY 7, 2004)

DFAS NAMES TIMOTHY HARP COMPONENT ACQUISITION EXECUTIVE

ARLINGTON, Va.—The Defense Finance and Accounting Service (DFAS) recently named Timothy J. Harp its component acquisition executive, effective July 25, 2004.

Harp currently serves as the assistant deputy under secretary of defense (innovation and technology integration) and as the special assistant to the defense acquisition executive (USD (AT&L)). He brings demonstrated experience in managing major programs at the defense agency level and expertise in developing, implementing and managing a robust acquisition organization.

"Mr. Harp has a keen understanding of the steps necessary to implement the acquisition program with DFAS," said Zack E.Gaddy, DFAS director. "His 25-years+ career has provided him with the depth and breadth of knowledge and experiences necessary to successfully fill the demanding role as the component acquisition executive. I know he will help the DFAS team achieve our vision of being a world-class finance and accounting organization."

NEW COMMANDANT FOR DEFENSE ACQUISITION UNIVERSITY (JULY 15, 2004)

Air Force Col. Mary D. Kringer was assigned as the new commandant of the Defense Acquisition University (DAU) effective July 15, 2004. Prior to joining the DAU headquarters staff at Fort Belvoir, Va., she served as the chief, contracting division, Directorate of Logistics, for Headquarters, U.S. Air Forces in Europe.

Kringer was commissioned through Officer Training School in January 1979 at Lackland AFB. She has served in a variety of acquisition positions at all Air Force levels.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 19, 2004)

FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Vern Clark announced the following flag officer assignment:

Navy Rear Adm. (lower half) James A. Winnefeld Jr,. is being assigned as commander, Carrier Group Two, Norfolk, Va. Winnefeld is currently assigned as director, Warfare Programs and Readiness, U.S. Atlantic Fleet, Norfolk, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 20, 2004)

FLAG OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has nominated Navy Vice Adm. Kirkland H. Donald for appointment to the rank of admiral and assignment as director, Naval Nuclear Propulsion Program, Department of the Navy/Department of Energy, Washington, D.C. Donald is currently serving as commander Submarine Force, U.S. Atlantic Fleet and commander, Submarine Allied Command, Atlantic, Norfolk, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 22, 2004)

GENERAL OFFICER ASSIGNMENTS

Air Force Chief of Staff Gen. John P. Jumper announced today the following assignments:

Air Force Brig. Gen. Ronald R. Ladnier is being assigned as director, logistics readiness, deputy chief of staff, installations and logistics, Headquarters United States Air Force, Pentagon, Washington, D.C. Ladnier is currently assigned as commandant, Air Command and Staff College, Air University, Air Education and Training Command, Maxwell Air Force Base, Ala.

Air Force Brig. Gen. (select) Randal D. Fullhart is being assigned as commandant, Air Command and Staff College, Air University, Air Education and Training Command, Maxwell Air Force Base, Ala. Fullhart is currently assigned as commander, College of Aerospace Doctrine, Research and Education, Air University, Air Education and Training Command, Maxwell Air Force Base, Ala.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 26, 2004)

FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Vern Clark announced the following flag officer assignment:

Navy Rear Adm. (lower half) Timothy J. McGee is being assigned as commander, Naval Meteorology and Oceanography Command, Stennis Space Center, Miss. McGee is currently assigned as deputy/vice commander/assistant chief of Naval Research, Office of Naval Research, Arlington, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 22, 2004)
GENERAL OFFICER ASSIGNMENT

The Chief of Staff, Army announces the assignment of the following officer: Brigadier General Volney J. Warner, director, strategy and analysis, J-5, United States Joint Forces Command, Norfolk, Va., to deputy commandant, United States Army Command and General Staff College, Fort Leavenworth, Kan.

THE WHITE HOUSE (JULY 27, 2004)
PRESIDENTIAL NOMINATION

The president announced July 27 his intention to nominate Raymond F. DuBois, of the District of Columbia, to be deputy under secretary of defense (logistics and materiel readiness). DuBois currently serves as deputy under secretary of defense for installations and environment. He previously served as special assistant to the secretary and deputy secretary of defense. Earlier in his career, DuBois was president of Potomac Strategies International, a consulting firm that provides strategic management solutions to companies in the aerospace, electronics, telecommunications, and telemedicine industries. DuBois received his bachelor's degree from Princeton University.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 29, 2004)
FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Vern Clark announced the following flag officer assignments:

Navy Rear Adm. (lower half) Joseph F. Kilkenny is being assigned as special assistant for human capital strategy, commander, Naval Air Force, Norfolk, Va. Kilkenny is currently assigned as director, Aviation Plans and Requirements Branch, N780, office of the Chief of Naval Operations, Arlington, Va.

Navy Rear Adm. (selectee) Dennis D. Woofter is being assigned as deputy director for naval medicine, N093B, office of the chief of naval operations, Arlington, Va. Woofter is currently assigned as chief of staff, program executive officer, Bureau of Medicine and Surgery, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 6, 2004)
FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Vern Clark announced the following flag officer assignments:

Navy Rear Adm. James B. Godwin III is being assigned as director, Navy and Marine Corps Intranet (NMCI), Arlington, Va. Godwin is currently assigned as program executive officer for Tactical Aircraft Programs, Patuxent River, Md.

Navy Rear Adm. (lower half) David J. Venlet is being assigned as program executive officer for Tactical Aircraft Programs, Patuxent River, Md. Venlet is currently assigned as commander, Naval Warfare Center, Weapons Division, China Lake, Calif.

Navy Rear Adm. (lower half) Wayne G. Shear is being assigned as deputy director, Ashore Readiness Division, N46A, office of the Chief of Naval Operations, Washington, DC. Shear is currently assigned as deputy commander, Naval Facilities Engineering Command, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 2, 2004)
GENERAL OFFICER ASSIGNMENTS

The Chief of Staff, Army announces the assignments of the following general officers:

Major General Ann E. Dunwoody, commanding general, Military Surface Deployment and Distribution Command, Alexandria, Va., to commanding general, United States Army Combined Arms Support Command and Fort Lee, Fort Lee, Va.

Major General Jeanette K. Edmunds, commanding general, 19th Theater Support Command, Eighth United States Army, Korea, to assistant deputy chief of staff, G-4, United States Army, Washington, D.C.

JASSM PROGRAM DIRECTOR ASSUMES NEW RESPONSIBILITIES (AUG. 10, 2004)

Dale Bridges, program director of the Joint Air-to-Surface Standoff Missile (JASSM) program for the past five years, has turned the program's reins over to a new group commander. Bridges first served in the JASSM program office as the technical director and most recently as the program director. Under his leadership, the program completed development, entered low-rate initial production, and accelerated early deliveries to provide war-ready inventory ahead of schedule. Bridges takes over technical leadership of the 46th Operations Group of the 46th Test Wing at Eglin AFB, Fla.

NEW LEADER FOR JASSM PROGRAM (AUG. 10, 2004)

Air Force Col. Jim Geurts has taken command of the Long Range Missile Systems Group and leadership of the Joint Air-to-Surface Standoff Missile (JASSM) program at Eglin AFB, Fla. Geurts brings extensive experience to his new job in programs ranging from intercontinental ballistic missiles to surveillance platforms to tactical aircraft. He spent three years as a program element monitor on the Air Foce's acquisition staff in Washington, D.C. Prior to assuming his current position at Eglin as the Area Attack System Program director, he led the avionics development program for the multi-national, multi-Service F-35 Joint Strike Fighter program.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 10, 2004)
FLAG OFFICER ANNOUNCEMENTS

Secretary of Defense Donald H. Rumsfeld announced today that the president has made the following nominations:

Navy Rear Adm. Mark P. Fitzgerald for appointment to the rank of vice admiral and assignment as commander, SECOND Fleet, Norfolk, Va. Fitzgerald is currently serving as director, Air Warfare Division, N78, Office of the Chief of Naval Operations, Pentagon, Washington, D.C.

Navy Rear Adm. Joseph A. Sestak Jr. for appointment to the rank of vice admiral and assignment as deputy chief of naval operations for warfare requirements and programs, N6/N7, Office of the Chief of Naval Operations, Pentagon, Washington, D.C. Sestak is currently serving as director, Assessment Division, N81, Office of the Chief of Naval Operations, Pentagon, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 18, 2004)
GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Donald H. Rumsfeld announced today that the president has made the following nominations:

Marine Corps Lt. Gen. Edward Hanlon Jr. for reappointment to the rank of lieutenant general and assignment as the United States military representative to the NATO Military Committee. Hanlon is currently serving as the commanding general, Marine Corps Combat Development Command, Quantico, Va.

Air Force Maj. Gen. Stephen G. Wood for appointment to the rank of lieutenant general with assignment as deputy chief of staff, plans and programs, Headquarters United States Air Force, Pentagon, Washington, D.C. Wood is currently serving as commander, Air Warfare Center, Air Combat Command, Nellis Air Force Base, Nev.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 19, 2004)
GENERAL OFFICER ASSIGNMENT

The Chief of Staff, Army announces the following general officer assignment: Maj. Gen. N. Ross Thompson III, commanding general, United States Army Tank-automotive and Armaments Command, Warren, Mich., to director, program analysis and evaluation, Office of the Deputy Chief of Staff, G-8, United States Army, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 19, 2004)
GENERAL OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has made the following nominations:

Air Force Lt. Gen. Ronald E. Keys has been nominated for appointment to the rank of general with assignment as commander, Air Combat Command, Langley AFB, Va. Keys is currently serving as deputy chief of staff, air and space operations, United States Air Force, Pentagon, Washington, D.C.

Air Force Lt. Gen. Carrol H. Chandler has been nominated for reappointment to the rank of lieutenant general with assignment as deputy chief of staff, air and space operations, Headquarters United States Air Force, Washington, D.C. Chandler is currently serving as commander, Alaskan Command, United States Pacific Command; commander, Eleventh Air Force, Pacific Air Forces; and commander, Alaskan North American Aerospace Defense Command Region, Elmendorf AFB, Alaska.

Air Force Lt. Gen. Bruce A. Wright has been nominated for reappointment to the rank of lieutenant general with assignment as commander, United States Forces Japan and Commander, Fifth Air Force, Pacific Air Forces, Yokota AB, Japan. Wright is currently serving as vice commander, Air Combat Command, Langley AFB, Va.

Air Force Maj. Gen. Kevin P. Chilton has been nominated for appointment to the rank of lieutenant general with assignment as commander, Eighth Air Force, Air Combat Command, Barksdale AFB, La. Chilton is currently serving as director, programs, deputy chief of staff, plans and programs, Headquarters United States Air Force, Pentagon, Washington, D.C.

Air Force Maj. Gen. William M. Fraser III has been nominated for appointment to the rank of lieutenant general with assignment as vice commander, Air Combat Command, Langley AFB, Va. Fraser is currently serving as director, Operations, Headquarters Air Education and Training Command, Randolph AFB, Texas.

Air Force Maj. Gen. Dennis R. Larsen has been nominated for appointment to the rank of lieutenant general with assignment as vice commander, Air Education and Training Command, Randolph AFB, Texas. Larsen is currently serving as commander, Thirteenth Air Force, Pacific Air Forces, Andersen AFB, Guam.

Army Maj. Gen David F. Melcher for appointment to the rank of lieutenant general and assignment as deputy chief of staff, G-8, U. S. Army, Washington, D.C. Melcher is currently serving as the director, program analysis and evaluation, Office of the Deputy Chief of Staff, G-8, U.S. Army, Washington, D.C.

AIR FORCE SENIOR LEADER MANAGEMENT OFFICE (AUG. 19, 2004)
GENERAL OFFICER NOMINATIONS

The president has nominated to the Senate the following general officer for reappointment to the grade of general with assignment as indicated:

Gen. Gregory S. Martin, from commander, Air Force Materiel Command, Wright-Patterson AFB, Ohio, to commander, United States Pacific Command, Camp H.M. Smith, Hawaii.

The president has nominated to the Senate the following general officer for appointment to the grade of general with assignment as indicated:

Lt. Gen. Bruce A. Carlson, from commander, Eighth Air Force, Air Combat Command, Barksdale AFB, La., to commander, Air Force Materiel Command, Wright-Patterson AFB, Ohio.

The president has nominated to the Senate the following general officer for appointment to the grade of lieutenant general with assignment as indicated:

Maj. Gen. Kevin P. Chilton, from director, programs, deputy chief of staff, plans and programs, Headquarters United States Air Force, Pentagon, Washington, D.C., to commander, Eighth Air Force, Air Combat Command, Barksdale AFB, La.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 20, 2004)
FLAG OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has made the following nomination:

Navy Rear Adm. James K. Moran for appointment to the rank of vice admiral and assignment as commander, Naval Education and Training Command, Pensacola, Fla. Moran is currently serving as commander, Naval Personnel Development Command/special assistant to the Chief of Naval Operations for Task Force Excel, Norfolk, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 25, 2004)
GENERAL OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has nominated Army Maj. Gen. Robert T. Dail for appointment to the rank of lieutenant general and assignment as deputy commander, U.S. Transportation Command, Scott Air Force Base, Ill. Dail is currently serving as the director, J-3/4, U.S. Transportation Command, Scott Air Force Base, Ill.

DEPARTMENT OF DEFENSE NEWS RELEASE (SEPT. 7, 2004)
GENERAL OFFICER ASSIGNMENT

The Chief of Staff, Army announces the following general officer assignment:

Brigadier General Roger A. Nadeau, deputy commanding general, United States Army Research, Development and Engineering Command, Fort Belvoir, Va., to commanding general, United States Army Research, Development and Engineering Command, Aberdeen Proving Ground, Md.

Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

Acquisition Community Connection (ACC)
http://acc.dau.mil
Policies, procedures, tools, references, publications, Web links, and lessons learned for risk management, contracting, system engineering, total ownership cost (TOC).

Acquisition Reform Network (AcqNet)
http://www.arnet.gov/
Virtual library; federal acquisition and procurement opportunities; best practices; electronic forums; business opportunities; acquisition training; excluded parties list.

Advanced Concept Technology Demonstrations (ACTDs)
http://www.acq.osd.mil/actd/
ACTD's accomplishments, articles, speeches, guidelines, and points of contact.

Aging Systems Sustainment and Enabling Technologies (ASSET)
http://catt.bus.okstate.edu/asset/index.html
A government-academic-industry partnership. Technologies and processes developed in the ASSET program increase the DoD supply base, reduce time and cost associated with parts procurement, and enhance military readiness.

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 FAR Site
http://farsite.hill.af.mil/
FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

Army Acquisition Support Center
http://asc.army.mil
News; policy; Army AL&T Magazine; programs; career information; events; training opportunities.

Assistant Secretary of the Army (Acquisition, Logistics & Technology)
https://webportal.saalt.army.mil/
ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; links to other Army acquisition sites.

Association of Old Crows (AOC)
http://www.crows.org
Association news; conventions, conferences, courses; Journal of Electronic Defense.

Commerce Business Daily
http://cbdnet.gpo.gov
Access to current and back issues with search capabilities; business opportunities; interactive yellow pages.

Committee for Purchase from People Who are Blind or Severely Disabled
http://www.jwod.gov
Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

Defense Acquisition University (DAU)
http://www.dau.mil
DAU Course Catalog; Defense AT&L magazine and Defense Acquisition Review journal; course schedule; policy documents; guidebooks; and training and education news for the Defense Acquisition Workforce.

DAU Alumni Association
http://www.dauaa.org
Acquisition tools and resources; government and related links; career opportunities; member forums.

DAU Distance Learning Courses
http://www.dau.mil/registrar/apply.asp
Take DAU courses online at your desk, at home, at your convenience.

Defense Advanced Research Projects Agency (DARPA)
http://www.darpa.mil
News releases; current solicitations; "Doing Business with DARPA."

Defense Electronic Business Program Office (DEBPO)
http://www.acq.osd.mil/dpap/ebiz
Policy; newsletters; Central Contractor Registration (CCR); assistance centers; DoD EC partners.

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.

Defense Modeling and Simulation Office (DMSO)
http://www.dmso.mil
DoD Modeling and Simulation Master Plan; document library; events; services.

Defense Systems Management College (DSMC)
http://www.dau.mil
DSMC educational products and services; course schedules; job opportunities.

Defense Technical Information Center (DTIC)
http://www.dtic.mil/
DTIC's scientific and technical information network (STINET) is one of DoD's largest available repositories of scientific, research, and engineering information. Hosts over 100 DoD Web sites. Register for services.

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.

Director, Defense Procurement and Acquisition Policy (DPAP)
http://www.acq.osd.mil/dpap
Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy and guidance.

DoD Defense Standardization Program
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.

DoD Enterprise Software Initiative (ESI)
http://www.donimit.navy.mil/esi
Joint project to implement true software enterprise management process within DoD.

DoD Inspector General Publications
http://www.dodig.osd.mil/pubs/index.html
Audit and evaluation reports; IG testimony; planned and ongoing audit projects of interest to the acquisition community.

DoD Office of Technology Transition
http://www.dtic.mil/ott/
Information about and links to OTT's programs.

Dual Use Science & Technology (DUS&T) Program
http://www.dtic.mil/dust
Fact sheet; project information, guidance, and success stories.

Earned Value Management
http://www.acq.osd.mil/pm
Implementation of Earned Value Management; latest policy changes; standards; international developments; active noteboard.

Electronic Industries Alliance (EIA)
http://www.eia.org
Government relations department; includes links to issue councils; market research assistance.

Federal Acquisition Institute (FAI)
http://www.faionline.com
Virtual campus for learning opportunities; information access and performance support.

Federal Acquisition Jump Station
http://prod.nais.nasa.gov/pub/fed-proc/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.

Federal Government Technology Transfer Links
http://dtica.dtic.mil/t2/orgt2.html
Manpower and Training Research Information System (MATRIS) project offers links to federal government tech transfer programs.

Federal R&D Project Summaries
http://www.osti.gov/fedrnd/about.html
Portal to information on federal research projects; search databases at different agencies.

Federal Research in Progress (FEDRIP)
http://grc.ntis.gov/fedrip.htm
Information on federally funded projects in the physical sciences, engineering, and life sciences.

Fedworld Information
http://www.fedworld.gov
Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

General Accounting Office (GAO)
http://www.gao.gov
GAO reports;policy and guidance; FAQs.

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Surfing the Net

General Services Administration (GSA)
http://www.gsa.gov
Online shopping for commercial items to support government interests.

Government-Industry Data Exchange Program (GIDEP)
http://www.gidep.org/
Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

GOV.Research_Center
http://grc.ntis.gov
U.S. Dept. of Commerce, National Technical Information Service (NTIS), and National Information Services Corporation (NISC) joint venture single-point access to government information.

Integrated Dual-Use Commercial Companies (IDCC)
http://www.idcc.org
Information for technology-rich commercial companies on doing business with the federal government.

International Society of Logistics
http://www.sole.org
Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

Joint Experimentation (JE) Program
http://www.jfcom.mil/about/experiment.html
The U.S. Joint Forces Command (USJFCOM)'s JE campaign plans support improvements in doctrine, interoperability, and integration for more effective use of military forces.

Joint Interoperability Test Command (JITC)
http://jitc.fhu.disa.mil
Policies and procedures for interoperability certification; lessons learned; support link .

Joint Spectrum Center (JSC)
http://www.jsc.mil
Provides operational spectrum management support to the Joint Staff and COCOMs and conducts R&D into spectrum-efficient technologies.

Library of Congress
http://www.loc.gov
Research services; Congress at Work; Copyright Office; FAQs.

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; briefings on the MANPRINT program.

National Aeronautics and Space Administration (NASA)'s Commercial Technology Office (CTO)
http://technology.grc.nasa.gov
Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

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.

National Geospatial-Intelligence Agency
http://www.nima.mil
Imagery; maps and geodata; Freedom of Information Act resources; publications.

National Institute of Standards and Technology (NIST)
http://www.nist.gov
Information about NIST technology, measurements, and standards programs, products, and services.

National Technical Information Service (NTIS)
http://www.ntis.gov/
Online service for purchasing technical reports, computer products, videotapes, audiocassettes.

Naval Sea Systems Command
http://www.navsea.navy.mil
Total Ownership Cost (TOC); documentation and policy; reduction plan; implementation timeline; TOC reporting templates; FAQs.

Navy Acquisition and Business Management
http://www.abm.rda.hq.navy.mil
Policy documents; training opportunities; guides on risk management, acquisition environmental issues, past performance, and more; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

Navy Acquisition, Research and Development Information Center
http://www.onr.navy.mil/sci_tech
News and announcements; acronyms; publications and regulations; technical reports; how to do business with the Navy.

Navy Best Manufacturing Practices Center of Excellence
http://www.bmpcoe.org
National resource to identify and share best manufacturing and business practices in use throughout industry, government, academia.

Naval Air Systems Command (NAVAIR)
http://www.navair.navy.mil
Provides advanced warfare technology through the efforts of a seamless, integrated, worldwide network of aviation technology experts.

Office of Force Transformation
http://www.oft.osd.mil
News on transformation policies, programs, and projects throughout the DoD and the Services.

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.

Parts Standardization and Management Committee (PSMC)
http://www.dscc.dla.mil/psmc
Collaborative effort between government and industry for parts management and standardization through commonality of parts and processes.

Project Management Institute
http://www.pmi.org
Program management publications; information resources; professional practices; career certification.

Small Business Administration (SBA)
http://www.sbaonline.sba.gov
Communications network for small businesses.

Small Business Innovation Research (SBIR) Program and Small Business Technology Transfer (SBTT) Program
http://www.acq.osd.mil/sadbu
Program and process information; current solicitations; Help Desk information.

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.

Space and Naval Warfare Systems Command (SPAWAR)
https://e-commerce.spawar.navy.mil
SPAWAR business opportunities; acquisition news; solicitations; small business information.

Under Secretary of Defense (Acquisition, Technology and Logistics) (USD[AT&L])
http://www.acq.osd.mil/
USD(AT&L) documents; streaming videos; links to many other valuable sites.

USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)
http://akss.dau.mil
Automated acquisition reference tool covering mandatory and discretionary practices.

U.S. Coast Guard
http://www.uscg.mil
News and current events; services; points of contact; FAQs.

U.S. Department of Transportation MARITIME Administration
http://www.marad.dot.gov/
Information and guidance on the requirements for shipping cargo on U.S. flag vessels.

All links current at press time. To add a non-commercial defense acquisition/acquisition and logistics excellence-related Web site to this list, please fax your request to Judith Greig, (703) 805-2917. DAU encourages the reciprocal linking of its Home Page to other interested agencies. Contact: webmaster@dau.mil.

Defense AT&L Writer's Guidelines in Brief

Purpose

The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

Subject Matter

We do print feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

Defense AT&L reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

Length

Articles should be 2,000 - 3,000 words or about 10 double-spaced pages, each page having a 1-inch border on all sides. For articles that are significantly longer, please query first by sending an abstract.

Include a short biographical sketch of the author(s)—about 25 words—including current position and educational background.

Style

Good writing sounds like comfortable conversation. Write naturally and avoid stiltedness. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters. Be sure to define all acronyms. Consult "Tips for Authors" at <http://www.dau.mil/pubs/damtoc.asp>. Click on "Submit an Article to Defense AT&L."

Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

Graphics

We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable. Include brief, numbered captions keyed to the figures and photographs. Include the source of the photograph. We publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. Each figure or chart must be saved as a separate file in the original software format in which it was created and must meet the following publication standards: color and greyscale (if possible); JPEG or TIF files sized to print no smaller than 3 x 5 inches at a minimum resolution of 300 pixels per inch; PowerPoint slides; EPS files generated from Illustrator (preferred) or Corel Draw. For other formats, provide program format as well as EPS file). Questions on graphics? Call (703) 805-4287, DSN 655-4287 or e-mail vaworkorders@dau.mil. Subject line: Defense AT&L graphics.

Clearance and Copyright Release

All articles written by authors employed by or on contract with the U.S. Government must be cleared by the author's public affairs or security office prior to submission.

Authors must certify that the article is a "Work of the U.S. Government." Go to <http://www.dau.mil/pubs/damtoc.asp>. Click on "Submit an Article to Defense AT&L"; scroll to the bottom of page 2; click on "certification form." Print, fill out in full, sign, and date the form. Submit the form with your article or fax it to (703) 805-2917, ATTN: Rosemary Kendricks. Your article will not be reviewed until we receive the copyright form. Articles printed in *Defense AT&L* are in the public domain and posted to the DAU Web site. In keeping with DAU's policy of widest dissemination of its published products, no copyrighted articles are accepted.

Submission Dates

Issue	Author's Deadline
January-February	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

If the magazine fills before the author deadline, submissions are considered for the following issue.

Submission Procedures

Submit articles by e-mail to judith.greig@dau.mil or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.

http://www.dau.mil/pubs/damtoc.asp

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