ARMY AL&T
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THE STATE OF THE U.S. ARMY ACQUISITION CORPS

INTERVIEWS WITH

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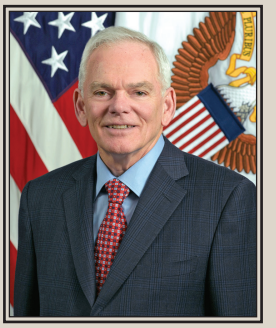
From the Army Acquisition Executive

Maintaining a Decisive Edge



This is a great time for me to wish all of you a Happy New Year! It is my hope that 2011 is filled with good health and prosperity for you and your loved ones. This is also a great time for me to thank our superb editorial staff—Nelson McCouch III, Margaret C. (Peggy) Roth, Robert E. Coultas, Kellyn D. Ritter, Jaclyn Pitts, and Christina Sneed—for compiling and publishing this award-winning, quarterly *Army AL&T* Magazine and the monthly *Army AL&T Online*. They are a talented team, dedicated to keeping the acquisition and contracting community and our key stakeholders well-informed about our plans, programs, and significant accomplishments. Keep up the great work!

This issue of *Army AL&T* is focused on the "State of the U.S. Army Acquisition Corps." I was the first director of the Army Acquisition Corps and now—two decades later—it is my privilege again, along with LTG Bill Phillips, to lead this well-educated, disciplined, talented, and success-oriented team, dedicated to meeting our Soldiers' needs around the clock and around the world. While we are working to rebuild and rebalance the greater Army acquisition workforce, it is the Acquisition Corps that is charged with providing steady leadership at all levels to meet the many challenges that come our way.

When I came to this job, I knew the Army was strong, but as people said we need to keep the Army strong, I wondered, "How, exactly, do we define that?" The word that comes to my mind is "decisive." We need to further ensure that the dismounted Soldier is a decisive weapon in his or her own right—not just when driving an Abrams or flying an Apache, but when closing with the enemy in combat on the ground. As is often said, "We don't want our Soldiers in a fair fight; we want to give them an unfair advantage."

In the Air Force, the F-22 Raptor is a decisive weapon. It is a multimillion-dollar fighter plane that cannot be matched by any known or projected fighter aircraft. It has a sophisticated sensor suite that allows the pilot to track, identify, shoot, and kill air-to-air threats before being detected. It brings stealth to protect itself and other assets. In the Navy, the nuclear-powered attack submarine is a decisive weapon. I was invited to be a guest on the USS Phoenix during maneuvers against a surface fleet near the Bermuda trenches where, in simulation, an entire enemy surface fleet was sunk—without the submarine being seen or heard. In the Army, the M-1 tank is a decisive weapon. It is the backbone of the armored forces, and its lethality and survivability are legendary.

Because the Soldier is our most precious asset, it is my hope that together—as a team with key stakeholders, including industry—we can make sure the dismounted Soldier is a decisive weapon on the battlefield. For the kinds of conflict projected in the near, mid, and far term, the Soldier on the ground is going to play a dominant role, and, as today, we want to protect our Soldiers and bring them home safely. You, as a member of the Army AL&T team, need to make this happen. I will do my job, but I need you to do your jobs, too.

Our acquisition focus is to maintain high quality in the equipment we have now and the equipment on the way, for example the Ground Combat Vehicle, which is decisive for mounted Soldiers. While bringing greater focus to the dismounted Soldier, we will also maintain a focus on end-items that are critical to the mounted Soldier: the Apache, the CH-47, the M-1 tank, MRAP, M-ATV, and so on. We must also focus on the joint arena, especially our sister services. I know first-hand the power that Air Force and Navy jets provide, and the reassurance that comes with having Marines serving at your side. In the joint arena, we must draw on the strength of each service to support one another in the fight.

It is up to our science and technology community to provide the hardware that gives our Soldiers the decisive edge, just like the F-22 and the nuclear attack submarine. That is why I have put together a team that is leading DOD in scientific expertise. I have hired Dr. Marilyn Freeman, a visionary, as our Deputy Assistant Secretary of the Army for Research and Technology; Dr. Scott Fish as the Army's Chief Scientist, the first in roughly 25 years; and Ms. Heidi Shyu from Raytheon Co. as my Principal Deputy. I met Ms. Shyu when she chaired the Air Force Scientific Advisory Board, on which I served for several years. I told an audience at the Army Science Conference recently, "Don't worry about getting into details with us. We are ready, able, and highly motivated to get into the technologies and science associated with ground combat."

So, it is important to protect the entire Soldier, to make acquisition responsive to technological evolution, and to maintain a world-class science and technology foundation. Without it, we cannot maintain the decisive edge. It is also important to have a horizontal view of the acquisition process. You cannot worry about engines or transmissions alone. You need to look across the disciplines, have electrical engineers talking to mechanical engineers and both talking to software engineers, and, in the end, engage systems engineers to put the program together.

Of course, we need program funding stability, and in this austere budget environment, we need to be concerned about resources. As Secretary of Defense Gates warned recently, "Given America's difficult economic circumstances and parlous fiscal condition, military spending on things large and small can and should expect closer, harsher scrutiny. The gusher has been turned off, and will stay off for a good period of time." We truly need to do more without more, and we are making progress in this area.

The AL&T community is doing great things, but we have to do even better to ensure that our Soldiers are protected across the full spectrum of conflict so they can come home safely. As we move forward with our plans, I want you to have moral courage, to be able to be that person who says no when everyone else around the table says yes. It is perfectly acceptable to say, based on your expertise, education, and experience, that X is acceptable and Y is not. Believe me, I will back you all the way, as I make clear in my interview with *Army AL&T* Magazine, which starts on Page 3.

I hope you enjoy the many excellent articles in this issue, including an interview with LTG Phillips on the responsibilities, successes, and challenges of the Army Acquisition Corps, and that you will always seek the next level of excellence in your work.

Dr. Malcolm Ross O'Neill
Army Acquisition Executive

From the DACM

Rebuilding and Rebalancing the Army Acquisition Corps

This edition of *Army AL&T* Magazine inaugurates what I hope will be a productive forum for me to share my perspectives as Principal Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology and Director of the Army Acquisition Corps. My goal is to engage and inform you, the members of the AL&T Workforce, on issues of the highest priority, starting with the need to rebuild and rebalance the U.S. Army Acquisition Corps.

In our Army, there's one centerpiece of what we do every day, and that is Soldiers and how we support Soldiers. In the case of our mission in AL&T, it's what capability can we provide Soldiers on the shortest timeline that gives them the ability to execute the mission, and then one day after they've executed the mission efficiently and effectively, to come home safely to their Families and their friends.

A top priority that I work toward in this job is the acquisition workforce and taking care of the people who work so hard to execute our AL&T mission. It requires rebalance and growth across the acquisition workforce for us to continue building a world-class, professional corps of civilians and military members focused on our mission. That's what I see as my No. 1 challenge, because helping Soldiers and getting capability into their hands isn't going to happen efficiently or effectively without the acquisition workforce.

During my tenure as Principal Military Deputy to Dr. Malcolm Ross O'Neill, Army Acquisition Executive, rest assured that I'm going to focus on rebuilding and growing the Army Acquisition Corps. This includes AL&T, and most importantly the contracting workforce.

The continued growth of contracting remains our greatest challenge. We have made progress, but there is still much more to do! We're going to add more than 1,600 contracting professionals—military and civilian—over the next several years to our contracting workforce. And they are absolutely essential. I believe that our contracting workforce, at least in previous years, is the most under-appreciated skill in the Army.

We absolutely have to rebuild the skill. It takes, in my opinion, a minimum of 5 years, but more realistically 8 to 10 years, before you have a highly qualified contracting officer who can take on almost any task at hand and execute that most complex contract.

Another of my top priorities, and this applies throughout the AL&T community, is communications. As you're working your task, if you're not communicating, you're probably making a mistake and not taking advantage of an opportunity. If we are going to be successful today in the acquisition business, it requires that we be inclusive in the process for building our programs. Programs today are part of a system, and very rarely will you find a program that can be viewed and executed in isolation. To be successful today, program managers must seek partnership and support from those who are stakeholders in their systems, and the basis for any successful partnership is clear, consistent communications between parties.

It is more important than ever that our acquisition team seek to work effectively with others to figure out how to increase system capabilities.

I am very serious about certification and professional development of our professional corps members. If you're a member of my, of our, Acquisition Corps and you're not driving toward being certified in the skills the Army has asked you to be certified in, I want to seek you out and provide guidance. Seeking to become certified is simply being a "professional"—it is expected and actually "required." So, become certified in the shortest time possible!

It is often stated that the acquisition system hasn't responded appropriately to the needs of warfighters. We sometimes focus on what might be considered as having not gone so well. At the heart of this is ensuring that we're doing all the right things to support our warfighters. As we have executed programs and learned from those that have "not gone so well," it remains important that we learn from the mistakes we have made in the past, seek to change our processes, and not make the same mistakes again!

The Army is executing an acquisition study led by Mr. Gil Decker, former Army Acquisition Executive, and retired GEN Lou Wagner, former Commander of U.S. Army Materiel Command. Secretary John McHugh has brought them in to charter a study of the acquisition system. We will soon receive the final outbrief and the complete report, which we expect to provide us with a blueprint to seek continuous improvement of the acquisition process.

It's also important that we remember the many actions that we've executed well across acquisition, such as aviation modernization, Stryker BCTs, Blue Force Tracking, MRAP/M-ATV, the Rapid Fielding Initiative, short-notice Foreign Military Sales support for Iraq's and Afghanistan's requirements, and many others.

We have many new challenges as well. First is the building of the network and network synchronization, the most important program within the Army today. Lightening our Soldiers' load is another area where we are putting a lot of effort. Finally, we must be looking across the board at efficiencies. In order to continue supporting our Soldiers with the very best capability, we will absolutely have to become more efficient. Our Soldiers are depending upon each of us to do our part!

I talk about these priorities, successes, and challenges in the recent interview I had with *Army AL&T* Magazine. The interview begins on Page 11 of this edition.

Finally, we have an incredibly talented, dedicated, and hardworking Army AL&T Workforce. Dr. O'Neill and I have the utmost confidence that as we continue to support our Soldiers in overseas contingency operations, you will rise to every challenge and will succeed in executing the Acquisition Corps' mission, as the true professionals that you are.

LTG William N. Phillips
Director, Acquisition Career Management

State of the U.S. Army Acquisition Corps

This issue of *Army AL&T* Magazine takes stock of the achievements and challenges of the U.S. Army Acquisition Corps (AAC)—where we've succeeded and where there's still work to do. From systems development to procurement, to contracting and professional development, 21 articles explore the current state of Army acquisition in detail. As illustrated on the cover, this issue encompasses both leadership viewpoints and on-the-ground perspectives across the breadth of acquisition, from the career development classroom to the arenas of logistics, weapon systems, and technology.

In this issue, you'll find a wealth of information that will help you succeed in your work. Interviews with Dr. Malcolm Ross O'Neill, Assistant Secretary of the Army for Acquisition, Logistics, and Technology, and LTG William N. Phillips, Dr. O'Neill's Principal Military Deputy and Director of Acquisition Career Management, provide an in-depth look at their leadership philosophies and priorities. A subsequent article looks specifically at how the Army is strengthening contracting within its acquisition workforce.

There are also two brand-new features in this issue.

From the DACM, a column by LTG Phillips that will appear regularly in *Army AL&T* Magazine, is devoted to discussing LTG Phillips' priorities for the acquisition workforce and acquisition career management.

The Conference Call section comprises 11 articles spotlighting news and insights from top leaders in the military and industry who presented their views at two key annual conferences in October and November. The articles are a concise wrap-up of acquisition-focused news from the 2010 Association of the United States Army Annual Meeting and Exposition and the 2010 Program Executive Officers'/System Command Commanders' Conference. Key speakers included ADM Mike Mullen, Chairman of the Joint Chiefs of Staff; Dr. Ashton B. Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics; William J. Lynn III, Deputy Secretary of Defense; GEN Peter W. Chiarelli, Vice Chief of Staff of the Army; and top executives from Raytheon, Northrop Grumman, Lockheed Martin, and Boeing. These leaders offered timely insights on Army modernization, fiscal management, acquisition reform, workforce development, Army readiness, force structure, development of the Army network enterprise, and, most important, how the Army and DOD will be "doing more without more" in 2011.

Additional articles in this issue examine the drawdown of equipment from Iraq and challenges in logistics, intelligence, contracting, and testing.

I trust this issue will give you valuable knowledge and insights into not only the current state of the AAC, but its future as well. If you have any comments or suggestions, e-mail me at **USAASCWEBArmyALTMagazineLettertoEditor@conus.army.mil**.

For more of the latest news and career announcements in Army acquisition, please also visit our monthly publication, *Army AL&T Online*, at **http://asc.army.mil** and click on the Magazines tab.

Nelson McCouch III
Editor-in-Chief

ON THE COVER, clockwise from top left of four photos: Continuous learning is key to developing professionalism in the Army AL&T Workforce. (U.S. Army photo by Delawese Fulton, *Fort Jackson Leader*.)

Parachute riggers from the 82nd Sustainment Brigade, XVIII Airborne Corps prepare bundles of bottled water and Meals, Ready-to-Eat for delivery to the Haitian people in support of *Operation Unified Response*. These types of bundles are dropped by parachute from military aircraft to resupply ground units. (U.S. Army photo.)

The M320, a 40mm grenade launcher, is an interoperable system that attaches under the barrel of the rifle or carbine and can convert to a stand-alone weapon. (U.S. Army photo courtesy of PEO Soldier.)

The new Mine Resistant Ambush Protected All-Terrain Vehicle, built specifically for the mountainous Afghan terrain, is a success story for Army acquisition. (U.S. Army photo by SPC Elisebet Freeburg.)

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By order of the Secretary of the Army

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JOYCE E. MORROW
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1035101

Interview with Dr. Malcolm Ross O'Neill, Assistant Secretary of the Army for Acquisition, Logistics, and Technology

In his interview with *Army AL&T* Magazine, Dr. Malcolm Ross O'Neill spoke about his priorities and both the successes and inefficiencies in Army acquisition. (U.S. Army photos by McArthur Newell II, BRTRC.)

Army AL&T: We would like to hear about your priorities, where you think Army acquisition has come, and where you think it is going. Also, as the leader of Army acquisition, please tell us about your leadership style.

O'Neill: My leadership philosophy is to be very interactive, to make sure everybody knows his or her business, to be considerate of others, to understand people's limitations and respect them. I think it's very important to have good morale, not to come down too hard on people. I've always had bosses for the most part who were very understanding, and you could communicate with them. You could say things and not have retribution for saying you thought something wasn't right, even if what you thought was wrong. If it was wrong, the person would just say, "Well, that's wrong" or "I disagree, and I'm the one who has to make the decision, so notwithstanding that you have good reasons, I think we need to do it this way."

One of the nice things about the Army is we have a lot of people prepared to take different jobs. I was told, when I was a young officer, that you should put your subordinates in a position where somebody could step into your job fast if needed. And if you don't have anybody like that, it's not our fault; it's your fault. You should have two or three people in your organization who know as much as you know, who are just as capable as you are, and who the boss or commander would be just as comfortable with if something would happen to you. I've always used that philosophy.

I am a people person. I love working with people; that's one of the reasons I came back to the government. I think the acquisition workforce is better today than I've ever seen, in terms of their technical competence, in terms of their hard work and their dedication.

Army AL&T: What other changes, with all your experience in the Army Acquisition Corps, being its first director and having a variety of program management positions, have you seen in the Army Acquisition Corps?

O'Neill: I think we're much better trained. The Acquisition Corps is much better respected, too. In the past, we didn't necessarily put our best officers in acquisition; today, we do. The warfighters take acquisition very seriously, and that's a good thing.

In the Army Acquisition Corps, I think it's 98 percent who have their master's degrees. When I was in before, maybe 50 percent had their master's degrees. I asked when I came here, "How many have master's degrees?" I thought they'd say 55 percent. And they looked at me and said, "It's about 98 percent." I said, 98 percent? That's a heck of a lot better than any community. I was at Lockheed Martin for 10 years, and we didn't have near 98 percent with master's degrees; we had probably 60 percent. Even in the Department of Energy and MIT Lincoln Laboratory, they don't have 98 percent master's degrees. They have a lot of PhDs, but they have a lot who don't have master's degrees. So if you look at graduate degrees, the Army Acquisition Corps has more graduate degrees than MIT Lincoln Laboratory, which is one of the finest scientific institutions in the world.

The DASA for Services will focus on service contracts, the scope of the service contracts, and the conduct of the contracts. We want the Army to conduct more in-house execution of things that, during the war, we were contracting out.

Army AL&T: Do you think this higher level of education overall helps prepare the Army Acquisition Corps to take on the challenges that it faces now of "doing more without more"?

O'Neill: Absolutely. They come up to speed much quicker. They understand the business management areas, the funding and financing areas, and the technical areas better than in the past.

Army AL&T: Dr. [Ashton B.] Carter's June 28 meeting with acquisition officials and industry executives was clearly a turning point for Army acquisition. Can you tell me from your perspective what you think that meeting accomplished and where it's taking us?

O'Neill: Well, I think it set the stage for us. You mentioned "doing more without more." He coined that phrase. I remember sitting around with him and saying, "What about 'more for less'?" He said, "I don't like 'more for less.' " I kind of ran out of ideas real fast. And then at our subsequent meeting, he said, "How about 'doing more without more'?" And I said, "That sounds great to me."

I think what is meant by that is that it's up to us to figure out a better way to do our business. And he's trying to incentivize it. He wants to find a way that if we can come up with a better practice in the Army, he can make sure it's used in the Army and throughout DOD. He will take that as an accomplishment and reward us with various incentives. So we're all highly motivated to find efficiencies.

What Dr. Carter was trying to do is to get our community to think more about ways we could save money, without cutting force structure or reducing the number of items in a buy, which

O'Neill speaks to *Army AL&T* Magazine Senior Editor Margaret C. (Peggy) Roth about Dr. Ashton B. Carter's initiative for "doing more without more."

very often are the first things that come to mind when we say we want to be more efficient, we want to save money. And what we wind up doing is saying, "Okay, you can only have so many tanks, and you're going to have to get rid of 10 people." And what he said is, we don't want to do that, we want to have the same programs, we want to have the same staff working the programs. All we want is to do our job better. Don't you all think you could do things better? It's kind of like President Obama saying, change. Anybody can be an instrument of change, and everybody realizes that you can always do things better. You can cut this corner, you can arrive a little earlier at the Metro station. You can check the weather reports. And that's what he was asking for, and what Dr. Carter said was—and he thought this was a reasonable goal—that you could probably save 2–3 percent of Army dollars required by doing things better, without having to cut a program and without having to reorganize.

So we took that and we divided his challenge into five areas. And we convinced him that he needed a manager for service contracts in each one of the services. In the Army, we've selected Mr. Jim Sutton as the Deputy Assistant Secretary of the Army [DASA] for Services. He is charged with coordinating services across the entire Army. It's a big job, and I think it's going to be challenging and very exciting.

We're modeling it off of the Air Force approach. The Air Force has a brigadier general, Wendy Masiello, who is the Program Executive Officer for Combat and Mission Support in the Office of the Assistant Secretary of the Air Force for Acquisition. Wendy's doing a tremendous job, and she only has about 10 people in her office. What she said is, "I don't go in and tell someone what to do. For example, the PEO for fighter planes and I are peers. I say, this is a best practice that we learned from the PEO Cargo Airports. It sounds really interesting. Could you take a look at it and get back to me with your ideas as to how you might employ it or employ something like it? You could save significant amounts of money off of your service contracts."

And she said, "Because I have good relationships with my peers, the other PEOs, we are realizing significant savings." This year she's targeting about $100 million of savings for the Air Force.

Having a DASA close to the Service Acquisition Executive, close to the MILDEP, close to our key civil servants, that DASA will have some leverage over the PEOs and be able to work on a positive basis, a cooperative basis, because he is going to have a very large portfolio. Last year, 55 percent of our investment was in services. It boggles my mind, because if somebody had asked me how much money went into services in the Army, I would say 15 percent. As I think about the SETA

Can't we save more money by being a little bit more specific in what we want the contractor to do? And, therefore, we could use a firm fixed-price contract.

[Systems Engineering and Technical Assistance] contracts, the support contracts, when I was a PM, they were always a very small fraction of the contract. But now we have these service contracts for logistics support. Those are big, big dollars, billions of dollars.

We recently signed a $6 billion contract for linguists in Afghanistan and Iraq. It's not like a tank or a truck, because it's people that you're dealing with, and they have to train, they have to be on site, or you have to transport them into your site. Some have to go out with the uniformed military. And those people have to be strong, they have to accept risks. So it's a very difficult challenge, it takes money. It's much larger than I thought, so it needs a very erudite individual who can have good relationships across a broad spectrum to be the DASA for Services.

Army AL&T: Could you elaborate further on what this new DASA would cover?

O'Neill: The DASA for Services will focus on service contracts, the scope of the service contracts, and the conduct of the contracts. We want the Army to conduct more in-house execution of things that, during the war, we were contracting out. So Mr. Sutton will be involved in phasing some of these service activities into the in-house Army staff. It might involve hiring some more civil servants; it might involve us training some military to work in these areas. It's the planning, it's the moving things in-house, it's the execution of existing service contracts, justification when they're sole source. It runs across the whole spectrum—joint services provided to the Army, Navy, and Air Force at the same time.

Army AL&T: At this point, where do you see the greatest inefficiencies in Army acquisition?

O'Neill: That's a good question. Again, I think services is one of the big ones. I think type of contract is a big one. For a long time we used cost-type contracts. And what that means is, you give the contractor a statement of requirements. And he tells you what he thinks it's going to cost, how long he thinks it's going to take to do the task. And then you allow him to charge you all of his costs for that task, plus the cost of his overhead, things like that, and a small profit, typically 2 to 8 percent. And the problem is that when you promise him you'll pay his cost, then he doesn't have to have as much discipline. He'll come into meetings with his staff and he'll say, we're up to $8,000 spent and we haven't gotten close to the answer that the government wants. If you told him, I want this job done and I'm not going to pay any more than $10,000, then he has to manage his costs more carefully. So the arguments we have are, can't we save more money by being a little bit more specific in what we want the contractor to do? And, therefore, we could use a firm fixed-price contract.

And one of the things we decided in this incentives drill is that, while there are some exceptions, the ultimate goal would be to have as many contracts as possible be fixed price, with an incentive. In other words, we're going to give you $300,000 to do this, and if you come back a month early, we'll give you $100,000 to do it in 2 months, as opposed to doing it in 3 months—that kind of thing. So the incentive structure is a big area. Services and type of contract are the two areas where I would look for the most savings.

Army AL&T: How about efficiencies? Where are we doing well?

O'Neill: I think right now we're very efficient in terms of our use of civil servants, very effective in the training of civil servants. We don't have a surplus of government people. Our utilization of our civil servants is probably 100 percent. And for some of you, it's more than that. We've got to be careful we're not driving our civil servants too hard, but right now I see no waste in that area. I see waste in some other areas, but I haven't seen waste in the use of our people. The area that Dr. Carter was looking into was unnecessary expenditure of resources. That's the area where I've come back to him and said, I really find it hard to identify where we're wasting money.

Now sometimes in a war, when you have a lot of money, you just say, "Go ahead and do that and call me when you're done, and I'll pay the bill"—whatever the bill is. It's a crisis situation. But we're not managing that way. And I think one of the reasons is, the kind of war we're in, you generally have some time. In the early phases of the IED attacks, you didn't have time. And we had to buy Soldier protection vehicles like MRAP and M-ATV. MRAP we did in about a year and a half by modifying existing vehicles. But we wound up with roughly 39 different systems. And of course it's very inefficient to have 39 different systems in the field that perform basically the same function but have different parts, different maintenance staffs, different costs, different sizes, different tires. You pay a penalty sometimes in order to do something very quickly. It's a big logistics burden.

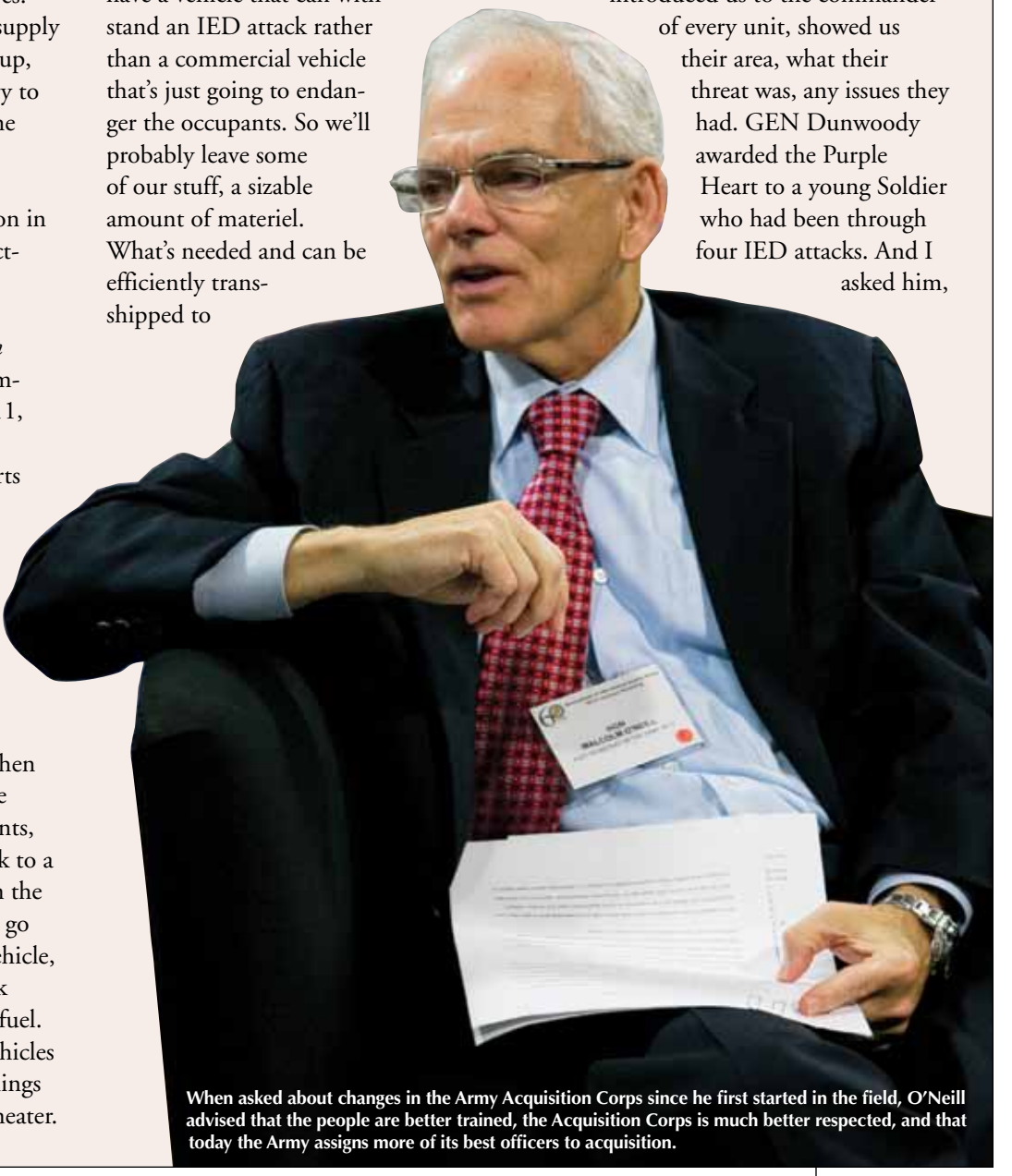
And when the war is over, we want to incorporate the MRAPs into our fleet. We have over 25,000 of them right now. We probably won't need 25,000 when we stabilize our force. And the question then is, which ones do we keep of the 39 different varieties? Do we assign one variety to one division and one variety to another division? Or do we have an MRAP Light, an MRAP Medium, and an MRAP Heavy? Each would have different equipment on it and serve different purposes. The problem with that approach, though, is you have to have the parts for each one, because they all have different parts. Different kinds of tires, different sizes for the tires, different pressures. And they'd all have to be in your supply room and your maintenance backup, and that's tough. That's why we try to standardize; that's why we have one tank, one fighting vehicle.

Army AL&T: How is the transition in Iraq to *Operation New Dawn* affecting acquisition?

O'Neill: The program *New Dawn* has to mature and basically be complete by the end of December 2011, and it's going to be a big task. I've flown over some of the vehicle parts areas and some of the ammunition areas, and it's going to take a lot of transportation to get that out of Iraq and back to the United States, or diverted to Afghanistan or wherever it has to go. [See related article on the drawdown from Iraq, Page 23.] What we're trying to do is, when we bring in supplies—consumable supplies, food, petroleum, lubricants, things like that—when we go back to a port, we should put equipment on the vehicles so that the vehicle doesn't go back empty. A tank or armored vehicle, of course, normally would go back empty, unless it is carrying excess fuel. But all the equipment-carrying vehicles should go back with spares and things that you're not going to need in theater. But things have to be surplused; in other words, they have to be identified as not needed any longer. And in that way, we're making these mountains of materiel smaller and smaller every day. But it's still going to be a very challenging task.

Now one of the things that helps *Operation New Dawn* is, the State Department is coming in. They will need some of that equipment; they'll need some trucks, and they would probably prefer to have the trucks that are hardened because there always will be a few insurgents, there will be a few terrorists, and they'd just as soon have a vehicle that can withstand an IED attack rather than a commercial vehicle that's just going to endanger the occupants. So we'll probably leave some of our stuff, a sizable amount of materiel. What's needed and can be efficiently transshipped to Afghanistan, we'll transship. So we're looking at that. Our sustainment people, [U.S. Army Materiel Command Commanding General] GEN [Ann E.] Dunwoody's people, are looking at that every day.

GEN Dunwoody, by the way, was with me in Iraq and Afghanistan. She was my host because she has two units over there, the 401st Army Field Support Brigade and the 402nd Army Field Support Brigade. The commander of the 402nd accompanied us through Iraq, and the commander of the 401st accompanied us through Afghanistan, were with us every minute and introduced us to the commander of every unit, showed us their area, what their threat was, any issues they had. GEN Dunwoody awarded the Purple Heart to a young Soldier who had been through four IED attacks. And I asked him,



When asked about changes in the Army Acquisition Corps since he first started in the field, O'Neill advised that the people are better trained, the Acquisition Corps is much better respected, and that today the Army assigns more of its best officers to acquisition.

well, what do you think? And he said, "I want to get back out on the road. I'm an expert now. I can do the job better than a lot of my buddies, and I don't want to get them hurt." I liked that. He was a very good Soldier. He was, I think, a specialist, and I think he will very shortly be a sergeant.

It took a day to get over there, and then we spent 3 days in Iraq and 3 days in Afghanistan and kind of in-between. GEN Dunwoody goes quarterly, and she said, "Anytime you want to come along, you can come." … I'd like to go back in the January timeframe, see it again. I'd like to see it evolve. I have had one visit, for a total of 8 days. … In Iraq, I was only in three venues; in Afghanistan, I was in three venues also. So the issue is getting to more places.

Like in Afghanistan, I was up in the north, where it's more mountainous. I saw Bagram, I saw Kabul, the areas around that, but I didn't see Kandahar and the southern areas, where they say it's much more dangerous. That's where most of the violent activity is. So I need to get there, see what's going on. You know, you get insights from visiting a place. You can't get them just from reading reports, seeing videos, things like that. For example, you don't think about the impact of 10,000 feet of altitude, but I would climb stairs, which I normally could climb with no problem, and find I'm breathing hard from climbing one flight—one flight of stairs! And they would just laugh. They said, "Well, if you stayed a few more days, Sir, we think you'd get used to it." And I said, "Like hell. I'd have to be here a year to get used to that. There just isn't enough oxygen for people like me. I'm a flatlander."

Army AL&T: What effects do you think the Army Acquisition Study will have on the day-to-day operations of the Acquisition Corps?

O'Neill: I haven't read the study. I have no idea what the impact will be. But I know the quality of the people who are doing the study, and [retired GEN] Lou Wagner is a former commander of U.S. Army Materiel Command [AMC], and of course Lou was the commander when the project managers reported through him to the ASAALT, so he had responsibility for management of programs as well as management of research, development, and sustainment. Mr. Gil Decker had my job, I think three or four generations of ASAALT before me. So he has good insights from that standpoint. George Williams, George Singley both managed significant acquisition portfolios.

The insights they've provided to me are that there needs to be a better, a stronger, relationship between the requirements generators and the acquisition community. I think that's going to be one of their foremost recommendations. And that means I get a lot closer to LTG [Michael A.] Vane [Deputy Commanding General, Futures/ Director, U.S. Army Capabilities Integration Center] and GEN [Martin E.] Dempsey [Commanding General, U.S. Army Training and Doctrine Command] than I've been in the past, get a lot closer to the Army Vice Chief of Staff, who does these Capability Portfolio Reviews. I think they will come across with a much better recommendation with regard to what you do in a portfolio review. Right now, the output of a portfolio review is requirements, but it's not how many of each thing need to be built, how much should we pay for this and that. So I think in the coordination of the portfolios with the resource person, G-8, and with the acquisition person, the ASAALT, also the research and development person, either ASAALT or AMC, they need to be brought more strongly into the CPRs.

O'Neill described his leadership philosophy as interactive—making sure everybody knows his or her business, being considerate of others, and understanding and respecting people's limitations.

Army AL&T: Sir, if I could tap your science background, what steps do you think we need to be taking in science and technology?

O'Neill: Well, I think we need to make some investments in materials, because right now armor is too heavy and it takes too many horsepower to move it around the battlefield. I think we need new concepts to protect Soldiers, and the concepts include stealth, agility. I think we need more concepts for ways to protect the Soldier when he's dismounted, ways to move the Soldier on the battlefield when he's dismounted, ways to modernize the Soldier's

O'Neill told *Army AL&T* Magazine Senior Editor Margaret C. (Peggy) Roth that the Army Acquisition Corps' higher level of education enables the workforce to come up to speed much faster; understand the business management areas, the funding and financing, and the technical areas better than in the past; and take on the challenges of "doing more without more."

weapons. The Soldiers still use a rifle; well, we started using rifles in the Civil War. So the question is, is there something beyond a rifle that you could get out of the S&T community? And I think there are some options; there are guided bullets, there are lasers, there are blinders, little designators that would cruise, and then as soon as you illuminate a target, it would dive down and hit the target, those kinds of things. Active sensors—very, very small active sensors that you could put on your shoulder or the chest of a Soldier, and he could see, a kilometer away, anything that was moving. I think that could be very helpful. Anything that could pick up wires for IEDs or metal IEDs at a distance. Our ground-penetrating radars right now work about 6 feet from the IED; that's too close for comfort, especially if you see a large one, one that has an explosively formed penetrator pointed at you. When the radar sees it, it's too late, because the EFP is looking right at you, and it just goes off and shoots right through the windshield of your vehicle. You don't want that. So those kinds of technologies.

I think an area that needs more emphasis is medical research. We have a lot of Soldiers suffering from Traumatic Brain Injury. And even though you don't have a visible cut on your body, you can have internal damage that you carry around for years or perhaps the rest of your life, and you find out that your memory goes away, you start fainting, all of a sudden you get violent with people around you including your spouse, your kids, you get irritable. And it doesn't mean it can't be caused by other things. But if the doctors really had a better understanding of some of these things that come with being a Soldier, or an NFL football player, you would at least be taken out of the line of fire at the first exposure, not the fifth exposure. And many of us who've been in the services before, as long as I wasn't bleeding, I'd tell the doc, "Hey, doc, I'm fine" and go back into combat even though I couldn't even walk a straight line, and I couldn't sleep, and I had headaches for months and months. We'd keep going, because they'd say, "Well, you don't need any stitches. If you don't need stitches, what's your problem?" Well, I just feel dizzy all the time, my ears are ringing. "So what? Straighten up, have some coffee." Something like that. But we just didn't know.

Also, the technology of how diseases are transmitted through the food. One thing I noticed in every one of the compounds we got to in Iraq and Afghanistan: Before you could get in the food line, you had to wash your hands. You didn't just get one of those little dispensers of that organic-smelling stuff and wipe it on your hands. You actually had to take soap and water and wash your hands. And there was a person standing there. If you didn't sufficiently wash your hands, he or she would say, "Go back and wash your hands again. You've got to go between your fingers, do the backs as well as the front." A surgical scrub. And you could not get in the food line without that. It's just another way of being sensitive to the environment you're in. You have the proper medicines, you have the proper medical attention, and you get it quick. And the people know what they're doing.

Army AL&T: I'd like to ask you about systems engineering. What do we need there?

O'Neill: Well, systems engineering is a big, a very large discipline. One of the problems is, it isn't taught yet to any significant degree of excellence in universities. And the reason is that most university professors have been stovepiped into one particular type of engineering: electrical, chemical, mechanical, things like that. And when you talk about a system, it has all of those aspects. Normally you become a system engineer through on-the-job training. You come in as an electrical engineer, and you learn the aspects of electrical engineering; that includes size, weight, manipulation, packaging, all those kinds of things. Pretty soon you start being much more understanding of the mechanical part, the chemical part, the software part. You know, very often electrical engineers don't get into software. They build electrical hardware—the turning parts, the chips, the circuitry, the exchange of data—but as far as the writing of the software, they leave it to another specialist. And what we have to do in systems engineering is develop more of that understanding of the total system.

And we have to be much closer to the contractor who is building our piece of equipment. He needs guidance at the system level, because he has so many different options. When you're talking about chips, you could have two options: You could use this kind of chip, or that kind of chip. When you're talking about system trades, you might have 500 options, because you could trade off engine size, weight, thermal capability (how much heat it can take), electrical interference. All those things have to be traded off, and if you just ask the electrical guy to make the trade, he will go for a hot system, and he will get rid of the interference. But the hot system, the heat, might mess up something else. It might mess up your ability to sit next to it. It might feel like you have a hair dryer on the side of your face all day.

So it's putting together a system, and then putting together a system-of-systems: a communications system, a vehicle system, a cooling system, all of those things. And our systems engineering has not reached the level of quality where we can get together with industry and give them a positive reinforcement. Right now we're on the sidelines watching industry make those trades, and when they ask us, we say, "Well, what do you think?" And they basically say, "Well, I think we should go for protecting against interference, but take the heat, because nobody's going to get burned by it; it will just be a little bit uncomfortable." There are trades, but we're not participating as strongly in the trades, especially when you get to systems-of-systems, where you have a vehicle system working with a computer system working with a communications system working with a human, who is another system. How do you get all of those things on the same song at the same time? And that's systems engineering.

Army AL&T: Is there the possibility for a center of excellence here?

O'Neill: I think we've got to look at something like that. Right now Terry Edwards, who works on my staff, is the system-of-systems engineer, and he works across that whole interface. The issue with system-of-systems, if we had a center of excellence, is that there are different kinds of systems. So I would have to look at that. Selecting a venue would be difficult. The closest venue I could think of, off the top of my head, would probably be at CERDEC [U.S. Army Communications-Electronics Research, Development, and Engineering Center] or CECOM [U.S. Army Communications-Electronics Command]. But right behind that, if you're talking about vehicle systems, it would be TACOM [U.S. Army Tank-automotive and Armaments Command]. If you're talking about aviation systems, it would be AMCOM [U.S. Army Aviation and Missile Command]. Missile systems, AMCOM. So we would have to be very careful about where we put it. We might want to put one in each place, multiple sites. One of the places where you have excellence in systems engineering is PIFs, the Product Integration Facilities. There's one at AMCOM, which is a best practice. And they have been involved in making modifications to aviation systems, rapidly and cost-effectively. And we have a PIF at TARDEC [U.S. Army Tank-Automotive Research, Development, and Engineering Center]; we have a PIF at CERDEC. And these PIFs are entrepreneurial. They actually go out and look for business. One of their charter requirements is to pay for themselves. In other words, they have to have an advocate, either a PEO or a PM, or a laboratory director to be their advocate for doing a particular program. They don't get any money of their own.

Army AL&T: One last question, Sir: Do you see your current mission evolving into other roles and responsibilities?

O'Neill: No, I think my role's big enough. Right now I think the senior acquisition executives have a big responsibility. I don't see Dr. Carter or Mr. [Frank] Kendall, his deputy, taking anything away from us. In fact, they'll probably add responsibilities to us. What they don't like to see are all of these separate agencies that seem to have their own direction, just kind of doing their own thing. So I think what they're going to do is get us more deeply involved in areas like network integration. Where you used to have the Networks and Information Integration directorate, Secretary Gates said he wanted to get rid of NII, so we'll probably be getting more into integration of networks. We might be getting more deeply into missile defense, especially in conjunction with the relationship between missile defense and air defense. I see more collaborative work with DARPA [the Defense Advanced Research Products Agency], with the other services, with the Air Force Research Lab, Naval Research Lab, and Office of Naval Research.

Right now, the output of a portfolio review is requirements, but it's not how many of each thing need to be built, how much should we pay for this and that. So I think in the coordination of the portfolios with the resource person, G-8, and with the acquisition person, the ASAALT, also the research and development person, either ASAALT or AMC, they need to be brought more strongly into the CPRs.

Interview with LTG William N. Phillips, Principal Military Deputy to the ASAALT and Director, Army Acquisition Corps

LTG William N. Phillips speaks Oct. 26, 2010, at a forum titled "Modernizing the Army in an Era of Constrained Resources," at the 2010 Association of the United States Army (AUSA) Annual Meeting and Exposition. Phillips told *Army AL&T* Magazine that the execution of aviation modernization continues to be a tremendous success for the Army. (U.S. Army photo courtesy of AUSA.)

Army AL&T: LTG Phillips, thank you for taking the time to speak with us. We'd like to focus on your leadership philosophy and specifically on fortifying certification requirements for the professional acquisition workforce. We'd also like to talk about your priorities.

I believe it remains imperative that we complete the rebuilding of our contracting workforce, both military and civilian, from contingencies to construction to major systems acquisition, as well as other key acquisition skills critical to the AL&T mission.

Phillips: Every day, when I walk through this building, I think, "What can we, the Acquisition, Logistics, and Technology [AL&T] Team, do to help our Soldiers and all the service members who depend upon us get the mission done effectively and efficiently, especially so that those serving in harm's way today can someday return home safely to their Families and friends?" The programs, systems, and capabilities we provide are critically important to winning this fight, and the capabilities will save Soldiers' lives. So at the end of the day, I ask myself, "What have you done today, and what will you do tomorrow for Soldiers, as well as for their Families?"

Priority No. 1 is taking care of Soldiers! One of the greatest impacts our Army has had over the past several years was standing up Program Executive Office [PEO] Soldier. Before that, we didn't really have one acquisition organization focused on the most important warfighting capability serving our Nation today, America's sons and daughters serving in uniform. Standing up PEO Soldier helped the Army focus in on what the Army is all about, Soldiers. I think singlehandedly, in a big way, PEO Soldier brought great focus toward supporting Soldiers as a system.

Let me add that all our other PEOs are aligned with our strategic partners within the Materiel Enterprise, the Life Cycle Management Commands [LCMCs], which are composed of AL&T experts who do tremendous work supporting our Soldiers and the joint warfighters. From aircraft to weapons, combat vehicles, communications, intelligence, tactical wheeled vehicles, chem/bio defense, and many others, the important task for our "team" and our partners is to field capability. In today's warfight, speed matters, and it truly does take a "partnership" of technology, acquisition, and logistics professionals to stay ahead of a very adaptive, determined enemy.

I also wanted to mention another PEO that was stood up at the same time as PEO Soldier, and that was PEO Ammunition. Soldiers don't operate or function very well without ammunition, and there was a time in our Army, before 2001, when ammunition was really broken. So, standing up PEO Ammunition and subsequently the Joint Munitions and Lethality LCMC brought leadership focus, energy, and resources to the munitions business. That's evident not only in making ammunition, but in bringing forth investments into the infrastructure that helped us build an "Ammunition Enterprise."

My next priority is rebuilding the acquisition workforce and taking care of our most precious resource within the Army Acquisition Corps, our people! It requires rebalance and growth across the workforce for us to be able to continue building a more capable, world-class, professional corps of civilians and military members focused on executing our AL&T mission, again in direct support of warfighters!

We're adding more than 1,600 contracting professionals—military and civilian—over the next several years to our contracting workforce. In my opinion, the Army essentially "broke" contracting a few years ago. It happened over years; it didn't happen in one given timeframe. The Army simply took risk in acquisition, but most importantly, in contracting, and it was broken. The Army experienced exponential growth in its contracting workload—it increased by about 500 percent. At the same time as this unprecedented growth in workload, and corresponding in the opposite direction, there was a significant reduction of the contracting force structure across the Army.

We realized this in 2006 and 2007 when we began to discover that we did not have the talent or the number of personnel necessary to meet the Army's contracting requirements, and at about the same time, we discovered that some egregious violations had occurred. There were contracting personnel in Kuwait primarily, but also in other places in the Middle East, where fraud, waste, and ethical violations occurred within the contracting mission. I believe part of the reason these violations occurred is that we took much of our military force structure out of the contracting workforce. Bottom line, I believe it remains imperative that we complete the rebuilding of our contracting workforce, both military and civilian, from contingencies to construction to major systems acquisition, as well as other key acquisition skills critical to the AL&T mission. I intend to stay on point here.

Let me add, on a personal note, that I have worked beside some of the greatest contracting warriors, serving alongside our warfighters in Iraq and Afghanistan, and they are remarkable

in their support for Soldiers, Sailors, Airmen, Marines, and our coalition partners. Within our Army, we just need more contracting warriors!

Part of my leadership philosophy that I want to emphasize, that is so important, is ensuring clear and consistent communications in your daily actions. In our Army, and in this warfight, "speed matters," and nowhere is that more apparent than in the need to field the best products and systems to allow our warriors to be effective on the field of battle in Iraq and Afghanistan, as well as in other operations in over 80 countries where more than 240,000 Soldiers serve. It remains important that we in acquisition effectively communicate with all of our partners, from requirements to resources to execution of the AL&T mission. We owe it to our Soldiers to do so, or we could fall short in supporting them! Also, by doing so we can learn from the knowledge and experiences of others, better understand their issues and concerns, and collectively achieve greater synergy.

Let me follow up on this point and address another that is more critically important today than ever in executing programs, and I'm focusing on system-of-systems integration. When you have a PEO or PM executing a particular program or building a product that's going to Soldiers, it can no longer be viewed in isolation, which just a few years ago was probably true for many programs—but not all, as I believe some of our very best PMs look to ensure integration and synchronization of their programs with other systems. Today, almost every program is interrelated. To look at it in isolation will lead to sub-optimization. For example, we just fielded a new 5.56mm round referred to as the Enhanced Performance Round. It provides a significant increase in capability, but it was optimized by viewing this new "round" as a system-of-systems, which resulted in mapping its performance and actually [allowing] the powder that's within the round to be optimized for the M4 Carbine—a systems approach. So, I expect PMs to look outside of their programs and seek to integrate capabilities and maximize the effectiveness of our systems in order to maximize capability!

During a recent visit to PEO Soldier, Phillips had the opportunity to try, among other emerging technologies, the new Mark VIIE laser target locator. (U.S. Army photo courtesy of PEO Soldier.)

Another example is aircraft. A PM for an aircraft program shouldn't look at that system as just, "I'm building this aircraft," but must also consider the missile warning systems that can go on it. The questions should be, "How do I integrate the right communications structure inside my platform? Are there other systems that I need, that I should think about incorporating onboard the aircraft?" Looking outside to maximize capability is incredibly important. Also, think about the aviators who are going to fly this system. What will they be wearing, and what systems do they need in the cockpit at their fingertips? That brings into play systems that are being developed by Air Warrior—communication systems, kneeboards, the mission-planning systems, and many others. It's not just the program you're building, it's a system that provides warfighting capability. There are many other external influences today on a single program. It's important that we think through that as we build our programs.

Let me make one very important point here as well. Often in the past, I think that we have looked at the life cycle of a program in sequential order. In my view, that's really a mistake in today's environment, where "speed

Part of my leadership philosophy that I want to emphasize, that is so important, is ensuring clear and consistent communications in your daily actions.

matters" along with ensuring that we field the best capability possible. We must have continuous communications among these communities: requirements, resourcing, acquisition (program management as well as science and technology), and sustainment. I strongly believe that they are all inherently linked, and that all leaders and key decision makers within each area must effectively communicate and synchronize efforts. For example, just recently we released the Ground Combat Vehicle Request for Proposal. The rewrite of the RFP involved the collective efforts of the Army Materiel Command [AMC], Training and Doctrine Command [TRADOC], our science and technology leaders, ASAALT, G-3, G-4, G-8, Office of the Secretary of Defense [OSD], and a few others, collectively working to ensure that this RFP truly reflected the Army's requirements in order to achieve an executable, affordable program. The Army did the right thing by canceling the original RFP and getting the new RFP right. It was a true team effort and partnership!

Army AL&T: Sir, I take it from your comments that you are referring to the Soldier as a system?

Phillips: You bet, like Nett Warrior. Looking at our warfighters through the lens of a "system" is important, and Nett Warrior is certainly an important part of a Soldier system. You've got to think about weapons, sensors, night vision goggles, body armor, radios, and how that Soldier is going to communicate with leaders in small units, and how the system is integrated and used by our Soldiers. Also, what "systems" can we provide to small tactical leaders to ensure that they never walk into a "fair" fight? I'm reminded of the story of our most recent Medal of Honor recipient, SSG Sal Giunta, whom I had the pleasure to meet. His story of heroism and absolute disregard for his own safety is beyond service and sacrifice. I'm reminded of how he charged into an "L"-shaped ambush to save his squad leader and in an attempt to save his friend SGT Joshua Brennan. So what do we take from SSG Giunta's experience and those of many other warriors on the front lines? One action we can take is to design, develop, and field greater capability to small tactical unit leaders that provides them with the eyes and ears (intel) so that they won't be guessing what's over the next hill! So, the Soldier is a system, and I'll take it one step further—what we can do for small tactical unit leaders via a systems approach is important.

I think it took the Army a while to figure out to treat the Soldier-as-a-system. I remember in the early days of my time in acquisition, there was the Troop Support Command in St. Louis, off Goodfellow Boulevard. Troop Support Command essentially provided our troops with systems like generators, small unit equipment, and other things that Soldiers might use, but not Soldier-as-a-system. Now we've got it right. The AL&T community just needs to continue improving our ability to field "systems" faster. Speed matters!

While I'm thinking about our support for Soldiers, I am reminded of the movie "Restrepo." The movie is named after PFC Juan Restrepo, who was a medic for a platoon in the 173rd Airborne Brigade. It's a National Geographic movie and is the story about Soldiers

Phillips thanks the Redstone Arsenal and Huntsville, AL, communities for their work in supplying equipment and technology to the warfighter in Iraq and Afghanistan, during the Armed Forces Celebration Week's Salute Luncheon on June 16, 2010. Phillips affirmed in his interview with *Army AL&T* Magazine that it takes a "partnership" of technology, acquisition, and logistics professionals in today's warfight to stay ahead of a very adaptive, determined enemy. (U.S. Army photo by Kari Hawkins, U.S. Army Garrison Redstone.)

in the Korengal Valley of Afghanistan, who in 2007 experienced extraordinary action against a very determined enemy. Over a period of about 15 months, the filmmakers took about 150 hours of film and boiled it down to a 90-minute movie. PFC Restrepo was killed within the first couple of months of the deployment, and the Soldiers named a Forward Operating Base deeper into the valley "Restrepo." The movie is incredibly moving. I highly recommend it—just be ready for the language, as it very adequately captures Soldiers doing what Soldiers do, and you'll see them using many of the systems that we provide!

Phillips participated in an Army logistics forum Oct. 27, 2010, at the 2010 Association of the United States Army (AUSA) Annual Meeting and Exposition. (Photo courtesy of AUSA.)

Army AL&T: What are some of the successes of the Acquisition Corps?

Phillips: I have already mentioned Soldier-as-a-system, what we have done with ammunition, and the Ground Combat Vehicle program, and another one that comes to mind is what the Army has done with aviation. Upfront, I think it is extraordinary what the Acquisition Corps has done, and I'm very proud of our acquisition professionals. The Army made a decision early in the 2004 timeframe to terminate the Comanche program, which essentially resulted in immediately putting about $14.2 million back into aviation modernization. So that was a conscious decision by the Army, supported by OSD and Congress. The execution of aviation modernization continues to be a tremendous success for our Army, and our Soldiers benefit from this decision every day on the front lines of freedom. The execution of this, again, was done in complete partnership with TRADOC, AMC, G-3, G-4, G-8, PEOs, and PMs, a focused team that didn't care about credit but rather about what needed to be done to help our aviators and our warfighters!

Since that time, we've seen an exponential growth in Unmanned Aerial Systems, from Raven to Shadow to Gray Eagle. The Black Hawk "M" program is in production, and we have not only fielded this system to our Army, but recently provided aircraft to Mexico. It is an incredible capability. The Light Utility Helicopter that is being deployed throughout the Army (Active, Guard, and Reserve) today is doing remarkable work. The world's greatest attack helicopter, the Apache, has achieved a Milestone C and will soon enter production. So the world's greatest attack helicopter just got better. I've had the privilege of flying the CH-47F Chinook, which is a true workhorse today in the mountains of Afghanistan, as well as in Iraq and many other places around the world. We just accepted our 100th Chinook "F" model a while back, and the demand for this extraordinary capability continues to grow.

These aircraft are performing incredibly well in support of our warriors in theater right now, with more than 600 aircraft operating today. Although we can't talk about specifics in terms of readiness, I can assure you that in my time in aviation, I've never seen the aviation fleet at a higher readiness rate than they are today, while they fly in the harshest environment. Another aircraft that's been around for a while is the OH-58D. Some airframes fly in excess of 90 hours a month. Yet they're flying at historically high readiness rates, and that's for two reasons. First, we made that investment back in the aviation modernization program, and in my view, it's been extraordinarily successful. The second reason is that we have incredible maintainers, mechanics, and aviation crew chiefs, who sustain those aircraft and keep them in flyable condition and safe. So the Army made a decision on Comanche a few years ago, and our Acquisition Corps in partnership with many others executed the mission!

Another program that is a tremendous success by any measure is the MRAP [Mine Resistant Ambush Protected vehicle] program. From the time we were given the mission to execute an MRAP, 12 months later we had MRAP vehicles in the hands of Soldiers and Marines in support of the warfight in Iraq, and soon in Afghanistan. Speed matters, and our industry partners delivered. As a result, we have saved many lives! Next, the Army executed the MRAP All-Terrain Vehicle, another incredible success with well over 5,000 vehicles in theater now. The first vehicles arrived in about 15 months from the start of the competitive award process. So a takeaway from this experience, in my view, is that we do deliberate acquisition well, and we do rapid acquisition well. We must learn from both processes and

improve—speed matters! We should seek help from OSD and Congress when it makes sense to waive requirements to get capability downrange.

I strongly believe that our body armor programs are an incredible success story. There has not been a failure of a piece of body armor against a system that it was designed to defeat. This has saved many lives as well.

Stryker is a terrific success story. In October 1999, GEN [Eric K.] Shinseki, then Chief of Staff of the Army, stated that he wanted to field an Interim Brigade Combat Team within 4 years. The Army executed his vision with great precision, and in just over 3 years, 3rd Brigade, 2nd Infantry Division achieved Initial Operational Capability and soon after deployed to Iraq. Stryker Brigade Combat Teams have performed magnificently in combat, and today have achieved over 12 million miles of combat operations across two theaters. Today we are seeking significant improvements to the Stryker platform.

I think the Ammunition Enterprise as a whole has been a great success story.

I think the work we did since *Operation Desert Storm* to improve situational awareness and to eliminate fratricide has been a success story. The development and fielding of FBCB2 [Force XXI Battle Command Brigade and Below], Blue Force Tracking, and other Army Battle Command Systems that provide communications and situational awareness, as well as Soldier identification systems on uniforms, etc., has been a major factor in seeking complete elimination of fratricide. We aren't there yet, and we can't rest on our laurels!

Army AL&T: What are some of our challenges?

Phillips: I gave you a number of successes. It's sometimes good to reflect upon what we've done and how it was done, but we must learn from our past actions, improve what we do, and do it better today and tomorrow. So here are some thoughts.

We have much more to do here to successfully execute programs! Some might consider that we haven't had as great a success with programs that have been canceled, for example, major programs like Non-Line-of-Sight–Cannon, Crusader, and Future Combat Systems. One takeaway from these experiences, I believe, is ensuring that there is a partnership within the Army and outside the Army when it comes to supporting programs. It's also important to ensure affordability, which ties directly to the requirements documents and how requirements are captured within the RFP. We have to do better now and in the future, and again I think the Ground Combat Vehicle was a great step in the right direction. Our "partners" will look to us and want to ensure that we have an "affordable" program that can deliver production vehicles at a cost that the Army can afford. We are doing that now for the Ground Combat Vehicle, and following through with Paladin and the new Improved Carbine as well.

If you were to talk to Army leadership, I think they'd tell you that the most important and highest-priority program that the Army has today is the "network" and synchronization of all the systems that comprise the network. Now this gets back to my earlier comments. The network is made up of various programs that come together. We did a network demonstration on July 15 for senior leaders at White Sands Missile Range, NM, and Aberdeen Proving Ground, MD. There were six PEOs who came together and were able to execute this network. It was a ground layer, a terrestrial layer, an aerial layer, and infantry, vehicles, radios, and other systems that came together to demonstrate that we could build the Army's network of the future.

So I think the challenge that we in acquisition will face quickly is building the Army's network and fielding it in a timeline that provides capability for Soldiers operating in Afghanistan and potentially Iraq and other places around the world. That's probably one of the most important missions that we will have. The acquisition challenge is integrating and synchronizing all the programs that align with building the Army's network.

It's also important to lighten the load on our Soldiers—protecting them, giving the systems they need to be successful on the field of battle, but also lightening the load so they can execute the mission and so they're not hindered by the system that they have to carry with them. We look hard, and we will every day, at not just adding capability, but lightening the load.

Next are efficiencies and transformation, and some of the challenges we face are in executing the mission of building capability and achieving efficiencies inside our programs, so we can either

We must ensure continuous communications among these communities: requirements, resourcing, acquisition (program management as well as science and technology), and sustainment. I strongly believe that they are all inherently linked, and that all leaders and key decision makers within each area must effectively communicate and synchronize efforts.

COL William E. Cole (left), Project Manager Soldier Protection and Individual Equipment, PEO Soldier, and Program Executive Officer Soldier BG Peter N. Fuller show Dr. Malcolm Ross O'Neill (right), ASAALT, and Phillips the new *Operation Enduring Freedom* Camouflage Pattern. (U.S. Army photo courtesy of PEO Soldier.)

buy more product or use those dollars in another way to buy more capability that we need.

Army AL&T: Can you share more thoughts on acquisition workforce training and certification?

Phillips: Regarding certifications, it's important to put it in the context of a professional Acquisition Corps. If you're a member of my Acquisition Corps, you'd best be on the path to certification. If you are not, or cannot become certified in our profession, then you should seek another career field. I don't know a politically correct way to say this, other than I'm serious about certification of our acquisition workforce, and we have a lot of work to do in this area.

To get there, you have to do certain things. One is that every person should absolutely have an IDP [Individual Development Plan], because if you aren't certified, or even if you are, you need an IDP that lays out how you're going to continue to learn the skills that are necessary in our Army to execute the acquisition mission. It's absolutely critical. If you aren't certified, that lays the path for you to *become* certified in Army acquisition, whatever the field of study that you're working in. That will lead also to meeting the intent of Continuous Learning Points (CLPs), whereby we're required to have 80 CLPs every 2 years.

I want all of our workforce to know how important I consider certification to be, and I intend to put significant energy into helping our professional corps improve in this area. It's the responsibility of every teammate.

In the end, I look at it like this: Would you go to a doctor who doesn't have on his or her wall a validation that they've been to a school and have been certified as a doctor? Would you go to a lawyer who is going to represent you in a court of law who hasn't been certified to practice law, or a graduate from law school? I would not! So, for acquisition professionals, certification is important!

Army AL&T: Sir, any closing thoughts?

Phillips: First, I am so proud of what our Acquisition Corps has done and will do in the future! I am very thankful that we have such talented, dedicated teammates who work so hard for Soldiers. Their work remains remarkable, and it's an honor to be a part of a mission that is supporting Soldiers, service members, and our allies to save lives!

Second, I ask everyone in our Acquisition Corps this question: So what are you doing today, and what will you do tomorrow, to help our Soldiers be successful on the field of battle?

Army Builds Contracting as a Profession

Kris Osborn

The Army is taking steps to better establish contracting as a profession within its ranks by expanding the size and complexity of the acquisition workforce, increasing training opportunities, and recruiting new officers to embark upon contracting careers in the Army.

Contracting officer's representatives (CORs) and contingency contracting professionals are placed with operational units to ensure that forward-positioned forces in harm's way have the contracting support they need to sustain combat efforts. Here, CPT Justin Casey, then a first lieutenant and a COR assigned to Special Troops Battalion, 2nd Brigade Combat Team, 1st Infantry Division, and Dr. Ibrahim Al-Nedawi discuss the contract for the apprenticeship program in Nasir Wa Salam, Baghdad, Iraq, June 16, 2009. (U.S. Army photo by SSG Peter Ford.)

LTC Wiley Blevins (right), Team Leader, Bamyan Embedded Training Team, and MAJ Timothy Drake, COR, Bamyan Embedded Training Team, discuss the positioning of a new 28-person barracks at the Waras district police station with Afghan National Police COL Mohmad Ishawk, Chief of Police for Waras District, Oct. 22, 2010. (U.S. Army photo by Peter Ferrell.)

"As an Army, we are working vigorously to fortify our contracting workforce with more people and better establish a host of career opportunities within the field for Soldiers and civilians," said LTG William N. Phillips, Principal Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT). "Continuing and building upon contracting excellence is vital to our ongoing effort to provide our Soldiers the best capabilities for combat."

Army contracting, which oversees approximately $140 billion in Army services, products, and weapon systems deals annually, will be adding up to 1,650 civilian and 600 military personnel over the next several years, increasing the size of its 5,800-strong acquisition and contracting workforce, according to Edward M. Harrington, the former Deputy Assistant Secretary of the Army for Procurement.

The contracting emphasis is needed to help compensate for the drawdown of thousands of contracting professionals across the services during the 1990s following the end of the Cold War, a reality that underscores the need to rebuild the bench over time to meet the rapidly growing needs of the current wars.

"Contracting officers right now have nearly 10 times the transaction workload they had a decade ago," Harrington said. "We want to get that workload in balance with the numbers in the workforce. It is a profession practiced much like law and medicine; it takes a continual evolution of learning and experience."

The contracting emphasis is needed to help compensate for the drawdown of thousands of contracting professionals across the services during the 1990s following the end of the Cold War.

Training Plus Experience

The Defense Acquisition University has added an intensive 4-week course aimed at exposing new recruits to the rigors and nuances of the contracting profession. The introductory course is followed by more advanced courses, each with a commensurate measure of additional training and certification. Cost and price analysis is a large part of the training. Through these courses, new recruits are taught the essentials of contracting.

"We conduct training in negotiation," said Harrington. "We have quality assurance training. Awarding of a contract just begins the performance on the part of the contractor. The oversight of that contractor throughout the life cycle of the contract is the next critical function. You have to structure the contract,

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HISTORY OF CONTRACTING IN AMERICAN MILITARY FORCES

Mikhael Weitzel

Contingency contracting officers often work with local merchants and organizations during operations overseas. (U.S. Army photo.)

Contracting is "the cheapest, most certain, and consequently the best mode of obtaining those articles which are necessary for the subsistence, covering, clothing, and moving of an army." So said Robert Morris, American Revolution financier, Founding Father, and superintendent of finance for the Continental Congress, in describing the integral relationship between the American Army and contracting. The Continental Congress lacked money and credit in 1781 and could not support the American Soldiers nor fund the movement of George Washington's Army from New York to Virginia. Morris used personal funds and credit to provide the logistical support for the largest troop movement of the war. To garner the best return on his money, Morris introduced sealed, competitive bidding contracts to obtain and transport the supplies and services needed by Washington's Army.

The Yorktown campaign in 1781 marked the beginning of organized contracting to procure supplies and services. This relationship among the Army, private business, and the U.S. government evolved through history, shaping today's Army.

From the Revolution through the end of the 19th century, the Army depended on contactors to provide supplies and services when needed. During the Black Hawk War in 1832, the Army contracted businessmen in Illinois and the Wisconsin territory to provide and deliver supplies. During the Civil War, the government contracted for weapons, uniforms, ammunition, and the supplies necessary to equip newly raised troops. Individual commands contracted for subsistence and transportation on campaign. In preparation for the Chattanooga Campaign, MG William T. Sherman ordered COL Robert MacFeely, Commissary and Subsistence Officer for the Army of Tennessee, "I want preparations made at once to supply 25,000 men with rations at Florence and beyond." During Reconstruction, Army officers found themselves drafting and enforcing contracts between newly freed slaves and former plantation owners. In the Spanish-American War, the Army contracted nearly every seaworthy ship in Tampa, FL, to carry troops to Cuba.

The Yorktown campaign in 1781 marked the beginning of organized contracting to procure supplies and services. This relationship among the Army, private business, and the U.S. government evolved through history, shaping today's Army.

The massive mobilization for World War I began a new era of contracting. The Army found it no longer could assume that goods and services would be readily available without coordinating with American industry. In December 1941, procurement deliveries of all kinds, exclusive of aircraft, came to 8.36 billion. Through anticipation and coordination between the Army and private industry, contracts placed before America declared war facilitated a quicker mobilization for the Army. These efforts culminated with the creation of the Army Service Forces (ASF) in 1943. The ASF sought to coordinate all Army procurement needs, facilitate contracting, and oversee contracting officers.

The Army dissolved the ASF in 1946. The resulting void of coordinated contracting hampered the Army's mobilization for the Korean War. As a result, the defenders of the Pusan Perimeter subsisted on stockpiled World War II rations that had been declared spoiled. Hasty improvisation and emergency suspension of normal procedures mobilized the Army in 1950. Eventually, the situation in Korea improved, and the Army bolstered logistics and support units. While many of the manufactured supplies reached Korea through the port of Pusan, contracted labor moved those supplies to all of the United Nations Forces in Korea. Contracted services in Korea and Japan refurbished and rebuilt vehicles and modified U.S.-issue uniforms to smaller sizes needed for allied soldiers.

The Army relied heavily on contractors in Vietnam. They provided supplies, services, and construction of facilities and infrastructure. After the United States withdrew and the Army evolved to an all-volunteer force, the dependence on contracts grew. A smaller force of volunteers meant fewer personnel to fill support roles. At the same time, the increasing technological complexity of military equipment necessitated specialized support and maintenance. The Army filled these needs with contractors.

In 1985, the Logistics Civil Augmentation Program (LOGCAP) was established to provide the Army with a contingency contracting capability. First used in Somalia starting in 1992, LOGCAP evolved into a multi-million-dollar program providing life support, logistics, and infrastructure for the Army in combat and contingency operations.

The Army's use of contractors today is fundamentally the same as for Washington's Army in 1781. Contracting is arguably still "the cheapest, most certain, and consequently the best mode of obtaining those articles which are necessary for the subsistence, covering, clothing, and moving of an army."

Meals are perhaps the oldest contracted service for the U.S. military. Here, meals are provided to Women Ordnance Workers in 1943. (Photo courtesy of the U.S. Army Center of Military History.)

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develop a business arrangement, and then, once you award the contract, oversee the contractor's performance. Quality assurance is essential."

Also, new contracting recruits are put through an intensive 6- to 8-week contracting "boot camp" course where they are placed in a contracting environment with a supervisory specialist and are faced with making key acquisition and contracting decisions. "They get on-the-job training, and then, once they finish, they go to work full-time for a contracting officer," Harrington explained.

LTC Jason I. Kuroiwa, Director, 81st Adjutant General (Postal), studies his textbook during a COR course. To better establish contracting as a profession within its ranks, the Army is increasing training opportunities to include a new course at Defense Acquisition University and an intensive 6- to 8-week contracting "boot camp" course for new recruits. (U.S. Army photo by SGT Matthew Cooley.)

Part of this training involves working to achieve the needed flexibility and strike the right balance between rapid acquisition procedures and longer, more formal processes. "There is flexibility in the *Federal Acquisition Regulation* [**https://www.acquisition.gov/far/index.html**]," Harrington said. "There are certain special instances where there may be a critical emergency requirement that allows you to execute things on an emergency basis. If there is only one source for something, and if it is needed on an emergency basis, you might not have to compete it."

Through these efforts to refine a contracting career path within the service, the Army is emphasizing the blend of training and experience necessary to develop the essential skills to handle complex contracting assignments, such as multiyear, billion-dollar weapon development contracts, according to Harrington. "Contracting is focused on establishing a business arrangement with industry that ensures that taxpayer dollars are expended for the best business arrangement and get the best product that we can for the warfighter," he said.

Harrington's office hired a recruiting specialist to help identify and bring in contracting professionals. In addition, representatives from the U.S. Army Contracting Command have attended job fairs, colleges, and industry events to advertise for the skills they need.

Greater Visibility in Theater

The Army is also increasing the number of general officers it has in the contracting ranks. Another key focus area has been to vastly increase the number of forward-positioned contracting officer's representatives (CORs). CORs and contingency contracting professionals are placed with operational units to ensure that forward-positioned forces in harm's way have the contracting support they need to sustain combat efforts.

"CORs document what the contracting officer does and then authorize payment," said Harrington. "About a year and a half ago, fewer than 40 percent of theater contracts managed by the Defense Contract Management Agency had an active COR. Now, well above 90 percent of theater contracts have an active COR every day."

Underlying all of these efforts to solidify contracting as a career path is a single, powerful, unifying work ethic, Harrington emphasized. "What these contracting professionals do is work business arrangements to get something that is either a service in support of the warfighter or a product that gets put in the warfighter's hands," he said. "Every one of these individuals—civilian and military—does something every day that directly affects a U.S. Soldier. We have American Soldiers engaged in lethal combat. Ten thousand miles away right now, as I speak, some American Soldier is getting shot at or returning fire. There is a life-and-death responsibility here. That is the real essence of what this is about for the Army."

Editor's Note: After more than 35 years of dedicated service to the U.S. Army, Mr. Harrington left government service in December 2010 to re-enter private life. Mr. Lee Thompson, the Deputy Assistant Secretary of the Army for Strategic Communications and Business Transformation, has been named the Acting DASA for Procurement.

KRIS OSBORN is a Highly Qualified Expert for the ASAALT Office of Strategic Communications. He holds a B.A. in English and political science from Kenyon College and an M.A. in comparative literature from Columbia University.

U.S. Army Conducts Responsible Drawdown of Forces in Iraq, Prepares for Future

Kris Osborn

By the time *Operation Iraqi Freedom* (*OIF*) ended and *Operation New Dawn* began, the Army had already succeeded in closing hundreds of Forward Operating Bases (FOBs), removing thousands of troops, and drawing down vast amounts of equipment in Iraq.

The flight crew of a C-17 oversees the boarding of Soldiers from 3rd Infantry Division at Contingency Operating Base Speicher, Iraq, Aug. 23, 2010. These Soldiers were among the first to leave under the responsible drawdown of forces. (U.S. Army photo by SGT Ry Norris.)

"We had a very good plan going into the operation, a plan produced at every level of command. We knew from the beginning that one of the important things would be metrics, so we could measure our progress and know quickly if we were off track. We developed metrics for a number of things: how many bases were closed, how many Soldiers remained in Iraq, how many vehicles were retrograded, etc.," said LTG Mitchell H. Stevenson, Deputy Chief of Staff, G-4.

Not only did this carefully designed plan meet President Barack Obama's goal of reducing forces to 50,000 personnel by Aug. 31, 2010, it also helped the Army meet its equipment needs in Afghanistan and at home.

By the end of September 2010, the Army had closed and/or transferred more than 413 bases, bringing the active number of FOBs in Iraq down to 92, Stevenson said.

Other major Iraq drawdown milestones as of the end of September 2010 include:

- A reduction in vehicles from a peak of 42,000 to 15,600—a 63-percent decrease.
- A reduction in supply containers from a peak of 88,000 to 49,000—a 44-percent decrease.
- A reduction in helicopters from 463 to 224—a 52-percent decrease.
- A reduction in trucks on daily convoys from 3,100 to a daily average of 280—a 91-percent decrease.

Other elements of the drawdown include reductions in supplies, gear, ammunition, food, fuel, and dining facilities, all squarely aimed at meeting the President's drawdown goal, Stevenson said.

"Armed with an adequate amount of time, a good plan in the beginning, metrics to measure ourselves, and a lot of hardworking people, it has come together like clockwork—like a typical Army operation, efficient, well planned, and well executed," Stevenson said.

A Complex Equation

Removing equipment from Iraq involves a complex mixture of approaches and methodologies, drawing from multiple strategies, such as transferring equipment to the Iraqi army to help enable them to operate after U.S. forces are gone; designating excess equipment available for Foreign Military Sales; bringing equipment to Kuwait for repair and transfer to Afghanistan; replenishing the Army's pre-positioned equipment stocks; and moving equipment back to CONUS, Army leaders explained.

"As item by item comes out, we ask if it is excess to the Army's requirements. If it is excess, then let's see if this is something Iraq needs. Let's see if the government of Iraq wants this. If it is not excess, then it is often identified as something you would send down south to Kuwait," said MG George Harris, Assistant Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT).

In general, equipment leaving Iraq is subject to a 4-pronged plan monitored by an entity called the Equipment Distribution Review Board (EDRB), a decision-making body led by U.S. Army Vice Chief of Staff GEN Peter W. Chiarelli and U.S. Army Materiel Command Commanding General GEN Ann E. Dunwoody. The EDRB evolved from a process that had stood up two equipment-governing bodies called Materiel Enterprise Portals (MEPs)—one for Iraq, called MEP-I, and one for Afghanistan, called MEP-A, Harris explained.

The first phase is to ensure that supplies are consumed if possible instead of brought back. Much of the redistribution of consumable supplies and other logistical items is managed by the U.S. Army Sustainment Command under the Logistics Civil Augmentation Program (LOGCAP) contract.

"LOGCAP's participation throughout the drawdown is not only a drawdown and closure of bases, but also the transition from LOGCAP III to LOGCAP IV for Corps Logistic Service Support, Postal, and Theater Transportation. This was accomplished to support the Army's move to increase competition, as well as ensure uninterrupted service to our supported units," said BG Steven J. Feldmann, Executive Director for LOGCAP.

"As the United States continues to draw down its forces, LOGCAP will remain poised to meet the challenges ahead by providing the required level of services while simultaneously reducing its workforce to meet mission requirements," said Feldmann. "The ultimate end state of Team LOGCAP in Iraq during responsible drawdown of forces is the successful withdrawal of forces, base realignment, and responsible property disposition with a right-sized contracting enterprise in

We knew from the beginning that one of the important things would be metrics, so we could measure our progress and know quickly if we were off track. We developed metrics for a number of things: how many bases were closed, how many Soldiers remained in Iraq, how many vehicles were retrograded, etc.

Mine Resistant Ambush Protected Maxx Pro vehicles are loaded onto a transport aircraft in support of the responsible drawdown of U.S. forces in Iraq. The 62nd Chemical Company provides the security for the vehicles throughout the flight. (U.S. Army photo by SPC Karen Kozub.)

place to provide quality LOGCAP services on time and on target."

The second phase, if something cannot be consumed, is to redistribute it elsewhere, such as in Afghanistan.

The third phase of the plan is to bring equipment back to CONUS if there is a need for it elsewhere in the U.S.-based Army, or by state and local governments.

The fourth phase is simply to dispose of items for which there is no identifiable need.

A lot of forklifts, cranes, surveillance gear, container handlers, robots, and Explosive Ordnance Disposal equipment went to Afghanistan, Stevenson and Harris said.

"A large number of supplies and equipment were redistributed to Afghanistan and in some cases to the Iraqi security forces. It is to our advantage to have the Iraqi army capable of standing on its own sooner rather than later. If that meant giving them some of our equipment to enable development of their minimum essential capability so they could operate after we left, that is what we needed to do. We have in fact done some of that," Stevenson said. For example, 559 up-armored High-Mobility Multipurpose Wheeled Vehicles (HMMWVs) were transferred to the Iraqi army under the FY10 *National Defense Authorization Act*, Stevenson said.

Maintaining Flexibility

Over the past several years, the Army's drawdown plans were subject to fast-changing conditions on the ground in Iraq, forcing leaders to adjust constantly for the benefit of the war effort, while remaining focused on the overall drawdown goals.

"We had the better part of a year and a half to develop a good, coherent plan," Stevenson said. "Our plan had phases to it; one of the phases was tied to the Iraqi elections and the setting of a new government after the elections. The elections were originally supposed to be in November of last year, but they actually occurred in March of this year. We had to hold back some units that were already scheduled to leave because the drawdown was not going to be time-based, it was going to be condition-based. The conditions weren't right yet to begin drawing down forces. The Iraqi government still isn't set, but the conditions are such that GEN Odierno [GEN Raymond Odierno, then Commanding General, U.S. Forces-Iraq] was comfortable bringing down the size of the force."

One of the innovations made during drawdown proceedings was to find ways to route some equipment and Soldiers directly out of Iraq rather than through Kuwait. For instance, some supplies were shipped out of ports in Jordan instead of from Kuwait, Stevenson said.

"Also, we had a plan to ship out of Turkey, but we haven't needed to do that," he said.

Removal Is Tailored to Equipment

Most of the large combat vehicles were shipped to the region and driven into Iraq by U.S. Soldiers. Removing them from theater is a slightly different process, however. Absent a combat-related need to drive them out, most of the large combat vehicles such as M1 Abrams tanks, Bradley Fighting Vehicles, M88s, M113s, and Paladins were moved out of Iraq on large Army trucks called Heavy Equipment Transporters, Stevenson said.

At the same time, thousands of other vehicles including Family of Medium Tactical Vehicles, Mine Resistant Ambush Protected (MRAP) vehicles, and Strykers were simply driven out of Iraq into Kuwait. "Trucks are generally driven out—the exception being any truck that is not up-armored—but most of our trucks are up-armored now," Stevenson said.

Those trucks that are not up-armored, such as a Command and Control

HMMWV, are driven out on flatbed trucks to minimize risk to Soldiers who could come under attack while driving. Some MRAPs were shipped to Afghanistan, Stevenson said.

The terrain in the Afghan theater is such that only smaller, more mobile variants of MRAP vehicles will work. There are not as many roads and not much of an infrastructure to allow the larger MRAPs, such as the RG33s, to operate. As a result, the smaller MaxxPro MRAPs are among the variants that work in Afghanistan.

Other MRAPs were shipped home to the United States to help train units preparing to deploy, Harris said. "The first MRAPs that came back were positioned in CONUS at predeployment training sites to train units that were deploying overseas. When we first fielded MRAPs, we never intended on bringing those things home. Things change. Now we know we are going to use MRAPs," he said.

The Army is still working through how best to manage its fleet of MRAPs. "We as an Army were wrestling with many different kinds of MRAP. We didn't design MRAP with long-term sustainment in mind. We did the right thing; we fielded it quickly and saved a lot of Soldiers' lives by doing it," said Harris.

> We had to hold back some units that were already scheduled to leave because the drawdown was not going to be time-based, it was going to be condition-based.

With regard to helicopters, those leaving theater are flown to Kuwait, where they are disassembled, put aboard ships, and brought back to CONUS, Stevenson said.

During *OIF*, improved methods of maintaining helicopters in combat made it possible for the Army to double the amount of time they can remain deployed, Stevenson said. Through a process known as Systematic Teardown Inspection and Repair, improvements were made to the helicopters such as installing sand filters on the engines and building concrete landing pads at FOBs.

"In 2003 when the war began, the Army would rotate all of its helicopters out of theater after about a year," Stevenson said. "We would bring the helicopters back here and put them through a very intensive maintenance reset cycle, where we literally tore them down to their frame. We inspected the wiring, the electronic components, the hydraulics, and then put it all back together." An average helicopter takes about 90–120 days to reset during this intensive teardown, inspection, and repair.

More Drawdown Planned

Building on its success, the Army plans to use a similar model to draw down the remaining forces and equipment at the appropriate time.

"It is not like peace has broken out and there is no threat in Iraq, so we have had to be careful of redistributing too much out of Iraq too quickly, because the guys in Iraq say, 'Don't forget about us, we still have an enemy here,' " Stevenson said. "We still have 50,000 Soldiers who will carry us through until December 2011. Then, at some point next summer, we'll do the same thing that we have done up until now, to take us from 50,000 to zero."

Soldiers from Charlie Company, 67th Signal Battalion stationed at Fort Gordon, GA, board a C-17 Globemaster III aircraft at Sather Air Base, Iraq, July 10, 2010. Charlie Company redeployed to their home unit as part of the drawdown to 50,000 troops in Iraq by August 31, 2010. (DOD photo by SrA Perry Aston, U.S. Air Force.)

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CONFERENCE CALL

In the current environment of fiscal constraint, DOD leadership has directed the military to "do more without more." The challenge for the acquisition community is to adhere to this policy and continue to support warfighters with the best weapons, equipment, training, and technology as they continue fighting in an era of persistent conflict. In this Conference Call section, *Army AL&T* Magazine focuses on how DOD, the Army, and their stakeholders will confront this challenge.

The section brings you coverage by the *Army AL&T* Magazine staff of the Association of the United States Army (AUSA) Annual Meeting and Exposition from Oct. 25 to 27, 2010, in Washington, DC, and the Program Executive Officers'/System Command (PEO/SYSCOM) Commanders' Conference on Nov. 2–3, 2010, at Fort Belvoir, VA. At these forums, senior military, DOD, and private industry leaders discussed current initiatives, force structure plans, and solutions to the ongoing economic "tightrope."

We hope you enjoy reading this special segment of *Army AL&T* Magazine. We also invite you to visit http://asc.army.mil and click on the Magazines tab to view our monthly electronic magazine, *Army AL&T Online*, where you will find additional articles on how the Army and DOD will "do more without more."

Margaret C. (Peggy) Roth
Senior Editor

CONFERENCE CALL

LTG James H. Pillsbury, Deputy Commanding General and Chief of Staff, U.S. Army Materiel Command (AMC), advised that modernization will be focused on the reset phase, with AMC leveraging reset time to spiral in modernization. Here, Strykers are loaded onto an Air Mobility Command plane at Joint Base Balad, Iraq, for transport to the United States, where they will be repaired and returned to fighting units. (U.S. Army photo by Summer Barkley, 402nd Army Field Support Brigade, AMC.)

Army Modernization, Fiscal Environment Require Acquisition Process Reform

Kellyn D. Ritter

Modernizing the Army in the current environment of constrained resources requires improvement and streamlining of acquisition processes, said GEN Peter W. Chiarelli, Vice Chief of Staff of the Army. "This is the future of our Army," said Chiarelli Oct. 26, 2010, at the Association of the United States Army (AUSA) Annual Meeting and Exposition. "Not only must we ensure our Soldiers have the necessary equipment and force protection capabilities required to operate in full-spectrum environments, … we must also find all available efficiencies and spend taxpayers' money wisely and most effectively."

Chiarelli said the Army plays a significant role in implementing the efficiencies required by Secretary of Defense Robert M. Gates. Gates' Aug. 16, 2010, *DOD Efficiency Initiatives Memorandum* called for DOD to adopt a more efficient, effective, and cost-conscious way of doing business. The task is to significantly reduce excess overhead costs and apply the savings to force structure and modernization.

"Toward this objective, we continue to look for ways to achieve savings across all functional areas, manning and organizing installations and equipment to ensure [that we] focus investments into weapon systems that will most significantly enhance our global warfighting capability," Chiarelli said.

Modernizing the Army is a difficult task even when resources aren't constrained, said LTG Michael A. Vane, Director, Army Capabilities Integration Center, U.S. Army Training and Doctrine Command (TRADOC). In the current fiscal environment, the challenge is even more apparent.

According to Chiarelli, the network is the Army's No. 1 modernization effort. "It's not enough to simply achieve a variety of separate capabilities working alongside each other independently, or worse, in conflict with each other," he said.

New programs have revolutionized how we fight, and the innovation continues, said Chiarelli. The significant challenge that remains is the interoperability of these programs. "Specifically with regards to the network, we must achieve a single operating system or an environment able to accommodate a variety of plug-and-play technologies," said Chiarelli.

GEN Peter W. Chiarelli, Vice Chief of Staff of the Army, described the Capability Portfolio Review process and said a key lesson learned is that requirements should be revisited more often. (U.S. Army photo courtesy of AUSA.)

Requirements Review

Process improvement is essential to targeting duplicate requirements and eliminating redundancies. The complexity of acquisition has increased over time, so it's important to keep reviewing acquisition processes, said LTG William N. Phillips, Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT) and Director, U.S. Army Acquisition Corps. Requirements, resources, acquisition, and sustainment are inherently linked, he noted. "After 9 years of war, it's important that the Army take a holistic look at its requirements, at what it's built over time, and what's value-added to the Army," said Phillips.

Pursuing efficiencies has been part of the ongoing modernization strategy. The Capability Portfolio Review (CPR) process is supporting that effort. Directed by Secretary of the Army John McHugh, the CPR is a review of all acquisition program requirements for a 1-year period that began Feb. 22, 2010.

"The intent was to conduct an Armywide, all-component revalidation of requirements for all Army acquisition programs," said Chiarelli. "The process revalidates requirements through a wide range of criteria, including combatant commander requests, wartime lessons learned, and potential for leveraging emerging technologies and affordability."

A key lesson learned from CPRs is that requirements should be revisited often, according to Chiarelli. "The rate of technological change is so great that you've got to be willing to look at requirements much more frequently than you've done before," he said. Phillips advised that CPRs allow the acquisition community to remain in line with program executive officers and program managers, which helps to eliminate redundancies.

The CPR process has turned out to be more complicated than originally thought, according to Chiarelli, but its benefits are well worth it. LTG Robert P. Lennox, Deputy Chief of Staff, G-8, advised that the process enabled the Army to save $1 billion with the elimination of the Non-Line-of-Sight Launch System, a decision that resulted from a CPR.

The process has been so successful that the Army is trying to expand its scope to include all Army programs. The Army is researching how to do this. "As we continue to expand the CPR process, we're confident we'll gain a better understanding of all aspects of our portfolios. This will undoubtedly enable us to find greater efficiencies across the force," said Chiarelli.

Operational Adaptability

Vane said TRADOC is helping the Army "achieve operational adaptability through force modernization. This requires adaptation not only in our warfighting force, but also the way we approach generating and sustaining the operational Army and the processes that drive us throughout the generating force," he said.

Guidelines for how the Army is going to accomplish this include the Army Capstone Concept (**http://www.tradoc.army.mil/tpubs/pams/tp525-3-0.pdf**) and the Army Operating Concept (**http://www.tradoc.army.mil/tpubs/pams/tp525-3-1.pdf**). Published in December 2009, the Army Capstone Concept "provides a guide to how the Army will apply available resources to overcome adaptive enemies and accomplish these challenging missions," Vane said. The concept states that operational adaptability is the key to success in a complex and uncertain environment. Published in August 2010, the Army

Operating Concept "describes the employment of Army forces in the 2016–2028 timeframe, with emphasis on the operational and tactical levels of war," said Vane. It describes *how* the Army will defeat enemies using combined arms maneuver and wide-area security.

To achieve operational adaptability, TRADOC is helping the Army shift from a 5-year to a 2-year cycle for examining and updating concepts. "This shift allows for more frequent review of our concepts, our conceptual framework, which reflects the operational environment of today and the future," said Vane.

Improving Logistics

Logistics is intrinsically linked to modernization, said LTG James H. Pillsbury, Deputy Commanding General and Chief of Staff, U.S. Army Materiel Command (AMC). "We need to improve our ability on the logistics side to help modernization of our Army," he said. To better manage materiel, the Army is adopting a new management approach by making AMC the Lead Materiel Integrator (LMI) at Rock Island, IL, with the U.S. Army Sustainment Command, "to help the Army manage its equipment and help get that equipment to the commander within the ARFORGEN [Army Force Generation] cycle when that commander needs it and can train with it," said Pillsbury. Designed to foster open communication, improve collaboration, and provide the most efficient way to generate trained and ready forces from a materiel perspective, the new approach will also eliminate redundancies and improve system effectiveness, said Pillsbury.

With AMC as the Army's LMI, all stakeholders will be working together with a common picture. "This will get all the stakeholders together—from ASAALT, AMC, Department of the Army staff, G-3/-4/-8, Forces Command, and others—to work together to collectively identify how materiel will be distributed."

According to Pillsbury, modernization will be focused on the reset phase. "While others are resetting the Soldier and the unit, … it's AMC's responsibility to reset the equipment. We're going to leverage that time we have with the equipment to spiral in modernization," he said.

Conclusion

Chiarelli stressed that efficiency and modernization must be undertaken cohesively. "As we look ahead to the future with a firm understanding of the realities today, it is imperative that we provide the capabilities which most significantly enhance our Soldiers' warfighting abilities, while ensuring good stewardship of the taxpayers' dollars," said Chiarelli. "These efforts are co-dependent and must be mutually supported."

Chiarelli advised that the network is the Army's No. 1 modernization effort. Here, SGT Darrell W. Coffman (top), Very Small Aperture Terminal Facility Noncommissioned-Officer-in-Charge with Company C, Headquarters and Headquarters Battalion (HHB), 101st Airborne Division, and SGT William M. Hemingway, Traffic Terminal and Secure Internet Protocol Router Point of Presence (SPOP) and Reset Technician, also with Company C, service an SPOP at Bagram Airfield, Afghanistan. The SPOP is part of the system that enables computer-network communication among coalition forces in Afghanistan. (U.S. Army photo by SGT Grant Matthes, Regional Command-East Public Affairs.)

LTG Michael A. Vane, Director, Army Capabilities Integration Center, TRADOC, described the Army Capstone Concept and the Army Operating Concept, which will help the Army achieve operational adaptability through force modernization. (U.S. Army photo courtesy of AUSA.)

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CONFERENCE CALL

The Army civilian workforce is essential to ensuring that our warfighters accomplish their missions worldwide. Here, a class of approximately 150 DOD civilians and contractors, part of the Civilian Expeditionary Workforce, learn the basics of emergency medical aid at the Camp Atterbury Joint Maneuver Training Center, IN, June 29, 2010, before deploying to Afghanistan and Iraq. (U.S. Army photo by SPC John Crosby.)

Transforming the Army Civilian Workforce

Jaclyn Pitts

While DOD works hard to ensure that our Nation's military is the best in the world, Army civilians are equally important to ensuring that our warfighters accomplish their missions worldwide. DOD has recognized this through civilian workforce transformation, discussed in both the *2010 U.S. Army Posture Statement* and the *2011 Army Business Transformation Plan*.

A panel of senior leaders from several workforce management, training, and development offices across the Army discussed transformation initiatives and challenges Oct. 27, 2010, at the 2010 AUSA Annual Meeting and Exposition.

Lines of Effort

Thomas R. Lamont, Assistant Secretary of the Army for Manpower and Reserve Affairs, was the keynote speaker for the panel titled, "Transforming the Civilian Workforce; Strengthening Army Capabilities." He discussed the five major initiatives outlined in the *2011 Army Business Transformation Plan*:

- Integrate requirements determination, allocation, and resourcing processes that identify workforce capabilities.
- Improve workforce life-cycle strategy, planning, and operations to enhance mission effectiveness.
- Establish an integrated management system to support civilian human capital decision making and allow leaders and employees to perform their roles more efficiently in support of Army goals and missions.
- Execute Army Senior Executive Service (SES) Competency Assessments and develop Army civilian leaders.
- Take action to reform the civilian hiring process.

Lamont stressed the importance of managing civilian occupations in the workforce and identifying the competencies needed and how they can be developed effectively. "One objective in this plan is to establish a career program management structure for all occupations," he explained.

On the subject of an integrated management system, Lamont noted that currently, civilian workforce management is fragmented across the different commands, career programs, and proponents. "This line of effort will establish an integrated structure to more effectively manage the workforce and make decisions that make sense for career programs, the commands, and our employees," he said.

Lamont explained that the key to civilian leader development is creating leader development paths, which will include competency analyses and develop education, training, and experiential opportunities so that leaders may grow with the skills and abilities needed to manage the future Army. In addition to developing leaders, reforming the civilian hiring process will help the Army attract the talent it needs and wants. "The goal is not to be processing applications, but to actively recruit the right people for the right jobs," Lamont said.

Hiring Reforms and Efficiencies

Lamont discussed how the U.S. Army Civilian Human Resources Agency continues to lead the way with the development and execution of a beta test for hiring reforms and efficiencies at the Fort Myer Civilian Personnel Advisory Center (CPAC), Joint Base Myer-Henderson Hall, VA.

The first piece of the beta test focuses on the development of a projected annual staffing plan and recruitment requirements. Position descriptions are reviewed, validated, and pre-classified to pre-position all recruitment-related documents in CPAC, allowing pre-planning for potential recruitment actions based on a command-generated vacancy projection list using historical trends and known or projected retirements.

The beta test also is implementing several business process improvement initiatives to streamline and shorten the hiring process, including expediting the time to process security clearances and Common Access Cards to bring new employees on board.

"Altogether, the beta test goal is to validate the premise that pre-planning by commands, to include the review of all position descriptions and development of an annual staffing plan in conjunction with several business process improvement initiatives, will enable CPAC to initiate recruitment actions more quickly with more accuracy and complete the hiring action sooner," Lamont said.

Taking Risks and Making Progress

"My personal observation is that, at times, we seem to look for the barriers in why we can't do something, rather than looking for mechanisms or rationales for why we can," Lamont said. "I suggest this calls for a little bit of self-reflection on all parts. We as leaders become so risk-adverse that we instinctively avoid decisions that somehow, somewhere, someone might question. To be the leadership side, we need to figure out how to overcome barriers, not necessarily just look for barriers. We have to reach out of ourselves."

Overall, the Army has made significant progress in civilian workforce transformation, Lamont said. Over the spring and summer of 2010, the Army completed its review of senior civilian positions, focusing on the leadership competencies most valued in the SES. The next step is to conduct a similar analysis of GS-15 positions. "Together, this will provide a requirement we can use to build our future leaders," Lamont said. "This work will provide our young civilian leaders a clear target on which to focus as they move through their careers."

Force Development Training

Mark Lewis, Assistant Deputy Chief of Staff (DCS), G-3/-5/-7, gave insight into how the strategic environment has changed for Army civilians in recent years. Over the past 9 years of war, military officers have been pulled away from division commands, rapidly raising civilians into leadership positions more than ever. Lewis explained that there must be a developmental process to move civilians along in their education and training, just as military officers go through leader development courses and schools.

The goal, he said, is to draw a parallel between military and civilian leader development. "What we want to do in the G-3 is maximize the potential not only of what civilians are doing now, but also what they will do in the future and what they can do for the Army," Lewis said.

Strategic Talent Management

Gwen DeFilippi, Director, Civilian Senior Leader Management Office (CSLMO), discussed how the CSLMO is working to become a strategic entity that accomplishes more than executives' processing actions. She explained that in August, Secretary of the Army John McHugh rechartered CSLMO's Executive Resources Board, providing guidance that the board must follow merit staffing principles in hiring senior executives and must leverage strategic workforce planning.

"We are going to provide transparency in how we're doing talent management and trying to communicate better with senior executives and the rest of the workforce," DeFilippi said. "We

will be publishing minutes of all of our meetings, providing visibility to the workforce on how we think about talent management."

CSLMO's Executive Resources Board has implemented three initiatives to strategically manage talent:

- On a quarterly basis, executive resources are allocated among commands, which is important for leader development and allows clearer visibility of where positions are and what the requirements are for those positions.
- On a monthly basis, the board will review hiring actions and look for trends in selections to the executive corps.
- The board created a Talent and Succession Management Board to create a clearer picture of what executives want in terms of competencies, career flow, and succession plans.

DeFilippi explained that the board has outlined steps for the next 6 months to define requirements for leader development; get resources for education, training, and experiential opportunities; and communicate this information to both leaders and individual employees. This process is important in determining what programs are necessary to build key GS-15 and SES-level leaders from the bottom up, she said.

Donald Tison, Assistant DCS, G-8, followed with his perspective on the importance of education in the workforce. "If we aren't an educated workforce, then what are we?" he asked. The challenge is obtaining funding for the appropriate amount of education and training. Most education funding is at the state and local levels; therefore, the civilian workforce must take advantage of these state and local programs. "What we can and should do is put those keystone programs in place to allow standard organization structures and have the right balance," Tison said.

Joseph M. McDade, Assistant DCS, G-1, discusses civilian workforce transformation Oct. 27, 2010, at the AUSA Annual Meeting and Exposition. (U.S. Army photo courtesy of AUSA.)

The Impact on Soldiers

LTG Mark P. Hertling, Deputy Commanding General, Initial Military Training, U.S. Army Training and Doctrine Command, gave his perspective on how critical Army civilians are. "We at initial military training would fail our mission" without the civilian workers, who make up about one-third of his nearly 20,000 personnel, he said. Hertling's civilian workers not only issue uniforms to incoming trainees, run food service, and provide the majority of medical and dental care, but they also conduct some entry-level and skills training, including marksmanship. For example, when visiting Fort Huachuca, AZ, Hertling observed that civilians conducted most training for new unmanned aerial vehicle operators.

Conclusion

In summary, Joseph M. McDade, Assistant DCS, G-1, reiterated the main points of dramatic strategic change: maximizing and identifying civilians' potential and requirements, creating transparency, and generating feedback. "We have got to link together education, training, and experience seamlessly," he said. "If we are going to tell civilians they have to go through education and training, there has to be an alignment between what we expect them to do in their future jobs and why we're sending them to those places."

McDade also explained how selection to the Senior Service College has changed. "We not only do paper reviews, but we also do interviews to make sure we are selecting the best and the brightest for the Army, because it's a big investment. We've got more work to do, but I think it was a tremendous advance in terms of what we're doing for the workforce."

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CONFERENCE CALL

LTG Daniel P. Bolger, DCS G-3/-5/-7, speaking Oct. 25, 2010, at the AUSA Annual Meeting and Exposition, said that the Army expects to reach a 1-to-2 dwell time ratio by 2011 for the Active Army, and, by 2015, 1-to-3 for the Active Army and 1-to-5 for the Army National Guard and U.S. Army Reserve. Here, Ruthann Allesch kisses her husband, SFC Stephen Allesch, as their children hold tight to their father following his return to Fort Riley, KS, after a 1-year deployment to Afghanistan. (Fort Riley Public Affairs photo by Dena O'Dell.)

Army Readiness: Continuing the Combat Edge

Robert E. Coultas

The Army today is different than it was before Sept. 11, 2001, when foreign terrorists struck on American soil, leaving a permanent mark on the country's consciousness and sparking the persistent conflict that continues today.

LTG Daniel P. Bolger, U.S. Army Deputy Chief of Staff (DCS) G-3/-5/-7, speaking Oct. 25, 2010, at a forum on Army readiness at the AUSA Annual Meeting and Exposition, said that if the total Army is to remain combat-ready after the drawdown in Iraq, it must ensure that the dwell time between deployments is at least twice the time gone, retain the current force structure, maintain access to the U.S. Army Reserve (USAR) and Army National Guard (ARNG), and retrain Soldiers to function without contract support.

Strategic Decisions

Bolger said the most important decision after the Sept. 11 attacks was by President George W. Bush and senior leadership to mobilize the military's Reserve Component (RC) for the duration of the conflict. When

If the total Army is to remain combat-ready after the drawdown in Iraq, it must ensure that the dwell time between deployments is at least twice the time gone, retain the current force structure, maintain access to the USAR and ARNG, and retrain Soldiers to function without contract support.

the Nation calls up the National Guard and Reserves, he said, it motivates the population to support the military.

"When you mobilize the service's RC, you commit people from every state, territory, city, and small town, and an interesting phenomenon occurs," Bolger said. "The folks who do polling for a living will tell you that the major fighting in Iraq and Afghanistan has sometimes been popular and sometimes unpopular; it varies a lot. One thing that does not vary is that, in general, the people of the United States have chosen to support their military during this conflict."

Another strategic decision was to deploy forces as units, rather than as individual replacements as was done during the Vietnam conflict. Although this strategy was satisfactory initially when only a few units were deployed, it became difficult with the larger deployments to Iraq, which required heavy use of contractors.

"Forces from around the world who have operated outside from home [their country] realize that although it is not the most efficient—in other words, the bean counters and accountants don't like it—sending folks by unit preserves unit cohesion and connection back to the home station that is very, very important in a long conflict," Bolger said.

He also said that unit rotation is the best solution but not always the most cost-effective. "It's expensive in money, in time, and you do duplicate a lot of headquarters," he said. "But on the other hand, your Army can stay in the field a long, long time."

'Non-Choice'

The strategic decision that Bolger referred to as a "non-choice" was to operate with fixed end strength. Although the Army did get an increase in end strength later, the relatively small growth led to a dwell-to-boots-on-the-ground (BOG) ratio of 1-to-1, meaning Soldiers were home 1 year between year-long deployments.

Bolger said a key to restoring a broader range of capabilities is expanding the dwell-to-BOG time. "One of the things we believe is going to happen, as we complete our withdrawal of forces from Iraq, is that we will have the ability to get our Active Component to about 1 year in the fight to 2 years at home, and get our RC to 1 year in the fight to 4 years at home. We are not there yet," he said.

Bolger emphasized that current dwell-to-BOG time is not sustainable. "If you look at the evidence, and it's more than anecdotal, in terms of family issues, criminal issues, drug and substance abuse, and suicide rates, those are indicators of a force that's stressed when you're trying carry out these rotations with fixed end strength," he said.

Bolger also said that to attain the optimal BOG time, the Army must maintain its current end strength. "It would be very, very difficult for us if we had a major reduction in strength in any of our components," he said. "So we need all Active, Reserve, and Guard strength that we have now. If you start taking major chunks of that and

LTG Daniel P. Bolger, DCS G-3/-5/-7, was the lead speaker at an Army readiness forum Oct. 25, 2010, at the AUSA Annual Meeting and Exposition. (U.S. Army photo by Gary Sheftick.)

continue the amount of rotations you have right now, you will not reach this sustainable rate of rotation." The Army expects to reach a 1-to-2 ratio by 2011 for the Active Army and, by 2015, a 1-to-3 ratio for the Active Army and 1-to-5 for the ARNG and USAR.

Army Force Generation

Bolger noted that the Army also must resume training for full-spectrum combat after 9 years of mainly counterinsurgency operations. "We have platoon sergeants who've never known any other world than counter-insurgency," he said, urging a return to training exercises in forcible entry and how to conduct mass ground and air fires.

Also on the Army readiness panel, MG Mark A. Graham, DCS G-3/-5/-7, U.S. Army Forces Command (FORSCOM), spoke of the advantages of the Army Force Generation (ARFORGEN) programs that provide trained and ready forces for the regional combatant commanders. But Graham also said that as the Army gets lengthier dwell times, units must "get back to basics," learn to operate in situations other than counterinsurgency, and relearn how to support themselves without contractors, on whom they relied in Iraq and Afghanistan.

Other panel members, BG Jon J. Miller, Acting Deputy Commanding General, USAR, and BG Timothy J. Kadavy, Deputy Director, ARNG, explained how the ARFORGEN process and the 9 years of combat have affected their units. They agreed with

OPERATION ENDURING FREEDOM UPDATE

Robert E. Coultas

During a briefing on the counterinsurgency in Afghanistan, BG John Nicholson Jr., Director of the Joint Pakistan/Afghanistan Coordination Cell, said that if U.S. Forces-Afghanistan Commander GEN David H. Petraeus were giving the briefing, he would say that efforts have been "slow and steady, but we are making progress."

Nicholson, speaking Oct. 25, 2010, at the AUSA Annual Meeting and Exposition, said that for the previous 18 months, the objective of *Operation Enduring Freedom* has been to increase military and civilian personnel, develop the Afghan national security forces and local police, build infrastructure, target Taliban leaders and clear them from safe havens, and reintegrate enemy fighters into society by convincing them to "lay down their arms."

Violence Is Concentrated

Nicholson said that about 63 percent of the violence in Afghanistan is in three provinces. "The main efforts are in Kandahar and Helmand provinces, with secondary efforts up in the east along the border areas with Pakistan," he said. "We're focusing our counterinsurgency efforts on about a third of the districts in the country, primarily focused on the east and the south because that is where the insurgency has its greatest strengths."

Nicholson emphasized that the coalition's main objective was to secure the major population centers, enable the Afghan government to connect with the people in those areas to the degree that they "buy into the government," and then transition control to the Afghan government.

Operational Tempo

Nicholson also said that as forces seek to secure population centers, a portion of the force must continue to keep up the initiative against the enemy, most of which is maintained by Special Operations Forces that are working at an "unprecedented operational tempo." "Every 24 hours, on average, we are killing or capturing three to five mid-level leaders and 24 enemy fighters," he said.

Nicholson added that he is seeing anecdotal evidence that the operational tempo is affecting the insurgents' morale and cohesion. "Obviously, this is exactly the kind of pressure we need to maintain on the enemy, which then buys us space and time to secure the population and achieve that connection that we're after between the government and the population," he said.

Nicholson said that the security campaign has entailed a spike in violence, which is inevitable. "The coalition is presently at the peak of that violence," he said, but added that as the government's capability and Afghans' confidence increases, the violence will begin to decrease.

BG John Nicholson Jr., Director of the Joint Pakistan/Afghanistan Coordination Ceil, said the increased number of collation troops in Afghanistan has created a spike in violence that is "inevitable," but will eventually decline as it did in Iraq. (*Defense News* photo by Sheila Vemmer.)

MG Mark A. Graham, DCS G-3/-5/-7, FORSCOM, said during an Army readiness forum on Oct. 25, 2010, that as the Army gets longer dwell times, units must "get back to basics," learn to operate in something other than counterinsurgency, and relearn to support themselves without contractors. Here, Soldiers from Company C, 3rd Battalion, 187th Infantry Regiment keep an eye out for military movement during a patrol through Paktika, Afghanistan. (U.S. Army photo by SGT Jeffrey Alexander, 982nd Combat Camera Company.)

Bolger and Graham that the Army could not function today without its RC Soldiers.

Funding Needs

According to Bolger, the military gets about $250 billion in funding, and "they use every bit of it."

"About half of our force who actually keeps us in the field is contractors, and the force in the field is modernizing constantly to stay ahead of the threat," he said. "When you decide to add 16,000 Mine Resistant Ambush Protected vehicles to your force, that has a trail of cost behind it. Essentially, we have fielded the equivalent of a new combat system in the middle of a war."

Bolger explained that if the Army wants high-quality people to join the force and stay in, the Army must be willing to pay for them and ensure that they meet the qualifications of a high school diploma, a clean criminal record, and good physical health with no history of substance abuse. "Right now in America, of about 10 18-year-olds who would line up in the front of a recruiting station, only three of them will meet the qualifications to join the U.S. military," he said.

> One of the things we believe is going to happen, as we complete our withdrawal of forces from Iraq, is that we will have the ability to get our Active Component to about 1 year in the fight to 2 years at home, and get our RC to 1 year in the fight to 4 years at home.

The competition is intense to recruit the best people, he said. "We're fighting for a very small cadre of folks who are very high-end," he said. "It's the same group that every college in America is looking for, every good [business] firm is looking for, and every police force and municipal agency is looking for."

The GI Bill and affordable health care are also readiness issues because they allow the Army to maintain a high-quality force, Bolger said. "A lot of people will pull out this [defense] budget and say, 'You're spending a lot of money on personnel,' to which I would respond—the readiness of the Army is the people in the Army," he said.

ROBERT E. COULTAS is the *Army AL&T* Magazine Departments Editor and an Editor for *AL&T Online*. He is a retired Army broadcaster with more than 35 years of combined experience in public affairs, journalism, broadcasting, and advertising. Coultas has won numerous Army Keith L. Ware Public Affairs Awards and is a DOD Thomas Jefferson Award recipient.

CONFERENCE CALL

An Army Reserve Soldier with the 298th Support Maintenance Company directs a vehicle operator loading equipment onto a tractor-trailer at the U.S. Army Reserve Center, Altoona, PA, March 11, 2010, as the unit prepares for a year-long deployment in Iraq. (U.S. Army photo by SPC Michael T. Crawford, 316th Expeditionary Sustainment Command Public Affairs Office.)

Sustaining an Operational Force in the U.S. Army Reserve

Kellyn D. Ritter

The U.S. Army Reserve (USAR), a critical element of the Nation's Armed Forces, needs to remain an operational force in the Army, said LTG Jack C. Stultz Jr., Chief, USAR and Commanding General (CG), U.S. Army Reserve Command.

Speaking Oct. 26, 2010, at the AUSA Annual Meeting and Exposition, Stultz reviewed developments in the Reserve over the past year and advised on the direction it needs to take as part of the operational force. The Reserve enables the Army to sustain sufficient troop numbers in today's contingency operations, he said.

State of the USAR

Recruiting in the Reserve is right on target, Stultz said. In terms of sheer numbers, the Reserve continues to meet its recruiting goals, he said. However, it remains out of balance in terms of rank structure and skill sets. Within the Reserve population of approximately 206,000, some units are at 150-percent strength, while others are at 50- to 60-percent strength. The Reserve is particularly out of balance in Military Occupational Specialties. The challenge is connecting this to achieve a more stable mix across units, Stultz said.

Stultz noted that the force is changing and will continue to transform in this period of persistent conflict and fiscal uncertainty. The natural reaction to "wait and see" for possible outcomes or solutions is not a viable option. At a time when "uncertainty is certain," from the defense budget to the force structure, "there's always going to be something happening to cause uncertainty," said Stultz.

Therefore, USAR leaders have taken charge of what they think the Reserve's future needs are and will adjust with continued change and transformation.

The plan is to keep approximately 30,000 Soldiers on active duty, 20,000–22,000 Soldiers deployed, and 8,000–10,000 in CONUS on generating force missions.

A Shift in Restructuring

The USAR has evolved internally within the past year. At the 2009 AUSA Annual Meeting and Exposition, Stultz reported that the Reserve was moving toward an enterprise management approach, modeled after Chief of Staff of the Army (CSA) GEN George W. Casey Jr.'s Army enterprise transformation. Casey organized the Army around the enterprises—human capital, materiel, readiness, and services—placing one 4-star general in charge of each, from cradle to grave. "If that's the model the Army is going to use," said Stultz, "we thought we probably need to adopt the same model in the Reserve, because we're going to be aligned as an operational force."

When the USAR attempted internally to establish one person in charge of each enterprise, those people didn't have the authority or staff to implement the required enterprise. To fix this problem, the Reserve will adopt a division model. Whereas in an Active Army division, an Assistant Division Commander for Support and an Assistant Division Commander for Operations aid the division commander, the Reserve will have a Deputy CG (DCG) for support and a DCG for operations. Support will be one entity, and operations another. This plan was announced Oct. 1, 2010, and "will help align the Reserve headquarters [HQ] for the future," said Stultz.

LTG Jack C. Stultz Jr., Chief, USAR and Commanding General, USAR Command, advised that the Reserve cannot go back to being strategic and must remain a part of the operational Army. (U.S. Army photo courtesy of AUSA.)

In the field, the Regional Support Commands now have the responsibility to provide support services. Along with the Army Reserve Installations, they will be aligned under the DCG Support. The operational and functional commands will be aligned under the DCG Operations. "Now, we truly do have the support and the focus and functions *there*, and the operations and all operational functional commands that are in the ARFORGEN [Army Force Generation] cycle *there*," said Stultz.

Under Base Realignment and Closure (BRAC), the USAR HQ is moving from Fort McPherson, GA, to Fort Bragg, NC. To smooth the transition, the Reserve plans to "power down" certain responsibilities and resources to various authorities, who will make personnel decisions. The goal is that once the entire HQ relocates, "We won't need to power up," Stultz said. Army leadership is hoping that the commands will be successful in managing their own funds and can retain this responsibility after the BRAC move.

Stultz advised that restructuring the Reserve this way is beneficial, because it will avoid the common problem of not knowing where to reassign military and civilian personnel during restructuring and transformation. The Reserve can treat its employees the right way because the employees will decide if they will relocate. "We have a huge window of opportunity because people will take care of themselves with BRAC, as they won't want to move," said Stultz. For people who aren't moving, the Reserve will need to reevaluate position replacements based on jobs and potential efficiencies.

"We have a lot of work ahead, but I'm looking at it from a positive standpoint," he said. "It's really giving us an opportunity to do some things and make some changes without having the people 'get in the way.' And I don't mean that in a negative sense. People get in the way because we care about them."

Operational Force

A study for the CSA was just completed regarding the future role and use of the Reserve. It was determined that deeming the Reserve as part of the operational force is more accurate than referring to it as an "operational reserve." "Part of your Reserve Components [RCs] are [deployed] forward in Iraq and Afghanistan, and part of them are in CONUS," Stultz said. "That piece that is back here is part of the Reserve, but it's not part of the *Army* Reserve; it's part of the *Army's* Reserve. The piece that is forward in Iraq or Afghanistan is not in the *Army Reserve* Forward; it's the *Army* Forward."

The Reserve must determine how to use the full-time Active Soldiers and the Reserve Soldiers as one operational force. Stultz advised that leadership needs to invest in the Reserve to ensure they are ready. The Reserve is working on solving the problem of having Reserve Soldiers trained and ready when needed, a concept known as "assured access." The Army needs confidence that when it requires the Reserve, it can call on those Soldiers immediately. Both at the Army level and the Secretary of Defense level, leadership is looking at potential changes in law and policy that are needed to have assured access to the Reserve so it can be part of the operational force.

The CSA has designed the Army force structure around having assured access to the Reserve. Casey's "1-5-20-90" construct signifies that "every year, there will be 1 corps, 5 divisions, 20 brigade combat teams, and 90,000 enablers as an operational force," according to Stultz. The RC is a part of this; of the 90,000 enablers, right now 24,000 are USAR and 25,000 are Army National Guard. "As we've gone through the force structure in years past, we've moved more and more

of the enabler force into the Reserve Component, so that we can structure the Active Component the way we need," Stultz said.

Looking to the future when troop demands diminish with the drawdown from Iraq and eventually Afghanistan, Stultz advised that, "We can't go back to being a strategic Reserve. We can't go back to '1 weekend a month, 2 weeks in the summer.' Our Soldiers won't stand for it." He explained that former Reserve Soldiers who signed up for the time commitment of 1 weekend a month and 2 weeks in the summer found themselves being used a lot more and found it difficult to balance the Reserve, work, and family. Consequently, many left the Reserve. New Soldiers who were recruited came into the Reserve *wanting* the greater commitment and to contribute more to the Army.

"If we go back to a strategic reserve, we will go through that same dip," Stultz said. Soldiers who joined for the greater commitment will feel underused, and the USAR will need to recruit a new force whose objective is the "l weekend a month, 2 weeks in the summer" commitment. "By the time we get them recruited, we'll have another contingency and need to be operational again," Stultz said.

Stultz advocated that using Reserve Soldiers for humanitarian missions around the world is a way to keep the Reserve as part of the operational force. Here, LTC Tom Englehart, Commander of the Army Reserve's 629th Forward Surgical Team, talks to a Ugandan woman about her child's health at Pajimo Clinic, where the 629th and 7225th Medical Support Units worked with the U.S. Navy and Ugandan and Tanzanian medical providers to treat more than 700 local residents per day in October 2009. (U.S. Army Reserve Command photo by Cory Shultz.)

Therefore, the Reserve must be maintained as an operational force, Stultz advised. The RC is particularly suited for several missions and could fill positions once the demand for troop strength overseas has decreased. These missions include being part of the generating force and conducting theater security cooperation prior to hostilities in various countries.

Stultz cited missions the Reserve has already completed as examples of potential future opportunities. Reserve Soldiers have trained the first class of female officers in the Afghan army; rebuilt school systems in the aftermath of political unrest in Kenya; conducted foreign army training in Uganda; and performed civil affairs missions in Ethiopia, Djibouti, and Tanzania.

In summer 2010, Reserve Soldiers joined the USNS Mercy, which did not have the resources to meet all requirements for its humanitarian missions. The Reserve sent 50-person teams for 3- to 4-week rotations, helping to treat 12,000 people in Vietnam and 29,000 in Cambodia through medical clinics. Stultz asked the Soldiers on these missions, "What if, instead of doing this for 3 to 4 weeks, you did this for 60 to 90 days?" He asked the Navy personnel on USNS Mercy, "What if, instead of having to swap people out [on rotations], I can give you twice as many and give them to you for 60 to 90 days?" The response to the longer assignments was overwhelmingly positive. Using Reserve Soldiers for these missions presents a great opportunity for humanitarian, theater security, engagement strategy, and civil affairs operations around the world, Stultz said.

"If you want to have an operational reserve, you have to use it," he said. "There is already the demand out there; there are already resources. We just need to build a model on how we are going to do this in the future."

USAR SPC Kevin Beam, a civil affairs specialist with the 401st Civil Affairs Battalion, participates in a training exercise at the National Training Center, Fort Irwin, CA, May 31, 2010. (USAR photo by Timothy Hale.)

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CONFERENCE CALL

LTG Jeffrey A. Sorenson talks about network operations with SSG Matthew Spire, 2-3 Brigade Troops Battalion, 2nd Brigade Combat Team, 3rd Infantry Division, Network Operations Noncommissioned-Officer-in-Charge, during a visit to Forward Operating Base Kalsu, Iraq. (U.S. Army photo by SPC Emily J. Wilsoncroft.)

Army Network Enterprise: A Progress Report

Margaret C. Roth

As the Army moves forward with plans to modernize and streamline its information networks, key leaders in this sweeping transformation provided a look back and ahead during the 2010 AUSA Annual Meeting and Exposition.

The transformation of LandWarNet, the Army's portion of the Global Information Grid comprising many loosely affiliated independent networks, means major changes in command, control, communications, computing, and information technology (C4IT), said now-retired LTG Jeffrey A. Sorenson, then Chief Information Officer (CIO)/G-6 in the Office of the Secretary of the Army.

The Army is undertaking network improvements to give Soldiers continuous access to applications and data resources using a single, persistent tactical identity. It wants to enable them to rapidly deploy to an austere environment, ready to fight upon arrival and to seize and maintain the initiative without loss of operational tempo or situational awareness. Finally, the Army's network transformation will enable more efficient command and control of widely dispersed forces.

Speaking on Oct. 25, Sorenson told the AUSA audience: "We are transforming the way we deliver C4IT services. It will manifest itself in a different resource strategy. It will manifest itself in a different acquisition strategy."

Global Network Enterprise Construct

In March 2009, Chief of Staff of the Army (CSA) George W. Casey Jr. approved the transformation of LandWarNet in accordance with the Global Network Enterprise Construct (GNEC). The complexities of the operational environment and the growing need for warfighters to receive the right information, at the right time and in the right format, have elevated the importance of network access, control, and utilization.

The CSA's vision was, and is, a more secure, centralized, operational capability.

LTG JEFFREY A. SORENSON RETIRES AFTER 37 YEARS OF ARMY SERVICE

LTG Jeffrey A. Sorenson, Army Chief Information Officer (CIO)/G-6, retired Nov. 5, 2010, after more than 3 years as the Army CIO/G-6 and after serving 37-plus years with the Army. GEN Peter W. Chiarelli, Army Vice Chief of Staff, presided over the retirement ceremony attended by more than 400 people.

Sorenson thanked the Army for the opportunity to serve and the CIO/G-6 organization for its commitment to deliver the finest command, control, communications, and computers (C4) and information technology network capabilities to Soldiers.

"We have come a long way to reshape the network enterprise strategy," Sorenson said. "And I believe the CIO/G-6 is on the cusp of delivering significant network capabilities to the warfighter through all our enterprise initiatives."

Building the network is critical to the Army's success in its current and future missions. Warfighters require the most effective network capabilities to operate in the modern battlefield. LTG William N. Phillips, Principal Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT), stressed the importance of this in an interview with *Army AL&T* Magazine (see Pages 11–17). "We have many new challenges [in Army acquisition]," he said. "First is the building of the network and network synchronization—this is the most important program within the Army today!"

Before taking the CIO/G-6 position, Sorenson was the Deputy for Acquisition and Systems Management to the ASAALT.

Sorenson has more than 20 years of acquisition experience as a certified U.S. Army Material Acquisition Manager. His acquisition assignments include: Director, Program Control, Joint Tactical Fusion Program Office; Course Director for the Executive Program Managers Course, Defense Systems Management College; Director, Science and Technology Integration, Office of the Assistant Secretary of the Army for Research, Development, and Acquisition; Product Manager Ground Based Common Sensor-Light/TEAMMATE/TRACKWOLF programs; Project Manager Night Vision/Reconnaissance, Surveillance, and Target Acquisition; Director, Information Technology, Acquisition Directorate, Office of the Director of Information Systems for C4; Senior Military Assistant to the Under Secretary of Defense for Acquisition, Technology, and Logistics; and Program Executive Officer Tactical Missiles.

Sorenson holds a B.S. from the U.S. Military Academy and an M.B.A. in finance, accounting, and decision sciences from Northwestern University. He is a graduate of the Armed Forces Staff College; the Army War College; and the Program Manager and Executive Program Managers Courses at the Defense Systems Management College.

Sorenson's awards and decorations include the Army's Project Manager of the Year in 1998, the Defense Distinguished Service Medal, the Legion of Merit with three oak leaf clusters, the Defense Meritorious Service Medal, the Army Meritorious Service Medal with two oak leaf clusters, and several other awards and decorations including the Parachutist Badge and Ranger Tab.

LTG Jeffrey A. Sorenson, Army Chief Information Officer/G-6, retired Nov. 5, 2010, after nearly 4 decades of Army service. (U.S. Army photo.)

At the time this article was published, a new CIO/G-6 had not been announced. Mike Krieger was designated as the Acting CIO/G-6 and MG Mark Bowman as the Acting Deputy CIO/G-6.

SPC Timothy Worley, Company C, 508th Special Troops Battalion, 4th Brigade Combat Team, 82nd Airborne Division, explains the usage of an automation subsystem to LTG Jeffrey A. Sorenson during his visit to Forward Operating Base Salerno, Afghanistan. (U.S. Army photo by SGT Matthew Clifton.)

The objectives of GNEC are to:

- Operationalize LandWarNet to enable global warfighting capability.
- Dramatically improve network defense.
- Realize economies and efficiencies while improving effectiveness.
- Enable Army interoperability and collaboration with mission partners.

This transformation anticipates that eventually, all Army generating force networks will be managed by a single command, U.S. Army Network Enterprise Technology Command (NETCOM)/9th Signal Command (Army), reporting to the Army CIO. NETCOM is responsible for organizing Army information to make it globally accessible, useful, and secure for Soldiers deployed anywhere in the world, in sync with Army Force Generation, Base Realignment and Closure, and Global Defense Posture Realignment.

In May 2009, the Army conducted an operational evaluation that validated GNEC as a strategy to operationalize LandWarNet. The 9th Signal Command (Army) began consolidating information technology (IT) services including enterprise e-mail, data, software, and hardware in area processing centers (APCs).

GNEC encompasses a global construct of network service centers: one in Europe, two in CONUS, one in Southwest Asia, and one in the Pacific. It also calls for realigning CONUS installation network enterprise centers, also known as Directorates of Information Management, under 9th Signal Command (Army); and establishing up to six APCs in CONUS and seven OCONUS.

For Soldiers, the result of this transformation will be a secure, single identity that will remain with them whether they are at home station or deployed. For the larger Army, it will mean a persistent battle command and weapon system network. A single network will serve both the generating and operating forces, supporting warfighting capabilities across all phases of joint operations (see "Army Enterprise Architecture" on Page 44).

For Army acquisition in particular, it will mean alignment with the Army's guidance and plan for the Common Operating Environment (COE), as a prerequisite to obtaining funding to develop and acquire IT devices or systems. The guidance and plan also will provide direction to industry partners.

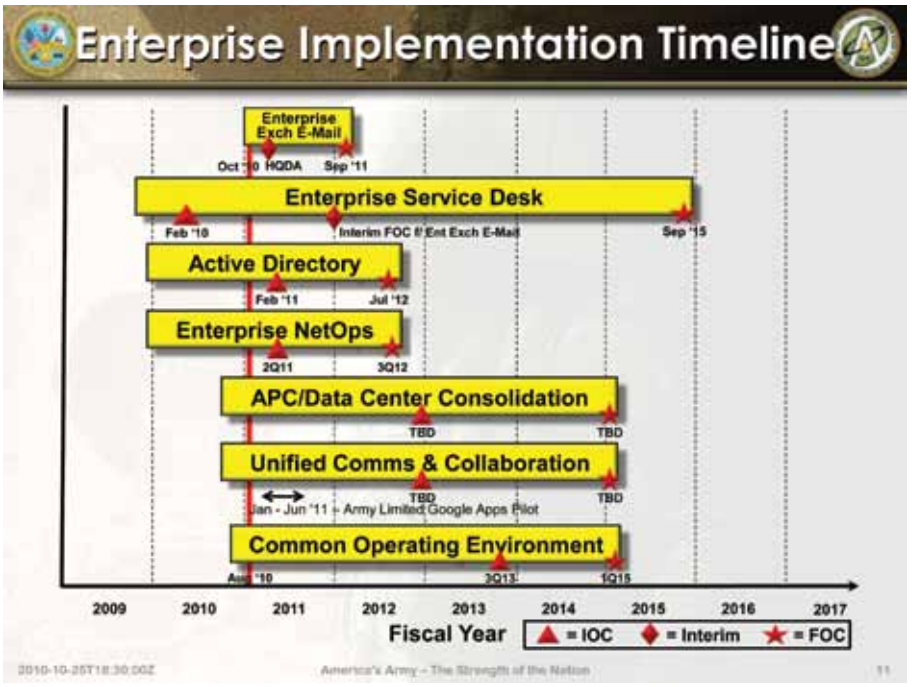
For Soldiers, the result of this transformation will be a secure, single identity that will remain with them whether they are at home station or deployed.

The COE is a set of computing technologies and standards enabling the rapid development and execution of secure, interoperable applications across a variety of computing environments—server, client, mobile devices, sensors, and platforms.

"This is what we call the network: the ability to take that data all the way from posts, camps, and stations through the defense system network into the battlefield. … It has to be an integrated network capability," Sorenson told the AUSA audience. "At the end of the day, we need to make sure we get to plug-and-play."

Program Executive Office Integration is sorting out how to bring together disparate solutions currently in use, Sorenson said.

So far, the Army has established a tactical network architecture, a COE architecture, and an APC architecture. Still in progress are the Installation (Post/Camp/Station) Architecture, Information Assurance Architecture, and Geo-Spatial Architecture. More details, including the "to-be" architecture, are available on the Army CIO/G-6 website at **http://ciog6.army.mil/ToBeArchitecture.aspx**.



In early 2011, the Assistant Secretary of the Army for Acquisition, Logistics, and Technology is expected to publish an implementation plan that describes the steps and schedule for bringing Army systems into compliance with the guidance for COE.

By the end of FY11, the Army plans to deploy a brigade combat team (BCT)-sized unit leveraging the range of global network enterprise capabilities through all phases of its deployment, laying the groundwork for all BCTs to do the same.

"We need to be doing the integration on the front end," said COL(P) John B. Morrison Jr., Director of LandWarNet/Battle Command in the Office of the Deputy Chief of Staff, G-3/-5/-7, at the AUSA Annual Meeting. "We have not really developed a capability set process" to establish requirements, he said. "That's where the true integration burden is right now."

Enterprise E-Mail

At the center of the overall transformation is "the Soldier's story"—how Soldiers connect to the network at home and on deployment, as they move around the Army. Currently, Sorenson noted, "every time they do that, all the ways they stay connected to the network change—their e-mail, the way they connect from a transport standpoint, how they store their data, what they use for a collaboration capability."

Apps for the Army, a competition launched in March 2010, may become a quarterly initiative. (U.S. Army photo.)

"Quite frankly, the hamsters are running tired on that wheel," Sorenson said. Therefore, the Army is taking a major step toward modernization with the launch of Enterprise E-mail in 2011, providing users with a single, permanent e-mail address.

Enterprise E-mail will enable users to access their Army e-mail from any DOD location and to collaborate with any Army user worldwide via a Global Address List and enterprise calendar sharing, said Sorenson in an Oct. 25, 2010, Army news release. Today, most Army users are unable to share calendars or to find contact information for Army e-mail users at other locations.

Enterprise E-mail will leverage Army-owned Microsoft software licenses and the DOD computing cloud provided by the Defense Information Systems Agency (DISA). NETCOM will serve as the Army's Internet service provider for e-mail.

The migration of Army Microsoft Exchange e-mail users includes 1.4 million unclassified network users and 200,000 users of the secret network. The Army CIO/G-6 and Army Headquarters are scheduled to migrate by early 2011. The rest of the migration will be completed by Sept. 30, 2011, and will include Transportation Command, European Command, and Africa Command.

Enterprise E-mail is expected to save the Army more than $100 million a year starting in FY13.

"The Enterprise E-mail partnership between the Army and DISA is a tremendous opportunity to achieve significant capabilities and efficiencies," said LTG Carroll F. Pollett, DISA Director, in the Army release. "Enterprise E-mail is one of several major Army IT efficiency initiatives that support Secretary of Defense efforts to free up resources for other Defense Department priorities," Sorenson said.

Enterprise E-mail users will have access to the Army Enterprise Service Desk (AESD); a global phone number will provide IT support for any e-mail issue. In February 2010, seven CONUS installations began using the AESD; as of August 2010, the first-call resolution rate was 66 percent, above the industry standard.

Enterprise E-mail is only one part of the Army's move to a global network enterprise. It will lead the way for other initiatives including Enterprise Active Directory, Enterprise Identity Management, Enterprise SharePoint Services, and Enterprise Service Desk.

"We know we can be more efficient," Sorenson said in the release, noting redundancies in infrastructure across the Army. He cited a case in point: Fort Belvoir, VA, "has 15 e-mail servers and six different help desks on a single installation. Other posts, camps, and stations have similar redundancies."

The Army's goal is to reduce the number of data centers by 75 percent by 2015, resulting in fewer servers, MG Mark S. Bowman, Director of Architecture for Operations, Networks, and Space in the Office of the CIO/G-6, told the audience at the AUSA Annual Meeting (see "Enterprise Implementation Timeline" on Page 44).

Seeking Smart Solutions

The Army is looking both within its ranks and outside the military for innovative computing solutions.

Apps for the Army (A4A), a competition launched in March 2010, may become a quarterly initiative. The first competition, from March 1 to May 15, enticed 141 Soldiers and Army civilians to register. The Army received 53 Web and mobile applications, of which 25 passed certification and testing in five categories: information access, locational awareness, training, warfighting or mission-specific, and morale, welfare, and recreation or other uses.

More information on the 15 winners and 10 honorable mentions is available on the CIO/G-6 website at **http://ciog6.army.mil/Apps4Army/tabid/67/Default.aspx**.

The Army is now working on including industry in the applications challenge.

MARGARET C. ROTH is Senior Editor of *Army AL&T* Magazine. She holds a B.A. in Russian language and linguistics from the University of Virginia. Roth has more than a decade of experience in writing about the Army and more than two decades' experience in journalism and public relations.

CONFERENCE CALL

Dr. Ashton B. Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics, addresses the audience as the keynote speaker Nov. 2, 2010, during the 2010 Program Executive Officers'/Systems Command Commanders' Conference. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

Dr. Ashton B. Carter Offers Guidance for Better Buying Power

Jaclyn Pitts

As keynote speaker for the 2010 Program Executive Officers'/Systems Command Commanders' Conference, Dr. Ashton B. Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics, gave insight into the five major areas in which acquisition professionals can improve efficiency. The topics mirrored Carter's Sept. 14, 2010, memorandum to acquisition professionals, which provided guidance on obtaining greater efficiency and productivity in defense spending (see chart on Page 48). Nearly 500 senior civilian and military officials from throughout DOD, as well as executives from across the defense industry, converged Nov. 2–3, 2010, at the Fort Belvoir Officers' Club, Fort Belvoir, VA, to share and discuss the latest ideas, initiatives, and best practices for improving DOD's buying power in acquiring and delivering weapon systems and capabilities.

The conference's theme was "Getting it Right the First Time: Achieving Affordable and Executable Programs," which Carter told conference attendees is aligned with Secretary of Defense (SECDEF) Robert M. Gates' objective to increase the efficiency and productivity of DOD spending. "Broadly speaking, our challenge is to sustain a military at war, take care of our troops and their Families, and invest in new capabilities—all in an era when defense budgets will not be growing as rapidly as they were in the years following 9/11," Carter stated in a memorandum to conference attendees. "Therefore, it is our responsibility to procure the critical defense goods and services our forces need by doing more without more."

Affordability

Carter first addressed the issue of affordability. "Affordability as a requirement really means that when

programs come to me, we're looking at how the cost varies with KPP [key performance parameter] value, or other critical parameters around the design point, and asking ourselves, 'Are we really willing to pay that extra increment of cost for that extra increment of capability?'," he said. "It's that simple. It will require a lot of systems engineering on your part."

Carter also discussed the disparity between what he refers to as "will-cost" and "should-cost." He explained that the *Weapon Systems Acquisition Reform Act of 2009* (**http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:s454enr.txt.pdf**) required acquisition professionals to budget programs to independent cost estimates.

"However, those cost estimates are what I call 'will-cost' estimates," Carter said. "They describe what the program will cost if we keep doing it the way we're doing it. That is different than 'should-cost.' What *should* we be paying for this capability? Budgeting a program and managing it to a 'will-cost' estimate is living a self-fulfilling prophecy, and we should aspire to do better than that."

Incentivized Productivity and Innovation

The second major area addressed in Carter's guidance memorandum focuses on incentivizing productivity and innovation in industry through several means, including rewarding contractors for successful supply chain and indirect expense management, extending the U.S. Navy's (USN's) Preferred Supplier Program to a DOD-wide pilot, reinvigorating industry's independent research and development, and protecting DOD's technology base. "We should be rewarding what we're looking for, which is productivity growth, and that's what our incentives should be," Carter explained.

Carter also discussed the Superior Supplier Incentive Program, modeled after a USN program. The two main design criteria for such a program are how suppliers qualify and what they get if they qualify, according to Carter.

"Are we selecting in a fair and reasonable way that is reflective of what we, as the customers, want?" he asked. "Is it fair to our suppliers in terms of what they're doing for us? And are the rewards we're offering proportional to the benefit we're getting? These are the principles that apply to programs already in progress."

Improving Tradecraft in Services Acquisition

According to Carter, improving tradecraft in services acquisition is the biggest area in which greater efficiency and productivity in DOD spending can be obtained.

"Two hundred billion dollars, or half of our contract spend, is for services, not goods," he said. "That category has grown more than any other category in the budget in the last 10 years."

> Sitting still, waiting for it to happen, is the way to broken programs, canceled programs, budget turbulence, churn, uncertainty, and unpredictability for industry, … erosion of taxpayers' confidence in us and in the quality with which we're spending their money, and, above all, loss of warfighter capability.

Carter explained that in looking at how the different military components spend on services, the way funds are used can vary greatly. "The state of play is that we have a wide variety of practices at work in the acquisition of services," he said. "Even within certain categories, [many] of us are doing it differently, and that suggests that we could probably improve our art a bit."

Reducing Nonproductive Processes

On reducing nonproductive processes and bureaucracy throughout DOD, Carter told the audience, "What we do to ourselves is what we do to you. What we get in the way of management information and input isn't really useful. We have program reviews whose purpose is to allow you to surface issues you're having and work through the solutions... and that's what it's all about—not grading or checking off boxes."

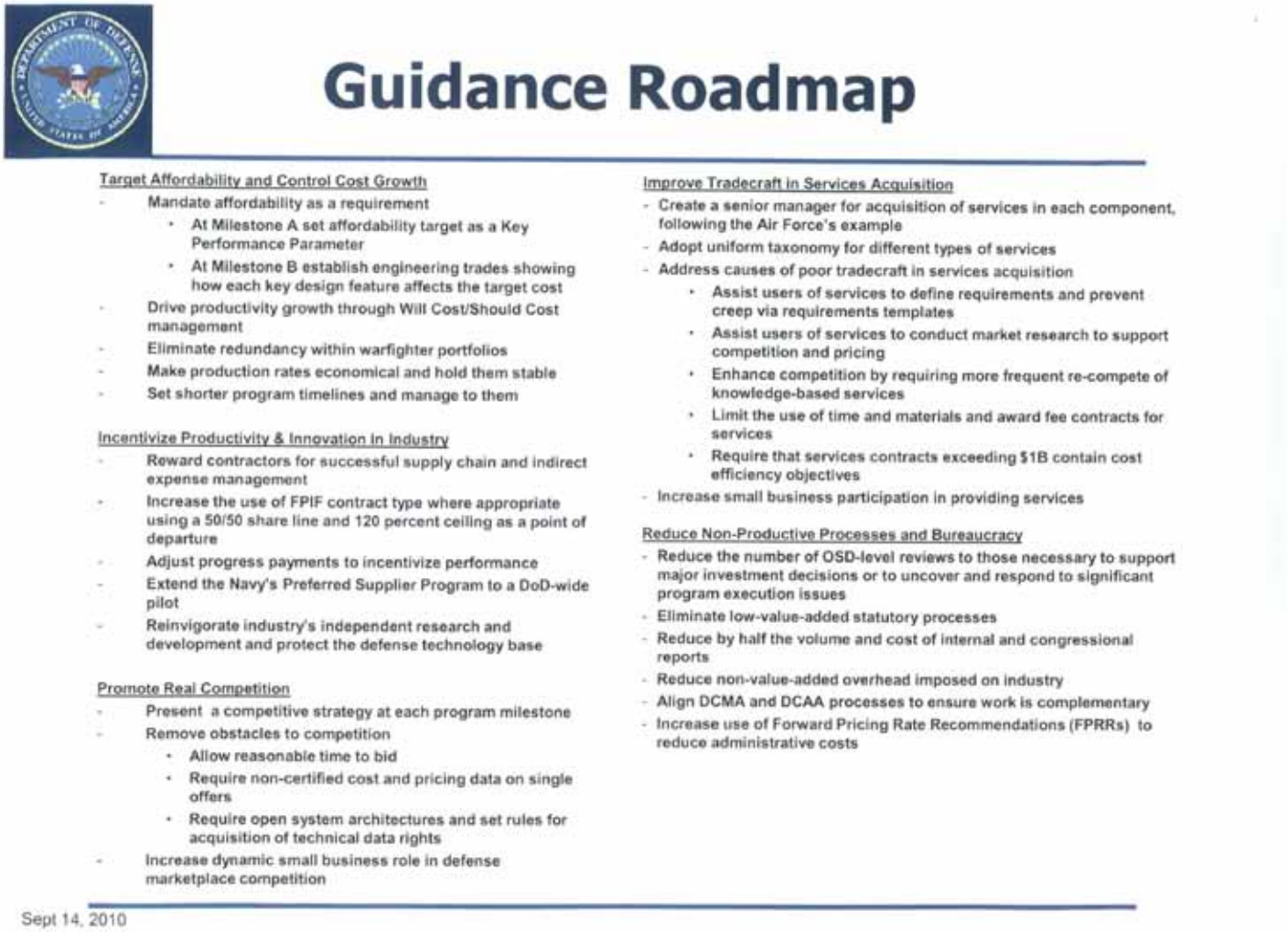
He stressed that DOD leadership is striving to improve the quality and value added of its interactions with senior civilian and military officials across the services.

Carter also addressed unproductive processes and bureaucracies imposed on industry, which he described as "the ways we make those we work with less productive than they could be." Additionally, he mentioned processes imposed by Congress, such as the requirement for 700 reports annually from the Office of the Secretary of Defense.

A Realistic Target

In conclusion, Carter said he believes that the steps detailed in his memorandum are the keys to delivering savings mandated by the SECDEF.

"What [Gates] is asking is quite reasonable, a few points per year," Carter said. "This is a realistic target. We're very focused on the steps that we can take. It follows upon a decade of budget growth, so it's fair to say that with



Dr. Ashton B. Carter's Sept. 14, 2010, memorandum to acquisition professionals provides guidance on obtaining greater efficiency and productivity in defense spending. (Image courtesy of the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.)

money as available as it's been, we've all been able to reach for more money when we've run into a managerial problem. Therefore, it is reasonable to assume that we have built in some fat that we can make a little leaner."

He emphasized that now is the "best climate" in which to strive to achieve such savings, as both President Barack Obama and the SECDEF "have been seized" with what DOD does. He noted that, "Congress voted unanimously in both houses for an acquisition reform bill that is uneven, but generally quite good and certainly reflective of the intent and support for what we're trying to accomplish. For those reasons, I do believe that these steps can deliver the savings.

"Sitting still, waiting for it to happen, is the way to broken programs, canceled programs, budget turbulence, churn, uncertainty, and unpredictability for industry, … erosion of taxpayers' confidence in us and in the quality with which we're spending their money, and, above all, loss of warfighter capability," Carter said.

"What do we need from you? You know all this. Where something is not clear, where you doubt how to carry it out or where to take it, come to us and we'll talk about it and adjust. I need you to communicate it downward. Our colleagues in industry get it entirely; they know that we're going into a different environment. The fear is unevenness of implementation. We need to make sure we have consistency of implementation.

"Lead by example, as you see us doing. Your key programs, make them examples of what we're looking for. Ensure that consistency. That is what we ask of you as this time. You're the best of our best."

JACLYN PITTS provides contract support to the U.S. Army Acquisition Support Center through BRTRC Strategy and Communications Group. She holds a B.S. in journalism from West Virginia University and a B.S. in criminal justice from Kaplan University.

CONFERENCE CALL

Continued education and training are essential to maintaining a healthy acquisition workforce. Here, employees at Aberdeen Proving Ground, MD, attend the Civilian Education System Basic Course Oct. 27, 2010, taught by the Army Management Staff College. (U.S. Army photo by Tom Faulkner, U.S. Army Research, Development, and Engineering Command.)

The Acquisition Workforce: Growing Numerically, Reducing Fiscally

Kellyn D. Ritter

Personnel are defense acquisition's most valuable asset, DOD senior leaders affirmed at the PEO/SYSCOM Commanders' Conference, Nov. 2–3, 2010. Acquisition personnel work tirelessly to provide the Nation's warfighters with cutting-edge capabilities. Additionally, the acquisition workforce plays a very significant role in the execution of DOD policies, strategy, and initiatives.

Defense senior leaders stressed the importance of the workforce in implementing DOD's Efficiency Initiatives, the Department's strategy to reduce fiscal waste, eliminate redundancy, and ultimately generate internal cost savings of $100 billion in 5 years. An essential part of achieving that is ensuring that the DOD acquisition workforce is healthy, they said.

Growing the Workforce

The acquisition workforce is going through a period of immense growth and transformation. After personnel numbers declined in the 1990s, the workforce faced a crisis when the wars in Afghanistan and Iraq began and the workload skyrocketed. The workforce was overextended and under-trained to handle the ever-increasing workload and responsibility bestowed upon it.

DOD leadership has now reversed that trend and is working to grow the workforce, both numerically and through education and training. ADM Mike Mullen, Chairman of the Joint Chiefs of Staff, advised the audience at Fort Belvoir that Secretary of Defense (SECDEF) Robert M. Gates and the DOD leadership support this initiative, with no intention of moving away from it. Their commitment to hiring the right people in sufficient numbers while strengthening the workforce through education and training is imperative, he said.

"We can't do this without a high-quality acquisition workforce," Mullen said. "Everything that that means—career paths, education, diversity, variety—is

a full spectrum of capabilities that we need as a military."

William J. Lynn III, Deputy SECDEF, described the current health of the acquisition workforce as not quite 100 percent, but definitely on the path to success. "We have the direction right. We oversteered in the 1990s when we eliminated too much of the government's internal acquisition force," Lynn said. "It made us not as smart buyers and smart overseers as we needed to be. We've pulled that back. For hiring, we're pretty much hitting the targets that we've been looking for. We're actually quite pleased with the quality [of people].

"Those are all positives. That said, I think there's inevitably a transition when you make this kind of change. There are certainly going to be some bumps … But I think the direction we've set out on is right, and in the course of a year or 2, we'll be able to work out the rough spots, and we'll be in a better place."

ADM Mike Mullen, Chairman of the Joint Chiefs of Staff, emphasized that Secretary of Defense Robert M. Gates and DOD leadership support growing the acquisition workforce, both numerically and through education and training. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

Attracting new members to the workforce is an important part of growing and sustaining it. As the Baby Boomer generation retires, members of the younger generation must replace them. Mullen advised the audience to "make careers exciting" for potential employees and that a great attraction for the younger workforce is knowing that they are making a difference. Leader development is also a crucial aspect of this. Mullen advised, "We [need to] develop the people we need now and in the future in this time of change."

How Leaders Will Achieve Efficiency

Meeting a cost savings of $100 billion in 5 years is a challenge. Lynn stressed that leaders throughout DOD—program managers (PMs), system commanders, and others—need to understand what the SECDEF is asking of them with the Efficiency Initiatives. To achieve these, DOD will use incremental approaches, forgoing full development of capabilities to get needed items and systems fielded sooner and cheaper, and then upgrade them later. "Leadership needs to be focused on what's going on economically, what's going on financially," said Mullen. "We all have to be in tune with that to look at, 'What are the best decisions given the time that I'm in right now?', and then, 'How do I get to the future with the right capabilities?' "

Lynn acknowledged that the task at hand is not easy, and that making tradeoffs between technology or greater capability and cost is challenging. "We're not only asking you to do business differently," he said. "We're asking you to do things that are inherently difficult. But as the Secretary said, 'Difficult is not impossible.' " He also advised that changes in DOD's business operations will most likely be met with opposition, which is another challenge. "Not everyone will be happy, but we [senior leadership] will," Lynn said. "You'll be doing exactly what we asked you to do."

Without the cooperation and leadership of PMs and senior managers in acquisition, Gates' Efficiency Initiatives and $100 billion cost savings will never be realized, Lynn said. "Success or failure is going to turn on the ability that you have to implement the reforms that have been laid out that cut to the heart of the hardest aspects of managing acquisition," he said.

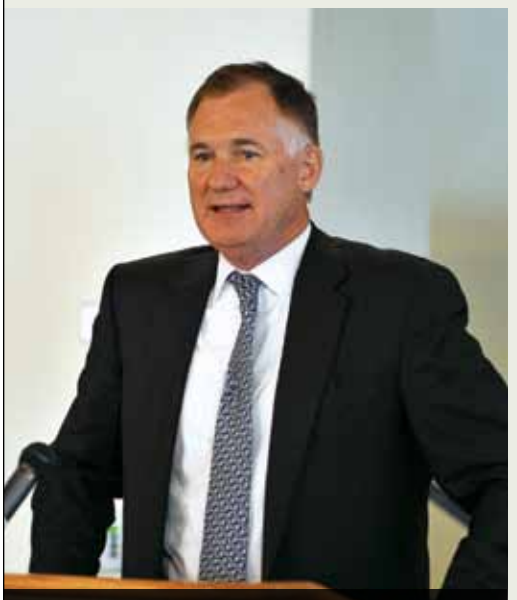
"In the end, you are the program change of command in the defense acquisition community," he continued. "You must help us avoid 0 for 5 as we experience this fifth inflection point [in defense spending]. You must help us ensure that the Department is a

good steward of the industrial base, the taxpayers' dollars, and the trust of our warfighters."

Frank Kendall, Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics, reiterated the importance of acquisition personnel in this period of budget constraint. "We can do initiatives and policies and have meetings, but at the end of the day it's the people in the program offices who are running the programs, and the chief engineers and their staffs and in the contracting offices, who are really going to make a difference in all this," he said. Fortunately, Kendall said, in DOD, "the voice of affordability is stronger now than it's ever been before."

Mullen instructed the PEO/SYSCOM conference attendees to lead in ways that make a difference and advance the military's capabilities. "Make the hard decisions and prioritize," he said. He also explained that working through a strategic partnership of military, acquisition, industry, and Congress is the only way to ensure that the Efficiency Initiatives succeed while still getting capabilities to the warfighter. Mullen explained that those several institutions must come together to make this work, and he stressed that acquisition leaders need to have clarity and engagement with Congress early and often.

> We can't do this without a high-quality acquisition workforce. Everything that that means—career paths, education, diversity, variety—is a full spectrum of capabilities that we need as a military.



William J. Lynn III, Deputy Secretary of Defense, said that the cooperation and leadership of acquisition program managers and senior managers is essential to realizing the $100 billion cost savings required by the Efficiency Initiatives. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

Program Managers' Changing Role

In some regards, PMs have an added responsibility in the achievement of the Efficiency Initiatives. Mullen explained that the mentality of "if you go early, you are seen as a failure" needs to change in DOD. If a PM steps forward advising that the program won't make it, he or she needs to be rewarded instead of rebuffed. Leadership has asked PMs to be fiscally responsible and make the hard decisions early, and Mullen stressed that PMs need to know they will be supported in those actions.

Dr. Malcolm Ross O'Neill, Assistant Secretary of the Army for Acquisition, Logistics, and Technology, explained that PMs are in a position to question their programs through every step of the acquisition process to achieve the needed results, both in cost savings and capabilities. When asked if PMs have a greater ability to reduce program requirements in the current environment of decreasing acquisition timelines and cost, O'Neill advised, "A few years ago the answer was 'no.' … You could not question it, you could not push back. You were nothing but an acquisition person. … The answer today is you can push back anytime you want. You can questionthe requirements. You can tell the warfighter that you're going to give them an 80-percent [solution]." He called this "a brilliant change in strategy."

Regarding process changes, O'Neill recommended that PMs find the advocate for the troublesome process. O'Neill advised PMs, along with their program executive officers and subject matter experts, to meet with that advocate to present their case of how and why the process should be changed. "As far as processes that get in the way, let us know what those processes are," he said. "We have an open invitation to reduce nonproductive processes and bureaucracy."

Conclusion

As our warfighters engage in overseas contingency operations around the world, the defense acquisition workforce is required to be trained, educated, knowledgeable, and numerically healthy to support them. The fiscal changes in DOD policy and strategy also require the workforce to be economically savvy. Acquisition leaders must strike the proper balance among these demands to ensure the health of DOD and achieve the SECDEF's Efficiency Initiatives. As Lynn told the conference attendees, "Without question, you're serving at a moment when institutional performance matters. We vested in you—our senior managers—enormous responsibility to oversee the programs, manage the human capital, and keep the Department on the right track."

KELLYN D. RITTER provides contract support to the U.S. Army Acquisition Support Center through BRTRC Strategy and Communications Group. She holds a B.A. in English from Dickinson College.

CONFERENCE CALL

William J. Lynn III, Deputy Secretary of Defense, explained the lessons learned from the four defense spending inflection points since World War II. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

Finding Efficiencies: A Historical Perspective

Kellyn D. Ritter

As DOD embarks on the difficult task of saving $100 billion over the next 5 years by "doing more without more," senior defense leaders drew on lessons learned to offer insights on how this can be accomplished, at the PEO/SYSCOM Commanders' Conference, Nov. 2–3, 2010.

William J. Lynn III, Deputy Secretary of Defense (SECDEF), noted that DOD is now in the fifth inflection point in defense spending since World War II. The first three significant downturns—after World War II, the Korean War, and the Vietnam War—were all triggered by the end of conflicts. The fourth occurred when defense spending decreased under President Ronald Reagan toward the end of the Cold War.

Lynn advised that DOD handled these previous four periods of fiscal transition poorly, in different ways; now, in the fifth inflection point, DOD must adopt limited spending to prevent another transition breakdown. "Our challenge today is to change that [pattern] and manage the transition that we're in without disrupting the capabilities and the quality of the force that we have today," Lynn said. "It's a critical challenge, and it's going to be a very difficult one."

Lynn described three lessons learned from the four prior fiscal transitions. The first is to make hard decisions early, which is necessitated by budget pressure and program cost increases. As Lynn advised, "We're probably at the high point of the budget that we can expect. … Plus, we're going to have at least some cost increases. We're going to talk about how to limit those, but we're not going to *eliminate* them. … If we're not going to be able to afford it now, we're certainly not going to be able to afford it in a year or 2 years. So make the hard decisions now."

DOD also learned that savings can't be generated entirely with efficiencies. This can be done in some cases, but the bulk of savings is not going to come from pure efficiency. To generate the amount required to meet SECDEF Robert M. Gates' directive for $100 billion in cost savings, DOD must prioritize and eliminate less important items in this constrained fiscal environment.

"These aren't items that don't have value; they do have value. It's just in the fiscal environment we're in, we cannot continue to do them," said Lynn. He cited as an example the U.S. Joint Forces Command, which Gates has recommended dismantling. "It's not that Joint Forces Command didn't have value," Lynn said. "It played an important role in helping us prove our ability to operate in a joint environment, but it doesn't merit a 4-star, billion-dollar command at this point in our development. There would be some value in continuing it, but not enough to justify it at that cost."

A third lesson learned is to balance reductions in the budget. This means "taking money out of the operating accounts, as well as the investment accounts, and doing this in a balanced way," said Lynn. When asked about the political challenges of achieving efficiencies, Lynn advised, "Politically, we will need to make good on $100 billion to have credibility. We will have to identify $100 billion in savings that we've achieved out of overhead."

Frank Kendall, Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), described the need to adopt these efficiencies as "simple math." For example, he said, "the Army has a fleet of 240,000 trucks, and they last about 40 years. To sustain that fleet, you have to buy 6,000 trucks a year." Kendall advised that DOD doesn't have money to buy all the items it needs, so it has to pay less in general if the current force structure is to be sustained. There is an absolute requirement to decrease the cost of what DOD buys, or the force structure will need to be reduced—and that is not a viable option without significant negative impacts on our military, he said.

ADM Mike Mullen, Chairman of the Joint Chiefs of Staff, advised that balance in both fiscal and capabilities arenas is critical to achieving the Secretary of Defense's Efficiency Initiatives. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

How Efficiency Initiatives Evolved

Lynn advised that under Gates' leadership, DOD has been on track toward the Efficiency Initiatives. Gates identified the need for them in his Sept. 29, 2008, speech at National Defense University: "The defining principle driving our strategy is balance. I note at the outset that balance is not the same as treating all challenges as having equal priority. We cannot expect to eliminate risk through higher defense budgets—to, in effect, 'do everything, buy everything.' Resources are scarce. … We still must set priorities and consider inescapable tradeoffs and opportunity costs."

In April 2009, Gates' ability to, as Lynn noted, "make the hard decisions early" resulted in the curtailment or cancellation of 20 low-priority or low-performance programs, including Future Combat Systems. This eliminated a DOD bill of $300 billion.

In his remarks at the Eisenhower Library, Abilene, KS, May 8, 2010, Gates established that sustaining DOD's current force structure—including the quality of its people and technology—would require 3 percent real growth in warfighting accounts, which include modernization, force structure, training, and quality of life for the military. The challenge is that DOD's budget is set to increase by only 1 percent real growth. To make up for that difference, Gates advised that DOD needed to look for commensurate savings within the Department.

Gates said, "I am directing the military services, the joint staff, the major functional and regional commands, and the civilian side of the Pentagon to take a hard, unsparing look at how they operate—in substance and style alike. The goal is to cut our overhead costs and to transfer those savings to force structure and modernization within the programmed budget. In other words, to convert sufficient 'tail' to 'tooth' to provide the equivalent of the roughly 2 to 3 percent real growth—resources needed to sustain our combat power at a time of war and make investments to prepare for an uncertain future. Simply taking a few percent off the top of everything on a one-time basis will not do. These savings must stem from root-and-branch changes that can be sustained and added to over time."

On Aug. 9, 2010, Gates identified four tracks from which the cost savings will be generated: services and components, outside organizations, Department-wide review to inform the President's FY12 budget decisions, and the SECDEF-led efforts. His Aug. 16, 2010, *DOD Efficiency Initiatives Memorandum* outlined the initiatives to "reduce duplication, overhead, and excess, and instill a culture of savings and restraint across the DOD." It instructed how DOD would accomplish the challenge of fiscal savings and budget reduction while supporting the Nation's troops at war. For the full text of the memorandum, visit **https://dap.dau.mil/Pages/NewsCenter.aspx** and click on "Secretary Gates Announcement About Efficiencies Initiative: 08/09/2010."

Achieving Balance

Balance in both fiscal and capabilities arenas is most critical to achieving these initiatives. ADM Mike Mullen, Chairman of the Joint Chiefs of Staff, explained to

DOD is faced with the challenge of achieving cost savings while still providing needed capabilities to the warfighter efficiently and quickly. Here, PFC Anthony Berry, Security Forces Advisory Team 4, 1st Heavy Combat Brigade, 4th Infantry Division, patrols around the Operations Coordination Center Province-Kandahar, Afghanistan, Dec. 9, 2010. (U.S. Air Force photo by SrA Daryl Knee, 16th Mobile Public Affairs Detachment.)

the PEO/SYSCOM audience that "budget tipping," whereby the amount spent from the budget exceeds the amount put into it, will probably continue into the future, making the achievement of balance *now* even more crucial.

Defense acquisition must also find a balance between procuring and fielding the right capabilities, and saving money. Mullen described a "moderate envelope" for program development. "I want risk in the program," he said. "You can't zero that. I want to be reaching, but it can't be perfect, and it can't be the gold standard in every aspect of the program. Eighty percent is a good target, because we just don't have the resources to be at 100 percent."

So, the challenge is cutting back without losing capability. DOD leadership must reevaluate programs, identify requirements, and then produce what will meet those requirements without unnecessary add-ons. Mullen emphasized that making decisions early is imperative, as programs that are instantly vulnerable are those over cost and over schedule. Prevention of problems early is the responsibility of program managers and senior leadership.

However, DOD simultaneously must invest in the future and select key areas of investment and higher risk, in science and technology and research and development, to mature essential programs and capabilities. "As we get more time at home, [we] need to remind ourselves there are other capabilities besides counterinsurgency warfare," Mullen said. "We need to be paying a lot of attention to cyber and space areas that are big but [underdeveloped]."

Therefore, while working toward balance today, DOD leaders must also prepare for and integrate systems and programs for the future. Mullen asked the conference attendees to think about, "How do we develop the future through what we're doing now?" While describing the daunting challenge of developing lead-ahead technologies and capabilities, he expressed optimism that this challenge can be met. "Some of our best capabilities have been evolutionary with a bit of amount of risk to really break through in certain areas," he said.

Good-News Stories

Dr. Malcolm Ross O'Neill, Assistant Secretary of the Army for Acquisition, Logistics, and Technology, who called the current period "a renaissance" in defense acquisition, discussed some actions the Army has already taken to achieve efficiencies. The use of Capability Portfolio Reviews (CPRs), which help eliminate redundancy, are directly correlated to Under Secretary of Defense (AT&L) Dr. Ashton B. Carter's initiative of targeting affordability and controlling cost growth (see related article on Page 46). Through these reviews, "We can economize, look at affordability harder, and control cost growth," said O'Neill.

CPRs enable leadership to look at different systems' capabilities and make appropriate budgeting decisions. O'Neill advised that through a CPR, leadership found that several systems were aiming at the same capability to engage moving targets. The Non-Line-of-Sight Launch System was found to have redundant capabilities, and the elimination of that program saved the Army billions of dollars, O'Neill said.

O'Neill also discussed leadership's decision to help manage services contracting by putting one Deputy Assistant Secretary of the Army (DASA) in charge of them. One of the biggest challenges with service contracts in the Army is that more than 50 percent of the total obligation authority (TOA) is spread *across* the Army; there is more TOA outside the scope of acquisition than within its scope. Having one DASA office in charge of service contracts allows for more efficient management, O'Neill said.

Conclusion

At the PEO/SYSCOM Conference, DOD leadership made clear that no area of defense is changing more rapidly than acquisition. As Mullen put it, "One year ago, 'efficiencies review' had not been uttered yet." Now, efficiency is a critical part of DOD's decisions and operations.

"Change is now the constant," Mullen said. DOD leadership needs to figure out how to lead in this environment of change, which is not easy. However, achieving the Efficiency Initiatives is essential to DOD's fiscal and force structure health. "We can't afford to defer these decisions, we can't afford to let over-programming continue, and we can't continue to erode the taxpayers' confidence that they're getting value for their money," said Lynn. "And, most importantly, we can't afford to lose the warfighting capability that we built up at great cost to the American taxpayer and has been developed with great sacrifice by our men and women in uniform."

KELLYN D. RITTER provides contract support to the U.S. Army Acquisition Support Center through BRTRC Strategy and Communications Group. She holds a B.A. in English from Dickinson College.

CONFERENCE CALL

Senior industry panel members Robert Feldmann, Vice President (VP) and General Manager, Airborne Battle Management, Boeing Defense and Security Office; Ralph Heath, Executive VP, Aeronautics, Lockheed Martin Aeronautics Co.; and Michael Petters, Corporate VP and President, Northrop Grumman Shipbuilding, discuss aligning contractor teams with their government counterparts on product development at the 2010 PEO/SYSCOM Commanders' Conference. (U.S. Army photo by Erica Kobren, Defense Acquisition University.)

Senior Industry Leaders Seek Alignment with Government Teams

Jaclyn Pitts

Senior industry leaders gave insight into their corporations' efforts to achieve affordable and executable programs by aligning with their government counterparts on product development, at the PEO/SYSCOM Commanders' Conference on Nov. 2–3, 2010.

The conference's senior industry speaker, William H. Swanson, Chief Executive Officer, Raytheon Co., discussed his company's Integrated Product Development System (IPDS) and other Raytheon contracting processes. Senior industry panel members Michael Petters, Corporate Vice President and President, Northrop Grumman Shipbuilding; Ralph Heath, Executive VP, Aeronautics, Lockheed Martin Aeronautics Co.; and Robert Feldmann, VP and General Manager, Airborne Battle Management, Boeing Defense and Security Office, provided a

forum for the audience of senior civilian and military officials from throughout DOD to discuss contracting challenges and possible solutions.

Swanson explained that the key to achieving significant efficiencies while providing maximum capability to the warfighter is for government and industry to work together toward that end. He quoted, in part, a famous excerpt from President John F. Kennedy's 1962 address on the Nation's space effort: "We take on important challenges, 'not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills; because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.' "

Integrated Product Development System

Swanson said that Raytheon runs approximately 8,000 programs and 15,000 contracts, and that about 60 percent of its business is conducted with DOD. He explained that business practices such as the IPDS are used throughout Raytheon's programs. IPDS is a system of common processes, reference materials, and training, deployment, and support resources integrated into a repeatable, efficient process for program planning and execution. The system involves a detailed "gate" process (see figure on Page 57) to keep programs on track. "The IPDS process starts long before the program wins," Swanson explained. "As soon as we get an idea or hear something about a new customer requirement, we ask if we understand it and if it's worth pursuing [Gate -1]."

> The programs you and I work on are about the safety and welfare and uncompromised capability of our warfighters. Our warfighters deserve an unfair advantage on the battlefield.

The steps up to Gate 4 are aimed at assessing opportunities, deciding on a bid, and making sure it is correct and is likely to be a win. Gate 5 is a start-up gate. "The program has got to start the right way, and the best approach is making sure budgets and staffing are in place," Swanson said. Gates 6–10 are similar to DOD Milestones, at which requirements and design are checked to ensure readiness for production. The final gate is Gate 11, transition and closure, during which contractual completion is checked and all necessary disposal, transformation, or retiring of a system is completed.

Swanson also gave an example of a program quad chart including contract background; contract status; a red, yellow, and green comparison grid of past, present, and projected program performance; and program accomplishments and issues. "One of my first questions is, 'Does your customer agree with this chart?' " he said. "You'd be surprised how many times I hear, 'no.' I would encourage to all of you that this is important. Do we have a joint shared understanding between us of where we need to go for ensured success of the program?"

Obstacles to Success

Swanson outlined ways in which programs can be hindered, as well as how they can succeed. He explained the obstacles to success:

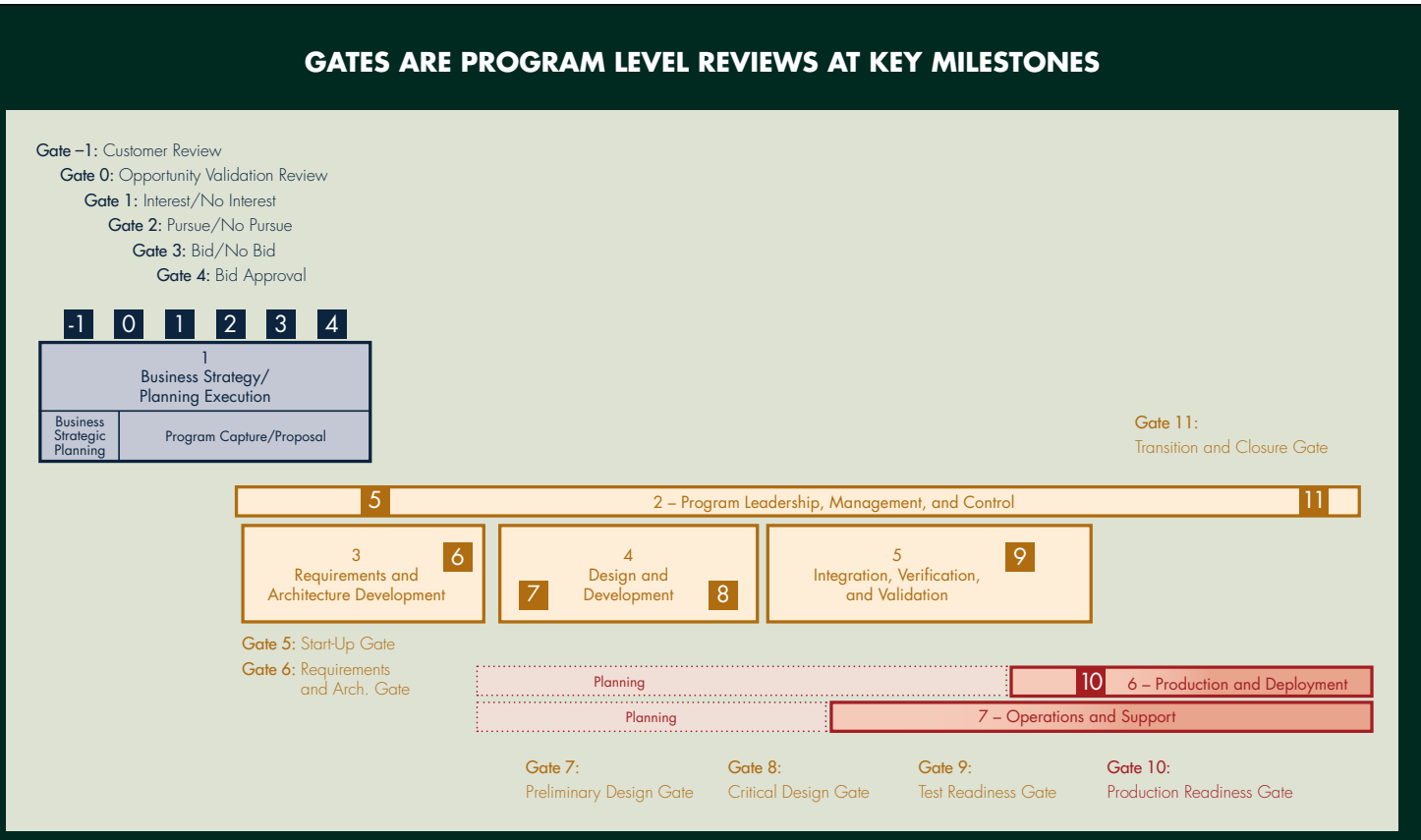
- Poor process discipline—a mindset of "checking the box" versus doing the work, or skipping steps without understanding the risk of doing so.
- Not heeding warning signs, such as not reacting to strained customer relationships or not acting on team reviews.
- Lack of change management, i.e., constant clarification of program scope and requirements.
- Inability to compromise.
- Overly optimistic costs, schedules, and technical capabilities.

Swanson described attributes of a successful program:

- A shared vision of success between customer and contractor, with teams working in parallel.
- A shared sense of urgency to resolve issues.
- Good leadership.
- Use of key data and metrics to manage the program. "The earlier we can identify a problem, the less it will cost to fix," Swanson said.
- Commitments and solutions that are self-evident.
- Teams with the ability to discuss capabilities, not just requirements.

"The programs you and I work on are about the safety and welfare and uncompromised capability of our warfighters," Swanson said. "Our warfighters deserve an unfair advantage on the battlefield. ... We in industry have an obligation to deliver the promised performance on cost, on schedule, and

> The foundation of a program is really in its integrity, credibility, and realism of an integrated program. If we don't have that at the outset, the program is not going to be successful.



The Integrated Product Development System uses gates to guide a program from initial customer review to transition and closure. (Image courtesy of Raytheon.)

with a level of quality that contributes to the success of the mission."

Quality, Affordability, and Partnership

Petters noted that Northrop Grumman Shipbuilding's focus is on quality, affordability, and execution. To get these priorities right, three things are required:

- A clear and stable set of requirements
- Realistic and stable funding
- Solid program execution

DOD is in charge of the requirements, according to Petters. Stable funding comes from Congress, and program execution is up to the contractor. As for partnership, "there needs to be health on both sides," Petters said. "This requires some honest and frank communication between the partners. One area we can all improve on is how we talk about risk, how we discuss the issue of risk—not just with each other inside our programs, but also with our taxpayers. ...

It's a challenging issue because if you start to be really frank about risk, people start to think the program is wounded." He explained that the goal is to discuss risk openly, but not in a way that gives the perception that a program has major problems, because then a workable and practical solution could be dismissed.

Heath reiterated the need for a common understanding of program requirements, as well as contract form and desired results, between government and contractor teams. "The foundation of a program is really in its integrity, credibility, and realism of an integrated program," Heath said. "If we don't have that at the outset, the program is not going to be successful."

Feldmann stressed that there is no better time to get things right than during the development stage, when production design and cost bases are set. If teams can manage change and risk and be schedule-driven, there is a much better chance of success the first time. "If a team is focused on schedule and taking care of the schedule, you won't have to worry about cost," he said. "That is truly what I believe."

In conclusion, Feldmann emphasized the importance of stakeholder alignment around risks. "The best programs are the ones that have risks going in and out every week," he said. "An intense focus by a team around risk management is clearly the best... to predict what's going to happen and get ahead of it. It's all about achieving capability, our promise to the warfighter, and achieving it on time."

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Distributed Common Ground System-Army Enterprise Expands Value of Intelligence

Brandon Pollachek

Throughout the history of warfare, collecting information has been a necessity that the Army has been quite adept at performing. The difficulty, however, was in pulling together multiple sources of information for a commander to use in building a complete understanding of the battlefield, let alone creating an enterprise to provide valuable information to any Soldier, regardless of echelon. The Distributed Common Ground System-Army (DCGS-A) has proven itself worthy of this task under the duress of battle in both *Operations Enduring* and *Iraqi Freedom*.

DCGS-A serves as a dedicated avenue for ingesting, fusing, analyzing, and disseminating information throughout the Army and associated defense agencies. (Graphic courtesy of PEO IEW&S.)

DCGS-A is designed as a dedicated avenue for ingesting, fusing, analyzing, and disseminating information throughout the Army and associated defense agencies. The road to success for DCGS-A hasn't been easy, as the concept was developed during a time of conventional battles against a regular Army, as opposed to the irregular warfare the United States has faced over the past decade.

DCGS-A replaces nine Families-of-Systems (FoSs) that previously had operated as stand-alone systems providing signals intelligence, image intelligence, terrain, weather, and moving target indicator information. Enabling these stand-alone systems to work together in a unified DCGS-A environment has presented unique challenges, which the program has worked through over the years. Now, the final solution of the DCGS-A Mobile Basic is in sight.

System Evolution

"The plan originally entailed letting the Programs of Record [PORs] run their course as DCGS-A was being developed. However, Sept. 11 put us back into a much larger threat environment where the current force systems became the systems that were deployed supporting the fight in *Operations Enduring* and *Iraqi Freedom*," said Samuel Fusaro, Deputy Project Manager DCGS-A within Program Executive Office Intelligence, Electronic Warfare, and Sensors (PEO IEW&S). "It became a financial challenge, not only developing the new capability but also sustaining and enhancing the current systems, some of which had reached obsolescence of parts."

Additionally, DCGS-A has accounted for various Quick Reaction Capabilities and lessons learned from more than 9 years of combat that needed to be integrated as well. "It is a fast-moving train, with the DCGS-A Version 3 [V3] and Mobile Basic teams both having to catch all of these new initiatives, along with these new air platforms that are pumping down extreme volumes of Full-Motion Video and other large data files that have to be processed, stored, and retrieved. So just the size of DCGS in the fight is tremendous," Fusaro said.

Traditionally, intelligence has been looked at as an echelon asset; the level within which a person operated was directly correlated with what information was available to that person. DCGS-A is allowing units to move away from the echelon approach to an enterprise solution.

As DCGS-A evolves, the program is tackling the issues that come from integrating nine separate FoSs, to include dealing with various vendors, each with its own logistics tail, and meeting the challenges that dissociated programs bring—operating independently with limited ability to integrate with one another. "The Army's solution is 'let's have one.' Bring all those [PORs] under a single contract to integrate them together, so you have all the resident experts in their individual domain operating in a single environment," said LTC Scott Hamann, Product Manager DCGS-A Mobile Systems.

Version 3 and Mobile Basic

V3 and the future DCGS-A Mobile Basic are drastically changing the basic premise of how intelligence is collected and shared. Traditionally, intelligence has been looked at as an echelon asset; the level within which a person operated was directly correlated with what information was available to that person. DCGS-A is allowing units to move away from the echelon approach to an enterprise solution.

The value of, and reliance on, the intelligence that DCGS-A is currently providing extend beyond just Army and sister service users. "When we initially stood up the brain [a data warehouse], we were getting 10,000 to 20,000 hits a month, mostly from Army users," Fusaro said. "The number of requests has steadily increased to where now we are getting close to a quarter of a million hits a month, with people querying the [U.S.] Central Command brain for data. And the majority of those requests are from the other services and 3-letter agencies."

Currently 90 percent of the force is fielded with DCGS-A V3 systems. "DCGS-A goes to every Army unit, from Military Police companies to engineers. It is not just a military intelligence system," said Fusaro. "There are more than 1,000 points of presence in one DCGS set when you take into account all of the units that we go to."

Access to DCGS-A products will become more available in the near future, not only for U.S. users but also for coalition partners in Afghanistan. During FY10, a DCGS-A capability migrated into the U.S. Combined Enterprise Regional Information Exchange (CENTRIX) and the Afghan Mission Network, establishing a 2-way ability to push data to our coalition partners and to pull data from coalition systems.

"What we are doing is taking 50 percent of our Secure Internet Protocol Router [SIPR] systems and allocating those to CENTRIX International Security Assistance Force [CX-I], which we are doing by actually repurposing the systems with new drives to accommodate the CX-I. The only difference from a military intelligence perspective is the banner and the ability to connect to a network with a different piece of software," said Stephen Morton, Deputy Product Manager DCGS-A

DCGS-A has accounted for various Quick Reaction Capabilities and lessons learned from more than 9 years of combat that needed to be integrated. Here, Soldiers conduct DCGS-A training. (U.S. Army photo.)

Intelligence Fusion. "All of the analytics and the training a Soldier received with V3 would be the same whether you are on CX-I, SIPR, or Joint Worldwide Intelligence Communications System."

DCGS-A has strived to maintain flexibility within the system throughout the life of the program. The basic premise has been to make as many tools available to an analyst as possible, while allowing the analyst to configure the workspace in a manner most conducive to the individual. In doing so, a concerted effort has been made to ensure that the look, feel, and operation of the system are consistent with the advanced technology to which many of the young operators who use DCGS-A are accustomed. Both DCGS-A V3 and DCGS-A Mobile Basic incorporate user input into design, with user juries that allow analysts to perform hands-on experiments dedicated to the look and feel of the system as well as its ease of use.

"Bottom line is, we try to mirror the commercial environment that our Soldiers have grown up with," said Fusaro. "As technology enhancements come forward such as the iPhone's 'we have an app for that,' DCGS-A will have many applications readily available to the user."

The U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps all have their own version of DCGS, with nuances that meet their individual mission requirements. Oversight comes from the Under Secretary of Defense for Intelligence, which ensures synchronization among the services.

A Significant Upgrade

Within the next few years, DCGS-A users will receive a significant upgrade with the introduction of DCGS-A Mobile Basic. "The major difference with DCGS-A Mobile Basic is that it combines all capabilities of V3 with capabilities of the existing PORs into an integrated system that allows for ingestion of information at different security levels and fusion of the information much more quickly. The information is available for processing and generating the common operating picture and allows users to perform collaboration," said Kamman Lok, Project Manager DCGS-A Chief Systems Engineer. "The cycle is cut down significantly, with the information at an operator's fingertips all in one system."

In addition to bringing all of the PORs into one system, DCGS-A Mobile Basic will be able to add other capabilities as required, such as machine foreign language translation, which previously was not provided by the PORs.

The combination of technological enhancements, along with the out-of-the-box thinking that Soldier users bring to the intelligence enterprise, will continue to ensure that the variations of how DCGS-A can be used are virtually limitless.

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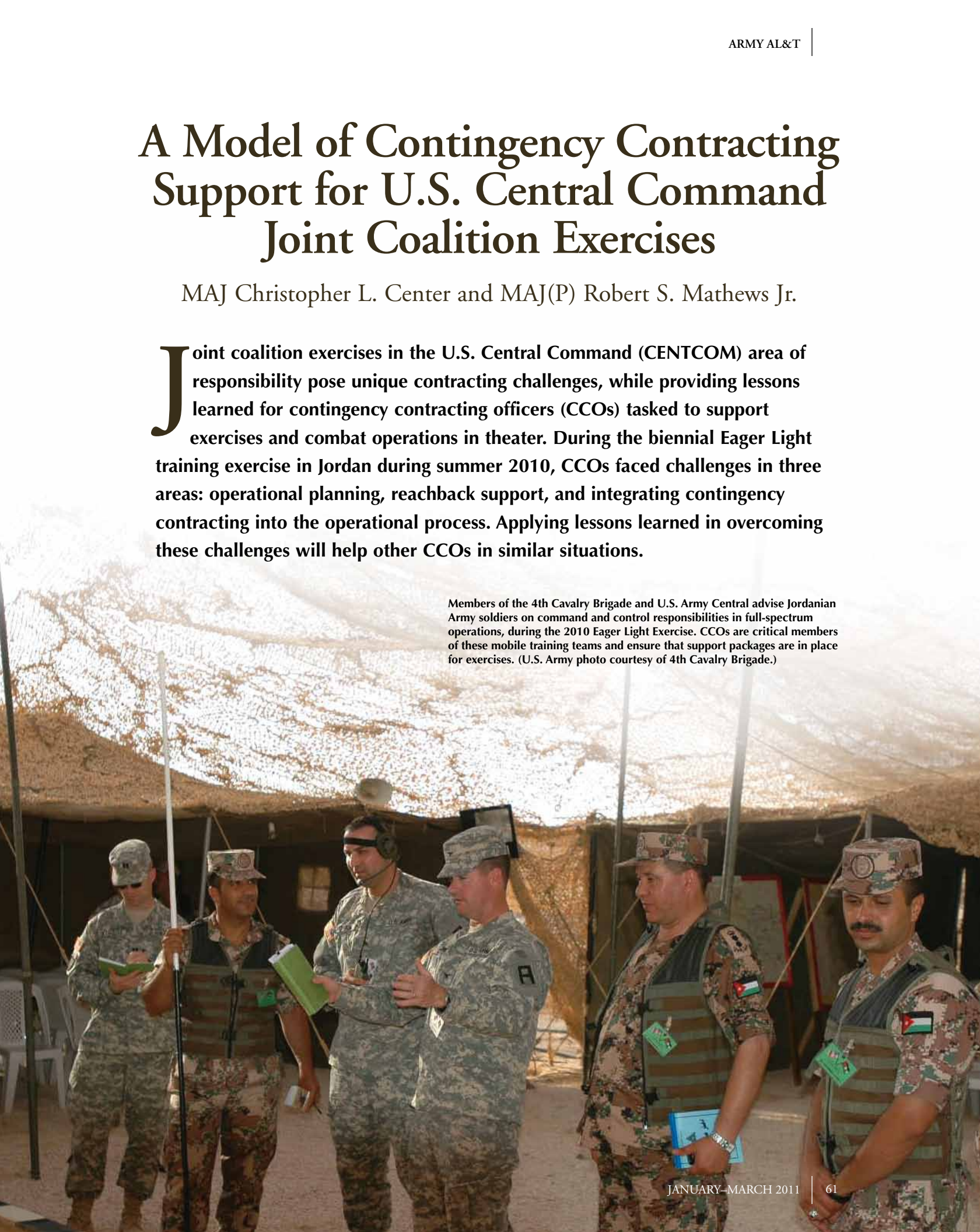
A Model of Contingency Contracting Support for U.S. Central Command Joint Coalition Exercises

MAJ Christopher L. Center and MAJ(P) Robert S. Mathews Jr.

Joint coalition exercises in the U.S. Central Command (CENTCOM) area of responsibility pose unique contracting challenges, while providing lessons learned for contingency contracting officers (CCOs) tasked to support exercises and combat operations in theater. During the biennial Eager Light training exercise in Jordan during summer 2010, CCOs faced challenges in three areas: operational planning, reachback support, and integrating contingency contracting into the operational process. Applying lessons learned in overcoming these challenges will help other CCOs in similar situations.



Members of the 4th Cavalry Brigade and U.S. Army Central advise Jordanian Army soldiers on command and control responsibilities in full-spectrum operations, during the 2010 Eager Light Exercise. CCOs are critical members of these mobile training teams and ensure that support packages are in place for exercises. (U.S. Army photo courtesy of 4th Cavalry Brigade.)

Background

Eager Light is a joint coalition exercise directed by CENTCOM and executed by Third Army/U.S. Army Central (ARCENT). Eager Light trains U.S. and Jordanian military personnel in brigade-level battle staff functions. The training is conducted through command post exercises or field training exercises. The most recent of these exercises took place July 11–Aug. 12, 2010, involving nearly 60 personnel from the supporting 4th Cavalry Brigade and ARCENT, and an equal number of Jordanian soldiers. The next exercise is scheduled for March 2011.

The success of Eager Light was due largely to detailed coordination between ARCENT and Jordanian senior leadership during three planning conferences of about 5 days each in February, March, and June in Amman, Jordan.

A Key Role in Operational Planning

The challenge faced by CCOs in operational planning is a common one: balancing the expectations of the requiring activity to receive what they want, when they want it, with those of the contract support brigade (CSB), which ensures that the acquisition is secured using maximum competition from host nation small businesses. In Jordan, there is an additional layer of complexity in the acquisition process, due to force protection considerations: CCOs must coordinate with the U.S. Embassy's General Services Office (GSO) for a list of vetted contractors who have been cleared by CENTCOM Force Protection Teams.

The challenge faced by CCOs in operational planning is a common one: balancing the expectations of the requiring activity to receive what they want, when they want it, with those of the CSB.

To overcome the challenge of balancing key stakeholders' expectations, CCOs in Eager Light did significant mission analysis and coordination with the requiring activity and the CSB providing the CCOs with their warrant authority. CCOs reviewed previous exercise contract files, solicitation methods, and vendor awards to establish a baseline of how well customer needs were met while remaining compliant with the *Federal Acquisition Regulation* and *Defense Federal Acquisition Regulation Supplement*. While compliant, there was clearly room for improvement. The first step taken by the CCOs was to establish a collaborative knowledge website through Army Knowledge Online (AKO) to provide a central hub of previous contracts executed, current contracts, and lessons learned. (Access is available upon request to **christopher.l.center@us.army.mil** or **robert.s.mathews@us.army.mil**.)

To address the GSO's vetted list of contractors, the CCOs met with key embassy personnel in planning conferences to ensure a common understanding and that customer intent would be met during the final exercise. The CCOs documented in their Determination and Findings the restriction of competition to only those vendors vetted by CENTCOM. In addition, a memorandum for record

Market research in diverse markets such as Amman, Jordan, requires detailed analysis and support from the GSO of the U.S. Embassy to ensure that CCOs are working with responsible contractors. (Photo courtesy of MAJ Christopher L. Center.)

FIGURE 1. CONTRACT AWARD TRACKER

No.	Purchase Request & Commitment	Description	Purchase Request Commitment	Contract #	Purchase Order Obligation	Rolling Total	Vendor	Period of Performance End Date	Unit
1	W80UUU01180600	RENTAL CAR PACKAGE	$ 49,933.70	10-P-0001	$ 28,383.43	$ 28,383.43	Avis	8/8/2010	ARCENT
		MODIFICATION	$ -	P00001		$ 28,383.43			
		MODIFICATION	-	P00002		$ 28,383.43			
2	W80UUU01180601	HOTEL ROOMS	$ 71,426.75	10-P-0003	$ 48,675.07	$ 48,675.07	Hyatt	8/8/2010	ARCENT
		MODIFICATION	$ -	P00001	$ -	$ 48,675.07			
			($ 8,512.19)	P00002	($ 8,512.19)	$ 40,162.88			
			$ 4,016.29	P00003	$ 4,016.29	$ 44,179.17			
			$ 6,198.31	P00004	$ 6,198.31	$ 50,377.48			
			$ 263.74	P00005	$ 263.74	$ 50,641.22			
3	W80UUU01180602	HOTEL ROOMS	$ 85,000.00	10-P-0004	$ 81,603.10	$ 81,603.10	InterContinental	8/6/2010	ARCENT
		MODIFICATION	$ -	P00001	$ -	$ 81,603.10			
		MODIFICATION	($ 1,614.29)	P00002	($ 1,614.29)	$ 79,988.81			
4	W80UUU01890600	NON POTABLE ICE	$ 800.00	10-M-0329	$ 592.38	$ 592.38	Hyatt	8/4/2010	ARCENT
5	W80UUU01890601	NON POTABLE ICE	$ 2,320.00	10-M-0330	$ 569.82	$ 569.82	InterContinental	8/4/2010	ARCENT
			Total Purchase Request Commitment		$ 209,480.45				
			Total Purchase Order Obligation		$ 159,823.80				
			Total Modifications		$ 351.86				
			Contracting Officer Negotiated Savings		**$ 49,304.79**				

A Contract Award Tracker enables CCOs to accurately track the number of modifications, cost savings, inherent periods of performance, and the current situation of all supporting contracts.

was co-developed and signed with the Embassy's Military Assistance Program Office to identify vendors approved to work with U.S. personnel. These items are now part of the shared website and have been provided to the embassy, the CSB, and the supporting units to ensure contracting continuity for follow-on exercises.

Reachback Support

The CSB with regional contracting authority provided reachback support through all phases of the exercise. This reachback included sharing contract support plans from previous exercises, information technology (IT) support with the Procurement Desktop Defense (PD2) system, policy support, and legal advice. The CSB validated all warrant packets for the assigned and attached CCOs. The Principal Assistant Responsible for Contracting (PARC) issued warrants based on previous exercise support and the experience of the individual CCO. Procurement history helped the PARC to determine the appropriate number of warrants and procurement authority for the CCOs.

The CSB and its S-3 Policy Chief provided the CCOs with the PARC's Acquisition Instruction (AI), which established general contracting procedures for the CSB and PARC. It was issued pursuant to Section 5101.304 of the *Army Federal Acquisition Regulation Supplement* (*AFARS*) and provided internal guidance, including

designations and delegations of authority, assignments of responsibilities, workflow procedures, and internal reporting requirements. The AI contains procedures that are required by regulation to be established by the Head of Contracting Activity, procedures that implement policies, and procedures necessary to ensure that business practices are consistent throughout the CSB and PARC. The Policy Chief ensured that the CCOs met the AI's intent and operated within its parameters.

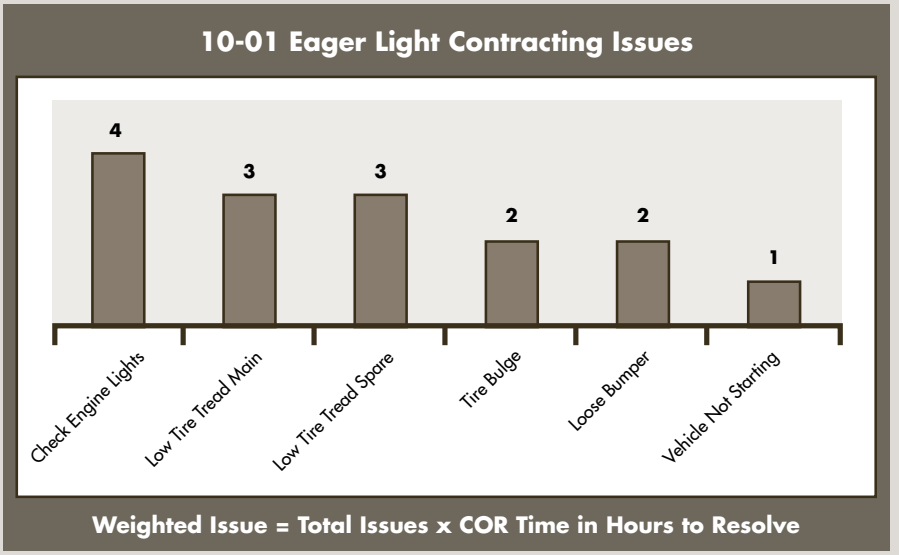
The establishment of IT support for the assigned CCOs was essential during all phases of the mission. The CCOs required access to the CSB's PD2 system or legacy contract management systems. This was another area where the CSB provided reachback support to ensure that the CCOs had connectivity with the CSB's domain through Citrix. The CSB provided a point of contact that could be reached 24 hours, 7 days a week. This included the use of a database (or shared drive) to store critical information and documents during execution of the exercise. The database retains historical files for future exercise support. In the most recent exercise, the CCOs created their own internal shared drive through AKO.

Integrating Contingency Contracting

Mission analysis and coordination with the CSB and PARC enabled the CCOs to set conditions for successful integration into the supported unit's operational plan. Once the above-mentioned conditions were set, the CCOs integrated the contracting capability into the unit's planning. The supported unit then fully integrated the CCOs into their exercise planning and resource management. Attendance at the initial planning conference allowed the CCOs critical time to conduct detailed market research in the host nation and to meet key personnel at the U.S. Embassy. Meetings at the embassy helped the CCOs understand the intricacies of the host nation's vendor base and force protection issues. The GSO, which is the procurement authority for the U.S. Ambassador, can provide a list of vetted contractors already determined responsible through previous business dealings with the Embassy and vetting by CENTCOM.

FIGURE 2. PARETO OF ISSUES FOR VEHICLES AND HOTELS

Issues	Weighted Occurrence	Total Occurrences	COR Time Cost (Hours)	Resolutions
Check Engine Lights	4	2	2	COR identified problem and vendor replaced with new vehicle
Low Tire Tread Main	3	1	3	COR identified problem and vendor replaced tire on same vehicle
Low Tire Tread Spare	3	1	3	COR identified problem and vendor replaced tire on same vehicle
Tire Bulge	2	1	2	COR identified problem and vendor replaced tire on same vehicle
Loose Bumper	2	2	1	COR identified problem and vendor fixed on same vehicle
Vehicle Not Starting	1	1	1	COR identified problem and vendor replaced vehicle



A Pareto Chart captures issues gathered by the CORs through successful execution of the Quality Assurance Surveillance Plan. Mitigation of reported issues at the lowest level ensures successful contract execution.

Information gathered during the initial planning conference permitted the CCOs to assist the supported unit in developing Statements of Work (SOWs) for exercise support. The CCOs had to ensure that all information acquired from the GSO, to include force protection guidance, was addressed in the SOW. The goal was that contractors fully understand all requirements for lodging, communications, and transportation. CCOs were responsible for ensuring that all contractors solicited were cleared to support all contracted requirements.

The final planning conference was a critical point when operational and contracting timelines were synchronized. The supported unit finalized its operational plan for the exercise with the U.S. Embassy and the host nation's armed forces. Concurrently, the CCOs notified the successful contractors verbally of their award decisions.

The post-award conference enabled the CCOs to ensure that transportation, communication, and lodging contracts were synchronized with the arrival and departure of U.S. Army personnel throughout all phases of the exercise (see Figure 1 on Page 63.).

The post-award conference ensured that nesting occurred between the awarded contracts and the operational plan. Contractors had to understand they were an essential part of the operational plan, and the determination to award contracts was based on their past performance in dealing with force protection protocols and vetting by the GSO.

During the final planning conference, CCOs identified, trained, and appointed contracting officer's representatives (CORs). The CORs served as enablers to the CCOs in a joint exercise because they defused support issues with the contractors and verified compliance. If the CORs were unable to correct deficiencies that might change the scope, cost, or time of the contract, communication was streamlined from the appointed CORs to the CCOs.

Quality Assurance Surveillance Plans (QASPs) executed by the CORs ensured that the supported unit received excellent contract support (see Figure 2 on Page 64.) The QASP documented performance of the contractor and provided evidence of the contract's execution. The trained CORs enabled the CCOs to focus on administrative duties for the contract closeout phase at the end of the exercise.

Conclusion

CCOs are essential members of the advance party and trail elements in exercise execution. As members of the advance party, the CCOs ensure that the contracting and operational timelines are synchronized throughout arrival and accountability of all U.S. personnel and equipment that support the exercise. The CCOs meet with contractors to brief changes in the flight schedules of U.S. personnel, minimizing difficulties with the scope of lodging and transportation contracts. The CCOs also assist in the staging of equipment and the procurement of supplies and services from the local market through the use of Standard Form 44 or petty cash. At the conclusion of the exercise, the CCOs are the last to exit the country. They ensure that all contracts are closed and that the U.S. government is released from all claims.

Synchronization throughout all phases of the exercise with contracting and operational plans maintains a shared vision among the CCOs, CSB and PARC, supported unit, contractors, and the U.S. Embassy. CCOs must always analyze their assigned mission to fully understand the environment in which they will be operating and the limit of their authority to procure within the PARC's area of responsibility. This analysis and preparation will result in successful execution of the contracting mission and will enable warfighter staffs to operate at a fast pace in austere environments.

Synchronization throughout all phases of the exercise with contracting and operational plans maintains a shared vision among the CCOs, CSB and PARC, supported unit, contractors, and the U.S. Embassy.

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Process Capability, Control, and Improvement Clause Allows Enhanced Process Monitoring and Control

Shawn M. Dullen, Jorge A. Muñoz, and Sanket Patel

Workers at Lake City Army Ammunition Plant, MO, produce small-caliber ammunition for U.S. military services. (U.S. Army photo.)

The Supplier Quality Initiative Working Group has developed the Process Capability, Control, and Improvement (PCCI) Clause, replacing the Statistical Process Control (SPC) Clause. The PCCI Clause allows effective use of various process monitoring and control tools, as well as identification of specific characteristics for process control in lieu of all Critical and Major Characteristics that are outlined in specifications.

The PCCI Clause will provide a useful and straightforward tool for the Army's future acquisition strategies, with the desired clarity and flexibility of requirements for hundreds of DOD contractors.

The current SPC Clause requires the contractor to use SPC as a process-monitoring methodology. While SPC is valid, its requirements are outdated, as they mandate the use of a process-monitoring methodology but, unfortunately, do not provide a clear, holistic approach to process control. Hence, both the government and contractor have not reaped the benefits of a more robust process control approach.

This is the basis for PCCI: SPC will be only one kind of process monitoring methodology, and only specific characteristics will be identified for process analysis, monitoring, and control.

A Step Beyond Sampling

PCCI was developed via the Supplier Quality Initiative (SQI) program, described below, as a tool for use in ammunition acquisition and, when applicable, in conjunction with other supplier quality requirements. PCCI supports and reinforces the expectations of Military Standard (MIL-STD)-1916, *DOD Preferred Method for Acceptance of Product*.

PCCI requirements are intended to be uniform, integrated criteria for the Single Manager for Conventional Ammunition (SMCA) or other procuring agencies, to aid suppliers in accomplishing the following:

- Prevent defects.
- Perform manufacturing flow charting and process failure mode-and-effects analysis.
- Identify and assess process risks for characteristics for process control (CFPC).
- Determine process capability.
- Control processes.
- Initiate continuous improvement.
- Use commercial best practices.
- Interface with supplier Quality Management System and MIL-STD-1916.

PCCI was developed to manage the requirements of a large and diverse industrial base, various ammunition acquisition strategies, a diverse product portfolio, and associated quantities needed for the military. The clause also allows for program-unique applications.

PCCI is made up of seven paragraphs labeled "a" through "g," each with specific guidelines and instructions. It does not mandate the use of SPC unless specifically stated in paragraph "g" of the clause. Statistical methods are the preferred methodology for process monitoring. However, there are many methods to monitor and control a process; these requirements were developed to allow use of any method that can be supported by objective evidence.

The basis for these requirements is that sampling inspection alone does not control or improve quality. Product quality comes from robust product and process design and process control activities. When such activities are effective, sampling inspection may be redundant and an unnecessary cost. This clause requires contractors to develop process controls on identified processes and encourages continuous improvement in accordance with International Organization for Standardization (ISO) 9001:2008, *Quality management systems—Requirements*. The intended result is reduced or eliminated inspection, in accordance with MIL-STD-1916.

Supplier Quality Initiative

The purpose of SQI is to identify specific activities, processes, and projects for analysis and targeted improvement. SQI is an initiative of the Armament, Research, Development, and Engineering Center (ARDEC) and Joint Munitions Command (JMC), representing the joint munitions and lethality, Life Cycle Management Command, and SMCA community. Points of contact at ARDEC and JMC, respectively, are Christopher DeLima, Chief, Munitions Quality, Reliability, and Safety Engineering Division; and Gregory Zelnio, JMC Quality Director.

PCCI was established to address the application of quality assurance requirements, ensuring that supplier quality is managed in accordance with Army Regulation 702-11, *Army Quality Program*, with the goals of improving clarity of requirements; providing guidance on applying the requirements; and developing competency in the community (both government and contractor) to apply requirements consistently.

The organizations that make up the SQI are ARDEC, JMC, the Defense Contract Management Agency, Naval Air Systems Command, Naval Sea Systems Command, U.S. Marine Corps, U.S. Air Force, and program managers (PMs). PMs, who have

PCCI BENEFITS

Reduce Risk

Reduce Defects

Reduce Cost

Improve Quality

Maintain Scheduling

Continuously Improve

representation in the SQI Working Group, contributed to development of the PCCI Clause and are the offices that will implement the clause in their contracts.

SQI members meet on a regular basis to develop new initiatives addressing supplier quality issues, using various tools including Lean Six Sigma.

Refining Defect Prevention

The Army currently relies on use of SPC for all Critical and Major Characteristics identified in the Technical Data Package (TDP), as a "defect prevention" tool. However, this may become overwhelming and cost-prohibitive when specifications list literally hundreds of characteristics—for example, on complex munitions items such as an artillery fuze. On the other hand, for simple detail specifications (specs) such as those for Navy bombs and demolition items, selecting all Critical and Major Characteristics from the corresponding spec may be the best option.

These requirements do not, by themselves, adequately address performance specs and effective ways of identifying the most important characteristics for process control to prevent defects. PCCI was developed to address different kinds of situations along with corresponding "action plans," based on a set of options representing the most adequate acquisition strategy at hand.

The life cycle of ammunition is long and can extend decades in controlled storage, which is why periodic stockpile reliability assessments are made to ensure that the product has not degraded in reliability, safety, or performance. Therefore, it is crucial to reduce risk and defects by focusing on the appropriate characteristics, which will vary from one ammunition item to the next. For example, in mortar rounds, "ballistic performance" is a requirement. Misfires, early functions, duds, and other malfunctions are a subset of a ballistic performance requirement.

The Army acquisition strategy may vary depending upon the needs of the warfighter. To ensure that all potential acquisition paths are covered, it is important to select the vital CFPC that warrant attention. PCCI refers to characteristics that have a significant effect on fit, form, function, or safety as CFPC. The selected list will be based on TDP complexity, acquisition strategy, and item familiarity. This will focus the producer on implementing effective process controls on a leaner, more manageable set of CFPC, rather than applying SPC to all Critical and Major Characteristics.

PCCI was developed via the SQI program as a tool for use in ammunition acquisition and, when applicable, in conjunction with other supplier quality requirements. Here, Soldiers with Company D, 3rd Battalion, 509th Parachute Infantry Regiment, receive an ammunition resupply from a helicopter on Combat Outpost Cherkatah in the Khost province of Afghanistan, Nov. 26, 2009. (U.S. Army photo by SSG Andrew Smith.)

PCCI encourages process control and prevention rather than detection. It forms one of the four pillars of Supplier Quality, namely Prevention. The other pillars are the Critical Characteristics Clause, Quality Management System, and Acceptance Inspection Equipment for detection.

PCCI encourages suppliers to:

- Implement process controls in key areas identified as CFPC.
- Be proactive in identifying processes that have the potential for creating defects and, if necessary, modify those processes accordingly.
- Take advantage of reduced inspection requirements per MIL-STD-1916 if processes are stable, capable, and have been producing product without defect for a specific number of lots.

The purpose of PCCI is *not* to:

- Replace the Acceptance Inspection Equipment or critical characteristic requirements.
- Eliminate current inspection requirements per MIL-STD-1916.
- Require SPC on all CFPC.

Process Control Options

PCCI provides three mutually exclusive options for the required CFPC that need to be addressed. The option selected depends on the acquisition strategy and must be consistent with requirements of the SMCA members and their partners. It is essential that the military customers and offices responsible for acquisition have a consistent vision regarding implementation of the options within the clause.

The three options for identifying CFPC, and the appropriate circumstances, are detailed below.

Option 1: The government has a high degree of confidence in the accuracy and completeness of the TDP. This option requires the government to

SPC Anthony Zavala, an ammunition specialist with the 63rd Ordnance Company, 80th Ordnance Battalion, 15th Sustainment Brigade, 13th Sustainment Command (Expeditionary), loads belts of ammunition to be shipped to Afghanistan, March 11, 2010, at Joint Base Balad, Iraq. (U.S. Army photo by Naveed Ali Shah.)

list the CFPC in paragraph "g" of the clause for solicitation.

Option 2: The contractor must determine the number of CFPC using an in-depth review and analysis. The contractor will fulfill this requirement by providing all of the CFPC, with objective evidence, to the government for review and approval. Each CFPC will be clearly identified and explained. The government may identify additional CFPC deemed necessary in paragraph "g."

Option 2 is used primarily when the government does not own or maintain the TDP (for example, in a performance-based or commercial-off-the-shelf acquisition). This option may be applied when the TDP management duties are shared as well. Specifically, in a performance-based contract, the government may own the spec, while the contractor owns the drawings that meet the performance specification requirements.

Option 3: The government wants to partner with the contractor to identify the optimal set of CFPC. The focus of the analysis is safety, performance, and final cost impact of the features and processes. The analysis must take a systematic approach connecting warfighter requirements to design features and process capabilities. In paragraph "g," the government will provide a set of requirements to allow contractors to bid the tasks therein, as part of the proposal process.

Benefits of PCCI

Among the several benefits of PCCI, a key one is that development of the PCCI Clause has input from the supplier industrial base. On Aug. 24, 2010, an Industry Day was held at ARDEC. Various contractors were invited to discuss the details of the PCCI Clause and review guide.

The SQI team summarized all contractor comments and planned to update the clause, review guide, and accompanying training materials accordingly. The team has also prepared a PCCI review guide and training materials to instruct government and contractor personnel in the appropriate use of the PCCI Clause.

Another benefit is the scalability of process control requirements to best-fit TDP, acquisition strategy, and knowledge (the government's or contractor's). Education and process control are the focus. With the new PCCI Clause, SPC will not be mandated but can still be used as a process monitoring tool. Also, PCCI ties in to the Critical Characteristic Clause, MIL-STD-1916, and ISO 9001:2008. Finally, an SMCA-wide clause will be required to be implemented by all PMs; thus, it will be a standardized requirement.

Conclusion

PCCI encourages suppliers to truly understand the design, manufacturing, inspection, and materiel handling processes that will prompt them to develop and implement various kinds of effective process monitoring and control techniques.

The bottom line is that working cooperatively with the supplier in implementing and monitoring the PCCI Clause, and providing the necessary review guides and training, will help identify, manage, and reduce risk, thereby reducing defects. That, in turn, will help reduce cost, improve quality, maintain schedule, and contribute to continuous improvement.

PCCI will undoubtedly serve as a value-added tool for PMs and will ultimately lead to the best possible product to be delivered to the warfighter.

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Product Manager Joint-Automatic Identification Technology to Offer Item Unique Identification Services

LTC Cary Ferguson and Paul Krumhaus

The U.S. Army's Product Manager Joint-Automatic Identification Technology (PM J-AIT), an office within Program Executive Office Enterprise Information Systems at Fort Belvoir, VA, has announced that it will offer Item Unique Identification (IUID) technical assistance to Army activities.

Here is an IUID mark that failed during a 1-year *Operation Iraqi Freedom* rotation. (U.S. Army photo by Shawn Baker, Aptus Global Inc.)

IUID is a DOD program involving the marking of items requiring life-cycle traceability with machine-readable Unique Item Identifiers (UIIs), which distinguish the items from all others. Launched in 2003, the IUID program is tasked with marking and registering more than 60 million DOD items by 2015. Once a critical mass of items is uniquely identified, the UII can be used to generate value in business processes. Major benefits will begin to accrue within the Army upon the fielding of the Single Army Logistics Enterprise, which will be enabled to use the UII.

"Our goal is to be the go-to organization supporting Army implementation of IUID," said LTC Cary Ferguson, PM J-AIT. "We've been deeply involved in IUID implementation since 2003 and have a track record of providing solutions for our customers' IUID challenges, large and small. We have been in the IUID education business since 2004, and, in 2005, PM J-AIT wrote and recorded the first IUID instructional video used by the Defense Acquisition University."

As the Army's mandatory source of the AIT marking and reading technologies required for IUID implementation, the PM office is now standardizing the support services it has provided for the past 7 years, offering non-reimbursable IUID support services to Army customers.

There are three Army communities involved in IUID implementation that the PM J-AIT can assist.

Enterprise Information Systems

These systems will provide the ability to gather and exploit life-cycle event data, using the machine-readable UII. For this community, PM J-AIT is the source of the AIT imagers and hand-held terminals enabling error-free data transfer.

The Property Book Unit Supply Enhanced system is one of the first major Army logistics systems to be IUID-enabled; more than 13,000 hand-held terminals capable of reading the data matrix symbol containing a UII have been acquired through PM J-AIT contracts and are being fielded. The exploitation of IUID by Army systems will become pervasive in 2015, following the fielding of the Global Combat Support System-Army.

Our goal is to be the go-to organization supporting Army implementation of IUID. We've been deeply involved in IUID implementation since 2003 and have a track record of providing solutions for our customers' IUID challenges, large and small.

"The Army was looking for early victories that would demonstrate the business case for IUID," said Tom Rigsbee, Chief of AIT Synchronization. "In 2007, we were able to partner with the Army's Aviation and Missile Research, Development, and Engineering Center in a multiyear Army Aviation AIT insertion project. This includes the use of IUID to improve business processes, with focus on the 160th Special Operations Aviation Regiment. AIT-enabled systems using IUID were developed to provide Soldiers using Unit Level Logistics System-Aviation Enhanced with a wireless way to conduct an inventory.

"Systems were developed to manage tools, Organizational Clothing and Individual Equipment [OCIE], and Aviation Life Support Equipment [ALSE], producing dramatic reductions in the time required for issue, receipt, and inventory, plus significant improvements in account-ability and data integrity." The project developed a number of exportable applications that provide major improvements in accountability and cost avoidance, including Tool Room, OCIE management, Arms Room management, and ALSE management.

Army Acquisition Community

The host of items accepted by the Army will be delivered by the supplier marked with machine-readable data matrix marks encoded with UIIs. To accomplish that, decisions must be made relative to what requires IUID; where the mark should be placed; how the mark is made to meet military-standard durability requirements; how to ensure that data are correctly encoded in the mark; and how to ensure the quality of the mark and that the UII is properly registered. There are many potential points of failure.

"We have fielded a lot of questions relative to marking," said Paul Krumhaus, PM J-AIT's IUID subject matter expert. "One recurring question, based on a recurring problem, has been how a program management office could ensure that a supplier was correctly encoding the UII in the data matrix symbol; incorrect encoding results in a useless mark. Our answer was to craft a solution wedding a $495 imager from our AIT-IV contract with the U.S. Navy (USN) Quick Compliance Tool Suite. The result was that an individual with a computer with Web access can check both whether the data are correctly encoded and whether they are registered in the DOD IUID Registry." (See **http://www.ait.army.mil/technology/iuid_registry.html** for more information on the IUID validation and registry check.)

Program managers are required to submit to the Assistant Secretary of the Army for Acquisition, Logistics,

and Technology and to annually revise IUID implementation plans reflecting how they will ensure marking and registration of both new and legacy items that require IUID. PM J-AIT has reviewed more than 160 of those plans and provided recommendations to improve most of them. "It can be a real time saver if the persons charged with developing those plans give us a call when they have questions," said Krumhaus.

U.S. Army Materiel Command Elements

U.S. Army Materiel Command (AMC) is responsible for selecting trigger events for marking that will meet the goals of the Army IUID Implementation Plan. This is perhaps the most difficult IUID implementation task. The primary trigger is a maintenance event, when the item is out of service and marking and registration can be accomplished within the maintenance process. In many cases, however, marking and registration to meet the Army IUID Implementation Plan goal cannot be accomplished solely by rotating items through scheduled maintenance; additional strategies must be used.

PM J-AIT maintains a focus on the solutions developed by the USN, USMC, and USAF and sharing them with Army customers facing similar challenges.

Approximately 85 percent of Army legacy items requiring IUID have a data plate or label and can be IUID-marked by adding a data matrix to, or next to, that plate or label. The activity designated to do the marking can make the label or purchase it pre-made. The Army Plan calls for a business case analysis of alternatives before making the often large capital investment in marking equipment. If marking equipment is to be purchased, it will probably be available from PM J-AIT's AIT-IV contract, with pre-competed prices, industry-best warranties, and after-sale 24/7 help desk service.

Chad Sims, Contracting Officer's Representative for the AIT-IV contract, evaluates the ability of a hand-held terminal on the AIT-IV contract to read a direct part mark. (U.S. Army photo by Paul Krumhaus.)

The other services are faced with the same types of IUID implementation challenges as the Army. PM J-AIT maintains a focus on the solutions developed by the USN, U.S. Marine Corps (USMC), and U.S. Air Force (USAF) and sharing them with Army customers facing similar challenges.

The more cost-effective way to obtain labels and data plates is to buy them pre-made. The USAF, for example, has put in place an Enterprise Barcode Service contract to supply pre-made labels and data plates and registration services to all DOD customers. The Army offers a similar service based at Letterkenny Army Depot, PA. For Army customers needing labels or plates, PM J-AIT can recommend options for purchasing equipment or pre-made labels.

Military Standard-130 requires that the mark containing the UII last the life cycle of the item or up to the point of rebuild. Achieving this durability requires the right material and the right adhesive. Durability in the label or plate material and adhesive depends

IUID BASICS

1. Assign an item a globally unique identification number.

"Super Serial #"
Unique Item Identifier (UII)

2. Apply a permanent machine-readable mark to the item, containing that globally unique identification number.

Machine Readability Enables Error-Free Data Transfer

3. Register that identification number in a central database, linking it to pedigree data about that specific item, such as cost, manufacturer, part number, date acquired, etc.

4. Use that globally unique identification number for life-cycle management of the item.

CN-09U771

Over the next several years, use of the serial number to uniquely manage items will transition to use of the globally distinct UII.

on the surface and the environment to which it will be subjected. If the label or plate is mounted to a surface coated with Chemical Agent Resistant Coating, for instance, the choice of adhesive is critical.

PM J-AIT's Small Arms Use Case Demonstration discovered problems with labels used on small arms and some accessories. The discovery was made Nov. 9–10, 2009, when Aptus Global Inc. photographed and began evaluating the data matrix marks on two company-sized units' equipment that had returned from a 1-year *Operation Iraqi Freedom* rotation. PM J-AIT followed up by requesting that an additional impact test be added to a USN label testing project, with results expected in December 2010. PM J-AIT will disseminate the test results when they are released.

Additionally, technical engineering support services from PM J-AIT's AIT-IV contract can be used to evaluate existing marking decisions or obtain custom solutions from labeling experts.

"Between the technical expertise we have in-house and that accessible through our AIT-IV contract vehicle, we can generate a solution for almost any IUID marking or reading-related problem," said Ferguson.

PM J-AIT is a 1-stop shop with answers to IUID questions and assistance to Army organizations in identifying cost-effective approaches for IUID implementation. There is no cost to the unit or organization for standard services; atypical services, however, may require a Memorandum of Agreement or similar arrangement. Army organizations may contact PM J-AIT at **PMJAIT-PEO-EIS-IUID@us.army.mil** or (703) 339-4400, ext. 123. For more information on PM J-AIT, go to **www.ait.army.mil**.

LTC CARY FERGUSON is the PM J-AIT. He holds a B.B.A. in management information systems from the University of Notre Dame and an M.S. in information technology management from the Naval Postgraduate School. Ferguson is Level III certified in program management and is a U.S. Army Acquisition Corps member.

PAUL KRUMHAUS is a CALIBRE support contractor serving as the IUID subject matter expert in the office of the PM J-AIT. He holds a B.A. in economics from California State University, Sacramento.

Alaska Test Center Prepares for Busiest Winter in Memory

Mark Schauer

For decades the Army has placed major emphasis on the realistic testing of military equipment and munitions in harsh natural environments. This type of testing ensures that the equipment will function reliably anywhere in the world, regardless of extreme climates. As U.S. forces have grown and evolved in recent years, this emphasis has also grown, with dramatic increases in the desert and cold weather workloads.

Collecting accurate data is important in every test, and summer is a prime time to recalibrate the U.S. Army Cold Regions Test Center's sophisticated equipment after a harsh winter of use. Here, Instrumentation Engineer Dan Fox calibrates a Doppler radar system used in missile tests. "This would be possible in winter, but much more difficult," Fox said. (U.S. Army photos by Mark Schauer.)

Heavy Equipment Operator Russell Hollembaek prepares a trench for an electrical conduit to one of the CRTC meteorology team's three new Sonic Detection and Ranging stations. Any type of construction is difficult or impossible to complete in winter, when the ground freezes to depths exceeding 10 feet.

Even a cursory examination of our Nation's history shows that extreme cold is a weather condition with which American troops have had to contend. From Korea to Afghanistan, the lives of U.S. Soldiers depend on functioning equipment in inhospitably frigid environments, and no other place in the world can provide extreme cold-weather testing like the U.S. Army's Cold Regions Test Center (CRTC) in Delta Junction, AK. CRTC is a subordinate command of Yuma Proving Ground, AZ, which is responsible for evaluating equipment in extreme desert, sub-Arctic, and tropical environments.

Busier Than Ever

The range of conditions at CRTC is unimaginable to much of the world's population. The highest summer temperatures have been as much as 150 degrees warmer than the deepest cold of winter. The longest summer days have nearly 23 hours of daylight, while the winter solstice brings the sunlight for less than 5 hours. Close to the Arctic Circle, CRTC is the premier site for punishing tests of military equipment in severe cold.

Extreme cold is a coveted commodity at CRTC. In the winter, CRTC test officers scrutinize weather conditions at several microclimates within the range to take advantage of the lowest temperatures, moving vehicles and test items from place to place as necessary.

"We're going to have a busy season this year," said Greg Netardus, Chief of the Test Operations Division. "This is probably the busiest test season of the 5 years I've been here, and last year was very busy. Most test officers will be involved with more than one test, and some will run three or four."

The 2010–11 winter season's 16 scheduled tests cover a wide variety of military equipment, from a portable see-through-the-wall radar system to a long-term test on the environmental effects of spent ammunition in soil. Combat vehicles such as the Mine Resistant Ambush Protected All-Terrain Vehicle and the Stryker Mobile Gun System account for the most prominent of the evaluations.

As soon as the cold weather hits, each of the vehicles is put through its paces in more than 2,000 miles of mobility missions, pausing only in deep winter to conduct at least six evaluations per vehicle of heater performance and cold starts, in punishing 50-below-zero Fahrenheit weather—a full 25 degrees colder than many combat vehicles are currently rated for.

In summer, CRTC's crew prepares for the coming test season while the weather is still mild. "A lot of people think we're off in the summer," said LTC John Cavedo, CRTC's Commander. "That is far from the truth. Summertime is far from downtime at CRTC. We reset, refit, and prepare for the next winter."

Preparation Poses Unique Challenges

Evaluating equipment in an extremely cold natural environment makes test preparation immensely challenging. Foremost among the tasks in summer is arranging the shipping of test items. Since Alaska cannot be reached by land without passing through another country, large items such as combat vehicles typically arrive by barge and can only make the journey using companies that are equipped to handle secure items. Receiving ordinary items can be difficult in winter, too. Fairbanks, the nearest major city to CRTC, is about 100 miles away, and most of the journey is over a winding 2-lane highway prone to heavy ice and snow.

As such, CRTC attempts to stock up on necessary supplies in advance of inclement weather whenever possible. That alone is a formidable task; aside from the difficulty of knowing which spare parts might be necessary on an item that has never been tested in extreme cold, testers don't want to hoard materiel that might be needed in theater.

Despite these hardships, CRTC personnel are prepared to negotiate the weather whenever necessary. When an axle on a test vehicle failed during a test last year, for example, the item's normal supply chain was unable to provide a timely replacement. CRTC testers turned to their counterparts in Yuma, who expedited shipping of a replacement. The part arrived at CRTC in a relatively fast 9 days, and the vehicle maintenance team worked all night to install it. Since testers had altered the schedule to continue subtests that didn't require the vehicle to be mobile, the test resumed after the repair with a net loss of only 1 day.

CRTC test officers constantly apprise their customers of events that could impede testing, and they strive to have contingency plans in place to cope with such possibilities.

Maintaining the Range

Extreme cold is a coveted commodity at CRTC. In the winter, CRTC test officers scrutinize weather conditions at several microclimates within the range to take advantage of the lowest temperatures, moving vehicles and test items from place to place as necessary.

Test officers are excited that this winter is expected to be even colder than usual. Yet any type of construction—be it berms or electrical conduits, culverts or roads—is difficult or impossible to complete when the ground freezes. "The ground is like concrete in winter," said Electronic Technician Wayne Robertson. "The freeze reaches down about 10 feet."

Further, the long summer days routinely bring weeds that, if untended, can grow to 6 feet high. Spring 2010 had heavier-than-usual rainfall, which resulted in particularly heavy growth.

Another important summer project for the CRTC staff is sealing cracks and performing other maintenance work on the cold-weather test track. In winter, test officers intentionally put water on portions of the track, creating ice pads to test vehicle traction. If cracks are not fixed in summer, melting water will seep in and heave the asphalt when it refreezes.

Sensitive Instruments

The sophisticated and sensitive instrumentation that CRTC personnel use to measure performance data is not immune to the effects of harsh cold, which makes recalibrating instruments another important summertime project.

CRTC's ranges are a veritable outdoor laboratory, and collecting weather data is critical to ensuring successful testing. This summer, the meteorology team completed the installation of three Sonic Detection and Ranging stations that can gather wind data at altitudes as high as 10,000 feet, replacing the need for weather balloons for these relatively low altitudes. The team also replaced infrastructure such as towers, outfitting them with new or recalibrated instruments.

Aside from CRTC's inventory of sophisticated equipment, the buildings that house its operations also need to be maintained in the summer. One small building had sunk significantly off plumb from repeated freezes and thaws of the ground beneath it. The problem was solved with some big equipment and several pairs of hands to lift the building onto steel support beams.

Test Officer Dave Hoffman checks a collection bottle on a berm that will be used in an upcoming long-term test of the environmental effects of spent ammunition in soil. The 2010–11 winter test schedule is slated to be the busiest in recent memory, necessitating as many as 36 temporary workers, about double the number hired last year.

CRTC employees use heavy machinery to lift a meteorology building onto steel support beams. Alaska's extreme freezes and subsequent thaws often cause structures like this to sink into the ground. "Because of our remoteness, and because of many competing demands from the many other U.S. Army Alaska tenant units, it is not always possible to get the necessary, timely support from the department of public works to work on these types of projects," said CRTC Commander LTC John Cavedo.

"When we're doing tests in extreme cold, we can't run our equipment without a heated building," said Garry Garner, an Electronic Technician for the meteorology team. "This and the other locations need to be able to be occupied on a moment's notice."

These vehicles are driven in nasty weather over rough terrain all winter. In the spring and summer, we have an opportunity to fix them. Everything from changing undercarriages, tracks, drive trains, radiators, fuel systems, glass—you name it, we do it.

Vehicle Maintenance

CRTC's fleet of more than 40 wheeled vehicles and 20 tracked vehicles to support testing sees rigorous duty during Alaska's harsh winters. The workhorse of the fleet is the versatile Small Unit Support Vehicle (SUSV), an articulated, tracked vehicle that can negotiate deep snow and can even float.

"These vehicles are driven in nasty weather over rough terrain all winter," said Mechanic Rance Lentz. "In the spring and summer, we have an opportunity to fix them. Everything from changing undercarriages, tracks, drive trains, radiators, fuel systems, glass—you name it, we do it."

The extreme variations in summer and winter temperatures mean that the fleet and test vehicles' oil, lube, and antifreeze must be changed for seasonal use. Whenever possible, fiber hoses are used in lieu of their more common rubber counterparts, which become brittle in extreme cold. Rubber hoses need to be carefully monitored and replaced throughout the winter, as do wheels and tracks. During the 2009–10 winter, the crew did a limited installation of new composite rubber road wheels on the SUSVs and noticed dramatically extended tread life. Four of the most heavily used SUSVs received full complements of the new wheels, as well as new composite rubber tracks.

Always Preparing

Summer ends quickly at CRTC; most years, the first snow is on the ground by the end of September. But preparation doesn't end there, or even when the test season begins. Test Planning Manager Joe Pierson is already doing preliminary planning for test events in the winters of 2011–12 and 2012–13, all in support of Soldiers and the critical mission of ensuring that their equipment works in any feasible condition.

"We have a very well-trained and seasoned workforce," said Cavedo. "It is absolutely phenomenal what these folks do to support the CRTC mission in every season of the year."

MARK SCHAUER is a public affairs writer at Yuma Proving Ground, AZ. He holds a B.A. in history from Northern Arizona University and is pursuing an M.A. in English, also from Northern Arizona University.

From the Acquisition Support Center Director

I want to wish the Acquisition, Logistics, and Technology (AL&T) Workforce the very best for the New Year. In 2011, we will be facing a crucial challenge of "doing more without more." In a memorandum dated Sept. 14, 2010, Under Secretary of Defense for Acquisition, Technology, and Logistics Dr. Ashton B. Carter outlined further guidance for "Obtaining Greater Efficiency and Productivity in Defense Spending." The memo highlights 23 principal actions in five major acquisition areas for accomplishing this goal. I urge each of you to study this memo and closely follow his direction. Carter has emphasized that the acquisition community must fundamentally change how we do business, or we won't have the resources to supply our troops with what they need. Please see the memo at **http://www.acq.osd.mil/docs/USD_ATL_Guidance_Memo_September_14_2010_FINAL.PDF?transcriptid=4648**. Also, Carter offers insights into DOD Efficiency Initiatives in an article in the Conference Call section of this issue (see Page 46).

I am confident that the AL&T Workforce can meet this challenge with great success by doubling down on our commitment to provide our Soldiers the best weapons, technology, and logistics as quickly and cost-effectively as possible, and by maintaining a well-trained, efficient, and educated workforce to support any new challenges or contingencies that our troops may encounter in an uncertain world.

Acquisition Education, Training, and Experience Update

Two important components of our Acquisition Education, Training, and Experience (AETE) offerings are Defense Acquisition University (DAU) training and the numerous educational and leadership development opportunities offered by the U.S. Army Acquisition Support Center (USAASC). This forum is a great way for me to let our workforce know of important opportunities with both.

Please be aware that in the beginning of every fiscal year, many of the DAU course prerequisites and certification course requirements change. Course prerequisites are different from *Defense Acquisition Workforce Improvement Act* certification requirements. A prerequisite course is a DAU-offered course that must be successfully completed before attending another DAU course. For information on the latest prerequisites, see the DAU Interactive Catalog at **http://icatalog.dau.mil** and click on "Training Courses."

Please note that USAASC no longer responds to DAU training questions sent to the USAASC reservations e-mail box. All DAU-related questions need to be submitted using the new Army Training Requirements and Resources System Internet Training Application System help desk at **https://www.atrrs.army.mil/channels/aitas/main.asp**.

We have many announcements of educational and leadership opportunities available in the near term. The recently updated AETE catalog provides in-depth information on all of our training and developmental opportunities. Please view the catalog at **http://asc.army.mil/career/pubs/aete** for training opportunities available to acquisition civilian and military workforce members.

The DAU-Senior Service College Fellowship (DAU-SSCF) announcement is now open until March 15, 2011. The 10-month DAU-SSCF is offered for GS-14/15 or broad/pay band equivalent Army acquisition workforce members at Huntsville, AL; Warren, MI; and Aberdeen Proving Ground, MD. SSCF offers leadership and acquisition training to prepare senior-level civilians for senior leadership roles, such as product and project managers, program executive officers, and other key acquisition leadership positions. While enrolled in the program, fellows complete the DAU Program Manager Course 401 and various leadership and acquisition courses focused on life-cycle management, acquisition integration, and national defense and security issues. Fellows also work with government and industry mentors and complete a research paper on an important acquisition issue or process. For more information on DAU-SSCF, please visit **http://asc.army.mil/career/programs/dau**. Applicants may apply under the Army Acquisition Professional Development System tab of the Career Acquisition Management Portal/Career Acquisition Personnel and Position Management Information System at **https://rda.altess.army.mil/camp**.

Strategic Planning and Analysis Division

The USAASC Strategic Planning and Analysis Division (SP&A) supports USAASC's mission of enabling superior acquisition personnel development systems through a strong foundation of strategic planning and process improvement. SP&A provides program management offices and direct reporting program managers with information, data, and career management tools and guidance, oversight, and execution of force protection and security management. With various support functions, SP&A continuously adapts to USAASC's requirements and keeps its mission in line with the Army Campaign Plan and the Assistant Secretary of the Army for AL&T Strategic Plan. SP&A also conducts data management activities to report ever-changing reflections and demographics of the AL&T Workforce. As the lead for defining USAASC's strategic plan, the SP&A division must continue developing and maintaining a robust and relevant plan that takes USAASC into the future in supporting key customers. For more information, visit the SP&A section on the USAASC website at **http://asc.army.mil/organization/spa**.

2010 U.S. Army Acquisition Corps Annual Awards

I would like to congratulate the 2010 U.S. Army Acquisition Corps (AAC) Annual Award winners. The AAC awards recognize extraordinary contributions by uniformed and civilian acquisition professionals, in support of overseas contingency operations. I would also like to thank and congratulate the USAASC support staff who helped make the awards ceremony and dinner a memorable and festive occasion. For a list of AAC award winners, please see the article below or **http://asc.army.mil/docs/press/20_Oct10_2010_AAC_Annual_Awards_Ceremony_Press.pdf**.

Craig A. Spisak
Director, U.S. Army Acquisition Support Center

Army Acquisition Notables Honored

U.S. Army Acquisition Corps Annual Awards

The Army acquisition community held its 2010 U.S. Army Acquisition Corps (AAC) Annual Awards Ceremony Oct. 24 at the Westin Alexandria, Alexandria, VA. The event, annually themed "Celebrating Our Acquisition Stars," recognizes the uniformed and civilian professionals who work tirelessly behind the scenes to acquire and procure the weapons, information, and equipment that combatant commanders and their Soldiers need to execute decisive, full-spectrum operations in support of overseas contingency operations. The awards and winners follow.

LTC James Choung (center), Product Manager Force Protection Systems, Joint Project Manager Guardian, Joint PEO Chemical and Biological Defense, accepts the 2010 Secretary of the Army Acquisition Product Manager of the Year Award from LTG William N. Phillips (left), Principal Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT), and Dr. Malcolm Ross O'Neill, ASAALT, at the AAC Annual Awards Ceremony, Oct. 24, 2010. (U.S. Army photo by McArthur Newell II, BRTRC.)

2010 Army Life Cycle Logistician of the Year Award: John T. Smith, Program Executive Office (PEO) Aviation

2010 Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASAALT) Contracting Noncommissioned Officer Award for Contracting Excellence: MSG Jason Pitts, 413th Contracting Support Brigade (CSB), 618th Contingency Contracting Team

2010 Secretary of the Army Award for Excellence in Contracting—Barbara C. Heald Award: Walter O. Epps, U.S. Army Contracting Command, 412th CSB

2010 Acquisition, Logistics, and Technology Continuous Process Improvement Award: Full Materiel Release Process Ground Munitions Project Team, Deputy Assistant Secretary of the Army for Acquisition Policy and Logistics

2010 Department of the Army Research and Development Laboratory of the Year Awards

- ***Laboratory of the Year (Small Laboratory)***: U.S. Army Medical Research and Materiel Command (MRMC) Laboratories, MRMC
- ***Management Award (Small Laboratory)***: U.S. Army Natick Soldier Research, Development, and Engineering Center, U.S. Army Research, Development, and Engineering Command (RDECOM)

2010 Secretary of the Army Acquisition Director, Product Manager of the Year, and Project Manager of the Year Awards

- ***Acquisition Director of the Year at the Lieutenant Colonel Level***: LTC James Patrick Delaney, U.S. Army Developmental Test Command
- ***Acquisition Director of the Year at the Colonel Level***: COL Theodore Harrison, Expeditionary Contracting Command, 410th CSB
- ***Product Manager of the Year***: LTC James Choung, Joint PEO Chemical and Biological Defense, Joint Project Manager Guardian, Product Manager Force Protection Systems
- ***Project Manager of the Year***: COL Kevin B. Peterson, PEO Combat Support and Combat Service Support, Project Manager Mine Resistant Ambush Protected Vehicles

2010 Army Acquisition Excellence Awards

- ***Individual Sustained Achievement Award***: MAJ John Todd Masternak, PEO Ammunition, Product Director Non-Standard Ammunition
- ***Equipping and Sustaining Our Soldier's Systems Award***: Acquisition Cell Team, RDECOM and U.S. Army Test and Evaluation Command

The Combined Enterprise Regional Information Exchange System-International Security Assistance Force Team accepts the 2010 David Packard Excellence in Acquisition Award from Dr. Ashton B. Carter (left), Under Secretary of Defense for Acquisition, Technology, and Logistics, and Dr. James McMichael, Acting President, Defense Acquisition University (DAU). (U.S. Army photo by Erica Kobren, DAU.)

- ***Information Enabled Army Award***: Project Directorate Counter-Rocket, Artillery, and Mortar, PEO Command, Control, and Communications-Tactical
- ***Transforming the Way We Do Business Award***: Forward Deployment Services Cell, U.S. Army Corps of Engineers, Middle East District

David Packard Excellence in Acquisition Awards

The 2010 David Packard Excellence in Acquisition Awards were presented Nov. 2, 2010, at the Fort Belvoir Officers' Club, Fort Belvoir, VA. The awards recognize organizations, groups, and teams who have demonstrated exemplary innovation using best practices that achieve acquisition excellence in DOD. The David Packard Excellence in Acquisition Award is DOD's highest acquisition team award.

This year, an Army team was honored with one of the three Packard awards. PEO Command, Control, and Communications-Tactical and PEO Intelligence, Electronic Warfare, and Sensors formed the Combined Enterprise Regional Information Exchange System-International Security Assistance Force Team, which rapidly addressed a critical gap in electronic data sharing among coalition partners in Afghanistan. Their solution enabled significant cost savings for the Army and greatly enhanced mission success for multinational coalition operations in Afghanistan.

Article courtesy of U.S. Army Acquisition Support Center.

2010 Student Loan Repayment Program Data

Army acquisition has offered its Student Loan Repayment Program (SLRP) for the second year, funding more than three times the number of applicants in 2010 than it did in 2009. The SLRP is made possible through the Army's Section 852 program. All Acquisition, Logistics, and Technology Workforce members with outstanding federally insured student loans and a college degree are eligible to apply for SLRP. This program is used as a retention incentive for individuals who are considered highly qualified in their current position. The recipients agree to remain within DOD for 3 years. Any further repayment made after the initial agreement requires an additional 1-year commitment.

The application process is online, using the Army Acquisition Professional Development System within the Career Acquisition Personnel and Position Management Information System (CAPPMIS). CAPPMIS is the Army's central repository for acquisition workforce data.

This highly accessible process, with the ability to view the dates when applications are accepted, led to an overwhelmingly positive response to SLRP in 2010. The 2010 announcement opened on April 21 and closed May 28. In 2009, 1,130 applications were reviewed and 438 of those were selected for funding, for a total of $4.1 million. In the 2010 offering, 2,751 applications were submitted and 1,327 were funded, for a total of $11.9 million spent to retain those qualified individuals.

The areas of consideration reviewed during the evaluation process included, without priority: applicability of degree to the 14 acquisition position categories, *Defense Acquisition Workforce Improvement Act* position requirement achievements (i.e. certification, Continuous Learning Points, etc.), annual performance, and endorsement from the supervisory chain. The breakdown of the 1,327 applicants selected in 2010 follows:

Enter on Duty Date	
1970s	6
1980s	39
1990s	106
2000s	1,176
Total	**1,327**

Acquisition Position Category		
A	Program Management	19
C	Contracting	456
E	Purchasing	1
F	Facilities Engineering	2
H	Production, Quality, and Manufacturing	56
I	Science and Technology Manager	2
K	Business—Financial Management	62
L	Life-Cycle Logistics	164
P	Business—Cost Estimating	11
R	Information Technology	46
S	Systems Planning, Research, Development, and Engineering	399
T	Test and Evaluation	107
Not Posted		2
Total		**1,327**

Acquisition Position Level	
Level I	83
Level II	829
Level III	413
Not Posted	2
Total	**1,327**

Army Workforce Status	
A – U.S. Army Acquisition Corps Member	187
C – U.S. Army Acquisition Corps Eligible	3
N – Non-Acquisition Workforce	2
W – Acquisition Workforce	1,135
Total	**1,327**

Army Command		
AE	U.S. Army Acquisition Support Center (USAASC)	71
AS	U.S. Army Intelligence and Security Command	2
AT	U.S. Army Test and Evaluation Command	102
BA	U.S. Army Installation Management Agency	2
CE	U.S. Army Corps of Engineers	73
MC	U.S. Army Medical Command	10
SC	U.S. Army Space and Missile Defense Command	7
SE	Field Operating Agencies of the Army Staff (OA-22)	37
TA	U.S. Army Recruiting Command	1
X1	U.S. Army Materiel Command (AMC Roll-up)	2
X2	U.S. Army Headquarters, AMC	1
X4	U.S. Army Training Activities, AMC	15
X6	U.S. Army Aviation and Missile Command	23
X7	U.S. Army Tank-Automotive and Armaments Command	123
X8	U.S. Army Communications-Electronics Command	61
XC	U.S. Army Sustainment Command	4
XD	U.S. Army Contracting Command	317
XK	U.S. Army Materiel Acquisition Activity	1
XP	U.S. Army Security Assistance Command	1
XQ	U.S. Army Operations Support Command (Provisional)	47
XR	U.S. Army Research, Development, and Engineering Command	425
XX	U.S. Army Materiel Readiness Activities	2
Total		**1,327**

For additional information on the Army's Section 852 efforts, including the SLRP, please visit **http://asc.army.mil/career/programs/852/default.cfm**. The 2011 SLRP announcement is scheduled for release by the 3rd quarter of FY11.

Article courtesy of the USAASC Acquisition Career Development Division.

Contracting Community Highlights

We are in an era of unprecedented transparency and reform that will change the way Army acquisition does business in the execution of contract actions. It is clear that the Army Acquisition, Logistics, and Technology Workforce needs to work smarter and more efficiently in obligating government funds. The federal budget is shrinking, so every dollar spent will be scrutinized. The message is clear: Spend each dollar like it is your own. Be vigilant in dealing with vendors to maximize competition and control costs.

In a Sept. 14, 2010, memorandum for acquisition personnel, Dr. Ashton B. Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics, provided guidance for obtaining greater efficiency and productivity in defense spending. Highlighting this guidance is an emphasis on targeting affordability and controlling cost growth, incentivizing productivity and innovation in industry, promoting real competition, and reducing non-productive processes and bureaucracy. In addition, there is guidance on improving the tradecraft in services acquisition, including requirements definition, market research, competition, fixed-price incentive fee contracts, and cost efficiency objectives (see related article on Page 46). Implementation instructions were released Nov. 3, 2010, to put this guidance in motion. For the complete text of the implementation directive, visit **http://www.acq.osd.mil/docs/USD(AT&L)_Implementation_Directive_Better_Buying_Power_110310.pdf?Transcriptid=4648**.

In my column in the April–June 2010 issue, I talked about "hot button" topics that are of key interest to the contracting community. While we are making progress in some areas by standardizing processes and getting the word out, a great deal of improvement is still needed in the following areas:

- Justification and Approval documentation is critical to telling the story of why we need to take a contract action. Rationales for your decisions and actions must pass the test of whether they make sense and are in the best interest of the government.
- A Quality Assurance (QA) program must be present on the contracts we write. Contractors must be held to performance, and the documented results of the QA inspections must be kept to help defend the government's rights during a dispute.
- If a contracting officer's representative is assigned to a contract, he or she must be trained and qualified to perform those duties.
- There are too many instances of inadequate government property administration when government-furnished equipment is given to a contractor. Property books need to be maintained to track our assets and to ensure that they are returned to the government at the completion of the contract.
- Cost and Price (C&P) analysis remains a focus area. It is critical to obtain the proper amount of C&P data to measure the contractor's offer and document the analysis of the data that lead to a contracting officer's decision to award.

The contracting community's Procurement Management Review teams are instructed to measure the effectiveness of executing these critical functions during their reviews of operational contracting sites this fiscal year.

These are exciting times to be in the contracting career field. Each of you holds the key to our success in getting the best bang for the buck and still delivering weapon systems and services to the warfighter on time and on budget. Thank you for the professionalism and dedication you bring to work with you every day to accomplish this important mission.

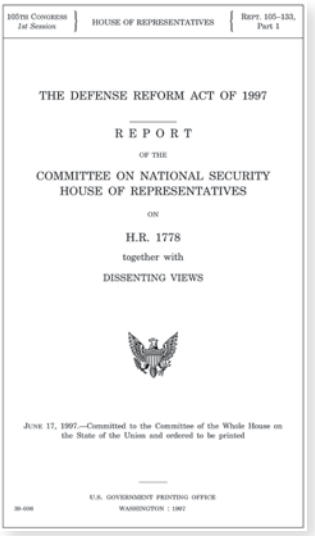
Edward M. Harrington
Former Deputy Assistant Secretary of the Army
(DASA) for Procurement

Editor's Note: After more than 35 years of dedicated service to the U.S. Army, Mr. Harrington left government service in December 2010 to re-enter private life. Mr. Lee Thompson, the Deputy Assistant Secretary of the Army for Strategic Communications and Business Transformation, has been named the Acting DASA for Procurement.

How Army Acquisition Is Evolving to Paperless Contracting

Steve A. White

As the Army fights terrorism and supports contingency operations around the world, the acquisition community is entrenched in providing warfighter support in an efficient, effective, and fiscally responsible manner. One of the means to achieve this is paperless contracting, which started as an initiative of the *Defense Reform Act of 1997* and has progressed throughout the acquisition environment, touching the requirement identification, contracting, finance, and logistics communities. The *Defense Reform Act of 1997* encompasses the whole process of acquisition reform, reporting, and transparency; a portion of the reform was initiated back in 1986 and has evolved into the current transparency request.



105TH CONGRESS 1st Session | HOUSE OF REPRESENTATIVES | REPT. 105–133, Part 1

THE DEFENSE REFORM ACT OF 1997

REPORT

OF THE

COMMITTEE ON NATIONAL SECURITY
HOUSE OF REPRESENTATIVES

ON

H.R. 1778

together with

DISSENTING VIEWS

JUNE 17, 1997.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1997

The paperless contracting initiative started as part of the *Defense Reform Act of 1997*. (Image courtesy of the Library of Congress.)

Progression Since the '90s

A presidential initiative from the 1990s directed that government agencies set a goal of going paperless, and Congress provided the guidance and legislation to support this plan. In response, the Army contracting community created a paperless automated system that provides the entire contracting community with a way to create solicitations, solicitation advertisements, proposal, response, review, and award.

The paperless concept is evolving and expanding beyond the contracting community, allowing for seamless, undisturbed communication. Proposed expansion of the paperless process, both conceptual and real, is reflected within the acquisition process of requirement conception, award, receipt or acceptance, payment, performance evaluation, and closeout. At the front end, requirement generation and identification include the customer's participation. Business opportunities are identified, solicitations are disseminated, contractors are provided with information, proposals are delivered, awards are distributed, and notifications are made electronically. The contract specialist leverages preset templates generated from specific dollar limits tailored to specific needs, to produce a faster contract-building process.

Another available electronic tool for customers is the assignment of purchase cards that provide purchasing ability directly to the requiring office, making them invaluable in the contingency environment. Within dollar limits, customers can fulfill their purchasing needs and acknowledge receipt or acceptance via Web-based systems. Performance of receipt or acceptance is a seamless process because the contractor can submit invoices online for government review and approval. After electronic verification, the contractor is paid electronically. Customers gain real-time information to better enable future funding and other sourcing or requirements.

Contractor Requirements

The evolving paperless initiative requires all customers wanting to do business with the Army or DOD to register with Central Contractor Registration. Contractors must participate in the electronic acquisition environment as a primary requirement to do business with the government. Additionally, all contracts issued by the Army will contain provisions for electronic funds transfer to ensure continuity through the final stage of the paperless process.

Currently, the Army financial community has solidified its involvement with the acquisition community with the development and deployment of the General Funds Enterprise Business System. This paperless system communicates with the contracting community to bridge any gap between the contracting community and the requiring and resource office for general fund actions.

The Paperless Future

The contracting community is not resting on its accomplishments. We continue to actively seek and plan ways to increase our effectiveness and efficiencies and to further develop paperless contracting beyond the acquisition community.

The automated paperless environment has become an invaluable tool to support President Barack Obama's transparency initiative. The contracting community continues to explore all possibilities to provide the best value to the warfighter, as well as the best support. The paperless process continues to evolve with technical development and creative thinking from our workforce, customers, and industry.

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Program Executive Office Simulation, Training, and Instrumentation Takes Acquisition Interns to New Heights

Kristen A. McCullough

Interns from Program Executive Office Simulation, Training, and Instrumentation (PEO STRI) experienced firsthand the life of a Soldier while witnessing how PEO STRI training devices are used, as part of the PEO's fourth Acquisition Academy, Sept. 7–9, 2010, at Fort Benning, GA.

After a 7-hour bus trip from Orlando, FL, the day before, the interns started their first morning as "students" in Airborne

School. Two of the 20 interns had the opportunity to jump from a plane with Fort Benning's Silver Wings precision parachute team. One of the jumpers described her reaction. "I can honestly say I wasn't too nervous until I was all strapped in and they opened the bay door for my jump. But it was too late to turn back—not that I wanted to," said Sarah Weston, a systems engineering intern.

The other intern jumper was also nervous at first. "For someone who has a fear of heights, I was scared before the jump, and I even dreamed about it the night before," said Shi Deng, a budget analyst intern. "But once I leaped out of the plane, it was the best adrenaline rush I have ever experienced."

Although only two interns had the opportunity to parachute from the plane, they all were able to jump from Fort Benning's famed 34-foot tower. The tower exercise is part of the Airborne School's Tower Week, which validates jumpers' individual skill training in properly and safely exiting an aircraft.

Nealie Page, an operations research analyst intern, explained her experience. "After a few inching-forward and stepping-back attempts, I was able to timidly tuck my head and jump out of the tower in a direction perpendicular to that of the zip-line route," she said. "I'm sure I was screaming, but I was also smiling the whole way down."

Shi Deng, a budget analyst intern attending PEO STRI's Acquisition Academy, jumped out of a plane with Fort Benning's Silver Wings precision parachute team Sept. 8, 2010. (U.S. Army photo by Thomas Kehr.)

Nealie Page, an operations research analyst intern attending PEO STRI's Acquisition Academy, jumped from the 34-foot tower at Fort Benning's Airborne School Sept. 8, 2010. (U.S. Army photo by Thomas Kehr.)

Understanding PEO STRI Products

The next day the interns visited with the Soldiers and garrison staff to see some PEO STRI products, including the Close Combat Tactical Trainer (CCTT) and the Digital Multi-Purpose Range Complex (DMPRC). The interns received an in-depth briefing on the CCTT, so comprehensive that they learned about Army-level issues the program faces. From the briefing, the interns now know the importance of integrating the dismounted Soldier into the CCTT; the concerns associated with its relocation from Fort Knox, KY, to Fort Benning; and the magnitude of making the CCTT interoperable within the live, virtual, and constructive training domains.

Although the interns did not get to see the trainer in action, they were able to see one of the CCTTs up close and personal. "I managed to squeeze myself into the gunner seat. I was surprised with the level of detail in the trainer. It definitely gave me more of an appreciation for what PEO STRI does for our Soldiers," said Jon Katz, a contract specialist intern from U.S. Special Operations Command.

The interns received a comprehensive overview of the DMPRC, which went through the Government Acceptance Test Sept. 25–30, 2010. The result was an Initial Operational Capability, conditional on the contractor making necessary fixes before the first exercise in late November. Not only did the interns learn about the significance of this test, but they also learned about the many issues facing a range of this size (1,600 acres) and funding ($6 million).

After seeing some of the PEO STRI products, the interns attended a graduation ceremony for more than 400 Soldiers who had completed basic training. They also ate lunch in the dining facility with Soldiers from the 1st Battalion, 507th Parachute Infantry Regiment.

Lessons Learned

The interns' experience at Fort Benning was strengthened by the mentorship provided by four PEO STRI leaders who accompanied them. One of those leaders, Scott Pulford, a retired Army colonel who serves as PEO STRI's strategic integrator and assists with the Acquisition Academy, said, "It's critical that we indoctrinate the members of this class with a feeling of what it's like to be Soldiers—the same Soldiers they are going to support with training devices when they graduate and join their project teams. Bringing them to Fort Benning gives us the perfect opportunity to not only see PEO STRI systems in use, but it gives them a chance to see what life looks like through the eyes of a Soldier."

Aside from the many lessons the interns learned about Army living and Soldier training, perhaps the greatest lesson they learned is about PEO STRI's importance to the Army.

"As a new federal employee with no military background, I found it extremely educational and important that I used this trip to assimilate myself [into the life of a Soldier], so that I could better understand our purpose at PEO STRI in supporting the warfighter," said Michael Glazer, a contract specialist intern.

Interns from PEO STRI's fourth Acquisition Academy class experienced a "day in the life of a U.S. Soldier" at Fort Benning, Sept. 7–9, 2010. The class poses in front of the "Follow Me" statue, the infantry branch's signature icon. (U.S. Army photo by Thomas Kehr.)

A Successful Retention Tool

The PEO STRI Acquisition Academy was created 3 years ago to help meet a need for DOD contracting personnel by bringing in new people and training them to be proficient federal government contracting professionals. Classes are hosted on an as-needed basis, with class size ranging from 14 to 21 students.

Since then, the Acquisition Academy has evolved to include interns from a number of acquisition career fields. Ninety-six percent of the interns who completed the three previous classes are still with PEO STRI.

Programs similar to the Acquisition Academy are conducted throughout the Army acquisition community to provide civilians with the experiences Soldiers encounter.

For example, the Communications-Electronics Research, Development, and Engineering Center (CERDEC) operates a Greening Course, designed to ensure team building and Army Team camaraderie. The course familiarizes civilians with Army operations in a field environment. Past participant Jack S. Li, an engineer with the CERDEC Software Engineering Directorate, commented, "It's good for a civilian to understand the military operation environment, which I haven't dealt with much in the past. I know my stuff, computer science and electrical engineering, but this helps me apply it to the military operation."

In May 2010, PEO Soldier sent three product engineers to the Joint Training Readiness Center, Fort Polk, LA, to participate in "grounding," working alongside Soldiers as they planned and conducted dismounted maneuvers. The engineers saw firsthand the gear with which the Soldiers operate.

Mary Harwood, Human Factors Engineer for PEO Soldier's Product Manager Soldier Clothing and Individual Equipment, said being able to observe Soldiers using the equipment in a simulated environment is one of the best ways to gauge results. "No matter how many user evaluations you do, there's nothing like the real thing—doing what Soldiers do in the gear that PEO Soldier provides," she said.

Kristen A. McCullough is the PEO STRI Public Affairs Officer. She holds a B.S. in communication and political science from the University of Miami and an M.S. in political science from the University of Central Florida.

2010 Readership Survey Results

As many of you know, we recently conducted a readership survey to gauge the ongoing value of *Army AL&T* Magazine, to solicit feedback on how to improve the publication, and to identify topics that readers would like to see covered in 2011 and 2012.

First, I would like to thank the 857 readers who responded to the survey. It took some time and effort to do so, and we sincerely appreciate the feedback, especially to our appeal for suggestions on how to improve *Army AL&T* Magazine and ideas for future articles. Second, I want to express my gratitude for the insight, creativity, and fresh perspectives that respondents brought to the table.

Of the 828 respondents who stated that they read *Army AL&T* Magazine regularly, almost 91 percent rated the overall quality of the publication between good and excellent. While proud of that response, we did not overlook the fact that another group totaling almost 5 percent rated the content as merely fair, and that almost 1 percent rated the content as poor. Nor did we fail to recognize that even the most congratulatory respondents made recommendations for how to improve the publication.

To keep *Army AL&T* Magazine informative, relevant, and compelling, we are committed to satisfying as many reader concerns and recommendations as possible. Given the scope of the publication's mandate, the direction we receive from our Editorial Advisory Board, and the wide variety of professionals who read *Army AL&T* Magazine, we realize that we will never meet all requirements in a single issue. Over the course of a year, however, we set out to cover major topics of interest to our readers. Some of the more frequently recommended topics include career development for both civilian and military personnel; the impact of acquisition, logistics, and technology (AL&T) activities on the lives of deployed personnel; and best practices and candid lessons learned.

We also received several editorial recommendations, from perspectives we might consider more frequently to better ways to distribute the magazine. Some of the more common include:

- Provide more "voice from the field" perspectives. As one respondent stated, "I want to know what our [S]oldiers think about their equipment—what they like, don't like, things to improve, features to make their lives easier, what they don't have now but need, and what they have now but don't use."
- Include vantage points of the average AL&T Workforce member. While attention to leadership is obviously essential, perspectives of others in the workforce are important as we present an all-encompassing examination of AL&T subjects—as one reader put it, "field interviews [with workforce members] other than supervisory." Another advised us to consider "military and civilians in the workforce—not the top brass—to highlight accomplishments of the younger workforce."
- Ensure that readers are aware that the publication is available in electronic format as well as hardcopy. Obtaining a hardcopy magazine can sometimes prove a burden, as indicated by 24 percent of respondents who advised that *Army AL&T* Magazine is difficult to acquire. With the publication also available electronically (at **http://asc.army.mil/altmag**), readers can access current and archived issues 24/7.

In addition, we noted areas where we still have room to improve.

Regarding the magazine's clarity of writing, 81 percent of respondents rated our writing as either clear or very clear. While almost 40 percent rated this aspect "5 of out 5," approximately 41 percent rated the publication's writing clarity at "4." This indicates that there is still room for improvement. The nature of many AL&T subjects covered in the magazine is complex, but we will work to ensure that the complexities are addressed in sufficient detail without succumbing to the techno-jargon and rhetorical flourish that so often render such articles tedious or difficult to comprehend.

Readers would also prefer more straightforward assessment and reporting. As one respondent stated, "be brutally honest on why programs succeed or fail." We recognize that readers gain more from forthright program assessments, and we will remain vigilant to avoid stylistic or substantive hyperbole.

And while several respondents recommended cutting back on what is perceived as "marketing" or "self-congratulatory" writing, others commented on the critical role the magazine plays in communicating the importance of the AL&T community to warfighters, the Army, DOD, Congress, and the public. Communicating the value of what we do as a community is undoubtedly necessary and an important function of the magazine. However, self-promotion must be approached carefully and will always come second to factual reporting. We will focus on straightforward writing and reporting, with lower tolerance for self-aggrandizement.

To all of our readers, then, and with a heartfelt "thank you" to those who participated in this survey, we pledge in the coming months to redouble our efforts to remain your principal connection to all things Army AL&T.

We will continue striving to deliver a top-quality publication every issue, through fully researched, well-written, germane, and informative articles, interviews, and columns. Again, my thanks to every reader who responded, and to all readers who look to this magazine for pertinent, compelling information and discussion.

Margaret C. (Peggy) Roth
Senior Editor

***ARMY AL&T* MAGAZINE**

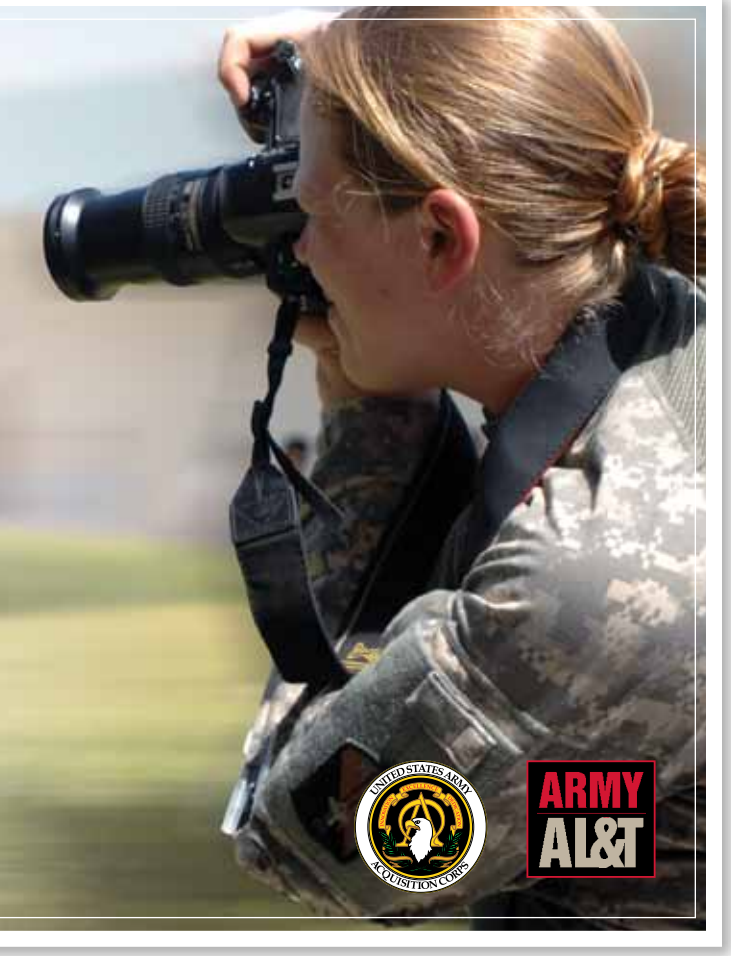
CALL FOR PHOTOS

Submit your original photos for a chance to be featured on the cover of* Army AL&T *Magazine!

Army AL&T Magazine is soliciting photos for publication on future covers and within articles, to illustrate the activities and accomplishments of the Army AL&T Workforce.

Photos must be a minimum 300-dpi resolution and be in TIFF or JPEG format. Photos must be the original work of the photographer. They also must be approved and OPSEC-cleared by the command Public Affairs Office. Please include your name, title, organization, and daytime contact information with your submission.

E-mail photos to **USAASCWEB-Ar@conus.army.mil**.



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