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# ARMY AL&T

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JULY-SEPTEMBER 2013



## *The Acquisition* **WORKFORCE**

### IT TAKES A TEAM

Army materiel enterprise  
gets job done in theater

### GROWING GREATNESS

AMRDEC develops  
new scientists, engineers

### GOOGLE THIS

How the search giant  
develops its workforce



# From the Editor-in-Chief

## TALK BACK

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Ah, the much-maligned acquisition workforce: target of more oversight, regulation and investigative panels than there are grains of sand on a beach. And rightfully so! Not the maligned part, of course, but whenever anyone is entrusted with public money to do work on behalf of the American people, you want to ensure that the money is well and wisely spent.

Many people still conjure up stories of \$100 hammers, an \$800 toilet seat or a \$6,000 coffeepot as examples of government waste—until you dig into the detail, which takes most of the fun, and blame, out of it. Methods for allocating overhead costs, unique requirements (beryllium tools that don't spark as steel can, MIL-SPEC equipment that's "ruggedized") and plain old misreporting (the coffeepot was not a coffeepot at all, but an onboard "cafeteria" system) can account for much of the legendary "malfeasance."

Nonetheless, the Defense Acquisition Workforce should be on par with, or better than, their industry counterparts. Wisely, after the 1986 President's Blue Ribbon Commission on Defense Management (better known as the Packard Commission) issued its report (online at <http://www.ndu.edu/library/pbrc/36ex2.pdf>), Congress passed the 1990 Defense Acquisition Workforce Improvement Act (DAWIA; online at <https://dap.dau.mil/workforce/Pages/Career-Management.aspx>) to build such a force. Today the Army and the American public benefit from the best-educated and -trained, most highly certified and most experienced acquisition workforce ever.

As of April 30, 2013, the Army Acquisition Workforce is 42,000-plus strong, and its members collectively hold more than 18,000 undergraduate degrees, 14,000 graduate degrees and almost 800 doctoral degrees. On average, the typical worker has more than 15 years' experience in his or her field, and approximately 93 percent of the force is certified to exacting DAWIA standards for maintaining proficiency through continuous learning, or within the grace period—the highest percentage ever!

What do all these numbers mean? In short, the level of competence and capability in Army acquisition has never been stronger. Want proof? If you are a frequent reader of this magazine, you no doubt have read the quarterly "From the DACM" column by LTG William N. Phillips, principal military deputy to the assistant secretary of the Army for acquisition, logistics and technology, in which he has recounted a multitude of acquisition success stories.

Over the years, Phillips has documented the delivery and development of unmanned aircraft systems; improved intelligence, surveillance and reconnaissance capabilities; new and/or improved individual protective gear such as helmets, body armor and flame-resistant uniforms; Abrams and Stryker contract revisions; the 5.56 mm Enhanced Performance Round; precision-guided Excalibur artillery round deployment; and the creation of the Stryker double-V hull.

The list goes on, but the facts describe workforce members bringing in multimillion-dollar programs on time and on budget to get needed technology to our warfighters. So, if anyone asks, "What has Army Acquisition done for me lately?" the answer is, "Plenty."

This issue is dedicated to those women and men who take a concept and turn it into reality. Discover unique perspectives on how to shape the workforce from the Hon. Katrina G. McFarland, assistant secretary of defense for acquisition, and Mr. Laszlo Bock, senior vice president of People Operations at Google Inc. Take a peek at our workforce in the pictorial "Faces of the Force." Read profiles of professionals who have deployed to support the Army materiel enterprise.

Finally, as of this issue, find the app for this magazine on Google Play, Amazon and the iTunes Store by searching "Army AL&T magazine"! If you have comments or suggestions, please contact me at [armyalt@gmail.com](mailto:armyalt@gmail.com).

*Nelson McCouch III*  
*Editor-in-Chief*



# ARMY AL&T

JULY–SEPTEMBER 2013

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Day in and day out, year in and year out, the Army Acquisition, Logistics and Technology Workforce performs feats that superheroes might only dream of. (SOURCE: USAASC)



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#### **PROFESSIONALS WITH A MISSION**

Successful execution of the mission to design, develop, deliver and sustain products and services that enable Soldiers such as this one to dominate the battlefield requires that acquisition professionals maintain relevant skills and expertise, seek diverse career positions, and remain agile and adaptive to the changing acquisition “battlefield,” emerging technologies and fiscal constraints. Here, PFC Chadallen J. Romero of 4th Battalion, 9th Infantry Regiment conducts a base defense patrol with his unit around Forward Operating Base Zangabad in Kandahar province, Afghanistan, May 23. (U.S. Army photo by SSG Shane Hamann, 102nd Mobile Public Affairs Detachment)





FROM THE AAE

FROM THE ARMY ACQUISITION EXECUTIVE  
THE HONORABLE HEIDI SHYU



FROM THE AAE

# A WORKFORCE *to be* **RECKONED WITH**

Army Acquisition must continue to set the standard  
for DOD in professional certification

**T**he Army Acquisition Workforce is our most important asset. Comprising more than 42,000 civilians, officers and noncommissioned officers, the workforce is essential to the successful execution of the acquisition process, providing our Soldiers with the decisive edge needed to dominate the mission today and in the future. Our workforce professionals labor tirelessly each day to equip our Soldiers with the most capable weapon systems and services available in a timely manner, while remaining good stewards of taxpayer dollars.

My principal military deputy, LTG Bill Phillips, my principal civilian deputy, Mr. Gabe Camarillo, and I are continually amazed by the knowledge, professionalism, dedication and passion that these Army acquisition professionals bring to the mission every day. Our critical mission is to design, develop, deliver and sustain products and services that enable our Soldiers to dominate the battlefield today and tomorrow. Execution of this mission requires acquisition professionals to maintain current and relevant skills and expertise through training, increase experience through diverse career positions, and remain agile and adaptive to the changing acquisition “battlefield,” emerging technologies and fiscal constraints.

## ACCOMPLISHMENTS AND OPPORTUNITIES

The Defense Acquisition Workforce Improvement Act (DAWIA) of 1990 requires all acquisition workforce members to be certified. DAWIA was enacted to increase the professionalism of the Defense Acquisition Workforce. Certification requires Defense Acquisition University training specific to each career field; education; and functional experience. For the Army, certification opportunities exist in 14 different acquisition career fields (ACFs) at three different levels depending on the complexity of the position, each with a critically important role in the acquisition process.

LTG Phillips, who also serves as the Army director of acquisition career management, reviews the Army’s attainment of the required DAWIA certification quarterly in a forum made up of general officer and Senior Executive Service civilian leadership. This focus at the highest leadership levels ensures that DAWIA certification is commander’s business, and we have seen a significant increase in the Army’s certification rates since 2008 as a direct result. I applaud each and every Army leader and acquisition employee for the great progress made in achieving certification over the past several years. The Army



## CIVILIAN-MILITARY TEAMWORK

It takes a combination of military and civilian members, with civilians often providing the continuity and historical perspective during military rotations, to sustain an Army Acquisition Workforce that can deliver advanced capabilities to Soldiers. Here, LTC Frank Lozano, left, Product Manager Soldier Protective Equipment, joins with LTG Patricia D. Horoho, Army surgeon general, civilian engineer Deana Archambault of the U.S. Army Research, Development and Engineering Command, and Assistant Product Manager MAJ Joel Dillon during a discussion of new body armor, which Horoho is wearing and which is designed specifically for female Soldiers. (Photo by Glenda S. Smith)



## A CHALLENGE FROM LEADERSHIP

As it transitions from wartime to sustainment, the Army has a detailed plan to incorporate emerging technologies to address evolving potential future threats, albeit under great fiscal constraints. To achieve this plan, the Army Acquisition Workforce must challenge themselves to think creatively. Here, the Hon. Heidi Shyu, assistant secretary of the Army for acquisition, logistics and technology and Army Acquisition Executive, visits the U.S. Army Tank Automotive Research, Development and Engineering Center April 9 to meet with workers and outline her vision for the future. (U.S. Army photo)

Acquisition Workforce leads the services and the Department of Defense with 93 percent of the workforce certified or within the allowable grace period and working toward certification. This is a huge accomplishment and reflects the great work of our acquisition employees and leaders. We must continue to set the standard for DOD.

While DAWIA certification is an important achievement, it cannot be the final goal of our Army Acquisition Workforce. The workforce must continue to take advantage of additional training and educationally broadening opportunities by enrolling in courses and continuous learning opportunities, sometimes in multiple ACFs, to develop secondary acquisition certifications.

The Army has multiple broadening opportunities available to the workforce, including developmental and rotational assignments, acquisition boot camps, acquisition leadership challenge programs at every level, the Competitive Development Group – Army Acquisition Fellowship Program, Advanced Civil Schooling, Training with Industry and Senior Service College Fellowships, to name a few.

Each of these opportunities requires acquisition professionals to step out of their comfort zone and challenge themselves to grow. I strongly encourage acquisition leaders to promote these opportunities to the workforce, and I encourage the Army Acquisition Workforce to take personal initiative and accept the challenge to grow their skill sets and broaden their experiences through these and other opportunities.

Your Individual Development Plan is your tool to map out these opportunities with your supervisor. The big-picture





strategic perspective needed by future Army acquisition leaders is nearly impossible to garner from experience within one specific area. The Soldier and the Army Acquisition Workforce as a whole will benefit as each workforce member broadens his or her acquisition experiences and strives toward a strategic leadership role with these education, training and leadership development opportunities. We achieve better acquisition outcomes with a highly qualified and professional acquisition workforce.

### THE FUTURE

In this environment of fiscal uncertainty and declining budgets, an agile, adaptive and creative workforce is just as critical as one that is skilled and experienced. Acquisition program success, today and in the future, requires creative thinking along with effective and efficient execution. Better Buying Power 2.0 provides initiatives that encourage the Defense Acquisition Workforce to think differently about existing standards and processes.

Oftentimes we propagate processes because of historical success; however, we now operate in a vastly different environment than we did in the past dozen years. As we transition from wartime to sustainment and plan to incorporate emerging technologies to address evolving potential future threats—under great fiscal constraint—the Army Acquisition Workforce must challenge themselves to think creatively to provide the best capability to the Soldier in a timely and affordable manner. As Winston Churchill said, “Gentlemen, we have run out of money; now we have to think.”

To continue to provide the best capability to the Soldier, we must continue to modernize the force, even with declining budgets. We must see to it that our



### BUILDING A NEW GENERATION

With nearly 31 percent of civilians in its acquisition workforce eligible to retire now or within five years, the Army must make a concerted effort to fill the pending gap in knowledge and expertise by “growing” younger professionals, such as through the Armyhire.com website of U.S. Army Contracting Command (ACC). (Photo courtesy of ACC)

Soldiers maintain combat overmatch today and in the future.

Ensuring that our Soldiers are equipped for the future battlefield starts with building a strong foundation in our Army Acquisition Workforce. With nearly 31 percent of our civilian Army

Acquisition Workforce eligible to retire now or within five years, we must fill the pending gap in knowledge and expertise that will result from the retirement of these critical workforce members. It will be a challenge to fill the gap representing the years and depth of experience we will lose with our retirees, but we can

I APPLAUD EACH AND EVERY ARMY LEADER AND ACQUISITION EMPLOYEE FOR THE GREAT PROGRESS MADE IN ACHIEVING CERTIFICATION OVER THE PAST SEVERAL YEARS.



### ADVANCING CAPABILITY

To continue to provide Soldiers with the capabilities that will enable them to maintain combat overmatch, the Army must keep modernizing the force, even with declining budgets. That job falls, in large part, to the acquisition workforce. Here, Teobaldo Briones, a quality assurance specialist, checks fluid levels in a MaxxPro Dash Mine Resistant Ambush Protected vehicle in May at Kandahar Airfield, Afghanistan, as part of a survivability upgrade. (Photo by Sharonda Pearson, 401st Army Field Support Brigade Public Affairs)

start by hiring a technically educated workforce and offering opportunities for developmental experiences. Ensuring that our experienced acquisition workforce members transfer their knowledge and expertise by mentoring the more junior acquisition professionals will help bridge this gap and position us for the future.

It is important for the Army not only to maintain and grow the acquisition workforce as a whole, but also to grow and develop Army acquisition leaders. I encourage individuals to seize opportunities to understand the bigger picture outside their primary career field. I challenge future leaders to seek

opportunities to be mentored. Established mentorship programs foster and cultivate relationships to provide less-experienced workforce members with opportunities to learn critical skill sets from those with more experience.

As acquisition leaders, we must continually encourage and incentivize our workforce to mentor the junior members, sharing experiences and knowledge, to ensure that a strong Army Acquisition Workforce is in place to support the Soldier. Our civilian acquisition workforce often provides the continuity and historical perspective during military rotations, and we must cultivate civilian leaders

as well as military leaders in our Army Acquisition Corps.

### CONCLUSION

I appreciate and admire the resilience and the continued passion and dedication that the Army Acquisition Workforce has for our mission to support the Soldier. The work you do on a daily basis makes a difference in the lives of our Soldiers. If you continue to seek opportunities outside your comfort zone, prepare yourself to be leaders and maintain your extraordinary work ethic, we will sustain our reputation as the best-trained acquisition workforce in the Department of Defense.



# ★ CONGRATULATIONS, ★ ARMY AL&T ★

## Editor-in-Chief Nelson McCouch III

named Editor of the Year (Departmental) in the 2013 Secretary of the Army Awards.

## Army AL&T magazine

took home top honors in *The Major General Keith L. Ware Public Affairs Awards*. These awards recognize the best achievements in telling the Army story. Army AL&T won first prize in the 2012 competition for best magazine-format publication.

## Best Magazine

### The judges commented:

“The most well-done of the submissions ...”

“Highly informative ... contained articles for professionals written by professionals.”

“Stunning visual elements.”

## Best News Feature Article (Civilian)

“Building a Better Rotorcraft” (April–June 2012), by Army AL&T Senior Editor Margaret C. Roth, offered a detailed inside look at the development of the next generation of vertical lift platforms. The judges deemed it an “*excellent feature, technically superior to all other entries.*”

## These new awards join the nationwide awards won last year:

- **2012 Bronze Anvil Award** from the *Public Relations Society of America*, honoring tactics and elements that create successful public relations programs in multiple fields.
- **2012 Award for Publication Excellence (APEX)**, from *Communications Concepts, Inc.* honoring excellence in graphic design and overall communications effectiveness.



This magazine is for and by the acquisition workforce. We share these awards with you. From all of us at Army AL&T, **thank you** for helping to make this magazine what it is.





## ACQUISITION

# Setting *the* Gold Standard

The Hon. Katrina G. McFarland talks about DOD's acquisition workforce and concrete steps being taken to improve it

*Starting as a civilian engineer with the U.S. Marine Corps, the Hon. Katrina G. McFarland has been a member of the Defense Acquisition Workforce since 1986—before there was a professional DOD acquisition workforce. McFarland, formerly president of the Defense Acquisition University (DAU), is well-known for her work in helping to build DAU's outstanding reputation. In February 2012, President Obama nominated her to be the assistant secretary of defense for acquisition, the principal adviser to the secretary of defense and the undersecretary of defense for acquisition, technology and logistics on matters relating to acquisition.*

*McFarland's career in acquisition also includes four years as acquisition director at the Missile Defense Agency and two years in electronics procurement with the Canadian National Defense Department.*

*Given her long and varied experience, Army AL&T magazine wanted to know how McFarland views the current Defense Acquisition Workforce, Better Buying Power 2.0 and challenges ahead for the workforce.*

**Q.** As president of DAU, you oversaw the development and expansion of curriculum and learning opportunities for the

more than 150,000 members of the Defense Acquisition Workforce. From that vantage point, what would you say is missing from DOD's acquisition workforce development capabilities? How can DOD fix that?

**A.** Our workforce development capabilities are recognized as the best in class worldwide. Recently, the Global Council of Corporate Universities awarded DAU its Best Overall Corporate University Gold Award, a distinction DAU earned in competition against universities from 19 other countries on five continents. This award is one of hundreds that this university has received both regionally and globally. That said, the Hon. Frank Kendall, undersecretary of defense for acquisition, technology and logistics, has asked our community to take on a "continuous improvement" mindset to improve the professionalism of the total acquisition workforce.

How do we improve? Well, our department is closely aligned with what is described as a "competency-based organization." That is, for every acquisition function skill, such as contracting or systems engineering, we have a DOD lead. This functional lead is responsible, with support from functional experts from



### STRENGTHENING THE WORKFORCE

Better Buying Power (BBP) 2.0, spearheaded by the Hon. Frank Kendall, undersecretary of defense for acquisition, technology and logistics, includes a new focus on improving professionalism across the acquisition workforce. Here, Kendall presents BBP 2.0 at DAU, Fort Belvoir, VA, on April 25. (DOD photo by Erica Kobren)

the services and agencies, for defining the “standard” for skills that members of our acquisition workforce must have for their level of responsibility. They also assess, with the services and agencies, the strengths and weaknesses of our processes, procedures and outcomes.

What this community has assessed is that our current process of certification (classroom teaching and testing) does not necessarily equate to the individual’s ability to perform. Although this analogy is an overstatement, the current

certification process is similar to throwing a teenager the keys to the Maserati after he has passed the written drivers test, and telling him to tool around the interstate for a while.

To modify and improve our current certification process, a skill taught in a DAU classroom must be demonstrated in the workplace and overseen by an experienced individual who can verify that the skill demonstrated was successful. That is called “qualification.” We have conducted qualification pilots over the

past year throughout the military services and component agencies and have gained valuable insights to successfully implement qualification. From this, we are now moving forward to bring this practice to our entire acquisition workforce community. Overall, the workforce feedback has been very positive. We call this new program “certification to qualification.”

We must also recognize that the ability to improve our workforce is enabled by the Defense Acquisition Workforce

Development Fund, created in the National Defense Authorization Act, that allows the department to improve training for our workforce. As our skills are unique to the DOD acquisition system, this is incredibly important to us, and shows that we value our people and want them to succeed.

These funds also support initiatives that include establishing higher standards for key leadership positions, establishing stronger professional qualification requirements for all acquisition specialties, increasing the recognition of excellence in acquisition management and continuing to increase the cost-consciousness of the acquisition workforce—changing the culture. Qualification and higher standards will ensure mentorship and personal involvement in our workforce development, and will maintain a gold standard in our military training for mission areas that translates well to our goals of recognizing our workforce as professionals.

**Q.** What have been DOD's three greatest successes in improving workforce development over the past five years?

**A.** Our community has demonstrated and earned its reputation of commitment to its people and their development through 1) appointing strong leaders who mentor, support and invest time and resources in our people; 2) maintaining a culture of continuous improvement across our total acquisition workforce; and 3) articulating a vision with specific objectives, including establishing higher standards for key leadership positions, creating stronger professional requirements such as the certification-to-qualification program, increasing recognition for workforce performance and promoting cost-consciousness across the entire acquisition community.



### BRANCHING OUTWARD AND UPWARD

Opportunities for professional development abound in Army acquisition, within and outside of the military itself. Through the competitive Training with Industry program, for example, MAJ Matthew Bisswurm, plans and operations officer with the 903rd Contingency Contracting Battalion, began a one-year assignment with Google Inc. in August 2012. "I'm looking to bring some of the innovative processes and successful techniques that Google has used, and help integrate them into the Army," said Bisswurm, shown in this June 6, 2012, photo. (U.S. Army photo courtesy of 21st Theater Sustainment Command)

**Q.** As the assistant secretary of defense for acquisition, you now have overarching responsibility for DAU as well as five offices and the Defense Contract Management Agency. Has this changed your perspective on DOD's needs for workforce development?

**A.** It is an honor and privilege to serve as the assistant secretary of defense for acquisition. Having had a long, rewarding career in public service and as

an acquisition professional, I have been in the shoes of our acquisition professionals as an entry-level, midlevel, and senior-level civilian within the department.

When I was trained in acquisition in the Marine Corps during the 1980s, I was fortunate to have constant contact with mentors and subject-matter experts who ensured that I understood my task and was able to explain why I chose a path to take when executing a task. A mistake





wasn't career-ending. Many of my peers enjoyed this developmental environment as well. It should be the standard that all of us expect. From my current position, I have a broader view of the great efforts, challenges and needs of our acquisition professionals that has only bolstered my passion for taking care of our people and raising the bar on how we equip and develop our dedicated professionals for success.

***ALTHOUGH THIS ANALOGY IS AN OVERSTATEMENT, THE CURRENT CERTIFICATION PROCESS IS SIMILAR TO THROWING A TEENAGER THE KEYS TO A MASERATI AFTER HE HAS PASSED THE WRITTEN DRIVERS TEST, AND TELLING HIM TO TOOL AROUND THE INTERSTATE FOR A WHILE.***

**Q.** How have the Better Buying Power initiatives influenced workforce development?

**A.** Better Buying Power 2.0 reflects a return to "acquisition basics." It emphasizes the best acquisition practices we've learned or are learning. It is our profession to pursue affordable programs, promote effective competition and control costs throughout the product life cycle. This must include our workforce, since acquisition is a human endeavor. Across all of our workforce development resources, we will apply a continuous-improvement mindset to help develop and nurture the skills that our acquisition professionals need to achieve success.

**Q.** Where do you think DOD has the greatest chances of success in advancing the professionalism of the total acquisition workforce? What potential pitfalls do you see?

**A.** Our certification-to-qualification program will provide a critical fourth dimension to certification by adding on-the-job demonstration of mastery of functional competencies to education, training and experience requirements.

Our goal is to have a workforce that is both fully certified to today's standards and fully qualified to perform its duties as acquisition professionals. Providing

our workforce with processes and tools to demonstrate their competency in acquisition proficiencies will result in an even better-qualified workforce for current and future responsibilities. Certification-to-qualification builds on the saying, "Tell me, and I will forget; teach me, and I will remember; involve me, and I will learn." We must help our people by ensuring that they have the expectations, tools and key experiences to guarantee that they are fully qualified.

As for pitfalls, I strongly believe that acquisition leaders must demonstrate that we will do everything we can to take care of our people. They are going through the stress of uncertainties and the challenges associated with process improvements. As we adjust in the department to limited resources, we need to ensure that our people are equipped for job and mission success in a demanding environment. This includes investing in the development and success of our people as future acquisition leaders and highly experienced and qualified professionals.

I sincerely believe our Better Buying Power 2.0 initiatives, with our newly added emphasis on workforce development and recognition, will be the foundation for making, as Secretary of Defense Chuck Hagel said, "...the

reforms we need to put this Department on a path to sustain our military strength for the 21st century."

**Q.** What advice would you give to someone considering a career in acquisition?

**A.** First, maintain integrity and pursue your passion—it will provide great returns to you personally and to the nation. Integrity is the foundation for our lives and our acquisition profession. We are entrusted as acquisition professionals with billions of dollars of the taxpayers' money as we acquire all that is needed to support our warfighters and ensure the nation's security. Collectively our efforts can increase taxpayer and warfighter buying power by billions of dollars. The acquisition profession provides many opportunities to invest your passion to make a difference—in better products and services for the warfighter, and better results for the taxpayer.

Second, seek experience. Opportunities are found all around that will broaden your skills and make you more valuable and confident in your job. Talk with industry, communicate with leadership. Take every opportunity to read about your discipline and skill. And when you find someone whom you admire, figure out what qualities you admire in that individual and emulate those qualities



## RECOGNIZING EXCELLENCE

Increasing the recognition of excellence in acquisition management is one of the tenets of continuous workforce improvement in BBP 2.0. Here, LTC Terrence Harris, Program Executive Office Ammunition's Product Manager Improvised Explosive Device Defeat/Protect Force, receives the 2012 Secretary of the Army Product Manager of the Year Award Nov. 7, 2012, in Arlington, VA, from the Hon. Heidi Shyu, assistant secretary of the Army for acquisition, logistics and technology, and MG Harold J. Greene, deputy for acquisition and systems management. (Photo by McArthur Newell, U.S. Army Acquisition Support Center)

in your job. Never be afraid to try something new, or to fail. It will strengthen you. And always share knowledge and time. It is the most valuable gift we can give as leaders.

**Q.** Before joining DAU, you were the director for acquisition for the Missile Defense Agency (MDA), advising the director of MDA on all acquisition, contracting and small business decisions. How has your program management experience contributed to your own professional development?

**A.** My 26-year career in defense acquisition serves as a great example of the importance of professional mentorship. As mentioned previously, I was privileged to have been mentored by great leaders

who took a direct interest in my professional development.

For this reason, I strongly believe we must institutionalize mentoring as part of our workforce development program.

The developmental opportunities I experienced were also a result of passionately taking on each job and accepting different and challenging opportunities. My professional development was enriched further by a breadth of key experiences: as an engineer in private industry; as a lead engineer, test director or program manager for the USMC; as an acquisition executive for the Missile Defense Agency. Program manager responsibilities provided me with great experience at being "at the top," accountable for a

program. Being a PM also gave me the opportunity to manage and value people as part of a multifunctional team, including prompting and helping others to develop by taking on new and challenging opportunities outside their comfort zones.

**Q.** What, if any, is the single biggest difference between the Defense Acquisition Workforce and their civilian counterparts?

**A.** Our mission. As part of the federal acquisition workforce, we have much in common. We use many of the same skill sets to protect the taxpayer while providing the products and services our agency customers need. The Defense Acquisition Workforce, using a multifunctional acquisition, technical and sustainment



**QUALIFICATION AND HIGHER STANDARDS WILL ENSURE MENTORSHIP AND PERSONAL INVOLVEMENT IN OUR WORKFORCE DEVELOPMENT, AND WILL MAINTAIN A GOLD STANDARD IN OUR MILITARY TRAINING FOR MISSION AREAS THAT TRANSLATES WELL TO OUR GOALS OF RECOGNIZING OUR WORKFORCE AS PROFESSIONALS.**

team for many acquisitions, equips our customer—the warfighters—for the DOD mission. Also, the magnitude of what we acquire is much greater; and in many cases, we develop, acquire and sustain very complex weapon systems that will provide value toward national security for decades.

**Q.** What can the Defense Acquisition Workforce learn from the Army Acquisition Workforce, and vice versa?

**A.** There are many examples across the services and defense agencies of excellent acquisition practices. They recently shared highlights of workforce accomplishments and best practices at the FY 2013 Defense Acquisition Workforce Development Fund Midyear Program Review. The Army highlighted creation of acquisition planning training for contingency operations and joint operational contract support exercises. The establishment of a Military Education Level-1 equivalent training for civilians is a great testament to the value the Army places in its total Acquisition Corps. (See related article on Page 132.) Additionally, recent savings generated as a result of should-cost implementation across the Army have enabled the service to bring more for less to the fight.

**Q.** If you could implement one change and have it take effect immediately, what would that change be, and why?

**A.** I am compelled to take this question as an opportunity to revisit and reinforce Secretary Kendall's BBP 2.0 overarching principles. I truly believe improving the professionalism of our workforce begins with constant application of key acquisition principles. Our deliberate efforts to apply these principles not only will result in improving the professionalism of the total acquisition workforce, but will also generate value-added outcomes to the warfighters, the taxpayers and the nation.

Finally, I'd like to close by reiterating several overarching principles taken from Secretary Kendall's April 24, 2013, Better Buying Power 2.0 memorandum to the workforce.

**1. Think.** The first responsibility of the acquisition workforce is to think. We need to be true professionals who apply our education, training and experience through analysis and creative, informed thought to address our daily decisions. Our workforce should be encouraged by leaders to think and not to automatically default to a perceived "school solution" just because it is expected to be approved more easily. BBP 2.0, like BBP 1.0, is not rigid dogma—it is guidance subject to professional judgment.

**2. People.** Thinking does not do much good if we do not have the professional preparation to think well. Policies and processes are of little use without acquisition professionals who are experienced,

trained and empowered to apply them effectively. At the end of the day, qualified people are essential to successful outcomes, and professionalism, particularly in acquisition leaders, drives results more than any policy change.

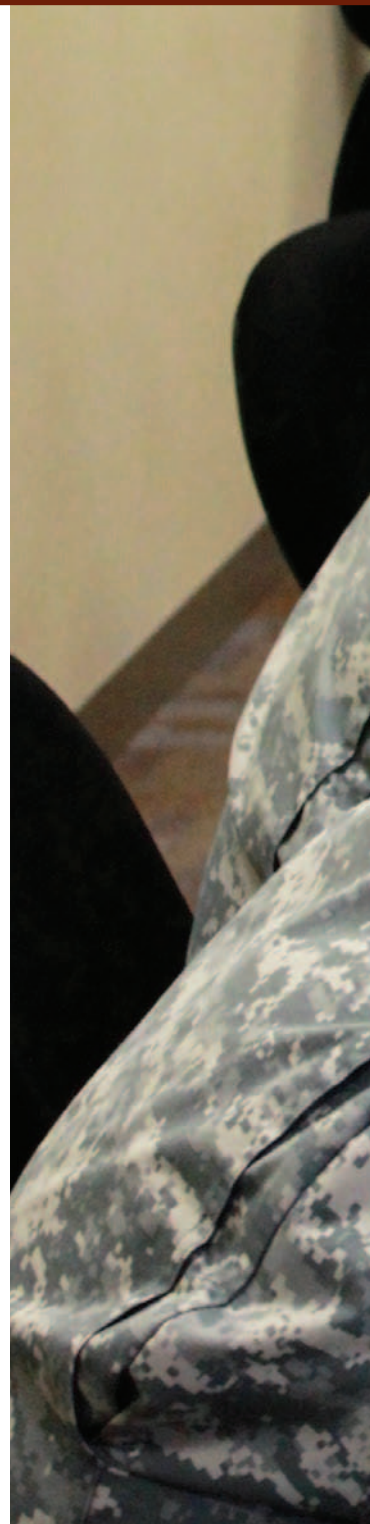
**3. Start with the basics.** While they can be improved in practice on the margins, while we can always learn from our experience and while we can find more creative ways to improve outcomes, the acquisition fundamentals work. We need to apply them effectively. Any list of basics would include these five items: effective incentives to industry, especially competitive pressures; thorough understanding and active management of technical risk; insistence on demonstrated progress before major commitments; getting the big early decisions right, particularly requirements trade-offs; and using the right contract type for the job. Some of these appear directly in BBP 2.0; others are there by implication. These basics should always drive our thought processes and judgments.

**4. Streamline decisions.** Finally, we must streamline our processes and oversight to provide value added. This includes promptly acquiring relevant data and directing differences of opinion to appropriate decision makers. Our managers cannot be effective if process consumes all of their most precious resource—time.

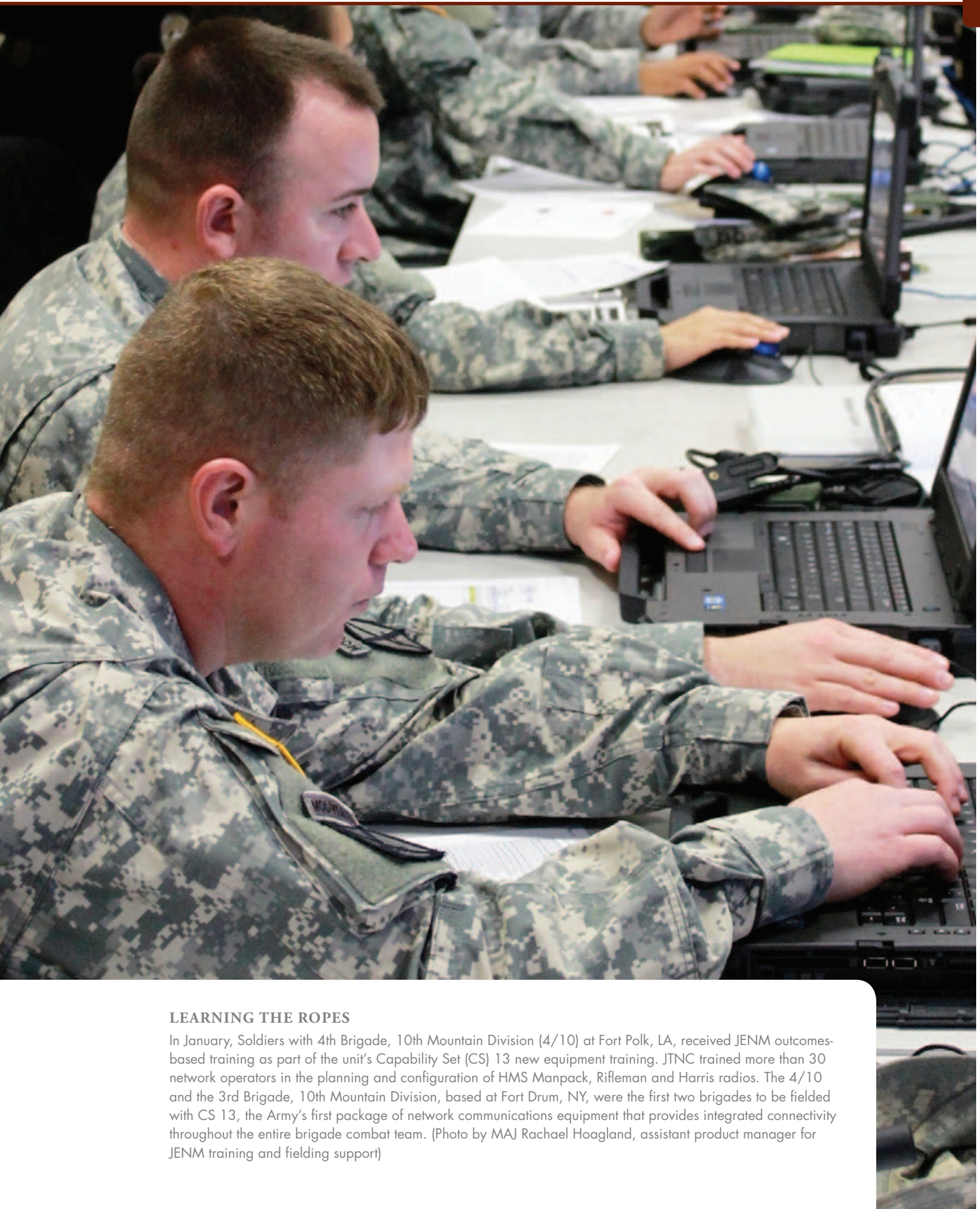
# **LEARNING** by **DOING**

Outcomes-based instruction promises to  
modernize network training

*by MAJ Rachael Hoagland*







### LEARNING THE ROPES

In January, Soldiers with 4th Brigade, 10th Mountain Division (4/10) at Fort Polk, LA, received JENM outcomes-based training as part of the unit's Capability Set (CS) 13 new equipment training. JTNC trained more than 30 network operators in the planning and configuration of HMS Manpack, Rifleman and Harris radios. The 4/10 and the 3rd Brigade, 10th Mountain Division, based at Fort Drum, NY, were the first two brigades to be fielded with CS 13, the Army's first package of network communications equipment that provides integrated connectivity throughout the entire brigade combat team. (Photo by MAJ Rachael Hoagland, assistant product manager for JENM training and fielding support)

In a transformation of network management training, the Project Manager Joint Tactical Networks (PM JTN) has adapted the concept and practices of outcomes-based training and education (OBTE).

As a result, PM JTN, part of the Joint Tactical Networking Center (JTNC), has trained more than 100 operators since January 2013 in the Joint Tactical Radio System Enterprise Network Manager (JENM), a system that plans, configures and monitors Joint Tactical Radio System networks that use the Soldier Radio Waveform and the Wideband Networking Waveform.

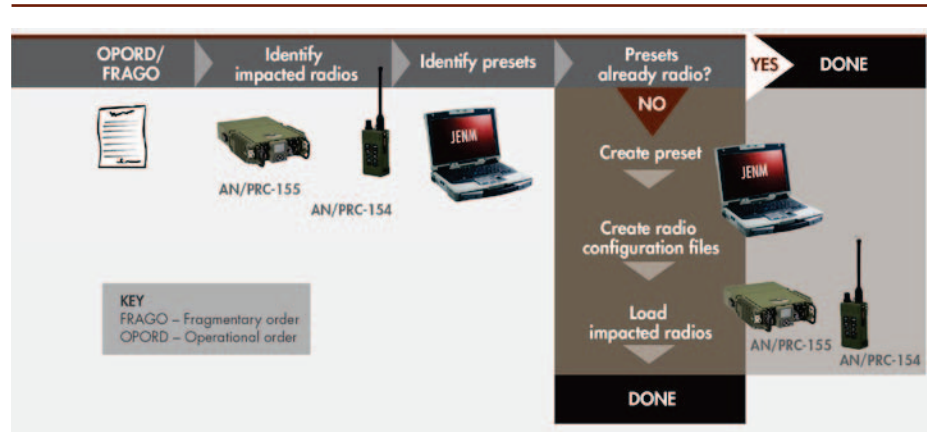
I was introduced to OBTE—a training methodology based on outcomes or results versus a standard one-size-fits-all solution to the problem—while instructing at the United States Military Academy at West Point.

OBTE standardizes by outcomes rather than by inputs or processes. In the Army, we know inputs as teaching-to-time rather than teaching-to-standard, rehearsing course material until you have it memorized, without authorization to say or do anything other than what is in the script. We know processes as the one and only way of getting to result, accompanied by detailed sequential steps on how to accomplish a task.

The goal of OBTE methodology is to make the training environment more realistic and demanding, empowering students to exercise individual initiative, hone individual leadership skills and take responsibility for their actions.

When explaining outcomes-based training, I like to compare it to understanding and learning golf. The first step is to explain the theory, physics and

FIGURE 1



#### UTR CHECKLIST- GUIDED INSTRUCTIONS

When Soldiers receive an OPORD or FRAGO, a unit task reorganization (UTR) may be in order. However, it would be next to impossible to build step-by-step instructions for every possible scenario in a UTR. Soldiers must be able to solve the problem on their own. OBTE aims to give them the skills and abilities to do that with JENM. A checklist serves as a guide but does not tell Soldiers how to solve the problem. (SOURCE: PM JTN)

importance of ball trajectory and how club angles affect the flight (distance and angle) of the ball. The next step is to go to the driving range to hit several buckets of balls with different clubs and thus learn how each club angle affects the flight of the ball. This is learning by doing.

The final step is to use the acquired knowledge of golf clubs and golf ball trajectory on the course. It is now up to the new golfer to pick the correct club and adapt to the changing environment, as there is no caddy (i.e., instructor) providing guidance on which club to use.

#### JENM TRAINING, OBTE-STYLE

During my tenure at West Point, I learned the process of converting instruction in basic military skills (land navigation, marksmanship, etc.) into OBTE events.

However, applying OBTE methodology to the existing JENM software application training was slightly more complicated. I

have my mentor and West Point's OBTE subject-matter expert, retired Army COL Casey Haskins, to thank for providing guidance on how to modernize the JENM training support package using OBTE. Haskins reminded me to trust in my trainer's expertise; ensure that the instructors understood how to build flexibility into their classrooms; insert problems for students to solve; and clearly define the outcomes I was trying to obtain.

Now that I understood how to improve the JENM training, the next goal was to teach the training team the concepts and processes of outcomes-based instruction, and to determine how best to incorporate OBTE into the JENM training course material.

One of the more critical topics covered in our train-the-trainer event was how to simultaneously teach the student who is ahead of the class while focusing on the main body of students who were on track,





### FROM STUDENT TO TROUBLESHOOTER

In JENM OBTE events, Soldiers who have successfully built a functioning platoon network can then help other students troubleshoot any challenges. Here, Army SPC Nicolas Rojas, right, an information technology specialist, troubleshoots network issues with SPC Jason Cavinder, a microwave systems operator, during training at Torii Station in Okinawa, Japan, April 3. Rojas and Cavinder are assigned to the 349th Signal Company, 78th Signal Battalion. (U.S. Army photo by SFC Howard Reed, 10th Regional Support Group)

and how to bring a student who has fallen behind up to speed. The natural reaction to the problem is to say that “we need a higher teacher-to-student ratio.” But we compensated without extra teachers by using the students who were excelling in class to become assistant instructors, helping their peers who had fallen behind. Not only would they hone their skills by having to teach the material, they would learn to lead at the same time.

### DESIRED OUTCOMES

The JENM OBTE training module starts with the theoretical basics of the waveform and network architecture, so that the Soldier understands upfront the limitations and capabilities of network planning. Next, the Soldier learns all the tasks and associated components

necessary to create a network, learning how each component task fits into the functional network management plan. Soon the Soldier is “hands-on” in the network planner tool, building and testing his or her first platoon communications network employing a basic set of planning skills and tools.

Once the Soldier successfully builds a functioning platoon network, he or she qualifies as an assistant instructor, able to help other students troubleshoot any challenges. This process keeps the students engaged and demonstrates true learning: If a Soldier can troubleshoot the network, he or she truly understands it.

With the platoon networks fully functional, the Soldier increases his or her

proficiency in network planning, design, engineering and implementation at the company, battalion and brigade organization levels, using the same sequence of build, test and troubleshoot.

When an instructor is confident that a student can build brigade-level networks, the instructor inserts a problem or series of problems into the operating network model. The student soon notices that the network is not working properly and immediately starts troubleshooting. These troubleshooting exercises challenge the Soldier to think critically about the network architecture, interoperability, terrain, radio hardware, crypto-related issues, the management plan and more. Watching the Soldiers tackle communication network problems provides insight



### PERFORMING UNDER PRESSURE

OBTE instruction is designed to improve Soldiers' performance in real-world, high-pressure situations by requiring them to solve problems with critical thinking. Here, Army 1LT Gerard Connolly troubleshoots an AN/PRC-152 tactical radio at the communications station of Forward Operating Base Sharana, Paktika province, Afghanistan, April 26, during the 1st Squadron, 89th Cavalry Regiment (1-89) Herbert J. McChrystal Competition. Connolly was a co-winner of the competition to test platoon leaders' technical and tactical knowledge .  
(U.S. Army photo by 1LT Jason A. Sexton, 1-89)

into how well they perform under stress, solve problems and think critically. It also provides insight into their mastery of the material.

### MEASURING STUDENT SUCCESS

Given that outcomes-based training uses very few PowerPoint slides, minimal lectures, a flexible timeline and no standardized 20-question, multiple-choice exam, people are often skeptical of its effectiveness. Two common questions

are: How do you measure a student's capabilities without a standard exam? And, how can a Soldier properly complete a task without systematic instruction?

While we agree that some sort of progress measurement is necessary in outcomes-based training, OBTE does not conform to conventional methods of academic measurement such as standardized testing. The JENM training team has developed several benchmarks to assess a student's level of understanding, such as time,

thought process and accuracy. Without a formal exam process, the course material and instructional objectives must be communicated clearly to the students so that they completely understand the required learning objective.

Today's Soldier is smarter and learns differently than his or her predecessors. During the Vietnam War period (1960-1975), large numbers of conscripted Soldiers went through training programs quickly, requiring highly centralized control given





**THE GOAL OF OBTE METHODOLOGY IS TO MAKE THE TRAINING ENVIRONMENT MORE REALISTIC AND DEMANDING, EMPOWERING STUDENTS TO EXERCISE INDIVIDUAL INITIATIVE, HONE INDIVIDUAL LEADERSHIP SKILLS AND TAKE RESPONSIBILITY FOR THEIR ACTIONS.**

that recruits were not expected to think on their own. Times have changed and learning methods have evolved, as have Soldiers. Feedback from our all-volunteer Soldiers reveals a belief among course participants that minimizing the use of briefing slides and increasing the allotted time for hands-on exercise with guided instruction will help them better understand the material.

This feedback leads our team to support the idea that the newer generation of Soldiers are technically proficient individual thinkers, traits on which we must capitalize. For example, during one of our reviews, a Soldier stated, “Even though this was a challenging concept, they treated me like an adult and made me think.”

This specific kind of feedback is what we are looking for when evaluating our instructional effectiveness. Deployed Soldiers will encounter situations that do not come with a step-by-step decision-making guide, forcing them to think independently and critically, using the

guidance and OBTE experience they received in class.

**MEASURING THE VALUE OF OBTE**

To accept the impact and value of outcomes-based training, it is best to compare side-by-side training events: a class using an outcomes-based training module, the experimental group; and a class using traditional training methods, the control group. The training events are conducted concurrently, with Soldiers selected at random for one of the two groups.

After the two training events, each Soldier must, under pressure, complete realistic plans and tasks. As they complete these tasks, their proficiency is measured to determine which training methodology works best.

Our comparison groups used consecutive Network Integration Evaluation (NIE) events, NIE 12.2 and NIE 13.1, for our side-by-side comparison of JENM training approaches. After completing the original JENM training material used during NIE

12.2, course evaluations revealed that Soldiers felt overwhelmed and complained that the course was difficult and confusing. After the outcomes-based training during NIE 13.1, Soldiers expressed in their course evaluations that they had a “good understanding” of the material. Several Soldiers stated that the training was the best of their entire Army career.

Comparing data from when the two groups began managing their networks, the NIE 13.1 experimental group outperformed the NIE 12.2 control group in their ability to plan, configure, control and troubleshoot the network. They also showed a better overall understanding of the material.

**CONCLUSION**

Outcomes-based training provides a rewarding experience for an instructor as well as a satisfying way to learn for the Soldier. While the instructors are teaching the Soldier, the Soldiers are in turn teaching the instructors.

Soldiers like to provide input, have responsibility and receive leadership training opportunities. Further, they know that their feedback to training programs and processes is important and will be implemented.

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# Back *to* BASICS

## Returning C4ISR field support capabilities to the Soldier

*by Mr. Rich Licata, Mr. Andrew Troy and Ms. Sara Miller*

In response to urgent capability needs during the past decade of war, complex mission command systems were brought to theater at a rapid pace, equipping Soldiers with the technology needed to effectively complete their missions.

However, that quick delivery of new capabilities came with a price: Soldiers who were continuously engaged in deployment preparation often lacked the time and training to learn to expertly operate and maintain command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) equipment.

So, to ensure that mission-critical capabilities were in constant working order, the Army employed the expertise of field service representatives (FSRs) and field service engineers (FSEs), who were embedded with Soldiers and worked side by side with them to maintain equipment readiness and provide technical assistance.

Now, as the Army continues to retrograde from Afghanistan while confronting an uncertain fiscal future, it is examining ways to realign the FSR and FSE roles and shift a decade of civilian technical knowledge back to the Soldier.

In an effort to get “back to the basics,” the C4ISR community, led by the Program Executive Office Command, Control and Communications – Tactical (PEO C3T), the Communications-Electronics Command (CECOM) and PEO Intelligence, Electronic Warfare and Sensors, will reevaluate how field support is provided for tactical communications capabilities. Their findings will help shape field support for the Army of 2015 and beyond.

### **TIERED SUPPORT STRUCTURE**

Rather than simply cutting the numbers of FSRs and FSEs randomly and across every system, the C4ISR community decided to take a strategic look at reshaping field support, using a four-tier process. (See Figure 1, Page 23.)

This tailored approach comes after studying more than 7,000 trouble tickets logged by Soldiers at the Joint Readiness Training Center (JRTC) at Fort Polk, LA, and the National Training Center (NTC) at Fort Irwin, CA. The Soldiers were using C4ISR systems, which provide capabilities that include mission command, situational awareness and the tactical network. The analysis, part of an integrated process team (IPT) initiative last

year by the C4ISR community, showed that Soldiers could have independently handled the overwhelming majority of the calls for troubleshooting. Also, many of the remaining tickets could have been managed by multifunctional support personnel, instead of leaning on system-specific specialized support.

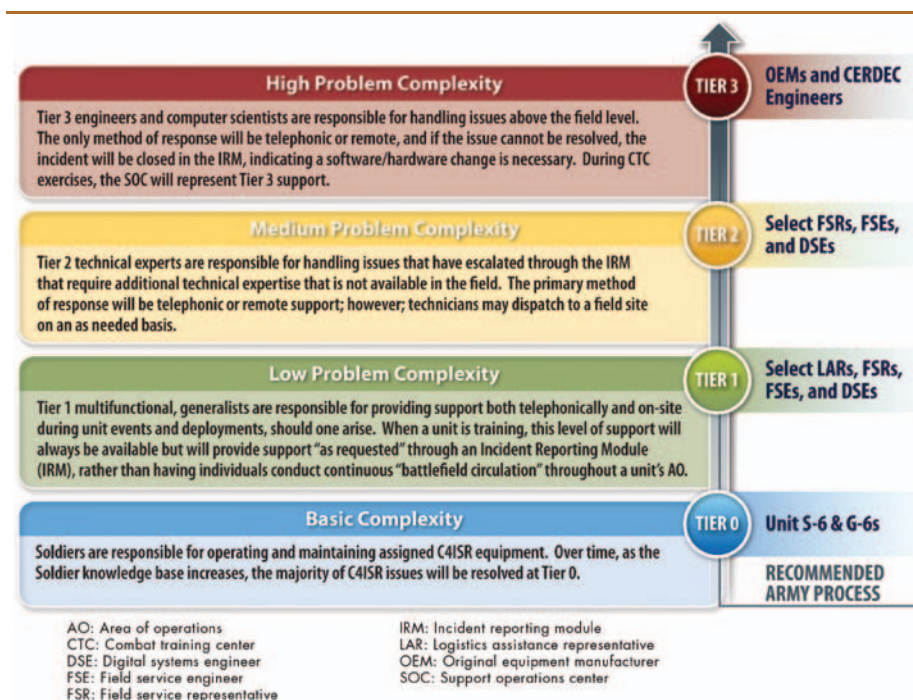
Under the planned structure, the first level—or Tier 0—would facilitate a shift of technical knowledge and troubleshooting responsibility back to the Soldier. As the Soldiers' knowledge base increases, most C4ISR issues would be resolved at the lowest echelon possible.

At Tier 1, multifunctional personnel would be responsible for providing support remotely first and then on-site if needed. This tier includes logistics assistance representatives, FSRs, FSEs and digital systems engineers (DSEs). When units are training, this level of support would always be available but would be provided only by request through the incident reporting module (IRM), rather than having personnel circulate continuously throughout the battlefield in a unit's area of operations. The IRM serves as the online standard trouble ticket and issue reporting, tracking and problem-resolution capability for all C4ISR subject-matter experts.

Tier 2 support, provided by FSRs, FSEs and DSEs, includes technical experts responsible for handling issues that have escalated through the C4ISR Support Operations Center and require additional technical expertise not readily available in the field. The primary method of response would be by telephone or remote support; however, technicians could dispatch to a field site as needed.

At the highest level, Tier 3, engineers and computer scientists would handle issues

FIGURE 1



#### TIERED TECHNICAL KNOWLEDGE

A four-tier approach to field support represents the C4ISR community's strategic reshaping of the current system, rather than simply cutting the numbers of FSRs and FSEs randomly and across every system. This tailored approach comes after studying more than 7,000 trouble tickets logged by Soldiers at JRTC and NTC. (SOURCE: C4ISR IPT)

above the field level. The only method of response would be by telephone or remotely. If the issue were not resolved, the incident would be closed in the IRM and would indicate that a software or hardware change is necessary.

By incorporating a tiered system, the Army can recognize the need to provide a baseline of support instead of a one-size-fits-all solution.

#### PILOT VALIDATION

The C4ISR community has begun to test the tiered approach to field support. Two pilot programs, at the JRTC and NTC in May and June, looked at reducing the number of civilians required to

support a brigade combat team (BCT) while simultaneously increasing Soldiers' knowledge base and responsibility.

The pilots were conducted under close observation by representatives of each C4ISR organization. Real-time and after-action data are being analyzed to determine necessary adjustments before implementing new support contracts.

The Army is also conducting controlled events during brigade- or division-level exercises at combat training centers to help analyze the new tiered system.

The Army has made initial progress toward Soldier-driven incident reporting.



### A TEAM EFFORT

During the wars in Iraq and Afghanistan, FSRs and FSEs have worked with Soldiers to ensure that mission-critical capabilities are in constant working order. (Photo by Travis McNiel, SoSE&I)

The IRM team for PEO C3T MilT-ech Solutions' Single Interface to the Field (SIF) provides a single point of online reachback through which Soldiers can obtain support for any system managed by the Army's C4ISR organizations. The team worked directly with the Assistant Secretary of the Army for Acquisition, Logistics and Technology System of Systems Engineering and Integration Directorate (SoSE&I) to create a customized console for Soldiers to use during the Army's Network Integration Evaluations (NIEs). NIEs are semianual, Soldier-driven evaluations aimed at quickly delivering advanced network technologies to Soldiers.

The SIF module, which works for any C4ISR system, features an 11-item incident reporting form for Soldiers to quickly fill in the relevant information for a support ticket while continuing their assessments in the field at the NIEs. This served as the basis for a future, all-encompassing field support form piloted at the NTC.

### EVOLVING NEEDS

For more than a decade, Soldiers have relied on FSRs and FSEs for technical troubleshooting and repair. While the new C4ISR capabilities were battle-tested by Soldiers, they were maintained by contractors and DA civilians. This was born of the need to have C4ISR equipment at near-100 percent readiness, while ever-changing mission requirements brought a great proliferation of digital technologies onto the battlefield.

C4ISR training was a moving target. Because of the pressures of the Army Force Generation (AFORGEN) cycle, units often sent Soldiers to weeklong equipment operator courses. In turn, those same Soldiers were engaged in other duties or not assigned to the same system once deployed.

To adapt, the C4ISR organizations designed the Mission Command System Integration Training to augment operator and maintainer courses. However, this

training occurred early in the ARFORGEN cycle rather than during the unit's intensive pre-deployment training. This lack of sustained C4ISR equipment training contributed significantly to Soldiers' reliance on civilian field support.

The current field support model served its purpose by providing Soldiers with timely support during two wars. FSRs and FSEs embedded with units served as the dependable first line of defense when it came to troubleshooting and repairs in theater. FSRs and FSEs, many of whom were former Soldiers themselves, made great sacrifices as they deployed with BCTs to austere and hostile environments to ensure that critical communications remained intact.

However, the C4ISR community continues to transition from system-centric support to unit-centric support. In the past, each system was fielded with its own support construct, which was designed to sustain only that system. Now the Army continues to move toward a unit-centric focus, evident with the fielding of Capability Set 13, an integrated communications package that spans the entire BCT formation, connecting the fixed command post to the commander on-the-move to the dismounted Soldier.

With this transition to a system-of-systems approach, there is a need for a smaller multifunctional and multi-organizational team on-site that is prepared to support the unit at home station, during exercises and in theater.

Furthermore, by placing the technical knowledge back in the hands of Soldiers, particularly on systems they already know and work with, the Army will realign with its mandate that Soldiers maintain their assigned equipment, per Army regulations.





One way to focus on Soldier participation is to transform MCSIT events into Soldier-driven quarterly command post exercises designed to train Soldiers in C4ISR equipment setup, operation and maintenance. Rather than the current construct in which contractors steer the staff through the exercise, the new models would use officers and senior NCOs to fill that role and train their staff Soldiers.

The Army is also studying other current field support practices for potential improvements. For example, battle-rostering, or assigning a specific Soldier to a particular C4ISR systems—especially mission command systems—would ensure that units are deploying with formally trained personnel and would further reduce the need for civilian support.

Also, the Army is examining the concept of “the installation as a docking station” as a way to incorporate C4ISR systems into a unit’s garrison operations, so that the unit is thoroughly familiar with the platform before deployment.

#### SIDE BY SIDE WITH SOLDIERS

FSRs have been embedded with units, serving as the dependable first line of defense when it comes to troubleshooting and repairs in theater. Now the Army needs to put much of their work and expertise back in the hands of Soldiers. (U.S. Army photo)



#### SHARING INFORMATION

Soldiers at the semiannual, Soldier-driven NIEs work alongside FSRs, drawing on their technical knowledge and expertise in repair. (Photo by Travis McNiel, SoSE&I)

#### CONCLUSION

There are significant challenges to overhauling the current C4ISR field support construct. But just as the Army transitions to a system-of-systems approach to fielding and training complex C4ISR capabilities, it must also offer the same approach to support, maintenance and troubleshooting. Putting the technical expertise back in the hands of the Soldiers will only

help ensure their continued success on the battlefield.

For more information, go to <http://peoc3t.army.mil/c3t/>. To learn more about the IRM on milWiki, go to [https://www.milsuite.mil/wiki/SIF\\_Incident\\_Reporting\\_Module](https://www.milsuite.mil/wiki/SIF_Incident_Reporting_Module); a government ID or Common Access Card (CAC) is required. To view a video interview with a former DSE on milTube, go to <https://www.milsuite.mil/video/watch/video/1628>; government ID or CAC required.

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# Ready for CHANGE



Ushering in the Global Combat Support System – Army is a complex and careful process that promises sweeping benefits

*by Mr. Vernon “Lee” Eustace III*

The Global Combat Support System – Army (GCSS-Army) moves the Army closer to its strategic goal of total asset visibility by replacing several aging, non-interoperable logistics and financial management systems with a single, Web-based enterprise resource planning (ERP) solution. GCSS-Army will provide commanders with near-real-time logistics information to manage supply, property book, maintenance and associated financial management functions.

With a change this sweeping, planning and organizing the transition to GCSS-Army requires a carefully structured, multifaceted initiative to deliver information and training on the new processes to the sustainment and financial communities. Most unsuccessful implementations of ERP solutions in

industry have resulted from failure by the users to adapt to the changing environment.

The robust Organizational Change Management (OCM) program that the Product Manager (PM) GCSS-Army developed will save the gaining units time during the implementation process and will allow users to familiarize and train themselves on the system before going live, thus reducing the turbulence associated with ERP implementations and allowing gaining units to realize the benefits as quickly as possible.

This article describes what happens next with the implementation of GCSS-Army, to ensure that users receive and absorb all necessary information with minimal loss of productivity in the process.



## FIRST STEPS

Undersecretary of Defense for Acquisition, Technology and Logistics the Hon. Frank Kendall granted a Full Deployment Decision (FDD) for GCSS-Army on Dec. 23, 2012. This decision permitted the PM GCSS-Army, a subordinate of the Program Executive Office Enterprise Information Systems and Project Manager Army Enterprise Systems Integration Program, to commence full system deployment, which will benefit commanders with near real-time status information regarding equipment readiness on which to base critical battlefield decisions.

In January, the U.S. Army Test and Evaluation Command (ATEC) conducted the lead site verification tests (LSVTs) to evaluate GCSS-Army's effectiveness,

suitability and survivability for use by the Army National Guard (ARNG), U.S. Army Reserve (USAR) and Logistics Readiness Center (formerly Installation Directorate of Logistics). The initial test results were positive as GCSS-Army moved into fielding its Wave 1 solution, which includes supply and associated financial management functions.

GCSS-Army's strategy to field the system in two waves is intended to reduce risk and turbulence in the receiving units. Wave 1 replaces the Standard Army Retail Supply System and its associated financial management information systems. Wave 2 will replace the Property Book Unit Supply Enhanced and Standard Army Maintenance System – Enhanced.

GCSS-Army's kicked off the aggressive Wave 1 fielding effort with successful implementations at the active Army's Forts Lee, A.P. Hill and Myer, all in Virginia; ARNG locations in Virginia, Alabama, Kentucky, North Carolina and Iowa; and the USAR's 85th and 87th Divisions and 335th Theater Signal Command. These were just the start of the massive worldwide fielding of GCSS-Army.

## PREPARING FOR TRANSITION

To ensure successful implementation of GCSS-Army, all Army units receiving it are participating in the OCM program. One aspect of OCM is a best practice called the "lead user program," which is an Army-specific version of the "expert user programs" that many industries have used to reduce the productivity dip

## INFORMATION UPGRADE

GCSS-Army replaces the Standard Army Retail Supply System, as well as the Property Book Unit Supply Enhanced (PBUSE) and Standard Army Maintenance System – Enhanced. Here, Army property book officers assigned to units in Afghanistan prepare to sift through data in the PBUSE system to identify excess equipment in country on Feb. 20 during a property book officers' conference at Bagram Airfield, Parwan province. The 1st Theater Sustainment Command (TSC) coordinated the conference, which included subject-matter experts from the Pentagon and other major sustainment commands headquartered in the United States. (Photo courtesy of 1st TSC)







#### LOGISTICS SOLUTION

GCSS-Army promises to bring the Army total asset visibility and reduce stockpiles of supplies on the battlefield by providing a Web-based enterprise resource planning logistics solution. Here, a Soldier with the 299th Brigade Support Battalion, 2nd Armored Brigade Combat Team, 1st Infantry Division moves food products Feb. 22 at the National Training Center, Fort Irwin, CA. (DOD photo by EJ Hersom)

**GCSS-ARMY WILL ALSO REPLACE CENTURY-OLD TERMINOLOGY WITH STANDARD INDUSTRY TERMINOLOGY THAT WILL MOVE THE MILITARY ENVIRONMENT CLOSER TO ITS INDUSTRY COUNTERPARTS.**

expected in organizations that undergo change with an ERP solution. The OCM program permits selected Soldiers and civilians to learn the functional details of GCSS-Army six months in advance, before the new equipment training (NET) begins.

Before a unit receives GCSS-Army, all legacy system users must take the Web-based training available on the GCSS-Army website or through the Army Learning Management System. The purpose of this online training is to familiarize targeted end-user groups with the new business environments, including the changes in terminology and processes, system navigation, core business concepts

and the creation of reports. This training familiarizes GCSS-Army end users with the system and their specific business areas before advanced lead user training (ALUT), NET and system deployment.

ALUT, another aspect of the OCM effort, is designed to equip organizations upfront and early with a single representative who has the knowledge required to conduct pre-fielding coordination across his or her respective command. The training consists of an overview of the GCSS-Army program, fielding and NET execution, data conversion requirements, introduction to materiel management, supply and finance integration, and the End User Manual-Plus (EUM+),



an online help system that includes transaction simulations, job aids, documentation, and other learning and training materials.

The PM GCSS-Army fielding staff allocates class slots based on the order of receiving units in the fielding schedule. Unit personnel can expect to attend training 210 to 150 days before conversion to GCSS-Army. Commands can receive additional slots if space is available, at command expense. In certain instances, ALUT can occur at a gaining unit's location if it is more economically feasible.

### TRAINING AND SUPPORT

In addition to the Web-based training and ALUT, GCSS-Army users must

take 40 hours of NET in a classroom environment. The NET process, which is critical to successful implementation of GCSS-Army, is designed to concentrate on core processes performed daily and weekly within the business areas.

All NETs are instructor-facilitated, Web-capable and simulation-based, with basic bridging information to reinforce the new process tasks and steps required to complete the scenarios. The NETs also introduce and reinforce navigation techniques and self-help training aids within the portal and EUM+. This program will ensure that all users who receive NET can perform their core processes with little or no assistance before the changeover to GCSS-Army.

### ALUT IN ACTION

Soldiers and civilians participate in ALUT, which provides key personnel in every Army unit receiving GCSS-Army with the knowledge they will need to spearhead the transition to the new system. The classes are three days long and are conducted at either the PM GCSS-Army facility in Petersburg, VA, or a gaining unit's location if that is more economically feasible. (Photo by Sherrell Satterthwaite, PM GCSS-Army)



The final piece of GCSS-Army's OCM program is the over-the-shoulder support after the changeover. For a period of 14 to no more than 30 days, GCSS-Army trainers will remain on-site and, where required, help with mission-critical tasks learned during NET.

Learning how to use the system is not the only challenge that stakeholders need to overcome. GCSS-Army will also replace century-old terminology with standard industry terminology that will move the military environment closer to its industry counterparts.

### CONCLUSION

At first glance, the challenges of learning the new system might seem overwhelming to some users. However, the carefully thought-out OCM plan, along with the number and variety of OCM tools that PM GCSS-Army will employ during the transition, are designed to help reduce any turbulence that the users will experience when they begin operating GCSS-Army.

The fielding of GCSS-Army will allow the Army to decrease stockpiles of materiel and enable the "factory to foxhole" distribution that reduces costs, avoids waste and improves readiness throughout the Army.

For more information on GCSS-Army and to see a real-time fielding map of the system, go to <http://www.gcass.army.mil>.

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## MAKING IT WORK

PM SKOT team members provide the integrated maintenance support capabilities that Army ordnance formations need to address an array of maintenance challenges. Here, SPC Jordan Suggs, an all-wheeled vehicle mechanic with the 3rd Sustainment Brigade (SB), opens a crushed hydraulic line on a forklift Dec. 30, 2012, at Kandahar Airfield, Afghanistan. (U.S. Army photo by SPC Rochelle Krueger, 3rd SB Public Affairs)







# GREAT SKOT!

PEO CS&CSS product manager  
introduces a system-of-systems approach  
to maintenance support

*by LTC Eric Rannow, Mr. Thomas Lettis and Mr. Michael Clow*

“To posture the force for the complexities of the strategic environment, we must simultaneously reform our processes and training to generate forces scalable from squad to corps. We cannot afford to limit our planning to brigade combat teams. Our success going forward will be built on deploying the right Soldiers, with the right training, in the right size units, at the right time.”

—GEN Raymond T. Odierno, U.S. Army Chief of Staff

With new strategy and budgetary adjustments, the Army is adapting its force structure to a tumultuous world. There are fewer “new start” programs on the horizon, so prioritizing new requirements and sustaining existing systems with greater flexibility, reduced redundancy and in scalable units are taking on a new importance across the force.

The U.S. Army Ordnance Corps started finding more flexible models more than a decade ago, introducing a two-level maintenance concept (field and sustainment) to combine the previous four levels, shrink overall logistical footprints and reduce redundancy while improving mission readiness. Similarly, the Army Acquisition Workforce is using Better Buying Power initiatives to ensure that when the Army does purchase new systems, it maximizes value to the Soldier and the taxpayer by emphasizing flexible, affordable, long-lasting and maintainable systems that reduce redundancy.

One area where multiple efforts toward flexible, affordable and scalable forces meet is in maintenance and repair, which is essential to the sustained readiness of aging systems.

### **FLEXIBLE, COMMON FIELD MAINTENANCE**

Repair times for battle-damaged equipment can vary greatly. To maintain overall readiness, Army mechanics need the tools to multitask and perform simultaneous repair operations on numerous pieces of equipment. Acquisition workforce team members from the Product Manager Sets, Kits, Outfits and Tools (PM SKOT), under the Project Manager Force Projection (PM FP) of Program Executive Office Combat Support and Combat Service Support (PEO CS&CSS), provide the integrated maintenance



### **EASY DOES IT**

The system-of-systems approach to field-level maintenance is central to achieving PM SKOT's mission of providing the Army with modernized and deployable ordnance capabilities at the right time, place and price. Here, PVT Ronnie Green, left, works with PVT Fedson Marra and SGT Luis Agramonte to use a crane, part of the M7 Forward Repair System, at Fort Stewart, GA, July 19, 2012. The Soldiers are wheeled vehicle mechanics assigned to the 703rd Brigade Support Battalion, 4th Infantry Brigade Combat Team (BCT), 3rd Infantry Division. (Photo by SSG Mary Katzenberger, 1st BCT, 82nd Airborne Division Public Affairs)

## THE DECISION TO MAKE ON-SITE REPAIRS OR EVACUATE THE EQUIPMENT TO THE NEXT HIGHER LEVEL OF REPAIR IS TIME-SENSITIVE, MUCH LIKE IN THE MEDICAL FIELD, AND THE SYSTEM-OF-SYSTEMS APPROACH PROVIDES A LOGICAL AND SEQUENTIAL METHOD FOR MAINTAINERS TO DETERMINE QUICKLY THE APPROPRIATE LEVEL OF REPAIR.

support capabilities that Army ordnance formations need to address an array of maintenance challenges.

Today, this includes a system-of-systems approach that connects the Army's flagship ordnance platforms into a field maintenance capability greater than its constituent parts. The "Defense Acquisition Guidebook" defines a system of systems as "a set or arrangement of systems that results from independent systems integrated into a larger system that delivers unique capabilities."

Typically arrayed across the battlespace to balance all levels of support, the eight systems fielded by PM SKOT leverage complementary, interconnected capabilities and provide state-of-the-art, containerized tool systems at specific levels of need for the joint warfighter. The result is to make them easily scalable and to ensure that commanders in all environments can quickly repair wheeled and tracked vehicles, ground support equipment and weapon systems.

With industrial-quality tools, this set of individual field maintenance platforms collectively reduces common tool redundancy, provides tool standardization, minimizes transportation requirements and is backed by the PM SKOT's warranty and replacement program.

A useful way to understand each system's role is an analogy to medical triage and care, with the varied responsibilities of first responders, emergency rooms, hospitals and specialty clinics. Health care professionals assess the symptoms and then direct the patient to the appropriate level of care. The same can be said for 91 series military occupational specialty (MOS) mechanics using the ordnance capabilities provided by PM SKOT. Following are the eight platforms.

- The **Shop Equipment Contact Maintenance** (SECM) represents the maintenance first responders who conduct initial assessments with a tools enclosure and work area mounted on an up-armored High Mobility Multipurpose Wheeled Vehicle. The SECM is designed to transport two trained mechanics to conduct triage, take immediate repair actions or call for recovery assets. With its mobility, agility and maintenance capability, the SECM is a combat multiplier that gets equipment back into the fight as far forward as possible.
- The **Forward Repair System** (FRS) represents the emergency room, where rapid repairs and/or further assessments are conducted with more sophisticated equipment. The system provides a mobile maintenance and repair capability that allows commanders to

return heavy-force combat systems to fully operational condition. The 10,000-pound crane on the FRS provides unique lift capability to facilitate heavy repairs.

- The **Standard Automotive Tool Set** (SATS) represents the hospital, where most major repairs are completed. The SATS provides commanders a common tool set to perform extensive field maintenance. The system contains an electric power generator, environmental control unit and ergonomic storage space for complete tool loads.
- **Shop Equipment Welding** (SEW) represents a specialty clinic configured to address all types of repairs, providing spectrum welding capabilities throughout the battlespace in all climate and light conditions. The SEW provides compressed air, electrical power for hand tools and an illuminated work surface complete with a vise.
- The **Hydraulic System Test and Repair Unit** (HSTRU) represents a specialty clinic that specializes in hydraulic repairs, providing substantial line and hose repair capabilities to perform diagnostic testing and repair for tracked, wheeled and various other ground systems. The HSTRU includes the ability to fabricate current industry-standard hoses with modern crimping technology.
- The **Metal Working and Machining Shop Set** (MWMSS) represents a specialty clinic that focuses on parts fabrication and metal working repairs. The MWMSS, currently in development, will combine multiple legacy systems into one consisting of two shop sets that will translate into a comprehensive metalworking and repair system. MWMSS production is scheduled to begin in 2014.
- The **Armament Repair Shop Set** (ARSS) represents a specialty clinic dealing with armament repairs—updating





### FIXING IT FORWARD

The mobility, agility and maintenance capability of SECM is a combat multiplier, getting equipment back into the fight as far forward as possible. Here, SGT Ansumana Foday-Kakpa, a wheeled vehicle mechanic with the 3rd Sustainment Brigade (3rd SB), repairs an M984A4 Heavy Expanded Mobility Tactical Truck at Multinational Base Tarin Kowt, Uruzgan province, Afghanistan, March 5. (U.S. Army photo by SPC Rochelle Krueger, 3rd SB Public Affairs)

and consolidating multiple artillery, fire control and small arms shop sets into a single standard Army shelter. The system will also incorporate industrial-quality tools with lifetime warranties. The ARSS is in development, with production scheduled to begin in 2014.

- The **Fire Suppression Refill System** (FSRS) represents a specialty clinic that deals with the maintenance of vehicle fire suppression systems, providing an organic capability to safely perform bottle refill operations and maintenance. The FSRS is also in

development, with production planned for 2015.

Although each of the eight systems forming this system-of-systems approach can be used by itself, they share common characteristics and were designed to work in concert. (See Figure 1, Page 35.) All possess lifetime-warranted industrial-quality tools and state-of-the-art capabilities configured for quick inventory, improved accountability, enhanced safety and the rapid action that today's joint warfighters need.

### MAINTENANCE IN ACTION

The priority of maintenance management is always to return systems to Soldiers as far forward and as rapidly as possible by repairing or replacing components, modules and assemblies. Units typically have minimal time to complete maintenance on wheeled and tracked vehicles, ground support equipment and weapon systems. The decision to make on-site repairs or evacuate the equipment to the next higher level of repair is time-sensitive, much like in the medical field, and the system-of-systems approach provides a logical and sequential method for maintainers to determine quickly the appropriate level of repair.

For example, the SECM is the first responder that arrives on the scene as far forward as possible to triage, repair or facilitate the evacuation of battle-damaged or inoperable equipment. Damaged systems requiring more work generally go to the FRS for repair, where FRS maintainers determine whether the equipment can be serviced at their location or should be evacuated to the SATS.

Should repairs require capabilities beyond those of the SATS, one of the five specialists can repair the damaged equipment. Any remaining non-mission-capable

equipment is evacuated to the sustainment level for rebuild or turned in as uneconomical to repair. The skillful diagnosis performed by the 91 series MOS Soldier determines the best level at which battle-damaged or inoperable equipment enters the system for repair.

### A BROADER VISION

PM SKOT's mission is to provide the Army with modernized and deployable ordnance capabilities at the right time, place and price. The system-of-systems approach to field-level maintenance is central to achieving this mission. Five of the eight systems are fielded today, and the Army expects to add the remaining three capabilities (MWMSS, ARSS and FSRS) to its inventory by 2015. As the nature of repair and maintenance evolves with new technologies and more advanced platforms, so will the maintenance-enabling systems that PM SKOT delivers.

"I know units both deployed and at home station benefit from PM SKOT's work on a daily basis," said COL Eric Fletcher, PM FP. "By delivering focused, multifunctional maintenance capabilities, Soldiers are better able to maintain and sustain important systems, and we're not done yet."

Overall, the opportunities to reduce Soldiers' burdens, eliminate redundancy and affordably improve readiness extend far beyond the Ordnance Corps. Every Army system fills a key requirement, and in the future our systems may need to fill multiple requirements for a longer period of time by focusing on flexible, common approaches like PM SKOT's.

For more information about PEO CS&CSS, PM FP or PM SKOT, go to [www.peocscss.tacom.army.mil](http://www.peocscss.tacom.army.mil), [www.peocscss.tacom.army.mil/PMFP](http://www.peocscss.tacom.army.mil/PMFP) and [www.peocscss.tacom.army.mil/PdMSKOT](http://www.peocscss.tacom.army.mil/PdMSKOT).

FIGURE 1



### A SYSTEM-OF-SYSTEMS OF SUPPORT

PM SKOT's system-of-systems approach to maintenance support consists of eight comprehensive, interconnected systems capable of repairing any maintenance problem, using a triage concept akin to the treatment of a patient at the appropriate level of care. Although each of the eight systems can be used by itself, they share common characteristics and were designed to work in concert. (SOURCE: PM SKOT)

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# GROWING Greatness

AMRDEC develops world-class engineers for  
the missile enterprise by putting them to work

*by Mr. C. Stephen Cornelius*

It's called "building the bench," and it is more than a sports metaphor. It is a way of doing business. It is at the center of what the missile enterprise does to support Soldiers in the field and in the future. It is critical that young engineers and scientists have the opportunity to learn their craft from established experts early in their careers so that they can make important discoveries and contributions to the Army.

What they learn is not taught in school—they must learn by doing.

The U.S. Army Aviation and Missile Research, Development and Engineering Center (AMRDEC) Redstone Arsenal, AL, employs a number of programs to recruit, train and retain world-class engineers and scientists.

The Pathways Internship Program and summer hiring provide students in high schools, colleges, trade schools and other

qualifying educational institutions with paid opportunities to work at AMRDEC while completing their education. Through dynamic team structures and mentoring, information exchange and employee development are encouraged across varying ages, years and types of experience, and organizational divisions.

Below are stories of just a few of the young employees who are having a direct impact on the AMRDEC mission to deliver collaborative and innovative technical capabilities for responsive and cost-effective research, product development and life-cycle systems engineering solutions to equip the warfighter with the best technology today and tomorrow.

## **'A WHOLE NEW WORLD'**

Nathan Mathis, a graduate of Tennessee Tech University in Cookeville, is working as an aerospace engineer in propulsion technology for AMRDEC's Weapons Development and Integration Directorate (WDI) in Huntsville, AL.





### PRESENTING HIS WORK

Dr. Patrick Taylor, left, worked as a summer hire in the propulsion division at WDI while completing his doctoral work in electrical engineering at Vanderbilt University. Later, the newly minted Dr. Taylor joined the team full time and developed a lab where he could conduct his research in electric propulsion systems for flight. Here, Taylor demonstrates his work to Dr. Andrew Hugine Jr. and Dr. Beverly Edmond, both of Alabama A&M University, during their visit to AMRDEC. (U.S. Army photo by Merv Brokke, AMRDEC Public Affairs)

Mathis had just earned his master's degree in chemical engineering with an emphasis in environmental engineering, and was glad to get the job. However, his work at the university did not involve propulsion engineering. His thesis was about laboratory work conducted on samples of solid municipal waste.

"The only thing I really knew how to propel was my car via the gas pedal," Mathis said. "Making fire come out the back end of a rocket motor was a whole new world."

One day, Dr. Jay Lilley, chief of propulsion technology, stopped by Mathis' desk. "During the course of our conversation,

he said, 'We're going to make you a propulsion engineer.' I don't remember anything else he said during that talk. All I can recall thinking was, 'Well, I guess that makes it official,' " Mathis said.

### GOOD TO GREAT

Making good engineers into great ones is at the heart of the work that WDI does. It is as important as supporting Soldiers in the field because, in a sense, it is the same thing. Without having the right people help to grow the skills and expertise of younger people, supporting the Soldier into the future is impossible. As rewarding as WDI's day-to-day work can be, it is even more rewarding to see the dedication

and spirit in new engineers who grow and mature and then use their own expertise to serve their nation and help others achieve their engineering goals.

"Academic knowledge without firsthand experience in this business is of limited value. Until you put yourself on the line and test the limits of your abilities, you really can't understand how much you know or don't know," Mathis explained.

### GROWING A MENTORING PROGRAM

WDI leadership saw a need to empower new employees and give them a unique opportunity in the propulsion field. As a



#### AFTER-ACTION INSPECTION

Propulsion and Structures Directorate junior engineers Matt Smith, left, Nathan Mathis, Lance Hall and Amy Gerards inspect a successfully fired Kinetic Energy Active Protection System rocket motor after disassembly. (U.S. Army photo by Merv Brokke, AMRDEC Public Affairs)

consequence, WDI developed a program to mentor and develop young engineers and scientists and to grow future experts and mentors.

The program began by answering one basic question: How does a newly graduated person gain the knowledge and experience necessary to lead complex design and development programs and evolve into one of the nation's top defense scientists or engineers?

The answer, in part, is to foster an atmosphere in which the workforce, young or not so young, can take smart risks, learn and succeed without fear of retribution or the untimely end of a career. Another part of the answer is to put young engineers—with appropriate

backup and mentoring—into a situation that takes them out of their comfort zones and makes them stretch their limits.

Mathis and many other young engineers exemplify the kind of engagement with mentors that makes both them and the program succeed.

Mathis was tasked to lead the development of the propulsion system for an active protection system program designed to protect lightly armored vehicles from attack. His team consisted of both young engineers and senior propulsion experts.

"It was very encouraging to have literally hundreds of years of propulsion

engineering expertise to support us and our work," Mathis added.

"I've learned a lot in the four-plus years since graduation. A formal college education in propulsion could never have equaled the hands-on experience the Army has provided," he said.

#### FROM SUMMER HIRE TO FULL-TIME EMPLOYEE

Patrick Taylor worked as a summer hire in the propulsion division at WDI while completing his doctoral work in electrical engineering at Vanderbilt University. Later, the newly minted Dr. Taylor joined the team full time.

One of the first things Taylor did was develop a lab where he could conduct



his research in electric propulsion systems for flight. That lab has enabled Taylor to focus on cutting-edge battery and motor technologies, trying to get the maximum energy possible for the lowest weight, which is a real point of pride for the scientist.

“Starting up from scratch, I’ve been able to develop a laboratory now that gives me freedom to do a lot of different types of work for a lot of different people here, both on the base itself as well as for the Army overall, in electric propulsion.”

He also serves as an ambassador for the Army’s education outreach program, mentoring students in AMRDEC co-op and summer programs.

“I was in their shoes at one point,” he said. “It doesn’t take a lot to push a student toward an interest in something. I know I’ve had experiences like that from elementary school on up that have shaped how I have thought about things. I try my best to give back in those sorts of ways.”

Kristin Spencer, former All-American outfielder with the University of Alabama in Huntsville (UAH) softball team and the university’s Top Engineering Student in 2006, graduated with a bachelor’s in mechanical engineering and began working in the WDI’s Composite Structures Laboratory.

One of her first projects was to look at ways to reduce the weight of Army aviation platforms.

By using carbon fiber structures, Spencer and her team were able to save 32 pounds as they designed and built a reduced-weight replacement for the OH-58 Kiowa Warrior’s M279 Hellfire missile launcher.

This weight savings gives aviators more planning options and greater flexibility to complete their missions.

“It’s exciting, knowing the work we do directly affects the Soldiers and I can help to make their jobs easier,” said Spencer.

### BRIDGE TO A CAREER

In 2009, Christina Brantley was named an Army science, technology, engineering and math role model.

The Huntsville native graduated with honors from the Madison Academy, went on to earn a bachelor of science degree in electrical engineering at Tennessee State University and is pursuing a master’s in physics from Alabama Agricultural and Mechanical University.

While attending the Madison Academy, Brantley began her career in scientific research and engineering, participating in the Science and Engineering Apprenticeship Program (SEAP) at AMRDEC.

“Being involved as a student in the SEAP program here at AMRDEC was an unforgettable experience. The SEAP program was a direct bridge. It gave me an opportunity to apply my math and science ability to actual engineering applications. The engineers here gave me an opportunity for hands-on work in circuits, sensor design and other military applications. I was inspired to become an engineer by many people in my life, including my parents and fellow engineers that I met while I worked in the SEAP program at AMRDEC,” said Brantley.



### MENTORING YOUNG SCIENTISTS

Dr. Jay Lilley, center left, chief of propulsion technology at AMRDEC, checks rocket motor test firing results with summer-hire students, from left, Monica Kruse (Vanderbilt University), Jessica Chunn (Tuskegee University), Christopher Dickens (Lee University), Katherine Bonenberger (Purdue University) and Jordan Hurt (Auburn University), with Christina Blankenship, center, general engineer and a former co-op student, looking on. (U.S. Army photo by Merv Brokke, AMRDEC Public Affairs)



Brian Cook was majoring in mechanical engineering at Tennessee Technological University. He met his future function chief, Mike Morrison, during a career fair.

"I went up there with Gene Henderson, another Tennessee Tech graduate, and we had a booth. Brian came over to talk with us and then he came back to talk. That was impressive," said Morrison, chief of the Energetic Materials Function.

AMRDEC hired Cook as a co-op student in 2010. For his senior design project at Tennessee Tech, Cook led a group of six people whom AMRDEC asked to develop a method for applying liners to rocket motor cases and improve operations in the lab. The result of their effort was a machine that has made work more efficient and more effective,

mechanizing a process that previously had been done by hand.

Supporting Cook's senior design project was Darrell Simonds, a WDI technician who has been working with large and small rocket motors on Redstone Arsenal since 1978.

Simonds' experience with similar lining systems was instrumental in the team's success, said Cook.

Cook's machine gives his WDI team reproducibility for rocket motor demonstrations. Hand-painting the lining into rocket motor cases can result in inconsistencies in liner thickness, thus changing the amount of propellant that is loaded into the rocket motor casings and adversely affecting tests, said Morrison.

Simonds added that the new capability helps tremendously in terms of time saved. "Cook is up to speed now and learning more every day. They teach him something and off he goes. He is an asset to the team," said Simonds.

Cook is now an intern in the Pathways Program and is working on his master's degree.

### ROCKET WARS

Each year, WDI runs a contest called Rocket Wars. Student hires design and build a boost-sustained rocket motor within certain parameters for thrust and pressures. Then they compete against each other as teams. While working, they have fun, but more importantly they get valuable hands-on experience.

Justice Manson, a third-year summer hire majoring in mechanical engineering at the University of Alabama, served as a team leader during the 2010 Rocket Wars competition. His teammates included Corey Davis, majoring in aerospace engineering at Purdue University; Drew Johnson, majoring in mechanical engineering at UAH; Jerald Fayorsey, majoring in aerospace engineering at Tuskegee University; and Faith Ryder, majoring in electrical engineering at UAH.

After a briefing from Lilley, the propulsion technology chief, during which they received guidance and numerics on what to build, Manson and his team got to work.

"At Propulsion, you see things happen. You do the numbers, you do the drawings and the designs, you do the builds, then you see the results," said Ryder.

In all of WDI's mission areas, the goal is to do real, hands-on engineering and science in-house. With the tools,



### BRIEFING THE BRASS

One of the first projects that Kristin Spencer, right, undertook after earning her bachelor's degree in mechanical engineering and going to work in the WDI's Composite Structures Laboratory was to explore ways of reducing the weight of Army aviation platforms. Here, she briefs her project to reduce the weight of the OH-58 Kiowa Warrior's M279 Hellfire Missile Launcher to MG James R. Myles, then-commanding general, U.S. Army Aviation and Missile Command (AMCOM); Eric Edwards, AMRDEC director; and CW5 Keith Langewisch, AMCOM Aviation Branch maintenance officer. (Photo by Merv Brokke, AMRDEC Public Affairs)



#### AUTOMATING THE PROCESS

Brian Cook, Tennessee Tech University graduate, demonstrates his senior design project that mechanizes the application of liners to rocket motor cases. (Photo by Ryan Keith, AMRDEC Public Affairs)

**“STARTING UP FROM SCRATCH, I’VE BEEN ABLE TO DEVELOP A LABORATORY NOW THAT GIVES ME FREEDOM TO DO A LOT OF DIFFERENT TYPES OF WORK FOR A LOT OF DIFFERENT PEOPLE HERE, BOTH ON THE BASE ITSELF AS WELL AS FOR THE ARMY OVERALL, IN ELECTRIC PROPULSION.”**

facilities and mission, WDI enables young employees to go all the way from paper design through fabrication and analysis, to test and data reduction for all types of tactical propulsion systems. In using these in-house assets for hardware-centric programs, WDI is growing the next generation of experts from our young engineers and scientists.

On a personal note, I am proud of the WDI Team and enthusiastic about how they have owned this program. Our leadership has taken the program to the next level and is recruiting and developing future engineers. Needless to say, I am even more proud of the young engineers who have and will accept the challenges and take those first big steps in their careers.

For more information, contact Merv Brokke, AMRDEC public affairs officer, at [mervin.e.brokke.civ@mail.mil](mailto:mervin.e.brokke.civ@mail.mil)

or 256-313-5742; or go to <http://www.redstone.army.mil/amrdec/>.

*Note: The author would like to thank Mervin Brokke, Heather R. Smith and Randy Siniard for their contributions to this article.*

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# SCIENCE Meets ACQUISITION

Medical materiel acquisition workforce represents  
unique skill sets in support of the warfighter

*by Dr. George V. Ludwig and Ms. Dawn L. Rosarius*

**T**he U.S. Army Medical Research and Materiel Command (USAMRMC) is a true life-cycle command. Its acquisition workforce plans, programs, budgets and executes a comprehensive medical research, development, and test and evaluation program from concept through operations and support. USAMRMC's workforce at six medical research laboratory commands executes the science and technology (S&T) program, investigating medical solutions by focusing on various areas of biomedical

research. These include military infectious diseases, combat casualty care, military operational medicine, medical chemical and biological defense, clinical and rehabilitative medicine, and medical simulation and health information technology.

USAMRMC, a major subordinate command of U.S. Army Medical Command (MEDCOM), manages a large extramural research program with numerous contracts, grants, and cooperative research and development agreements to

provide additional research, development and acquisition (RDA) capabilities from leading academic, private industry and government organizations.

In addition to its six laboratories, USAMRMC manages five subordinate commands that focus on medical materiel program management and advanced development, strategic and operational medical logistics, and medical RDA contracting, which together complete the full life cycle of medical materiel acquisition.





### SAVING LIVES THROUGH SIMULATION

Medical simulation is one of the areas in which USAMRMC seeks to develop, field and support solutions for the Soldier. Here, Soldiers serving as health care specialists with the 1st Air Cavalry Brigade, 1st Cavalry Division (1-1 CAV) evaluate a medical simulation mannequin during pre-deployment trauma training at Fort Hood, TX, May 3. (U.S. Army photo by SGT Christopher Calvert, 1-1 CAV Public Affairs)

**THESE SCIENTISTS FIND THAT EXPANDING THEIR KNOWLEDGE BASE THROUGH ACQUISITION TRAINING IS CRITICAL TO ENSURING THAT GOOD IDEAS MATURE BEYOND THE BENCH AND DEVELOP INTO FIELDED PRODUCTS.**

This acquisition model is different from most of those across the rest of the military, whereby the program executive offices responsible for advanced development are not directly linked to the S&T base or to the sustainment community.

Because of the comprehensive nature of USAMRMC's medical acquisition program, it must employ acquisition professionals, together representing

an equally comprehensive set of skills, to execute this program across the full development life cycle. The diversity of specialties among acquisition professionals operating within the command includes systems planning, research, development and engineering (SPRDE) – systems engineering; S&T management; program management; contracting; life-cycle logistics; business – financial management; facilities engineering; and information technology.

As Figure 1 shows, within the framework of this life-cycle model, acquisition professionals develop from two directions: the S&T base and the logistics community.

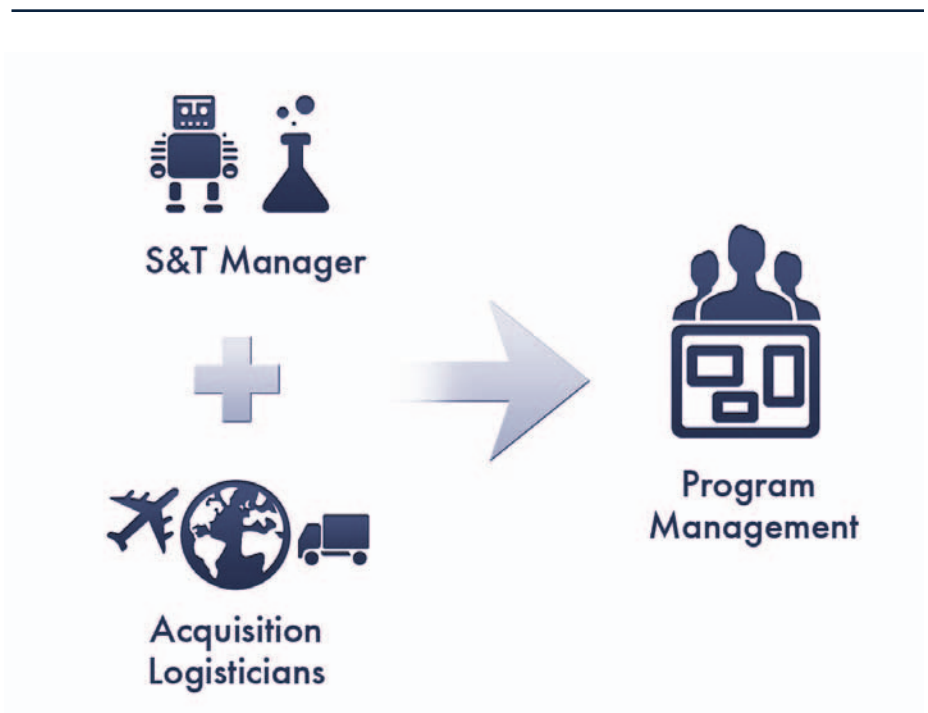
### FROM ACADEMIA TO ACQUISITION

Most research scientists beginning their careers with USAMRMC come from an academic setting, where they focus on basic and early applied research. Rarely do these scientists have any exposure to product development, and in many cases, they have little interest in learning about the DOD acquisition system. While this may seem counterproductive, these scientists represent a vital conduit for new ideas and concepts that originate in the academic world. These fresh ideas help drive innovation within the organization and ultimately provide the basis for a robust acquisition workforce.

Over time, these young professionals mature, both in their understanding of the military's mission focus and in their scientific acumen. The scientific projects conceived by these researchers progress from good ideas to well-developed and tested concepts, leading to peer-reviewed published research and prototype medical products that are ready for critical testing and evaluation. Often, these prototypes enter a critical stage of development requiring expertise that does not come from the scientific professional development typical of an academic setting.

These scientists find that expanding their knowledge base through acquisition training is critical to ensuring that good ideas mature beyond the bench and develop into fielded products. They typically follow an acquisition education path that leads to S&T management or SPRDE, and an acquisition professional is born.

**FIGURE 1**



### FORMULA FOR SUCCESS

USAMRMC's medical acquisition professionals develop primarily from one of two directions: the S&T base and the logistics community. (SOURCE: USAMRMC)

As medical product development leaves the S&T phases (concept refinement and technology development) and enters advanced development (systems development and demonstration, and production and deployment), science professionals ideally follow their products, which requires additional training in program management. This training allows them to ensure that the critical test and evaluation phases, often involving a strict U.S. Food and Drug Administration (FDA)-controlled regulatory pathway, are completed successfully.

### THE LOGISTICIAN'S PATH

Similar to research scientists, the logisticians begin their careers with USAMRMC outside of the acquisition workforce. Their focus is on supplying,

sustaining and maintaining medical products for the warfighting community. They, too, are rarely exposed to product development. However, unlike their scientific peers, they soon become aware of how important the DOD acquisition system is in properly supporting and sustaining products.

As logisticians learn more about product selection and development, they begin to value the acquisition process and realize the importance of a mindset that goes beyond fielding and sustainment. Inasmuch as about 95 percent of the solutions chosen for our clinicians are available commercially, it is essential that our logisticians comprehend the elements of acquisition supportability. For example, our logistics workforce ensures that the



needed training tools, support equipment, and maintenance and supply support are available for commercial items, such as defibrillators, vital signs monitors and tourniquets, before procuring and fielding them.

For the remaining 5 percent—developmental solutions that may be primarily Army- or DOD-specific—our logisticians engage early and often with S&T managers, systems engineers and product managers to ensure that the final product is sustainable in a combat environment. Being part of a life-cycle management command facilitates teamwork and communication across these communities.

USAMRMC's logisticians come from various educational backgrounds and understand how to get products to warfighters effectively and efficiently. Our acquisition logistics workforce provides a crucial service, guaranteeing that the products we place in the hands of clinicians to save lives on the battlefield can be supported for the life of the product, at a reasonable cost.

### **BROADENING THEIR INSIGHTS**

Like their scientific counterparts on the other end of the life cycle, many medical logistics professionals obtain additional training in program management, allowing them to take the lead in the critical testing and evaluation phases of product development.

This does not mean that all of USAMRMC's leading scientists and logisticians give up their expert status to become certified program managers. However, being part of a full life-cycle management command affords each a better understanding of program management and the opportunity to move into this area if they choose.



### **A FAR-REACHING OPERATION**

USAMRMC, a major subordinate command of MEDCOM, represents an unusual union of pure science and acquisition know-how. Subordinate to USAMRMC are a variety of commands focusing on research, materiel program management, logistics and everything in between. One of them is the U.S. Army Institute of Surgical Research (USAISR). Here, COL (Dr.) Evan M. Renz, director of the USAISR Burn Center, performs surgery in a new operating room at the burn center, part of the San Antonio Military Medical Center, May 25, 2012. (Photo by Steven Galvan, Joint Base San Antonio – Fort Sam Houston, TX)





### GETTING PRODUCTS TO THE BATTLEFIELD

The Combat Application Tourniquet, which USAMRMC developed for one-handed use if necessary by Soldiers on the battlefield, was named one of the Army's Greatest Inventions for 2005. Here, SSG Jamie M. Tillman, a health care specialist with the 203rd Brigade Support Battalion (BSB), 3rd Armored Brigade Combat Team, 3rd Infantry Division (ID), places the tourniquet on SSG Jimmy Lee Mitchell, a medical logistics specialist also with 203rd BSB, during advanced bleeding training Aug. 6, 2012, at Camp Buehring, Kuwait. (Photo by SGT Christopher Johnston, 3rd Brigade Combat Team, 3rd ID Public Affairs)

USAMRMC has many product managers from both the logistics and scientific communities. While some volunteer to take on the challenge of product management, others become product managers because they cannot understand why the great idea they had in the lab did not get out into the field as quickly as they had expected. Regardless of their rationale, all soon learn the significance of being a product manager in guiding the development and eventual fielding of their product, while they learn to adhere to

the regulations of the FDA or the U.S. Environmental Protection Agency in conducting operational tests.

Many within USAMRMC's acquisition workforce, especially civilians, grow and remain in product management for the remainder of their careers. They embrace the importance of guiding a team of experts through the development of medical materiel to meet a military need. Our military acquisition workforce personnel, however, frequently move in and

out of program management, and back to their original careers as scientists or logisticians. The stability that USAMRMC's civilian workforce provides in acquisition program management allows military medical team members to return to the lab or medical logistics to help educate and support other S&T managers and logisticians with their in-depth knowledge of program management.

The medical materiel acquisition process involves many moving parts as well

as many dedicated team members from both the military and civilian populations. USAMRMC works to effectively manage its 11 subcommands throughout the world to provide medical solutions that protect, treat, and optimize the health and performance of warfighters. Partnering with leading academic, private industry and government organizations, USAMRMC leverages its capabilities to maximize its potential for fielding critical medical products quickly and assuredly.

## CONCLUSION

Since USAMRMC's ultimate goal is to deliver solutions, both knowledge and materiel, to the warfighter, it is imperative that many of its dedicated scientists and logisticians develop into program managers with the acumen to share their knowledge with the rest of the life-cycle command.

Our acquisition workforce is excited about developing and delivering medical products to benefit warfighters, and about discovering new ways to expedite the delivery of these items as much as possible. In support of this, USAMRMC places great emphasis on providing the resources and avenues necessary for its scientific and logistics professionals to gain critical knowledge in both acquisition and product management, and encourages each team member to progress professionally along his or her chosen career path. (See related article on Page 48.)

As this open, supportive environment encourages free and progressive thought, the possibilities for advancements in the field of medical materiel acquisition remain endless.

For more information, go to <http://mrmc.amedd.army.mil/index.cfm?pageid=acquisition.overview>.



## ADVANCING THE STATE OF THE ART

USAISR, in collaboration with Flashback Technologies, is working to develop a new medical monitor that can help physicians and medical staff assess a patient's condition. Much like a fuel gauge in a motor vehicle, the gauge of the Compensatory Reserve Index begins to show a loss in "fuel" well in advance of changes in blood oxygen or heart rate measured by the currently used pulse oximeter. (Photo courtesy of USAISR Public Affairs)

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# BRIDGE

## A MULTISERVICE MATTER

IMAC brings together members of the entire DOD medical community who want to be well-versed in the DOD acquisition process, whether they work behind a desk or in the thick of combat.

Here, members of all the military services work together to transport a simulated patient from a UH-60 Black Hawk medevac helicopter to a waiting C-17 Globemaster III aircraft for evacuation from the battlefield to further medical care, June 23, 2012, during Exercise Global Medic 2012. Global Medic, an annual joint field training exercise for theater aeromedical evacuation systems and ground medical components, is designed to replicate all aspects of combat medical service support. (Photo by TSgt Erica Knight, 4th Combat Camera Squadron)





# BUILDING

Intermediate Medical Acquisition Course supports both product and workforce development

*by Mr. Tom Aeillo*



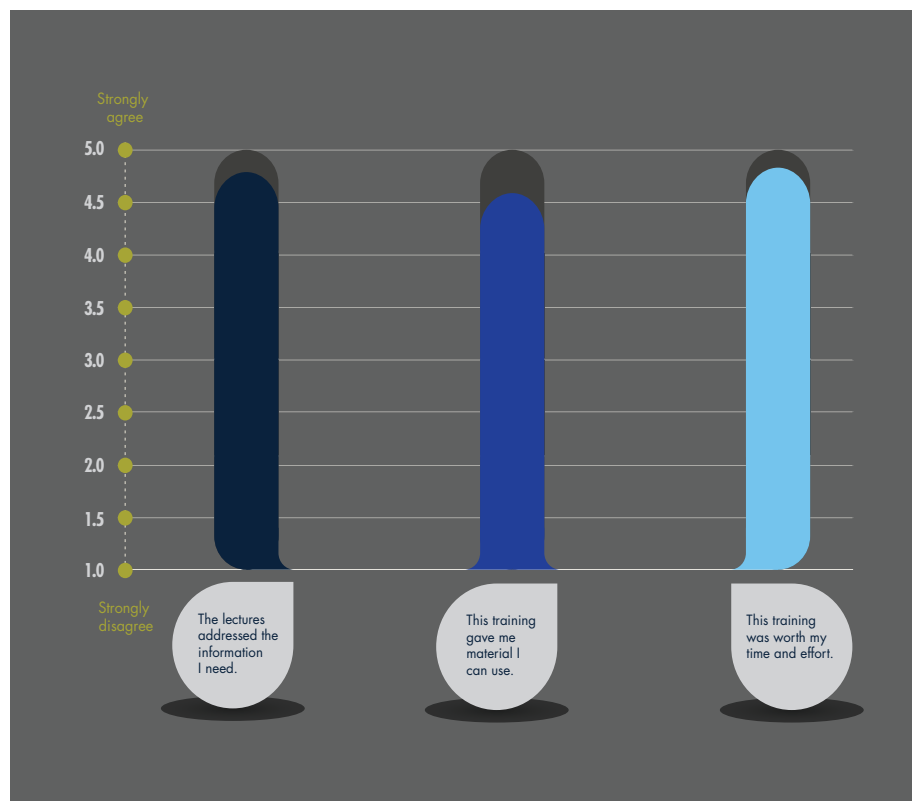
The acquisition of medical “products” is one of the most complex specialties for DOD, with risks and variables that few other acquisition fields face. The U.S. Army Medical Research and Materiel Command (USAMRMC) Intermediate Medical Acquisition Course (IMAC) not only addresses those complexities but is also a valuable scouting and recruiting tool to find scientists with programmatic and business skills, and develop them into skilled project managers.

IMAC trains members of the DOD medical community, including medics, patient care providers, researchers, medical logisticians, specialists in U.S. Food and Drug Administration (FDA) regulations and others on the acquisition process. USAMRMC provides this unique course as a way to improve the U.S. Army Medical Department’s acquisition workforce, while simultaneously improving its product development outcomes.

The course serves multiple roles, including training toward product manager (PM) certification; searching the medical workforce for promising new PMs who otherwise might not have considered being anything but research scientists; and as a catalyst for workforce integration, providing an opportunity for one-on-one networking among the diverse functional communities.

Since the USAMRMC began presenting IMAC, more than 1,200 medical professionals have participated from the U.S. Army, Navy, Air Force, Public Health Service, Department of Health and Human Services, and our industry partners. Graduates include an Army general and two Navy admirals, both commissioned and enlisted personnel, and many civil servants and contractors. Among the graduates are doctors, both practicing and

FIGURE 1



#### POSITIVE REVIEWS

This student feedback from a recent IMAC presentation illustrates the diverse medical community’s strong support for the course. The respondents included Army, Navy and Air Force participants. (SOURCE: USAMRMC)

from academia, lawyers, combat medics, resource managers, FDA regulatory specialists, software engineers, virologists, statisticians and combat developers. The course has been presented in Maryland, Texas, Alabama and Bangkok, Thailand.

Using a realistic but fictional medical product as a teaching vehicle, IMAC places participants in a group scenario as members of an integrated product team (IPT) that must develop, acquire and field this product. The product is complex, designed to represent many of the issues experienced in actual medical

acquisitions: FDA rules, unclear and conflicting requirements, scientific uncertainty, financial perturbations and even politics. These multiple factors provide ample opportunities for each participant to think, contribute and discuss problems similar to those typically addressed in their respective programs.

Class discussions are often very spirited, even among unflappable scientists, combat veterans and statisticians who have one driving thought: how best to field useful and affordable medical products that will improve the health of our



nation's warfighters. In one IMAC small-group discussion, a lower-ranking soldier said to a two-star general, "This may be the last time I ever say something like this, but sir, I think you're wrong." The general, in fact, changed his mind during the ensuing discussion.

### AN EDUCATION IN COMPLEXITY

While the basic DOD acquisition framework provides an excellent starting point, medical product acquisition has unique qualities that program managers and other members of the acquisition community must understand to successfully plan and execute a development effort. The variability of human physiology greatly increases the technical risk of any medical product, and the ever-changing regulatory environment represented by the FDA often adds significant risk to the program.

The term "medical product" includes three diverse categories: drugs, vaccines and devices. Within each category are significantly different development pathways. As drugs and vaccines are extremely high-risk, long-lead-time investments, DOD, by necessity, must partner with industry or nongovernmental organizations to complete any project involving these products.

This joint venture is necessary because the industry-average cost of a new drug development program in the United States is approximately \$1.2 billion, and it usually takes about 15 years from a program's start to get a new drug to market—when the program succeeds. More often than not, they don't; the industry-average rate of failure is roughly 11 out of 12 submissions. Because of these factors, DOD cannot pay "full freight" on most medical product developments.

USAMRMC's typical business model is to buy commercially when possible. But when it is not, the command must develop and refine new technology, reducing technical risk early in the development cycle with its strong scientific expertise. It then offers its intellectual property and infrastructure to support product development, thereby leveraging industry or nongovernmental investments in an effort to help bring new products to the battlefield and to market.

For this model to work, the USAMRMC must maintain a strong scientific capability and keep the product development pipeline filled in light of the failure rate.

It must also recognize the need for, and accept, industry partner changes that will make products commercially viable. Without a potential for commercial sales to recoup their investment, there is little incentive for developers to invest. Finding an appropriate balance is often difficult, as military needs may take second place to those of industry or nongovernmental organizations that ultimately bear much of the financial burden.

Compounding the problem for most technologies, the FDA views any change to an existing product or process as the creation of a new product that requires separate clinical testing, which further



### LOOKING BEYOND THE LABORATORY

IMAC was born of USAMRMC's desire 12 years ago to bridge the gap between conducting world-class medical research and advancing cutting-edge medical technology into product development. IMAC explores this process in extensive and realistic detail. Here, SGT Michael Sandford, a laboratory technician at the Walter Reed Army Institute of Research, an element of USAMRMC in Silver Spring, MD, demonstrates how to use the Arthropod Vector Rapid Diagnostic kit, May 3, 2012. (Photo by WRAIR)

drives up both cost and schedule. Therefore, development efforts become a complex dance with industry partners, balancing cost, schedule, performance and market requirements for each effort.

To illustrate this complexity, consider an example in which DOD needs a new drug to protect warfighters from a particular disease. This hypothetical disease may not occur in the continental United States but may be devastating to children in the Third World. In such a case, there is little industry incentive to develop a drug targeted at adults, because there is no civil market to support it. The primary market will be for children in the Third World.

Because children often react differently to medications than adults do, the FDA requires different tests for drugs made for children than those designed for adults. Consequently, a single medication would have to be treated as two separate development efforts. In this scenario, our military adult drug would compete, to some degree, with the commercial need for a children's product.

Adding complexity, the FDA requires that each clinical use of a drug undergo its own clinical trials. So the military has a requirement to prevent infection from a particular tropical disease, while the commercial market's focus is actually to cure the same disease. Although one drug may perform both functions, the FDA would require different data sets for each use. Those data sets would have to come from different, and expensive, clinical trials, to support approval for each use.

Therefore, if the industry partner pursues approval only for a cure, DOD would have a solution that legally could not be used for the military application. DOD conceivably could conduct the clinical trials necessary to pursue an additional use

of the drug—at government expense—or pursue some other route. However, DOD as an entity could not require or even recommend use of this hypothetical drug in its military application without each patient's informed consent.

Another complicating factor in medical product development is the variability in both diseases and the human body. A disease that kills one person may be merely an inconvenience for another, based on a multitude of variables. Similarly, individuals do not react exactly the same way to any given drug, and factors such as ethnicity, gender and genetics all influence the reaction to diseases and medication.

Furthermore, individual reactions often change with age and when the drug is taken. Therefore, physical condition, changes in diet, sleep patterns, dietary supplements or other medications taken or not taken all affect a product's performance and safety. Drug and vaccine development is a search for an appropriate balance of risk and benefit.

In light of this complex situation, successful medical PMs have to be astute scientists as well as smart at business. Developing such talent is a difficult, long-term task. USAMRMC's leadership and workforce believe that IMAC, as the command's homegrown



### LEARNING THE WAYS OF THE FDA

IMAC places participants in a group scenario as members of an IPT that must develop, acquire and field a fictional product. Navigating complex FDA rules on product development and testing is a major part of this process. Here, an FDA laboratory worker injects an influenza virus into an egg Jan. 18; there, it will grow before being harvested in one of the many steps involved in creating a traditional flu vaccine. (Photo by FDA)



acquisition course, has helped to accomplish this over the past nine years.

### HUMBLE BEGINNINGS

IMAC was conceived in 2001, when leadership at the USAMRMC began shifting the command's emphasis from scientific knowledge toward medical product development. As then-Commanding General MG Lester Martinez-Lopez commented, "We conduct world-class medical research, but we must work to move our cutting-edge medical technology out of the labs and into products faster and more efficiently."

Recognizing that high-quality acquisition training was essential to accomplish this shift in emphasis, USAMRMC tested a commercially available acquisition training package that provided an introduction to medical product acquisition. The original training package, called "Managing Medical Acquisition Programs," was three days long and received highly favorable feedback from attendees. It was considered interesting, relevant and tailored to the audience. Scientists and others began to attend willingly, primarily because they realized value in the knowledge provided by the course.

Building on the success of this early training, the material was expanded to a five-day course. After additional topics and concepts were incorporated, the course name was changed to IMAC, and the command sought official Defense Acquisition University certification for IMAC as a 200-level acquisition course. Certification was granted in 2004.

IMAC's certification has helped to maintain interest in the course among those seeking to advance within the acquisition workforce. Positive feedback from attendees confirms its perceived value to the medical community. (See Figure 1,



### LIFESAVING CAPABILITY

The Individual First Aid Kit (IFAK), while it differs among the services, is an example for all of a critical development in military medical products. Here, A1C Lady Westmoreland, a medical logistics journeyman with the 1st Special Operations Medical Support Squadron, assembles an IFAK at the medical logistics building at Hurlburt Field, FL, Oct. 2, 2012. (Photo by A1C Benjamin Kim, Air Force Public Affairs Agency)

Page 50.) This remains a major factor in enrollment, as many participants do not occupy acquisition billets. Dedication to the medical mission is what drives many USAMRMC employees to better understand the DOD acquisition process.

### SCOUTING SCIENCE, BUSINESS TALENT

As IMAC is command-funded, it brings together participants from a variety of organizations and functional specialties, and its instructional staff supports USAMRMC's principal assistant for acquisition. Therefore, it fills another unique role. While most participants are expert in their own functional areas, some may also stand out during the course as potential PMs. These individuals recognize the complexities in the notional

exercise and help guide their work groups to promising courses of action.

If members of the IMAC staff identify such talent, they will discuss potential opportunities one-on-one with promising students and then suggest interested candidates to leadership as potential PMs. Indeed, several of USAMRMC's most successful PMs have discovered their niche in this way, both to their own benefit and that of DOD.

### CONCLUSION

Besides its role in supporting Defense Acquisition Workforce Improvement Act certification for PMs, IMAC serves a broader function. The USAMRMC encourages IPTs from all functional specialties to attend IMAC. The group



### THE ROLE OF LOGISTICS

Medical logistics are among the many different functional groups across the military that learn, through IMAC, how to interact effectively; others include lawyers, resource managers, combat developers, field medics, engineers, testers, bench scientists and statisticians. Here, U.S. Air Force Capt Amanda Davis, a medical logistics adviser with Medical Training Advisory Group, Regional Support Command Southwest, watches the transfer of a refrigerator into a warehouse during a supply offload at Camp Shorabak, Helmand province, Afghanistan, July 7, 2012. (Photo by Bill Putnam, Regional Support, NATO Training Mission – Afghanistan and Combined Security Transition Command – Afghanistan)

exercise provides needed experience in working on multifunctional teams, while helping members of the command to develop networks outside of their own organization.

Lawyers, resource managers, combat developers, field medics, logisticians, engineers, testers, bench scientists, statisticians and a host of others learn how to interact effectively to develop and implement a sound acquisition strategy. Many remain in contact even after the course is over. Each group learns more about the kinds of information the others need to better accomplish their jobs, and often they learn how to communicate better.

The result of this has been that scientists and PMs are far less hesitant to visit with their servicing contracting officer; logisticians are included far earlier in project planning; and the user community is part of the team, consulted throughout technology and product development. This improved communication is producing better requirements and acquisition strategies, and resulting in helping hands across the “valley of death” of acquisition.

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# CLOUD Seeding

CERDEC's Systems Integration  
Laboratory fosters competition  
while strengthening the Distributed  
Common Ground Station – Army  
production baseline

*by Mr. Robert A. Czajkowski*

**A**s late as October 2010, the Army lacked an environment to test and evaluate emerging cloud technologies before inserting them into a deployed baseline. Commercially available products that provide distributed, scalable and portable frameworks, such as Apache Hadoop, were still unavailable, and the Army was only beginning to adopt the low-cost commodity hardware to perform parallel processing across massive amounts of data.

Creativity and competition were stifled because complex acquisition processes limited sources for new technologies from gaining entry to the cloud environment. In order to compensate for these complex challenges, the Army looked to adopt a more efficient process to easily and quickly integrate relevant capabilities from industry, academia and other government organizations into a universal, cloud environment.

The product manager for the Distributed Common Ground Station – Army (PM DCGS-A) and the Communications-Electronics Research, Development and Engineering Center's Intelligence and Information Warfare Directorate (CERDEC I2WD) adopted an innovative, agile development approach that makes it possible to more efficiently incorporate relevant technologies and





### DATA DISH

The premise of the DCGS-A Cloud is a government-managed foundation layer that allows reachback to other government and industry technologies that provide relevant capabilities to the Soldier. Here, a Hawkeye Light Antenna System assigned to 4th Joint Communication Support Element (Airborne)/4 Joint Communication Support transmits data during a training exercise at Fort Stewart, GA, April 17. (U.S. Army photo by SGT Austin Berner, 335th Signal Command (Theater))

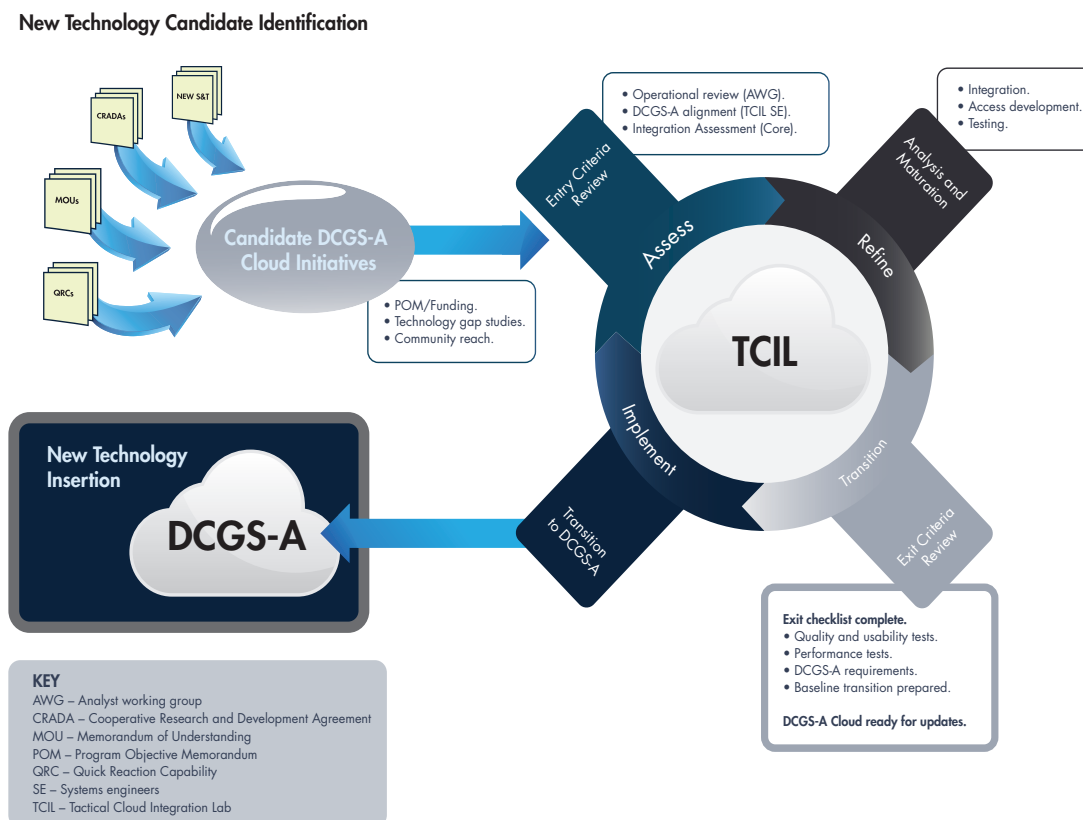
capabilities into the deployed production baseline known as the DCGS-A Cloud. The premise is a government-managed foundation layer that allows reachback to other government and industry technologies that provide relevant capabilities to the Soldier. Thus, the Army eliminates redundant, stand-alone technologies by establishing a cohesive, isolated test-and-development environment.

### A FRAMEWORK FOR INTEGRATION

The DCGS-A Systems Integration Laboratory (SIL) at Aberdeen Proving Ground (APG), MD, features a state-of-the-art infrastructure that connects developers, vendors and solutions with operational users in a government-managed, stand-alone environment. The SIL serves as a forum for the development,

vetting and testing of multi-intelligence analytics as the DCSG-A Cloud program matures and new data types are ingested. By providing a framework for third-party developers to integrate unique solutions into the DCGS-A SIL, the Army enables industry partners to provide relevant capabilities based on open standards rather than using stovepiped, proprietary solutions. This reduces the

FIGURE 1



## IMPROVED PROCESS

I2WD's technology evaluation and migration process supports several phases of the DOD acquisition process and significantly reduces a burden on PM DCGS-A. The SIL team meticulously outlines the overall cost, schedule and performance goals, as well as identifying the necessary manpower. (SOURCE: CERDEC I2WD)

time required for integration with the baseline and provides opportunities to refresh technology more rapidly than previously possible. I2WD, which serves as the executor of this initiative, validates the need for specific capabilities before adoption.

The DCGS-A SIL entrance process allows for the close exchange of ideas while maintaining intellectual property rights and ownership. Moreover, it promotes fair and open competition

among industry, academia and government agencies, regardless of size or acquisition experience. The 2013 Industry Day held at CERDEC I2WD is a prime example of this exchange of ideas: Following the industry day, more than 300 vendors were given a 30-day period to deliver a white paper, with supporting documentation, illustrating how their technology could be used in the current architecture to fulfill the capabilities sought by I2WD and PM DCGS-A.

The I2WD engineers work closely with the U.S. Army Training and Doctrine Command (TRADOC) Capability Manager (TCM) and PM DCGS-A to assess and identify technology shortfalls. Some of these shortfalls are identified through valuable feedback from the Soldier and the intelligence analysts who spend most of their adult lives sifting through raw data to create actionable intelligence. This tight-knit collaboration provides a more controlled, more efficient and more expedient method to





### READY FOR TESTING

The DCGS-A Cloud eliminates redundant, stand-alone technologies by establishing a cohesive, isolated test-and-development environment. Here, Capability Set (CS) 13 networked vehicles arrive at CERDEC's facilities Nov. 15, 2012, for field-based network verification testing to help support CS 13 fielding. (CERDEC photo)

get relevant capabilities quickly into the hands of the Soldier.

### VETTING TECHNOLOGIES

Before entrance into the SIL, each incoming technology undergoes an innovative systems engineering process to ensure that it will integrate and operate with the existing fielded architecture and capabilities, including compatible software design, ingestion and indexing. Each candidate technology is assessed by three teams, each with distinct abilities:

requirements mapping, systems engineering and core development.

Each candidate tool provides a capability review matrix that defines the tool's capabilities, its alignment to the approximately 2,000 DCGS-A requirements and whether the initiative is original or is superior to a currently deployed capability. Once a candidate initiative has completed testing and integration analysis, it is ready for an exit review. The candidate capability must meet the

**THE SIL SERVES AS A FORUM FOR THE DEVELOPMENT, VETTING AND TESTING OF MULTI-INTELLIGENCE ANALYTICS AS THE DCSG-A CLOUD PROGRAM MATURES AND NEW DATA TYPES ARE INGESTED.**



## TECHNOLOGY INFORMATION EXCHANGE

The DCGS-A SIL entrance process promotes fair and open competition among industry, academia, and government agencies, regardless of size or acquisition experience. Here, U.S. Sen. Barbara Mikulski and Steve Slane, chief of CERDEC's Command, Power and Integration Power Generation and Alternative Energy Branch, assemble a mast for the wind turbine component of the Reusing Existing Natural Energy Wind and Solar system during a tour of technology displays at APG April 29. (CERDEC photo)

functional requirements criteria, successfully integrate with other SIL technologies, function effectively in the cloud, and pass the usability and workflow compatibility testing. Once the technology is sufficiently verified and validated, it can be inserted into the production baseline.

When assessing the maturity of cloud-specific technologies, the SIL models itself after the DOD Technology Readiness Levels (TRL) scale, using the DCGS-A Cloud Technology Integration and Readiness Scale (TIRS). Generally speaking, when a new technology is

first conceptualized, it is not suitable for immediate application. Instead, new technologies are subjected to experimentation, integration, refinement and realistic testing. So, at the beginning of a cloud-related project, an integration review determines a TIRS grade for the specific initiative.

I2WD's new technology evaluation and migration process ultimately supports several phases of the DOD acquisition process (as referenced in DOD Instruction 5000.2-R, "Operation of the Defense Acquisition System"), which significantly

reduces a burden on PM DCGS-A. The SIL team meticulously outlines the overall cost, schedule and performance goals, as well as identifying the necessary manpower. (See Figure 1, Page 58.) The team also provides two or more competing prototypes to give the most effective capability to the Soldier.

Furthermore, the SIL manages numerous system-level design reviews to assess design maturity and requires each vendor to conduct a formal demonstration to the SIL team, using the operational product while running at scale to validate full



**THIS TIGHT-KNIT COLLABORATION PROVIDES A MORE CONTROLLED, MORE EFFICIENT AND MORE EXPEDIENT METHOD TO GET RELEVANT CAPABILITIES QUICKLY INTO THE HANDS OF THE SOLDIER.**

integration into the SIL environment. These are all acquisition requirements before deployment.

## CONCLUSION

The road to this point wasn't always smooth. The SIL team faced some technical challenges when setting up the test and evaluation cloud environment, including simply becoming educated on the emerging open-source computational paradigms, such as Apache Hadoop. Several engineers had to become proficient with the map and reduce processes, whereby applications are divided into many small fragments of work to enable dozens of independent computers to perform parallel processing across petabytes of data.

Other challenges arose with making our cloud environment available to smaller businesses, larger corporations and academia to introduce creative and diverse capabilities that directly support the warfighter.

The DCGS-A SIL had to demonstrate its value in identifying, integrating, maturing and deploying advanced capabilities to the production baseline. Through the valuable lessons learned and the adoption of the new technology evaluation and migration process, the SIL has successfully shifted its focus. In support of the DCGS-A acquisition strategy, the SIL is currently supporting the following DCGS-A programs:

- DCGS-A Cloud, the current deployed production environment that manages rapid development, integration, deployment and sustainment in an interconnected cloud environment. The DCGS-A Cloud, the primary computational and storage architecture for ultra-scale data and analytics, is located at several fixed sites and regional nodes to support Army intelligence data collection and analytic capabilities.
- Common Ground Station (CGS), the primary provider of radar targeting information for moving enemy tanks and other vehicles. The CGS provides additional geospatial or mapping intelligence and uses the DCGS-A software baseline to incorporate it into the DCGS-A family of systems.
- Tactical Ground Station (TGS), formerly known as the Surveillance Information Processing Center. TGS supports the Army's requirement for improved battle command through faster access to geospatial data, information and analysis for airborne command, control, communications, computers, intelligence, surveillance and reconnaissance platforms.
- Intelligence Fusion Systems, which collect raw data from numerous sensors and reconcile data so that multiple sensors picking up intelligence about a specific target do not indicate

erroneously that the data are from multiple targets. The goal of sensor fusion is to provide actionable intelligence before the detonation of an improvised explosive device (IED).

Over the past few years, the DCGS-A SIL team has achieved noteworthy successes in leveraging cooperative research and development agreements with industry through which companies can develop and patent technology, and in identifying open-source tools that have saved the taxpayer more than \$3 million in recurring annual licensing costs. Another noteworthy success was the deployment of a predictive analysis tool, which was developed by a vendor and was integrated and tested by the SIL. The tool provides actionable intelligence to DCGS-A Cloud users to predict location of IEDs, line of fire and locations of weaponry.

We will continue to apply these valuable lessons and resources to solve the challenges associated with large-scale software integration, while providing a more robust, net-centric technology insertion in support of the DCGS-A production baseline.

For more information, go to <http://dcgsa.apg.army.mil>.

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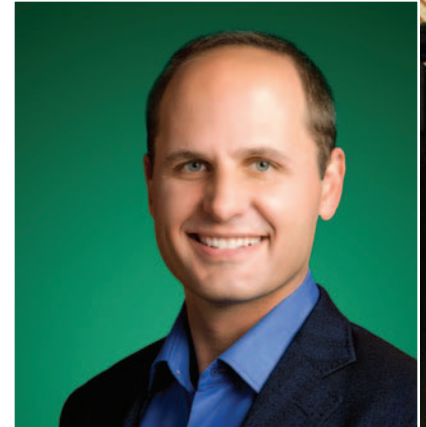


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## CRITICAL THINKING

# The METHODS BEHIND the MYSTIQUE



Google's chief workforce manager discusses the hiring, retention and professional development philosophies that set the company apart

**H**uman resources. Talent management. Personnel. Human capital. The function of establishing and developing the right workforce for the mission has different names in different organizations, and at Google Inc., it takes the unique name of "People Operations."

*The person who holds that responsibility at Google is Mr. Laszlo Bock, senior vice president of People Operations and the subject of this Critical Thinking interview. Bock, who has been with Google since 2006, has been instrumental in finding and keeping the people who work there, and in 2010 was named Human Resource Executive magazine's HR Executive of the Year.*

*When Bock began at Google, the company had some 3,000 people. Today, its workforce approaches the size of the Army AL&T workforce, at approximately 40,000 people. They work in more than 70 countries.*

*Bock is as unconventional as the company he works for, and as conventional as many American business executives. Of Hungarian descent, Bock was born in Romania, and although he says he doesn't remember it, he spent time in a refugee camp when his family fled the brutal regime of Nicolai Ceausescu. The family settled in the United States because of the opportunities here.*

*After completing a bachelor's degree in international relations at Pomona College in three years, Bock tried his hand at acting, earning his Screen Actors Guild card. His acting*







### OPERATIONAL RIGOR

The free-spirited working atmosphere at Google supports a highly disciplined operation that makes something as complex and dynamic as Google search possible. Here, routers and switches inside Google's campus network room at Council Bluffs, IA, allow data centers to talk to one another, with fiber-optic networks that run at speeds more than 200,000 times faster than a typical home Internet connection. (Photos courtesy of Google Inc.)





career was short but included appearances on such television shows as “Baywatch.” He also spent time at a start-up and as a compensation consultant for Hewitt Associates Inc. Bock then went on to Yale University, where he earned his M.B.A., and from there, began a more conventional climb up the corporate HR ladder, including jobs as an engagement manager at McKinsey & Co. on both its high-tech and organization practices; and vice president of human resources, compensation and benefits at GE Commercial Equipment Financing LLC, followed by a move to the same position at GE Capital Solutions.

Since Bock has been in Google, he has become a widely admired HR executive; on his watch, Google consistently ranks among Fortune’s Top 100 Companies to Work For. That is in part because of Google’s many employee benefits, some of which are well-known: free food, a beanbag-chair environment and on-site massages. But it also has to do with Bock’s nontraditional “three thirds” model for human resource management.

Bock has said that the intent of this approach was to transform the capabilities of HR. As he describes in his interview with Army AL&T, one-third of People Operations is made up of people with traditional HR backgrounds; one-third comes from analytical backgrounds; and the other third comes from consulting. The idea is to bring innovation and adaptability to the HR function, along with solid analytics

to determine which practices work and which don’t.

*Bock and the rest of the Google People Operations team are constantly looking for new ways to find, grow and keep Googlers and, while Bock is quick to admit that what works for Google won’t necessarily work for everyone, his methods are a study in workforce development. Following is Army AL&T’s interview with Bock.*

**Q.** You have helped guide the growth of Google’s workforce from 3,000 to more than 10 times that many people worldwide. How does Google plan for additional workforce growth (or contraction)? How do you establish a vision for that?

**A.** I think there’s a military quote that there’s “no battle strategy that actually survives the first encounter with the enemy,” right? I think the way we do workforce planning is a little like that. [Editor’s note: “No battle plan ever survives first contact with the enemy” is attributed to German military strategist Helmuth von Moltke who, as chief of staff, planned the campaign against Austria in 1866, and the operations of the German armies in the war against France in 1870.]

We run an annual planning cycle, like a lot of organizations do. We do a lot of back-of-the-envelope, “Oh, what does that suggest for two or three years from

now?” Because, just like when you’re doing sourcing, some of the machinery to recruit people requires some ramp-up time. If you’re hiring somebody out of an undergraduate college, you make a job offer, and they don’t show up for a year, maybe a year and a half, so you need to think multiple years out.

We have also had some contractions and experience with the ups and downs; 2008 was a tough year for us, just like it was for everyone else, and we took a really hard look at what we were doing.

But the short answer is, we roughly run an annual cycle. We sort of squint a couple of years out to see what we think is going to happen, as a test of what is reasonable and realistic. You know, we may have 50 percent growth one year; are we going to do that each and every year? And then what we do is, we have a formal midyear check. But throughout the year, we’re constantly tweaking and adjusting our plans. So, literally not a week goes by when we don’t say, “Well, we’re going to add 50 heads here, we’re going to take away 20 here, or we’re going to add 100 in this other place.” And then that flows back through all our resource planning in terms of how you find people, how you cultivate them, how you bring them onboard, how you get them up to speed and how you make them fully productive.

**Q.** How many different areas are you talking about looking at, in terms of your needs—divisions, or whatever you would call them?

**A.** The org chart is that we’ve got eight or nine major groups, maybe 10 groups across the company. There are a number of different product areas, like, for example, knowledge, which is more commonly known as Google search. We have



an advertising product area; we have a YouTube product area; and then we have a global sales organization—things like that.

But what's interesting is, you can't look at them in isolation, because there are dependencies across them. So, for example, if we want to invest more heavily in YouTube, we also have an infrastructure product area where they build all those servers and data centers to host all the content on YouTube. And if we're going to add bodies in YouTube, you also need to add some fraction of those bodies in infrastructure, and you also need to add some recruiters to go out and find all those people. So it's rare that we make a decision that's completely constrained to just one unit of the organization.

**Q.** What is your workforce in People Operations? How many people are in your division?

**A.** I'm afraid we don't share the breakouts. What I can say is that over 60 percent of the people focus on recruiting. We heavily skew toward recruiting because our belief is—and this is something the military is superb at, better than we are—we found it incredibly difficult to take somebody who's an average performer, a 30th percentile performer, and make them an exceptional performer. It's much easier to make sure you screen for only the exceptional performers upfront.

So our people investment is heavily geared toward that upfront assessment and screening for cultural fit and capability, and that's where we put the majority of our investment, although we then have a lot of people doing leadership development and management development, thinking about innovative benefits, thinking about the culture we have, and so on.



#### WHERE WORK MEETS PLAY

Google offices, like this one in New York City, have become well-known for their innovative, fun and—some might say wacky—design. Google data show that these spaces boost productivity, collaboration and inspiration. They are designed to be places that Googlers want to be to think creatively and push the boundaries of what's possible.

**Q.** Which is pretty unique.

**A.** We try. I think people fundamentally are good, and people fundamentally, I believe, want to have some freedom to express themselves. And we try to create an environment where you recognize those facts. And if you believe those facts to be true, if you believe people are good and want to be free, then you have to act in accordance with your beliefs, which means you do things like, we have 20 percent time [the name given to Google-related projects, often called 20 percent projects, that people work on outside of their core role]; we give people a voice in what they do; we give people a voice in how the company's run.

**Q.** Across all your specialties, all the people whom you recruit and hire, what would you say are the top three traits that Google's looking for?

**A.** There are four things we look for, and I'll give you them in order of importance.

The number one, most important thing is general cognitive ability—not just how bright somebody is, but also how capable are they of learning, and how good are they at adapting, how they think in new situations.

The number two thing we look for is leadership capability. And we don't necessarily look for people who have been president of a club or of a company. We instead look for people who demonstrate what we call "emergent leadership." This is probably familiar to you as well, but the idea is, we don't want to hire only people who have been the top officers in all the organizations they've been in; we want people instead who are able to be part of a team in an egoless fashion, and once a situation arises that needs their skills, they step up and take command or influence the team while their skills are needed—and then, just as important, they're willing to step back when that need has passed. And that's much harder to find. There are a lot of great command-and-control types, but

## THE MYTH ABOUT GOOGLE IS THAT IT'S THIS MANAGED CHAOS, WITH BEAN BAGS AND LAVA LAMPS

there are fewer people out there who are equally collaborative and able to lead.

The third thing we look for is what we call “Googleyness,” or cultural fit with Google. And the biggest factors there are comfort with ambiguity; a certain sense of humility, at least intellectual humility, because you have to be able to admit you’re wrong in order to learn; and we also often look for some evidence of just something interesting about the person, something fun that they will add to the DNA of our company.

And the last, and least important, thing we look for is role-related knowledge: Have you done this job before, do you know what you’re doing? And that’s the least important thing for us, because our belief is that if you hire great people, people who are able to learn and are humble enough to recognize when they need help, they will be able to figure out most problems. They’ll be just fine. But if you hire somebody who’s done the exact same thing for a really long time, the problem is that they’re an expert in that, but their pattern recognition will cause them to conclude that every problem they encounter is the same as the one they’ve had in the past. They will reinvent what they’ve seen before instead of doing something new. It’s like Abraham Maslow wrote, that if the only tool you ever own is a hammer, every problem begins to resemble a nail. We want people who have more than one tool.

**Q.** How can Google help the military through Training with Industry?

**A.** It’s interesting you mention that, because we participate in the Secretary of Defense Corporate Fellows program, and each year we’ll typically have a midcareer officer come and spend a year at Google, and we just find it such a great way to

give back and such a good partnership, because what we get from it is, honestly, the folks from the military are incredibly well-trained, and the range of experiences they’ve had is just remarkable. And the rigor with which they approach the problem at hand and the discipline, the relentless focus on “we’re going to get it done, no matter what,” are really inspiring and instructive. And we hope to share back, you know, the kind of crazy way we do things.

Again, the skill with which the U.S. military does this is just unbelievable. I was talking to a professor at Wharton named Peter Cappelli. He asked what Google does, and I was talking about our practices—how we set up the cafes, how we rotate people and some of the experiments we’ve run in terms of what makes people effective, and in every single example, he would say, well, Bell Labs did that in the 1950s, or Xerox PARC did that in the 1950s, or the U.S. military did that in the 1950s. There’s a tremendous amount of institutional knowledge and expertise in these great institutions about how to do this stuff. And, for whatever reason, most companies don’t pay attention to that, and it’s kind of a shame.

**Q.** How does Google measure the four traits you talked about? How do you identify the “best and the brightest” who embody those traits?

**A.** In the early years, we used to look at GPAs and test scores—SATs and things like that. What we discovered was that they were not very predictive, because those measure certain components of intellectual ability. But SATs are—I don’t want to say they’re discriminatory, but you see pretty disturbing patterns in the data based on the ethnicity and gender of the person taking the test, and their socioeconomic status.

So we moved away from that, and instead what we do now is, we use structured behavioral interviews. It’s a well-known technique, but we have a series of questions that we ask that we have statistically validated, and we know that good performance on these questions correlates with good subsequent job performance. It’s basically the kind of question where the format is, “Tell me about a time when you had to solve a difficult problem.” The interviewee will give you an answer, and then you ask them about why they did it and how they approached it; there’s a sequence of questions you go through. And it turns out to be much better as a tool for assessing people than just about anything else. And we use that similar kind of structure for all the attributes we look for.

The other thing we do is, we will have usually four people interview each candidate and do an assessment of them, but no single person gets to decide whom we hire. Each of them does a detailed write-up and assigns a score to that candidate, but none of them is the decision-maker. We always insist that there’s at least one cross-functional interviewer on the slate, so that we have somebody who doesn’t have a dog in the fight, who’s just an objective, outside observer assessing the person. We then have the actual decision on how to proceed made by another group of people. We have a hiring committee, again made up of new people, who look at the outcomes, and then they make a recommendation on whether to hire or not. And then it gets reviewed by me or one of the other senior leaders in the company and then eventually by Larry Page, our CEO.

Built into that are a couple of things. One is, we try to make the assessments objective, rather than “Oh, I like this person” or “I don’t like this person.” Another



## AND THAT KIND OF STUFF GOING ON. THE REALITY IS, WE RUN AN INCREDIBLY TIGHT OPERATION.

thing is that we try to make it objective by taking people who would be biased out of the process. So the hiring manager gets one vote, but it's not the deciding vote. The people doing the interviewing don't actually make the decision, and so on throughout the process. The idea is just to make it as objective as possible.

**Q.** Are you saying that you have a say in every hiring decision that Google makes?

**A.** To be fair, I have a say in half of them. We route all the candidates down two paths. One is for technical candidates, like product managers, and the other is for everyone else: sales, finance, people operations, communications. I deal with the latter half, and I, together with one of my peers, review all of those candidates before they go to Larry. And there's a set of senior engineering leaders who review all the technical candidates before those go to Larry as well.

**Q.** Is it just a matter of your going through resumes of people who are looking to work with Google? How much going out and looking for people do you have to do?

**A.** We do a lot of going out and recruiting. Referrals are our best source of candidates, in terms of what percentage of referrals turn into actual employees. What you find is, the very best people are in great jobs and they're doing good work, and they're happy. The company's recognized them, and they're very comfortable. So they don't apply to you. As a result, you have to reach out and find them, and cultivate them, and over time recruit them.

**Q.** Do you have an infrastructure around the world that allows you to do that?

**A.** Yes. We operate in over 70 countries.

In countries where we don't have recruiters, we have recruiters in nearby countries. For example, we have recruiters in London and Dublin and Paris. The recruiter in Paris covers most of Africa. The time zones aren't too different; the language skills are more important, and in countries where we don't have recruiters on the ground, they partner with our Googlers there to gain familiarity with the local market.

**Q.** You mentioned that referrals are your most productive source of good job candidates. Can you give me the percentage that you mentioned, in terms of that success that you get from referrals, or is that proprietary?

**A.** I can't give you the specific number, but what I can say is that if you think about the pass-through rate—if we look at 100 applications and hire one person, that's a 1 percent pass-through rate—the rate for referrals is 10 times better than any of our other pass-through rates. And the other channels are unsolicited applications, like through websites; and retained searches, like if we hire an executive search firm to find someone for us; and people we find ourselves. We have a 10 times better yield from referrals than from anything else. The problem is, we have 40,000-ish employees, and if we're going to hire 5,000 to 6,000 people a year, which we've done in prior years, there are not enough employees to generate enough referral candidates to completely meet all our hiring needs. So we can't rely solely on that.

**Q.** What other mechanisms do you use to go out and find these folks? How long does it typically take to cultivate somebody like that?

**A.** It varies. The beauty of the Internet is that people are on LinkedIn. People are on Facebook and Google+. People are out

there, one. And two, if you think about everybody who gets a computer science degree, they've done a thesis, they've built a website around it, so all of this information is pretty easy to find.

But we also go to conferences, and people will visit our table. We'll go to different industry events, and people will get to know us, and we meet people through that as well. And then sometimes, it's like a sales job in reverse: You talk to somebody and they're not the right person, and then you ask them, "Do you know somebody else who might be a good candidate," and they say, "Yeah. I'm not interested, but call my friend Sally. Sally would be great for you."

**Q.** How and why did Google arrive at its three-thirds approach to talent management?

**A.** When I decided to move into People Operations in HR, one of the things I realized was that the people who end up in HR jobs are pretty homogeneous. They tend to have a very similar skill set, and it's not an analytical or quantitative skill set. They tend to be "people" people, or they tend to be "process" people. They don't tend to be deep-structured problem solvers in the way that a consultant would be or that a Ph.D. psychologist would be.

When I joined Google, I said we should fix that, and to be honest, I just made up the ratios. I said we should have one-third from each of these segments: one-third traditional HR; one-third strategy consultants; one-third analysts, very top-tier, incredibly smart people who can understand business. What we've found is that it's an amazing combination, because once you hire the people, you start rotating them around different jobs, and they all learn from one another. It's worked really, really well, and every six to 12 months we

check how we're doing, and we've stayed pretty close to those [one-third] targets for the last seven years.

**Q.** Google again topped Fortune's list of the 100 best places to work in 2012 and has been in the top five since 2007. Why does Google go to such great lengths when you're such a prestigious place to work anyway?

**A.** The number one reason is, it's just the right thing to do. You treat people the way you want to be treated, create a great environment that they want to be part of. What's interesting is that most of the things we do don't cost any money, or they cost very little. It's hard to keep coming up with new stuff, but it doesn't actually take that many resources. So every Thursday we have a company-wide meeting called TGIF, where the founders will stand up and say, "This is what happened this week," and then there's a no-holds-barred Q&A where you can ask any question you want, any question. And that costs nothing. It gives people in the company such a tremendous opportunity to hear the founders speak, to see that they're human, to see that that they're brilliant and to see that employees have a voice in how the company works.

There's a pragmatic reason, too, which is, if you think about it, talent movement

is becoming much more global, and it's starting with the global elite—the people who have access to the best schools, the best companies, the people who are the most intellectually accomplished and have enough resources to be able to break out of wherever they are.

We have hundreds of people at Google who grew up in India and will tell you stories about how when they went to high school and college, there was one textbook that 20 of them shared, living in communal housing, and it was held together by twine, and they would pass it around at exam period, because that was the one textbook; nobody could afford to buy their own. And the people who did the best then found their way to the United States and then found their way to places like Google. Our head of sales, the chief business officer for the entire company [Nikesh Arora], was one of these people. So what's happening is, the best people on the planet are increasingly having more opportunity, and if you want to attract the best people on the planet and keep them, you do have to keep making your work environment better.

**Q.** How do you keep people growing intellectually and growing in the culture of the company, as opposed to "coasting," for instance?

**A.** Part of it is, we do look very closely at performance. We don't force-rank or stack-rank, but we do periodically identify people who are lower performers, which includes people who are coasting. We have an internal designation for people that we call "consistently low-meets." So they're consistently on the low end of meeting expectations. Whenever we see that, we reach out to them and say, "What's going on?"

In most companies, the presumption is,

you fire these people. But from our perspective, if we've done our job right in recruiting them and investing in them, they're pretty good people. So you don't want to fire them; what you want to do is understand what has happened that's caused this great person to flatten out in their trajectory. And we help them get better at their job, or we move them into a new job. And if that doesn't work, then we help them find something outside the company. But what we find is, 80 percent of the time, when you have one of these folks in one of these cases and they switch into a new job, performance gets much better; it reverts to the mean.

More broadly for the company, though, we just try to create an incredibly stimulating environment. So, for example, we have these things called Tech Talks (online at <http://www.youtube.com/talksatgoogle>). In any given week, we've got 50-plus talks happening all around Google. It's people who've written books coming in to talk about their books; it's political people coming in to talk about what they believe; it's artists; it's actors. And, as often as not, it's Googlers standing up and presenting to other Googlers about what they're doing and what they're working on. The idea is, it's an hour of a week for somebody to do this, but it creates an environment where you're constantly being stimulated with new ideas, challenged to learn and think in new ways. That, by the way, is another program that costs nothing. It just costs a little bit of time.

**Q.** How do you define a person's success, in contrast with somebody who's coasting?

**A.** It depends on what the job is. There are obvious, measurable aspects and less obvious, harder-to-measure aspects. If you're a salesperson, we know how much

**STARTING FROM A PLACE WHERE IT'S VERY STRUCTURED AND VERY REGULATED, YOU ONLY NEED TO DO VERY SMALL THINGS FOR PEOPLE TO EXPERIENCE IT AS TREMENDOUS FREEDOM.**



you're selling. If you're an engineer, we know how much computer code you're generating. Harder to measure are, what's the quality of the work you're doing and how you're doing it. We don't want people who do the job superbly well but are awful people to be around.

So the metrics vary by job, but we do two things to make sure that all this is working and people are successful. One is, when we do performance assessments, we do that by committee as well. A manager will sit down with other managers of Googlers in similar jobs and compare notes about all their people together. So you try to get a good sense of who's really performing well, who's not performing, and who are the stars we should learn from, in these big calibration meetings. The second thing we have is, we survey Googlers to find out how things are going and what the outcomes are. We do an annual survey called "Googlegeist." We once or twice a year do a survey that gets to what the quality of our managers is, and a lot of other things like this to just make sure that everything we're doing is working.

**Q.** The expression "If you give people freedom, they will amaze you" could be very useful for the military environment. How do you think that vision might translate to the highly regulated environment of the U.S. military?

**A.** With the caveat that I've never served and I have no idea what I'm talking about, I once gave a talk to a bunch of heads of HR; I talked about what Google does and our culture. And one of them, a guy from an insurance company, raised his hand and said, "What are you talking about? We can't do this. We're structured; we've got these formulas; we've got actuaries, we've got accountants. First of all, we can't do anything you're doing, and second, we can't afford to do anything



### IT'S THE PASSION, NOT THE PERKS

The perks of working at Google, as fun as they are, don't make the company what it is today. Three components of Google's culture—mission, transparency and voice—create an environment that encourages Googlers to come up with interesting and different ideas.

that you're doing." And before I could answer, another guy stood up, a head of HR for a consumer product company, and he said, "What are you talking about? Freedom is free. It doesn't cost anything to give people freedom and let them express themselves."

And so, if I think about those kinds of environments, which I'm more familiar with, starting from a place where it's very structured and very regulated, you only need to do very small things for people to experience it as tremendous freedom. So I told the insurance guy, "Look: You have a suggestion box," and he said, "No, nobody does that anymore. We just run our company, and we have metrics."

How about a suggestion box? Ask people what they want to do, or set up an email list and have people send you ideas. And once you do that, tell people, "We're going to set aside \$1,000 every quarter, and whatever the best idea is, we're going to fund it with \$1,000. By the way, we're going to let employees choose what the best idea is. And then they're going to go

ahead and do it." And it kind of blew his mind. But something that, in the Google context, we take for granted, in a more structured context ... [is] pretty powerful and transformative.

The myth about Google is that it's this managed chaos, with bean bags and lava lamps and that kind of stuff going on. The reality is, we run an incredibly tight operation. If you think about our data centers, basically the way Google search works [is] when you type something into Google, it doesn't go out and look in real time across the whole Internet; we've backed up the Internet. We make a copy, multiple copies all over the world, of the Internet and index it, and that's the result you're getting. And the operational discipline—the rigor and the control to be able to do that, and deliver it in the way we do—is tremendous. So in many ways, it's incredibly structured and regimented. We still find ways to give people a chance to express themselves and have some voice in how things happen.

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# MAKING IT OFFICIAL

Kendall describes his vision of professionalism in launching Better Buying Power 2.0

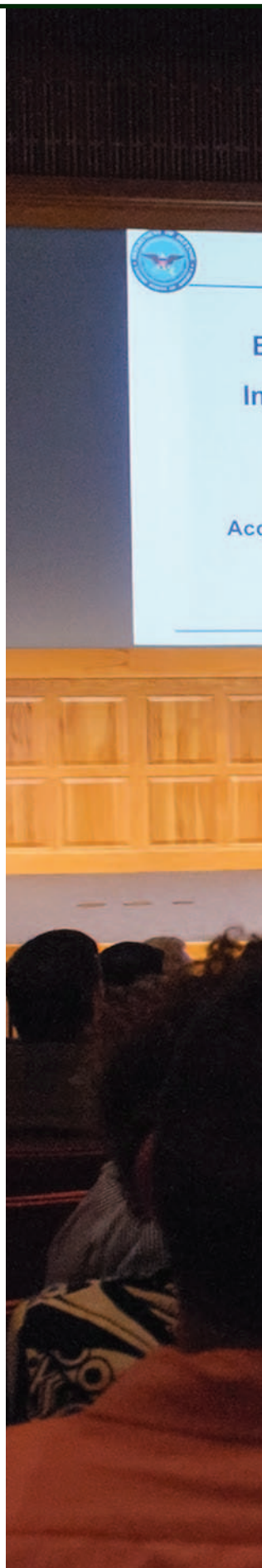
*by Mr. Steve Stark*

**T**he people of the Defense Acquisition Workforce are at the heart of Better Buying Power (BBP) 2.0, as the Hon. Frank Kendall, undersecretary of defense for acquisition, technology and logistics, made clear in his remarks kicking off the latest BBP 2.0 initiative.


Kendall hosted a media roundtable at the Pentagon on April 24, and a presentation the following day at the Defense Acquisition University (DAU), to launch BBP 2.0. “People, to me, are central to this,” Kendall said. “We have a lot of very good people—don’t get me wrong about that—but I think we can do better.”

He began his DAU presentation by saying that the acquisition workforce does “a hell of a good job,” but “the reason we’re doing something called Better Buying Power is we think we can do better. We think we can improve our performance.” He added, “If there’s anybody in the room that doubts that, stick up your hand. But I don’t think that there is any question that we do a terrific job, at the end of the day, of equipping the best force in the world.”

Doing better is what BBP 2.0 is all about. Each of the seven tenets of BBP 2.0 focuses squarely on smarter, more effective and less bureaucratic defense acquisition. Kendall made clear that none of that was possible without the people of the workforce, which is why one BBP tenet is “increasing professionalism,” he said, adding that professionalism is “one area where we need to really focus as we go forward.”







Better Buying Power 2.0  
Implementation Guidance  
Mr. Frank Kendall  
Under Secretary of Defense  
Acquisition, Technology & Logistics  
April 2013

#### CONTINUOUS IMPROVEMENT

The Hon. Frank Kendall launches BBP 2.0 at DAU, April 25.  
(DOD Photo by Erica Kobren)

In his presentation at DAU, Kendall explained what he meant by “professionalism,” saying, “I know that at the end of every year, I’m a lot smarter than I was at the beginning of that year about what works and what doesn’t. The idea of improving our professionalism is recognizing [that we can improve] and to consciously set about doing that, so we get better at what we do.”

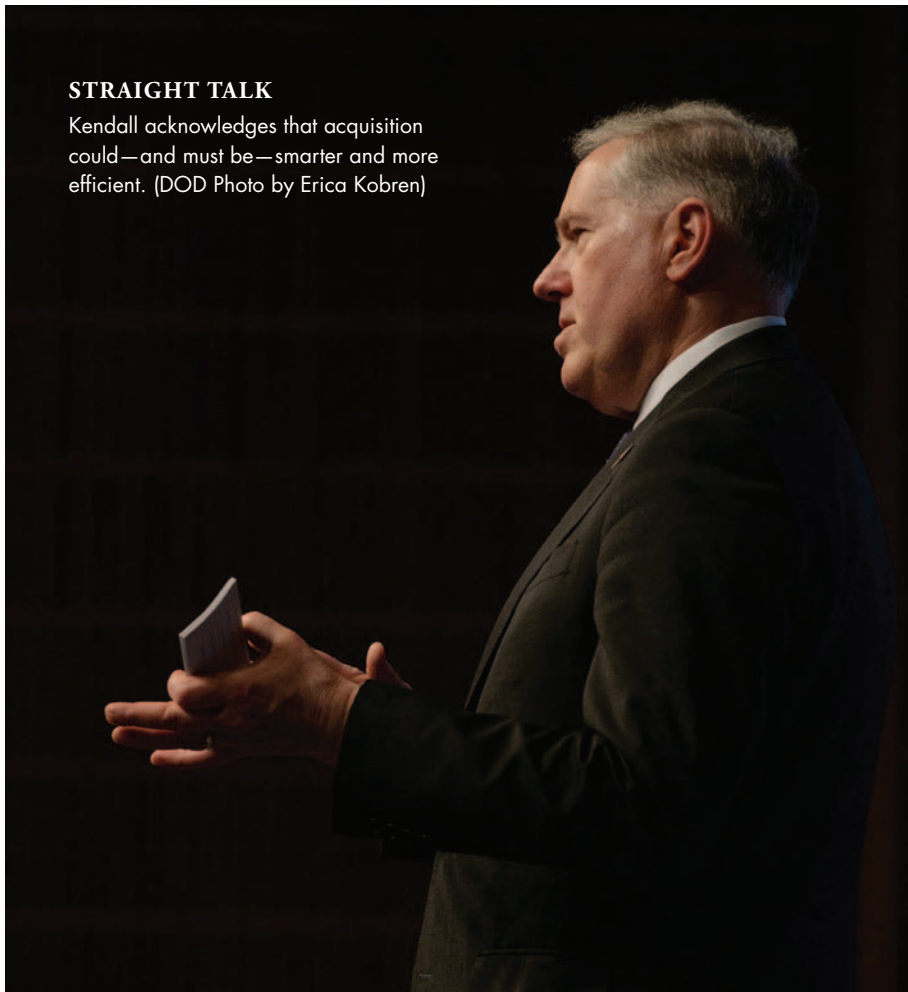
Kendall emphasized his belief in the power of continuous improvement. BBP “was never intended to be a revolutionary set of changes; it was designed to define best practices,” he said, “to find places on the margins where we could get some returns by doing things a little bit differently.” BBP 2.0 “isn’t about us setting down the rules and you blindly following them.” Kendall also made this point in his April 24 memorandum on the implementation of BBP 2.0. “BBP 2.0, like BBP 1.0, is not rigid dogma—it is guidance subject to professional judgment,” he wrote.

Throughout the memo, Kendall made plain the need to focus on people and to change the culture in defense acquisition. “I’ve also made a point of the fact,” he said at the roundtable, “that there’s cultural change that is necessary for us to do a better job.”

Part of that change, he said, is creating incentives to save money rather than spend it. “The obligation rate,” he continued, “is a key example of that, where we punish people, effectively, for not spending money. That’s not how you negotiate a good contract. That should not be the metric. [If] somebody can return money to the department or buy additional products in their own program, that’s a good thing. Savings are a good thing.”

#### STRAIGHT TALK

Kendall acknowledges that acquisition could—and must be—smarter and more efficient. (DOD Photo by Erica Kobren)



#### COURTING SUCCESS, ALLOWING FOR FAILURE

In his implementation memo and his presentation at DAU, Kendall focused on good decision-making at every step in the acquisition process. Indeed, the first of his key principles is “Think.” Under that heading, he wrote, “We need to be true professionals who apply our education, training, and experience through analysis and creative, informed thought to address our daily decisions.” Thus the emphasis on professionalism permeating BBP 2.0, which includes finding the right contract type for the job to making accurate should-cost projections; building stronger partnerships with the

requirements community to control costs; and increasing the cost-consciousness of the acquisition workforce.

“If you’re going to think effectively,” he said at DAU, “you’ve got to have the knowledge base, the database in your head. You’ve got to have the experience to be able to do that, to apply the lessons that you’ve learned over a career.”

Increasing professionalism, he said, “is about developing people. It’s about managers who are conscious of the fact that one of their fundamental responsibilities is to improve the quality of the people that work for them, improve their skill set.



Give them the experience that they need. Give them the opportunity to fail occasionally, so that they understand how to make judgments on their own.”

With respect to smart decision-making, he said, “Make the big decisions that you have to make upfront well, because they will haunt you if you don’t.” But that’s difficult in the current environment, he said. “I feel that we burden ourselves,” Kendall explained. “We burden our managers with too much overhead associated with decision-making,” encumbering them with process. Kendall added that one of the focus areas in BBP 2.0, as in BBP 1.0, is simplifying the bureaucracy to reduce unproductive processes.

“I think we still have a ways to go with that, frankly. ... It’s as much, for me, about getting the bureaucracy out as it is about getting the substance in, and making sure we’re focused on the things that really matter in terms of real results, really delivering products, really delivering services.”

## ACKNOWLEDGING THE STRESSES

“Life is hard right now” in the acquisition workforce, Kendall said, with sequestration, the furloughs and an uncertain budget. But, he continued, “that’s the time when we have to do everything we can with the money we’re entrusted with.

“I’m very aware of the stress and frustration that exist out there,” Kendall said. “I feel a lot of that stress and frustration myself. I don’t enjoy sequestration very much. ... We’ve been living with pay freezes for a couple of years. We’re in our third year.

“None of this is fun,” Kendall said. “None of this makes our lives easier. Shrinking budgets alone add enough stress to what we’re trying to do, because we’re trying to



## CULTURE OF SAVINGS

SGT James Flohr, 542nd Support Maintenance Company, makes a part from scratch on Joint Base Lewis-McChord, WA. The 542nd recently purchased a CNC (computer numerically controlled) milling machine allowing it to mass-produce parts—with the potential to save millions of dollars. (U.S. Army photo by SGT Austan Owen)

do more without more ... now we’re just trying to do as much with less.”

The budgetary uncertainties led Kendall to delay the implementation of BBP 2.0, but ultimately, he said, that state of uncertainty promised to be the status quo for the foreseeable future.

## CONTINUITY AND CHANGE

Kendall said he sees both continuity and change in BBP 2.0. “For me,” he said, BBP 2.0 “is a process of continuous improvement. It’s not about what’s sometimes called ‘acquisition reform’ or ‘transformational change.’ It’s really about attacking all of the many problems that exist in how we do acquisition, and making incremental improvements wherever we can, where we can get the most return for investment. That’s the continuity. There’s a lot of things that we just continued from Better Buying Power 1.0.

“The change piece is probably about the increased emphasis on people, in the judgments people have to make to do a good job. There’s a flavor that runs through 2.0

of, ‘Here are the tools that you need, and here’s the way you should be thinking about the problems that you have to solve, but you have to solve them. You have to be professional and really understand what needs to be done.’ ”

To that end, the “professionalization” focus of BBP 2.0 calls for “initiatives to improve standards for those in key leadership positions, moving beyond certification in a functional area to being fully qualified to perform in a specific job, [and] recognizing and rewarding our best performers.”

In his memo, Kendall wrote, “In the end, it is the quality of our people that matter[s] the most, more so than any policy or regulation anyone can put in place.”

During the question-and-answer period at the end of his DAU presentation, Kendall said that establishing specific workforce standards “is something that’s going to happen over time. We’re going to establish some boards that will be peer review boards, basically, with key leaders



## EQUIPPING THE BEST

SFC Ronald DeLurme with the 59th Engineer Company calls in a situation report while on a route-clearance mission in Ghazni province, Afghanistan, April 6. BBP focuses on better acquisition to equip “the best force in the world.” (U.S. Army photo by SFC Kenneth Foss)

that will certify people as ready to take on the highest levels of responsibility in that position. It’s a bit like being a board-certified physician in a certain area—that kind of idea. Or an engineer who’s passed the highest levels of certification.

“We don’t expect this to be used as a criterion by promotion boards, or program manager selection boards, for example,” Kendall continued. “It will be something that will be in the file as an indicator, and as we get a cadre, it will become more of a criterion once we have enough people at that level. I don’t envision this being a huge number of people—a few hundred—but these are going to be the

people in their different career fields who are ready to take on the highest levels of responsibility.”

## CONCLUSION

Comparing DOD with private industry, Kendall said, “We’re a big business, and we’ve got to have top-notch people in these jobs. We need to work harder to have more of those people to do all the things we need to do.

“A guy who’s running a multibillion-dollar program, that’s a big deal,” he said. “I want people who have jobs like this to be seen as an elite group of people. I want their services to see them that way, because they

are. They’re doing special work, and they’re doing it very well.”

*MR. STEVE STARK provides contract support to USAASC for SAIC. He holds a B.A. in English from George Mason University and an M.A. in creative writing from Hollins University. Stark has worked in a variety of positions supporting communications for the U.S. Army and U.S. Navy, and has written about defense-related topics for more than a decade. He was the founding editor of the Program Executive Office Soldier Portfolio and edited the U.S. Army’s Weapon Systems handbook for six years.*





# DAU Training Forum Takes Deep Dive into Better Buying Power



In advance of the launch of Better Buying Power (BBP) 2.0, a Defense Acquisition University (DAU) hot topics forum took a detailed look at practical ways to implement the tenets of BBP 2.0.

DAU presented intensive training during the April 9 forum on a wide array of BBP focus areas:

- Implement should-cost-based management.
- Build stronger partnerships with the requirements community to control costs.
- Employ appropriate contract types and define “best value” and “technically acceptable.”
- Increase effective use of performance-based logistics.
- Enforce open system architectures and effectively manage technical data rights.
- Increase the recognition of excellence in acquisition management.

*For more information, videos and slide decks from the forum are available at <https://acc.dau.mil/april13btf>.*

**—MR. STEVE STARK**

## THE RIGHT AMMO

The .300 WinMag, MK248 Mod 0 provides sniper ammunition used with the XM2010 Enhanced Sniper Rifle, shown in foreground, to engage targets accurately out to and beyond 1,100 meters. Here, Soldiers assigned to 2nd Battalion, 14th Infantry Regiment, 2nd Brigade Combat Team, 10th Mountain Division Security Forces Assistance Brigade (2-10 SFAB), pull security during a patrol April 27 in the Bermal district of Paktika province, Afghanistan. (U.S. Army photo by SGT Mark A. Moore II, 2-10 SFAB)







# REVISING *THE* RULEBOOK

PEO AMMO helps bolster  
the Better Buying Power goal  
of reducing nonproductive  
processes and bureaucracy

*by Ms. Silva Manjikian*

**T**o expedite the delivery of technology to Soldiers, Program Executive Office (PEO) Ammunition continuously seeks sensible ways to shorten often-lengthy acquisition timelines. A revision to Army Regulation (AR) 700-142, “Type Classification, Materiel Release, Fielding, and Transfer,” that the PEO helped influence now allows the Army to eliminate the type classification (TC) process when adopting, without configuration changes, ammunition already fielded to other military services.

AR 700-142 assigns responsibilities and prescribes policies for the Army’s TC and full materiel release (FMR) processes. TC, a prerequisite to the FMR process, ensures that materiel is acceptable and safe for Army use before expending procurement funds; meets mission-intended requirements; and is logistically supportable in its intended environment. FMR ensures that the materiel is safe, suitable—meeting all operational performance requirements—and logistically supportable before it is released

**MK248 MOD 0**

The MK248 Mod 0 ammunition, fielded by the U.S. Navy in 1994, was fielded to the Army at a cost of \$719,281, in only 10 months. (Photo courtesy of ATK Federal Premium Ammunition)

**MK301 MOD 0**

The MK 301 Mod 0 was fielded by the U.S. Navy in 2008. Putting it through TC and FMR would have cost the Army an estimated \$1.2 million and taken 21 months to complete. By eliminating the TC process and going directly to FMR, the cartridge was fielded to the Army at a cost of \$799,513, in 12 months. (Photo courtesy of Nammo Vanäsverken AB)

**ALL FUTURE PROGRAMS IN WHICH ADOPTING OTHER MILITARY SERVICE AMMUNITION FOR ARMY USE IS BEING CONSIDERED WILL BENEFIT FROM THIS AR REVISION. IT ALLOWS MATERIEL DEVELOPERS TO USE A COMMON-SENSE APPROACH TO CAPTURE SIGNIFICANT POTENTIAL COST AND TIME SAVINGS.**

to the field. According to the regulation, these processes must be followed when the Army is fielding systems to the warfighter.

PEO Ammunition and its Project Manager Maneuver Ammunition Systems (PM MAS) had requirements to field to the Army the 5.56 mm MK301 Mod 0 dim trace cartridge and the .300 Winchester Magnum (WinMag) MK248 Mod 0 sniper ammunition.

The 5.56mm MK301 Mod 0 cartridge provides the user with tracer signature capability that is observable only through a night vision device, so that the sniper can see the line of fire and point of impact during nighttime operations.

The .300 WinMag, MK248 Mod 0 provides sniper ammunition used with the XM2010 Enhanced Sniper Rifle to engage targets accurately out to and beyond 1,100 meters.

**IMPROVING THE PROCESS**

The MK301 Mod 0 and MK248 Mod 0 were fielded by the U.S. Navy in 2008 and 1994, respectively. To field these rounds to the Army, PM-MAS had to follow the AR and put both these rounds through the TC and FMR processes, even though

the Navy had already done so. PEO Ammunition and PM MAS believed that TC and FMR were nonproductive, redundant processes when the Army was adopting ammunition, without “configuration changes,” that had already been fielded to the Navy.

The PEO and PM MAS proposed to the deputy assistant secretary of the Army for acquisition policy and logistics (DASA(APL)), the proponent of this AR, to waive the TC process for fielding the MK301 Mod 0 and MK248 Mod 0.

Before granting the request for TC waiver, the DASA(APL) wanted to evaluate the proposal with all relevant stakeholders: the U.S. Army Test and Evaluation Command, U.S. Army Public Health Command, safety office, independent logistics support office, environmental office, PEO Ammunition and PM MAS. At that time, the AR revision was being discussed, and the proposed TC waiver or elimination became part of that discussion.

After months of evaluation and collaboration with the stakeholders, not only was the proposed TC waiver or elimination granted, but the regulation also was revised to include language that eliminates the Army’s TC process



for ammunition already fielded by the other services.

The revised AR was published on Jan. 17, 2013. The revision specifically states that when another service has fielded ammunition that has achieved Milestone C and the Army wants to put it into use without configuration changes, all that is needed is a TC validation memo from the PM to the PEO.

The TC waiver and revised AR laid the foundation to reduce time and cost to field the MK301 Mod 0 cartridge and the MK 248 Mod 0 ammunition to the Army. PM MAS, upon obtaining the TC waiver, reevaluated all the support documents the Navy had produced when it fielded these rounds, validated that eliminating the TC process was the right thing to do and proceeded to FMR.

### **COST SAVINGS, NOW AND LATER**

Putting the MK301 Mod 0 through TC and FMR would have cost the Army an estimated \$1.2 million and taken 21 months to complete. By eliminating the TC process and going directly to FMR, the MK301 Mod 0 cartridge was fielded to the Army at a cost of \$799,513, in 12 months. Likewise, the MK248 Mod 0 ammunition was fielded to the Army at a cost of \$719,281, in only 10 months.

Another major program that could benefit from this AR revision is the Ground Combat Vehicle (GCV) system being developed by PM GCV under PEO Ground Combat Systems. PM GCV is considering adopting Navy-produced and -fielded ammunition to meet the requirements outlined in the GCV Capabilities Development Document.

PM MAS is working with PM GCV to evaluate the support documentation



### **OWNING THE NIGHT**

The 5.56 mm MK301 Mod 0 cartridge features tracer signature capability that is only visible through a night vision device. So, during nighttime operations, the sniper can see the line of fire and point of impact. Here, a sniper assigned to the NATO-led International Security Assistance Force provides security during a joint operation to arrest a suspected Taliban leader in the Gelan district of Ghazni province, Afghanistan, Sept. 30, 2012. (U.S. Army photo courtesy of 55th Combat Camera)

from the Navy to help make an informed decision with respect to TC and FMR of GCV ammunition. Leveraging this new AR revision has the potential to produce significant savings in cost and schedule for the GCV program office; it could save the program an estimated \$16 million and three years of schedule.

### **CONCLUSION**

All future programs in which adopting other military service ammunition for Army use is being considered will benefit from this AR revision. It allows materiel developers to use a common-sense approach to capture significant potential cost and time savings, bypassing the TC process and going directly to the FMR process without sacrificing safety, suitability and logistics supportability.

For more information on AR 700-142, go to [http://www.apd.army.mil/pdffiles/r700\\_142.pdf](http://www.apd.army.mil/pdffiles/r700_142.pdf). For additional information, contact the author at 973-724-9432 or [silva.n.manjikian.civ@mail.mil](mailto:silva.n.manjikian.civ@mail.mil).

*MS. SILVA MANJIKIAN is a project officer for acquisition and system management in PEO Ammunition at Picatinny Arsenal, NJ. She holds a B.S. in mechanical engineering from the City College of New York. Manjikian is Level III certified in program management, systems engineering, and production, quality and manufacturing. She is a member of the U.S. Army Acquisition Corps.*

# AGILE Information

PM AcqBusiness identifies innovative data capabilities  
to serve the Army Acquisition Workforce

*by Mr. Ken Waldrop, Ms. Carla D. Faison, Ms. Sonya  
Rahmani, Mr. George Morgan and Mr. Shawn M. Faunce*

**A**s the trusted broker of Army acquisition program data and provider of a portfolio of enterprise business systems and Web services that support effective decision-making, the Product Manager Acquisition Business (PM AcqBusiness) has spent the past few months refining internal processes and implementing new methodologies to develop modernized capabilities for the Army Acquisition Workforce.

Program officials have increased the efficiency of internal processes by identifying ways to improve operations and reduce expenditures. For example, AcqBusiness' infrastructure had begun to age and needed to be replaced. To mitigate this problem, the AcqBusiness team identified an open-source, virtual-server solution designed to save money by reducing license count, physical server footprint and energy costs. Moving to a virtualized environment helped AcqBusiness to achieve one of the Better Buying Power 2.0 initiatives, "Control Costs Throughout the Product Lifecycle."

In refining key internal processes, the Technical Management Directorate started with a critical review of its software development and deployment. The goal was to eliminate unproductive processes and non-value-added bureaucracy while maintaining

enough documentation and process oversight to ensure that AcqBusiness produced the right software for a reasonable cost. The team began with DOD Instruction 5000.02, "Operation of the Defense Acquisition System," and tailored it to meet the scale of AcqBusiness, which is smaller than an Acquisition Category (ACAT) III program.

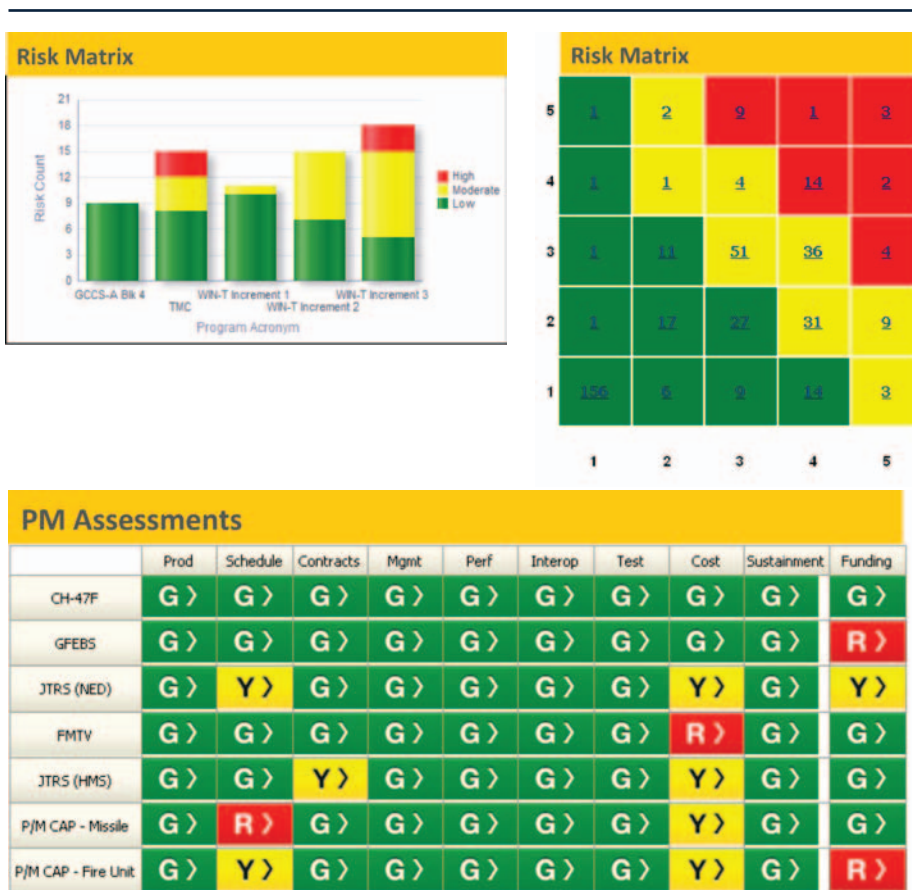
The reference model for AcqBusiness' processes is the Information Technology Infrastructure Library (ITIL), a collection of best practices drawn from the public and private sectors internationally. DOD and ITIL best practices led AcqBusiness to select the agile software development methodology. Agile development has been used in DOD as an effective technical management framework and as a way to better engage stakeholders throughout the software development process. The AcqBusiness team expected that agile development would improve the quality of the software while increasing its acceptability to users.

## **AGILE METHODOLOGY**

AcqBusiness introduced a blend of agile methodology and DOD 5000 software development practices to develop the Army Acquisition Dashboard (AAD), as well as the Army Acquisition Workforce (AAWF) Dashboard for the U.S. Army Acquisition Support Center (USAASC).



FIGURE 1



#### DASHBOARD SCREEN SHOTS

The AAD provides information on multiple program parameters for ASA(ALT) leadership, acquisition program managers and other authorized personnel. (SOURCE: PM AcqBusiness)

The agile development methodology, an alternative to traditional project management, actively engages stakeholders throughout the development process. Created in the 1970s, the agile methodology features iterative development and adaptation, in contrast with some of government's old ways of developing technology, most notably the waterfall approach of sequential development.

"Having a close working relationship with our product owners has paid big dividends for us," said LTC Delisa Hernandez, PM AcqBusiness.

Under normal conditions, AcqBusiness supports one enhancement release each month, coupled with weekly maintenance releases. To enable the organization to respond quickly to the needs of external stakeholders, program officials tailored processes to permit time-sensitive releases, following a pre-defined rather than an ad hoc process. Thus the AcqBusiness team is confident of sufficient oversight and willing to embrace time-sensitive releases.

#### ARMY ACQUISITION DASHBOARD

In October 2012, the Hon. Heidi Shyu, assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)) and Army acquisition executive (AAE), received a briefing on the AAD, with positive results. Doug Wiltsie, milestone decision authority for AcqBusiness and the Program Executive Officer Enterprise Information Systems (PEO EIS), granted permission for AcqBusiness to proceed with the initial operating capability for AAD.

With AAD's initial release, all ACAT I data for Defense Acquisition Executive Summary reporting of Army programs were made available to AAD end users.

ASA(ALT) is formulating a policy and timeline to extend data reporting to other Army programs. The ultimate goal is to conduct Army program reviews from the AAD rather than from manually generated PowerPoint slides.

Currently, the AAD is live. (See Figure 1.) With the release of AcqBiz 3.2.4 in March, several enhancements were implemented, including:

- **AAD account approvals**—User access requests to the AAD are now reviewed and approved by PEO organization account managers.
- **ACAT II and III data**—The AAE and PEOs now have a holistic view of their ACAT I, II and III program data across the ASA(ALT) enterprise. Adding ACAT II and III data to the AAD analytic environment allows for monthly program status reviews (PSRs) on these programs via the AAD.
- **PSR**—PEO and ASA(ALT) leadership can now brief from the AAD. The PSR tab in the PEO Dashboard section launches a separate window that contains all relevant information necessary for the PSR and promotes consistent views across programs to acquisition community senior leadership.

- **PEO pilot for PSR and “pre-lock” data**—PEOs EIS, Aviation and Ground Combat Systems are participating in a PSR pilot effort in which their pre-lock data are transferred from the Universal Acquisition Data Display and Entry module (UADDE) on a daily basis. Pre-lock data consist of information from the “current estimate” versus the “archive” data in the UADDE.
- **Data security**—Security restricts access to pre-lock data to the appropriate personnel. Visibility of the data is limited to the programs within a PEO and is associated with the access granted to users in the PEO’s Army Acquisition Business Enterprise Portal profile. The user’s PEO is displayed below the filters in the left-hand margin of the page.
- **PEO PSR remarks**—The PSR tab displays PEO-level remarks not associated with any specific program, so that PEOs can provide introductory comments for the PSR briefing to ASA(ALT) leadership. If these remarks are added in UADDE, they are displayed on the PSR tab.

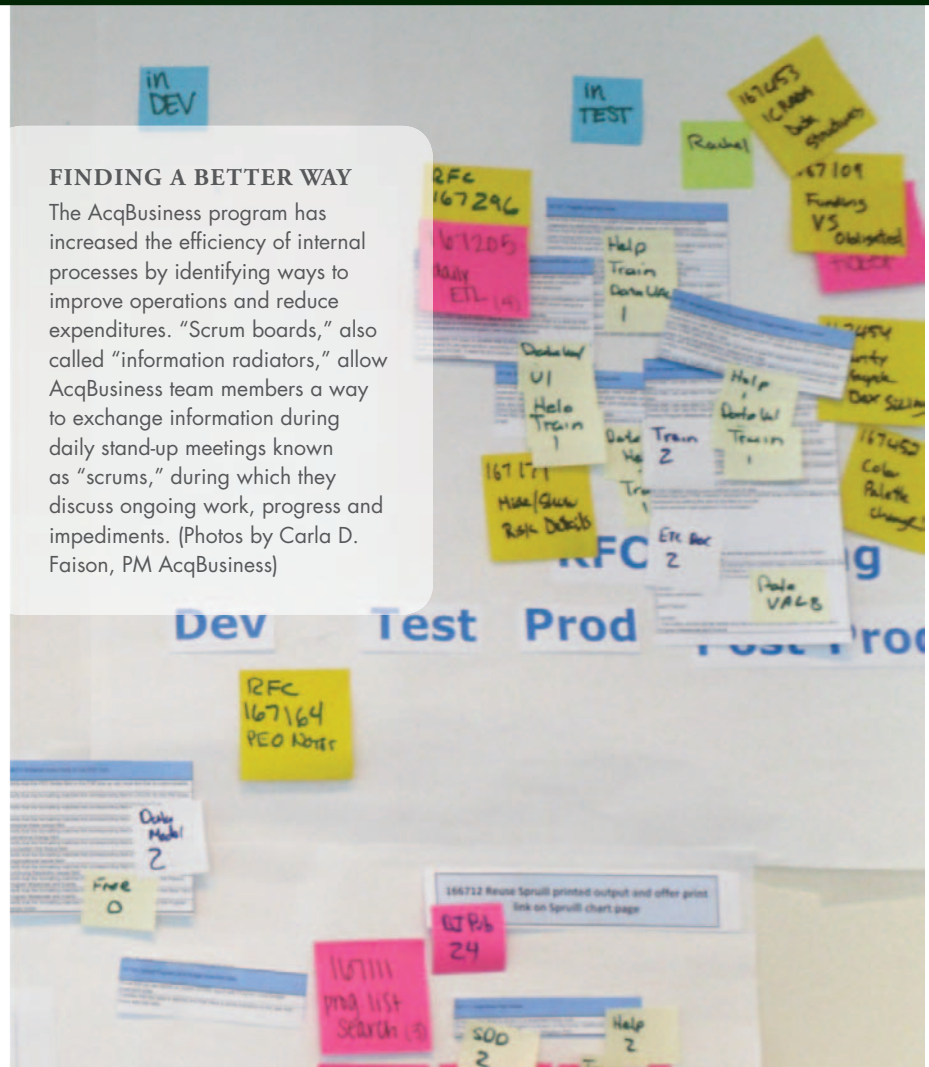
# ARMY ACQUISITION WORKFORCE DASHBOARD

The USAASC, which manages the Army's acquisition career management programs and policies, recently approached AcqBusiness for a solution that would provide near-real-time information on the health and status of the Army Acquisition Workforce. AcqBusiness conducted a demonstration of the AAD for USAASC to illustrate key capabilities, such as business intelligence reporting, that could be leveraged to support the development of a workforce dashboard solution.

Before the AAWF Dashboard, USAASC was creating a 150-page PowerPoint slide deck to report on personnel data.

## FINDING A BETTER WAY

The AcqBusiness program has increased the efficiency of internal processes by identifying ways to improve operations and reduce expenditures. "Scrum boards," also called "information radiators," allow AcqBusiness team members a way to exchange information during daily stand-up meetings known as "scrums," during which they discuss ongoing work, progress and impediments. (Photos by Carla D. Faison, PM AcqBusiness)



Using this briefing method, reports quickly became outdated. The dashboard will provide USAASC with stronger, more timely insight into the Army acquisition workforce.

In collaboration with USAASC, Acq-Business developed wireframes, or screen blueprints, to capture required data elements for each dashboard report. These details were then captured through “user stories,” which in turn provided a basis for prioritizing requirements into “sprints” whereby the team worked to turn product backlog requirements into increments of completed functionality.

During development of the dashboard, user stories were reviewed individually

via developer-user interface and analyst-tester sessions. In addition, USAASC was also granted access to AcqBusiness test environments where it could view software during the testing phase. This unique access allowed USAASC greater visibility of the project's efforts and facilitated communication and collaboration between the project team and stakeholder.

Currently, the AAWF Dashboard is in limited release to USAASC, but is expected to provide useful capabilities including key performance indicators, workforce demographics and certification status, and the ability to tailor reporting data through multilevel filtering.



## THE ACQBUSINESS CLOUD

Both the AAD and the AAWF dashboards are currently hosted in the AcqBusiness virtualized environment. The AcqBusiness infrastructure effort is a natural progression of the consolidation task successfully executed over the past three years to incorporate reduced software and hardware footprints while virtualizing servers.

By leveraging virtualization, AcqBusiness has been able to lay the foundation for cloudlike capabilities, such as infrastructure-as-a-service (IaaS) and shared resource pools, to flourish. IaaS has resulted in greater awareness and cross-team collaboration with respect to the available shared pool of hardware and software resources.

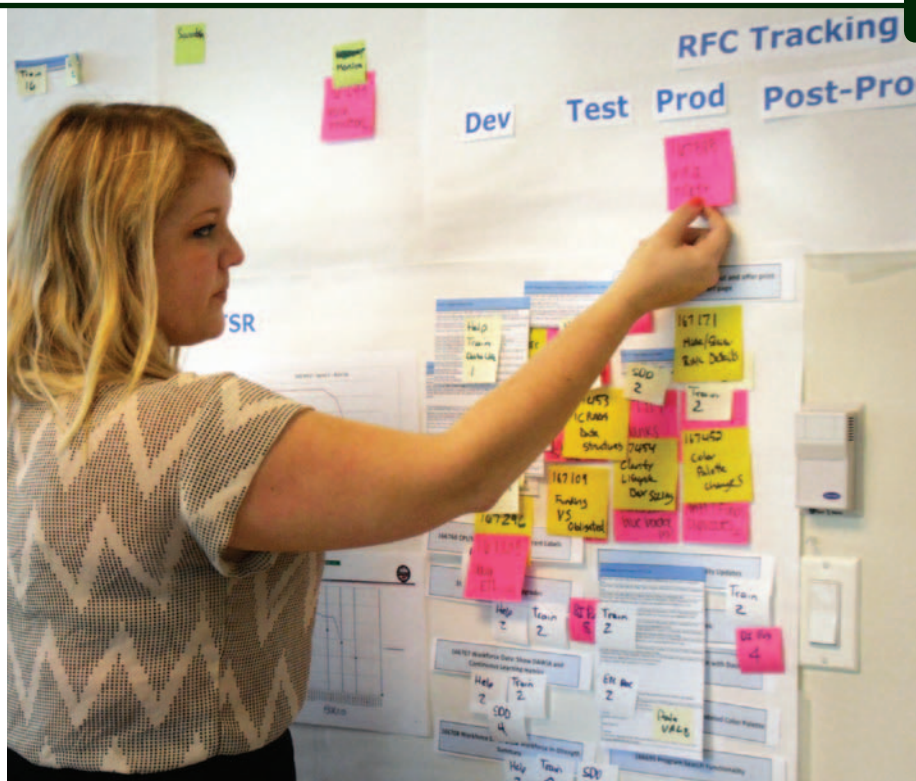
By emphasizing a shared resource pool, AcqBusiness is better able to optimize hardware and software assets such as maintenance and license renewals, which in turn is expected to result in lower life-cycle costs.

## CONCLUSION

The implementation of agile development methodology, the AAD and AAWF dashboards, and the virtualized cloud environments can be attributed directly to the hard work and leadership of AcqBusiness' workforce. AcqBusiness continues to ensure that its stakeholders are collaboratively engaged in developing innovative and modernized capabilities for the Army Acquisition Workforce.

For more information on AcqBusiness, visit <https://acqdomain.army.mil>.

MR. KEN WALDROP is the project execution chief in the Program Management Directorate of PM AcqBusiness. He holds a B.B.A. in accounting from



## FROM CONCEPT TO DELIVERY

The AcqBusiness team prioritizes requirements into "sprints," arranged on the scrum board, that help them turn product backlog requirements into increments of completed functionality. Here, Rachel Wright, a software tester on the scrum team, places information on the scrum board.

Georgia State University and an M.S. in management from the Georgia Institute of Technology. Waldrop is Level III certified in program management.

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#### MONEY-SAVING CAPABILITY

The Army stands to save about \$1 million a year, to start, by transitioning certain MRAP vehicles to the SWICE kit, thereby eliminating the use of six system-specific OEM software and hardware tools. The transition will apply first to Caiman and MaxxPro vehicles, followed by other MRAP variants. Here, MRAPs await service at Bagram Airfield, Afghanistan, Dec. 28, 2012. (U.S. Army photo by 1LT Henry Chan, 18th Combat Sustainment Support Battalion Public Affairs)





# ENGINE *of* Efficiency

Applying better buying power principles  
eliminates redundancy in vehicle testing for  
tomorrow's Army

*by Mr. Kenneth A. Van*

**A**rmey maintainers test, diagnose and repair complex missile, aviation and vehicular weapon system electronics, engines, transmissions and more every day. It's a big job, given the breadth of Army equipment portfolios. It also requires the Army to acquire and maintain a large inventory of often redundant but not interchangeable test equipment, even in the same family or portfolio of systems. Indeed, before the introduction of the latest Integrated Family of Test Equipment (IFTE) in 2000, testing the Army's fleet of wheeled and tracked vehicles required a plethora of various original equipment manufacturer (OEM) system-specific test equipment and software.

That proliferation of test equipment challenges Soldiers and civilians at home, and the redundancy is difficult to manage downrange. Applying better buying power principles to this challenge can eliminate redundancy within these tasks and portfolios, while reducing procurement and life-cycle costs.

The Product Director Test, Measurement and Diagnostic Equipment (PD TMDE), under the Project Manager Force Projection (PM FP) of Program Executive Office Combat Support and Combat Service Support (PEO CS&CSS), introduced the principles of better buying power to the TMDE workforce with the idea that its "at-platform" family of test equipment could be more affordable, mission-capable and user friendly. Establishing an integrated product team with the U.S. Army Combined Arms



### PREVENTIVE MEASURES

The transition to SWICE improves repair-cycle time, and reduces the size and weight of the kit, saving the government approximately \$2,000 per kit in procurement costs. Here, PFC Keven Bordenave, left, and CPL Nick Clark of the 214th Aviation Regiment perform maintenance on a helicopter engine at Clay Kaserne, Wiesbaden, Germany, March 12. (Photo by Dee Crawford, Training Support Activity Europe)

Support Command user community and the U.S. Army Research, Development and Engineering Command was the engine of innovation to successfully apply better buying power principles.

Today's diversity of weapon systems does not allow a one-size-fits-all approach to test equipment, but working smarter and more efficiently is certainly possible.

To eliminate unproductive activities, PD TMDE substantially reduced redundancy for the Army's vehicle fleet, while avoiding procurement costs (and thus reducing life-cycle costs), when it fielded the Maintenance Support Device – Version 3 (MSD-V3) equipped with the Smart Wireless Internal Combustion Engine (SWICE) test adapter kit.

### MANY SYSTEMS, ONE MISSION

A primary mission of PD TMDE is to acquire and field At-Platform Automatic Test Systems (APATS), a component of IFTE that enables more than 40 military occupational specialties to maintain more than 50 weapon systems with one general-purpose tester. The MSD-V3, as the latest generation of APATS fielded with the SWICE test adapter kit, allows Soldiers to test and restore the Army's fleet of wheeled and tracked vehicles equipped with internal combustion engines, using interactive electronic technical manuals and diagnostic software.

MSD-V3 provides wireless test connectivity and common software at a significantly reduced price through intensive market research, application

of commercial wireless technology, and a separately managed firm-fixed-price contract for the SWICE test adapter kit. Thus the acquisition and fielding of MSD-SWICE eliminates at-platform test equipment redundancy within the warfighter portfolios for wheeled and tracked vehicles, and avoids the cost of procuring and sustaining multiple system-specific OEM testers.

This isn't the Army's first attempt to improve vehicle testing. Indeed, the SWICE test adapter kit evolved from the previous internal combustion engine (ICE) test adapter kit, which required the maintainer to manually connect cables and various test adapters to the vehicle before and during testing. It was a bulky, cumbersome and expensive approach.

The SWICE kit provides wireless connectivity, removing dependence on a wired test connection to obtain data on vehicle health. It eliminates 11 cables and the serial ICE hardware breakout box by transitioning to a common electronics package, wireless diagnostic sensors for analog and digital engines, a wireless transducer adapter, a master interrogator and a wireless commercial digital multimeter. (See Figure 1, Page 89.)

The transition to SWICE not only improves the maintainer's ease of use, but also improves repair-cycle time and reduces the size and weight of the kit, saving the government approximately \$2,000 per kit in procurement costs. Fielding to the Army's large fleet will take time, but every kit replacement makes Soldiers' lives easier.

### MAKING A LONG-TERM DIFFERENCE

PD TMDE is also collaborating with the Joint Program Office Mine Resistant Ambush Protected Vehicle (JPO MRAP) and the U.S. Army Aviation and Missile



Research, Development and Engineering Center to transition the MRAP Caiman and MaxxPro vehicles from dependence on proprietary OEM software and hardware tools and field service representatives (FSRs) to organic support using the SWICE kit and an Army interactive electronic technical manual.

Transition to the SWICE kit for these MRAPs will eliminate the use of six system-specific OEM software and hardware tools, saving JPO MRAP approximately \$1 million per year in licensing fees and reducing dependence on FSR support. The transition for Caiman and MaxxPro vehicles is projected to be complete by the third quarter of FY13. The next effort will apply lessons learned with Caiman and MaxxPro to transition other MRAP variants to SWICE organic support.

Looking ahead, successful accomplishment of the maintenance mission is increasingly dependent on effective, efficient and timely access to information in a networked environment. Beginning in 2015, the APATS family of diagnostic capabilities will link the maintainer and weapon system to the maintenance information enterprise by hosting Global Combat Support System – Army software.

As the Army maintenance system evolves to an even more information-enabled environment with the implementation of Condition Based Maintenance Plus (CBM+), the SWICE kit will provide the basis for a robust smart wireless diagnostic sensor (SWDS) that can perform diagnostics along with onboard CBM+ data collection and transmission to the strategic information enterprise. The initial SWDS capability to perform CBM+ data collection was assessed during the U.S. Army Materiel Command's CBM+ architecture and technical demonstration this spring.

**FIGURE 1**



#### INTEGRATED FAMILY OF TEST EQUIPMENT

The SWICE kit provides wireless connectivity to the MSD-V3, eliminating 11 cables and the serial ICE hardware breakout box. (SOURCE: U.S. Army)

In a triumph for smoother and more efficient maintenance and better buying power, APATS general-purpose vehicular diagnostic capabilities are replacing system-specific OEM testers, paper manuals and proprietary OEM software tools with an information-enabled, wireless diagnostic environment requiring little or no maintainer intervention other than removal and replacement of the failed part. PD TMDE's emerging wireless at-platform products enable CBM+, real-time platform test and diagnostics, and the collection of vehicle health status data and transmission to a designated information enterprise for further analysis and prediction of useful life.

Vehicle behavior in various operational environments, human factors, parts consumption and overall platform reliability are just some of the important data elements that can be monitored. Diagnostic health and CBM+ data collected by the SWICE kit and SWDS, once analyzed and distributed, allow combat commanders and strategic leaders to make operational decisions about their equipment before, during and after a mission pulse.

#### CONCLUSION

The successful application of better buying power principles to the SWICE procurement has led to a similar approach for the MSD-V3 follow-on increment. In engaging the user community to control costs through the possible trade-off of environmental and packaging requirements, the objective will be to procure a tablet form-factor MSD that will be technically innovative and suitable for the user community.

For more information, go to [http://pdtemde.redstone.army.mil/msd\\_info.htm](http://pdtemde.redstone.army.mil/msd_info.htm).

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COMMENTARY



FROM THE DIRECTOR,  
ACQUISITION CAREER MANAGEMENT  
LTG WILLIAM N. PHILLIPS

# ACQUISITION *and the* **ARMY PROFESSION**

Values, continuous development set workforce apart



## REACHING FOR EXCELLENCE

A Soldier installs an Enhanced Highband Networking Radio Highband RF Unit antenna atop a 30-meter mast. The team of professionals from Program Executive Office (PEO) Intelligence, Electronic Warfare and Sensors and PEO Command, Control and Communications – Tactical who developed these networking capabilities was recognized with a 2012 Army Acquisition Excellence Award in the Equipping and Sustaining Our Soldier's Systems category. (U.S. Army photo)





#### FORWARD PRESENCE

Many in the Army Acquisition Workforce have deployed alongside operational units to ensure that new gear worked and that Soldiers could use it to its full capability. Here, Matthew Nolan, right, Common Remotely Operated Weapon Station (CROWS) lead for Regional Commands North and East, demonstrates CROWS maintenance and troubleshooting to MAJ Clive Cummings of the 401st Army Field Support Brigade, systems acquisition officer for the Acquisitions, Logistics and Technology Directorate, at Bagram Airfield, Afghanistan. (Photo by Carl Cox)

What makes a practitioner a professional? The newly released Army Doctrine Reference Publication (ADRP) 1 defines a profession as “a trusted self-policing and relatively autonomous vocation whose members develop and apply expert knowledge as human expertise to render an essential service to society in a particular field.” This answer describes the U.S. Army Acquisition Corps and places us in the unique position of being a profession within the Army Profession.

The Army Profession is made up of two complementary and mutually supporting components—the uniformed members

of the Army Profession of Arms and the Army Civilian Corps. Membership in the Army Profession for both components is conferred upon taking the oath of service. At that point, they are considered aspiring professionals until they are certified in competence, character and commitment, typically after graduating from Advanced Individual Training, Officer Basic Course, Warrant Officer Career College, Civilian Basic Course or the like. Thereafter they are expected to earn progressively more advanced certifications to maintain their professional status.

Some may think that Army Acquisition is not a direct contributor to the Profession of

Arms like other combat arms disciplines. I would agree that we do not directly deliver lethal blows, but our tools of the trade are howitzers, small arms, ammunition, protective gear, aircraft and many other systems that make our Soldiers the most lethal weapon on the battlefield.

The Army Profession does not treat military and civil service as just a job, but rather as a chosen career for life as selfless servants to our Army and the nation—the highest calling! The hallmarks of the Army Profession include *competence* in expert work, moral *character* and resolute *commitment*. The Acquisition Corps adds qualifications and continuous



### IT TAKES MANY SPECIALTIES

The 42,000-plus dedicated acquisition professionals in the Army ranks are highly skilled in program management, contracting, science, engineering, logistics and dozens of other specialized areas in support of the Soldier. Here, Soldiers assigned to 2nd Battalion, 23rd Infantry Regiment conduct a traffic control point as the Logistical Support Team of 4th Battalion, 9th Infantry Regiment travels through Kandahar province, Afghanistan, May 23. (U.S. Army photo by SSG Shane Hamann, 102nd Mobile Public Affairs Detachment)



### TOOLS OF THE TRADE

While members of the acquisition community do not directly deliver lethal blows, they deliver the howitzers, small arms, ammunition, protective gear, aircraft and many other systems that make our Soldiers the most lethal weapon on the battlefield. Here, Ward Eldridge, business development coordinator for PEO Soldier's Project Manager Soldier Weapons, explains the XM25 Counter Defilade Target Engagement System to Soldiers of the 7th Infantry Division Jan. 24 during a Weapons, Ammunition and Devices Symposium held on Joint Base Lewis-McChord, WA. The XM25 fires 25 mm grenades that are set to explode in midair at or near the target. (U.S. Army photo by SPC Glen Shackley)

professional development to ensure that our Army Professionals strive for and meet these criteria.

You are professionals, in whom the nation places great trust based upon your expert knowledge of and adherence to the highest ethical standards. I can think of no better description for all of you who are charged with developing, acquiring and fielding the capabilities that give our Soldiers the decisive edge, and doing so in a way that is fair to the taxpayer.

### QUALITIES OF THE PROFESSION

There are five essential characteristics of the Army Profession: trust among professionals and with the American people; military expertise; honorable service; esprit de corps; and stewardship of the profession. As the Army Acquisition Workforce, we must strive to embody these qualities consistently in our day-to-day mission.

The expertise is easy to see. The 42,000-plus dedicated acquisition professionals in our ranks are highly skilled in program management, contracting, science, engineering, logistics and dozens of other specialized areas. That's not just my assessment: Thomson Reuters, the multimedia and information conglomerate, recently named the Army one of the world's most innovative research organizations after we earned more than 300 patents for new technologies in a three-year period.

It is gratifying to see our acquisition teammates, many within the U.S. Army Materiel Command and the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)), recognized at such a high level for the hard work they do to provide Soldiers with the best technology available. But we're not satisfied with where we are now. We recognize that we must



continually grow and steward the expertise and versatility needed to be effective in future operations.

The most important characteristic—and the most difficult to attain and keep—is trust. Trust must be earned. The Army’s standing as a profession is based on the trust of the American people to act in the interest of their security. That holds true whether the action is deploying lethal force or deciding which manufacturer will build the safest tank. The Soldier, Army Civilian and the public trust us, the acquisition community, to balance performance with cost in order to quickly deliver capability.

Over the past 11 years of war, I can unequivocally say that the acquisition workforce has upheld that trust. We responded to Soldiers’ needs in combat with better body armor, new sniper rifles, faster communications networks and Mine Resistant Ambush Protected vehicles. Many of you deployed alongside operational units, making sure that their new gear worked and that they could use it to its full capability. At the same time, the acquisition community listened to warfighters on what wasn’t working and canceled or restructured programs that did not meet the standards our Soldiers deserve. Part of earning and maintaining the public trust is being transparent about our challenges and working to learn from them.

Professionals also remain committed to their own development and growth within the profession. Stewardship of the profession includes lifelong learning, while esprit de corps unites us in a common bond to prevail against all odds. This is particularly relevant for us as we face a changing national security and budget environment. The military in the near term will be smaller and leaner



### ON THE CONTRACTING FRONT

Contracting professionals are at the forefront of ensuring that the Soldier and the taxpayer get the best quality and value for the materiel and services that the Army purchases, and the ASA(ALT) leadership is engaged in growing and strengthening the contracting workforce. Here, the Hon. Heidi Shyu takes questions during a visit Jan. 28 to U.S. Army Mission and Installation Contracting Command – Fort Bliss, TX. (Photo by Benito Gonzales, U.S. Army Contracting Command)

but will remain a cutting-edge force that is agile, scalable, rapidly deployable and technologically advanced. Amid budgetary challenges, we must protect and prioritize our key investments in technology, new capabilities and people.

Much depends on your ability to adapt to this new landscape, whether it means mastering a new information technology tool or applying the principles of better buying power. To assist with your development, we will continue to expand training, certification, “re-greening” and other opportunities for those in or entering the acquisition field. Your continued growth is important to ensure that you have the knowledge, skills and experiences needed to excel.

The foundation that sets the Army Profession apart from any individual job responsibility rests on our Army values. All of us are familiar with them; professionalism requires internalizing these values in our daily operations. In acquisition, that means applying our great skills to design, develop and deliver capability to U.S. and coalition forces, in accordance with stated requirements—delivering on our promises. It also means holding up the

highest level of values and ethics in all that we do.

Service to the Soldier and the American people is not just what we get paid for as professionals, but a core part of our identity. Every time a robot detects and disables an explosive device or a helicopter makes a safe landing, those of us in the acquisition career field have the great honor of seeing the results of our service. It is incredibly rewarding to support our Soldiers so directly

### CONCLUSION

Our military is the best in the world, bar none. Our Soldiers are the best-equipped, best-trained and best-led of any army on the planet. And our Acquisition Workforce remains a profession within the Army Profession. Our Soldiers and civilians trust that we will deliver the systems that ensure their success on the field of battle, allowing them one day to come home safely to their families and friends. Thank you for your professionalism, and thank you especially for your service!

*For more information on ADRP 1, go to [http://armypubs.army.mil/doctrinel/DR\\_pubs/dr\\_a/pdf/adrp1.pdf](http://armypubs.army.mil/doctrinel/DR_pubs/dr_a/pdf/adrp1.pdf).*





#### DEPLOYED TO DESTROY

Part of the drawdown mission in Afghanistan will be to remove infrastructure that the Army has built up over more than a decade of combat. That mission falls, in part, to Soldiers of the 92nd Engineer Battalion "Black Diamonds," attached to the 2nd Brigade Combat Team, 3rd Infantry Division (2-3). Here, members of the unit file out onto the flight line at Fort Stewart, GA, Feb. 9 to deploy to Afghanistan for nine months. (U.S. Army photo by Sgt. Richard Wrigley, 2-3 Public Affairs)





# DECISIVE EXECUTION

Managing the scope and challenges of  
a retrograde operation:  
an acquisition officer's insights

*by COL Gordon Graham*

**T**he redeployment of U.S. Forces – Iraq (USF-I) in December 2011 represents the most significant retrograde of military personnel and equipment since the Vietnam War. With materiel accumulated over nearly a decade on the ground in Iraq, completing Operation New Dawn by Dec. 31, 2011, seemed a bridge too far. However, with intricately developed plans and close collaboration with the warfighter, the acquisition and logistic communities deftly met the objective.

In the execution, the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) gleaned important lessons regarding recovery and retrograde activities. To prepare for successful future drawdown missions, ASA(ALT) must focus on four decisive areas: property accountability

and disposition; institutionalized training for personnel conducting drawdown activities; personnel accountability and operational control of program executive office (PEO) and program management (PM) teams supporting retrograde efforts; and closer advance collaboration and integration with the U.S. Army Materiel Command (AMC).

## ACCOUNTABILITY AND DISPOSITION

It is vital to address accountability and disposition of property before retrograde operations, because the sheer velocity of the drawdown makes tackling these issues during retrograde operations nearly impossible. Without accounting for all property and ensuring that instructions for its disposition are in place, it is more challenging to determine the resources needed to recover the materiel.



### DESTINED FOR REUSE

Disposition of property for possible reuse, reset or demilitarization is a key element of any drawdown. Here, contractors for the retrograde yard at the General Dynamics Information Technology Center remove items from containers March 10 at Camp Arifjan, Kuwait, as part of Operation Steel Purge. Government-owned shipping containers throughout Kuwait were designated for reclaiming, repair and reuse to save money. (U.S. Army photo by SGT Ashley M. Outler, 28th Public Affairs Detachment)

Equipment may be inadvertently sent to incorrect locations or turned in to Disposition Services for destruction.

For example, ASA(ALT) collaborated with its in-theater counterparts in Iraq to bring more than 5,000 pieces of equipment “to record” on the theater property book (TPB). Most of these items were fielded at the brigade level, but the PMs did not initiate a Property Book Unit Supply Enhanced (PBUSE) transaction at that level to officially capture the materiel on the property book. Because ASA(ALT) addressed this shortcoming before beginning retrograde activities, it prevented loss of equipment, ensured that resources were available to move the materiel and allowed U.S. Army Central (ARCENT) and AMC to fulfill a substantial number of open requirements for the equipment within theater.

ASA(ALT) also partnered with the life-cycle management commands (LCMCs) to enter updated equipment disposition instructions into AMC’s Materiel Enterprise Non-Standard Equipment (MENS-E) database, providing updates to other property accountability systems such as the Theater Property Equipment (TPE) – Planner and the Army War Reserve Deployment System (AWRDS).

Lastly, several Standard Army Management Information Systems (STAMIS), such as PBUSE, MENS-E, TPE-Planner, Theater Redistributable Asset Manager and AWRDS, are indispensable for the end-to-end management of equipment fielded in and retrograded out of theater.

However, these stand-alone systems, with their lack of interoperability, added a different set of challenges in recording status changes to equipment.

Updates to disposition instructions in the MENS-E system can take days to get captured in TPE-Planner or AWRDS, sometimes too late to influence the equipment’s destination. As a work-around, changing disposition instructions must be entered manually into TPE-Planner or AWRDS, which can be cumbersome and time-consuming.

As we prepare for future retrograde operations, consolidating and combining the functionality of these STAMIS would reduce duplicated efforts and the processing time to effect equipment updates.

### INSTITUTIONALIZED TRAINING

The U.S. Army Acquisition Support Center (USAASC) serves as the training and career development proponent for ASA(ALT) personnel. In partnership with the Defense Acquisition University,





### ACCOUNTABILITY IN AFGHANISTAN

The Army is now preparing for the drawdown of troops and equipment from Afghanistan, which promises to be particularly challenging given the wide dispersion of personnel in austere environments. Here, paratroopers from the 4th Brigade Combat Team, 82nd Airborne Division execute theater property transfer to the 4th Battalion, 401st Army Field Support Brigade (AFSB) at Kandahar Airfield, Afghanistan, Aug. 18, 2012. (U.S. Army photo by Summer Barkley, 401st AFSB)

ASC provides oversight of the workforce; communicates the overall mission and vision; and programs, oversees and executes career management activities for the workforce, particularly in the areas of acquisition policy, training and career development.

Most of the current institutionalized training focuses on a program's cost, schedule, system performance, risk, contracts management and life-cycle support. Minimal training is dedicated to executing these competencies in an operational environment, or to the tactics, techniques and procedures required for the workforce to successfully conduct retrograde activities.

For the ASA(ALT) community to become more efficient in collaborating during retrograde operations, institutionalized training must focus on

activities in a drawdown environment. This will greatly reduce the learning curve in theater and will facilitate a more rapid ASA(ALT) integration with the warfighter, operational staffs and logisticians.

Additionally, conducting fielding and PBUSE transactions at the level of ARCENT's theater property book officer is a relatively new concept to many PEO and PM organizations. Indeed, they were not cognizant of the degree of coordination that must occur at the TPB level to ensure that the equipment is properly entered into PBUSE. Formally institutionalizing these skill sets at the staff officer and lower levels would reduce the amount of on-the-job training needed, and would ensure that personnel understand the details involved in meeting the stated directives.

### PERSONNEL CONTROL AND ACCOUNTABILITY

As we prepared to draw down from Iraq, centralized control of deployed personnel in theater was vital to ensure positive accounting of all personnel while permitting the necessary flexibility to meet the warfighter's mission.

At the peak of the Iraq drawdown, there were more than 1,700 ASA(ALT) personnel in theater, dispersed at more than 30 different forward operating bases (FOBs) throughout the country. Approximately 75 percent of those personnel were contractors. In light of changing FOB closure schedules, it was crucial to have a succinct process for maintaining command, control and accountability for personnel.

DOD's Synchronized Pre-Deployment and Operational Tracker is the official



### INSPECTING DISCARDS

Closer collaboration between ASA(ALT) and AMC will be critical to any future drawdown, based on the Army's experiences in Iraq. Here, Donald V. Phillips, site director of the Defense Logistics Agency Disposition Services in Bagram, Afghanistan, points out pieces of equipment slated for disposal to GEN Dennis L. Via, AMC commanding general, Jan. 15. (U.S. Army photo by Summer Barkley)

database for monitoring deployed contractors. Its ability to track individuals by personally identifiable information makes it ideal for recording entry into and exit from theater, but it does not have the agility and real-time capability to capture intra-theater movement.

To address this end state, USF-I developed the Materiel Enterprise Transition Common Operating Picture (METCOP) database. This capability established a centralized portal, capturing equipment and personnel changes throughout the

drawdown. In combination with the daily personnel status reports, METCOP allowed ASA(ALT) and other senior leaders to track the daily locations of all deployed personnel, including contractors. It was essential in verifying that deployed personnel and equipment were on a glide path to meet redeployment timelines.

Centralized command and control of deployed personnel is equally as important as the ability to account for them daily. In September 2011, the Hon. Heidi Shyu, Army acquisition

executive (AAE), published a directive reemphasizing that the deployed ASA(ALT) forward operations directors maintain operational control authority for all ASA(ALT) assets involved. However, the forward directors were not permitted to unilaterally provide direction that could influence a PEO or PM team's cost, schedule, performance or contract authority.

As such, the AAE also directed that each organization designate an in-theater government representative or contracting officer's representative to provide constructive changes to contracted efforts, implementing centralized command and control of the 1,700 ASA(ALT) personnel while maintaining flexibility to support the changing mission.

As we look toward future drawdown operations, it is vital that we have in place robust personnel tracking methodologies and a singular command and control architecture. This is especially applicable for widely dispersed personnel in austere environments such as Iraq and Afghanistan. Ultimately, the goal is the proverbial "herding of the cats," while retaining the flexibility and agility to meet operational requirements.

### COLLABORATION WITH AMC

Throughout the Iraq drawdown, substantial synergies resulted from the collaborative efforts of ASA(ALT) and AMC. As both organizations have similar yet distinct roles in sustaining and providing life-cycle support to fielded equipment, it is essential that the responsibilities of each are articulated to all personnel in the retrograde environment. This encourages a collaboration of functions while preventing duplication of effort.

At times during the Iraq drawdown, there was confusion among the deployed



personnel as to the distinct roles of each organization. Preparation for future drawdowns should include educating and communicating the independent and collective capabilities that each brings to the table.

Traditionally, ASA(ALT) develops, acquires and fields equipment. In most cases, early after fielding, the equipment transitions to one of AMC's LCMCs for life-cycle sustainment. However, due to the rapid nature of acquisition and fielding for much of the equipment in theater, some PEO and PM organizations continued to provide life-cycle support of non-standard equipment (NS-E) until they could formally transition its support to an AMC LCMC.

As AMC received and processed NS-E, it was essential to have PEO and PM teams present to assist with identification, de-installation and condition coding of this equipment. Redistribution property accountability teams, comprising both AMC and ASA(ALT) personnel, collectively processed large quantities of equipment, demonstrating their synergy once the roles and responsibilities had been appropriately defined.

Additionally, AMC is the primary manager for a majority of the STAMIS used for property accountability and equipment disposition. In the case of NS-E, PEO and PM organizations sometimes may need to partner with the appropriate LCMC to enter data into the applicable systems. Some teams may need to coordinate with their respective LCMC to input disposition instructions into the MENS-E database for NS-E retrograded from theater.

Currently, PEO and PM organizations have "read capability" but not "write authority" in MENS-E, and therefore



### KEEPING THE BOOKS

The need to improve interoperability of the Army's property accounting systems was one of the lessons learned in the drawdown from Iraq. Here, SSG Precious Knight, supply sergeant at 7th Army's NCO Academy on Camp Normandy in Grafenwoehr, Germany, inputs information into the Army's inventory system July 26, 2012. The U.S. Army Europe (USAREUR) Office of the Deputy Chief of Staff, G-4, was inspecting units to identify excesses and shortages as part of the Army's Campaign on Property Accountability. (U.S. Army photo by Michael Beaton, USAREUR)

cannot change entries. Future efforts should either permit these organizations to have write authority, or ensure that they have identified a partnering LCMC to input data.

### CONCLUSION

ASA(ALT) should be proud of its contributions and performance during the Iraq drawdown, especially as this was the first in ASA(ALT)'s brief history. The dedication, determination and flexibility of its deployed personnel ensured the organization's success amid a high operations tempo in a complex and ever-changing environment. Despite ASA(ALT)'s success during the Iraq drawdown, there are still many lessons to glean from the effort. It is important to proliferate and institutionalize these lessons learned, to position ASA(ALT) for success in executing future retrograde operations while not degrading its abilities to continue providing the decisive edge to the warfighters and combatant commanders.

Furthermore, ASA(ALT), in close collaboration with its materiel enterprise partners such as AMC and ARCENT, ensures that it is capable of providing a comprehensive and holistic approach to supporting these types of operations.

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# REMAKING AMERICAN SECURITY

Supply chain vulnerabilities and national security risk  
across the U.S. defense industrial base

*by BG John Adams, USA (Ret)*

**W**ith the closing of factories across the United States and the mass exodus of manufacturing jobs to China and other nations over the past 30 years, the United States' critically important defense industrial base has deteriorated dramatically. As a result, this country now relies heavily on imports to keep our armed forces equipped and ready. Compounding this rising reliance on foreign suppliers, the United States also depends increasingly on foreign financing arrangements.

In addition, the United States is not mining enough of the critical metals and other raw materials needed to produce important weapon systems and military supplies. These products include the night vision devices (made with a rare

earth element) that enabled U.S. Navy SEALs [sea, air, land teams] to hunt down Osama bin Laden.

Consequently, the health of the U.S. defense industrial base—and with it our national security—is in jeopardy. We are vulnerable to major disruptions in foreign supplies that could make it impossible for U.S. warriors, warships, tanks, aircraft and missiles to operate effectively. Such supply disruptions could be caused by many factors, including:

- Poor manufacturing practices in offshore factories that produce problem-plagued products. Shoddy manufacturing could be inadvertent, could be part of a deliberate attempt to cut costs and boost profits, or could be intentionally designed to damage U.S.

capabilities. Motivated by expected gains in cost, innovation and efficiency, DOD began a decided shift from parts made to military specifications to commercial off-the-shelf (COTS) parts and equipment two decades ago. However, COTS items often lack the quality control and traceability necessary to ensure that parts used in the defense supply chain meet the rigorous standards we expect of equipment vital to our national security. Faulty and counterfeit COTS parts are already taking a toll on readiness in several defense sectors.

- Natural disasters, domestic unrest, or changes in government that could cut or halt production and exports at foreign factories and mines.
- Foreign producers that sharply raise prices or reduce or stop sales to the



United States. These changes could be caused by political or military disputes with the United States, by the desire of foreign nations to sell to other countries, by the need to attract foreign investment and production, or by foreign nations wanting to keep more of the raw materials, parts and finished goods they produce for their own use.

The following 10 recommendations to make the United States less dependent on the importation of products essential to our national security are based on the premise that the U.S. defense industrial base is a vital national asset that is no less critical to our national security than our men and women in uniform.

The recommendations call for:

1. Increasing long-term federal investment in high-technology industries, particularly those involving advanced research and manufacturing capabilities. The distinguishing attribute of the U.S. defense industrial base is technological innovation. As foreign nations continue manufacturing an ever-larger share of America's defense supplies, the United States increases its risk of diminishing its capacity to design and commercialize emerging defense technologies. To help ensure that our armed forces dominate the future battlefield, Congress should provide funding for American manufacturers to develop and implement advanced process technologies.
2. Properly applying and enforcing existing laws and regulations to support the U.S. defense industrial base. Domestic source preferences already enacted into law, such as those that apply to the steel and titanium industries under the Specialty Metals Clause, must be retained to ensure that important defense capabilities



#### HOT TOPIC

COTS products, such as steel and other metals, may not always measure up to U.S. standards. Loss of the capability to produce such materials at home could put U.S. military superiority at risk. (Photo by Photos.com)

3. Developing domestic sources of key natural resources required by our armed forces. Right now, the United States relies far too heavily on foreign nations for certain key metals and other raw materials needed to manufacture weapon systems and other military supplies. For example, most rare earth elements, which are essential components of many modern military technologies, remain secure and available for the U.S. armed forces.
  4. Developing plans to strengthen our defense industrial base in the U.S. currently must be purchased from China. (See Figure 1, Page 102.) The U.S. government and industry must stockpile these vital raw materials, strengthen efforts to resume mining and transformation of the materials in the United States, improve recycling to make more efficient use of current supplies, and identify alternate materials.
- National Military Strategy, National

FIGURE 1

# SPECIALTY METALS

## HARNESSING THE PERIODIC TABLE

### MANUFACTURING SECURITY

Specialty metals are crucial to U.S. national security and are used in a wide range of military end-items



COMPUTER CHIPS  
AND DEVICES



MISSILE  
GUIDANCE



AIRCRAFT  
COMPONENTS

### U.S. CONSUMPTION

Total U.S. annual consumption of new non-fuel minerals per capita



= 1,000

**25**  
THOUSAND  
POUNDS

### RARE EARTH VULNERABILITY

China is the leading supplier of rare earth elements essential to national security



**CHINA PRODUCES  
90% OF THE WORLD'S  
SUPPLY OF REES**

### U.S. DEPENDENCY

The U.S. is wholly reliant on foreign suppliers for 19 key minerals used in specialty metals

**100%**  
IMPORT-RELIANT FOR  
19 KEY MINERALS



### VALUABLE METALS

Many specialty metals are vastly more valuable than other commonly used metals



**\$3600**  
PER KILOGRAM

VS.



**\$1.60**  
PER KILOGRAM

### MITIGATING RISKS

Protecting U.S. access to specialty metals



STRENGTHEN  
NATIONAL  
STOCKPILE



DEVELOP  
DOMESTIC  
CAPACITY



INTERAGENCY &  
INTERNATIONAL  
COORDINATION

### SUPPLY AND DEMAND

The United States currently relies heavily on foreign nations for certain key metals and other raw materials needed to manufacture weapon systems and other military supplies. For example, China is the leading supplier of rare earth elements (REEs), which are essential components of many modern military technologies. (SOURCE: Alliance for American Manufacturing/Guardian Six)

Security Strategy and the Quadrennial Defense Review process. This would make creating and sustaining a healthier defense industrial base a higher national priority, with a focus on increasing support for the most important and vulnerable industrial sectors.

5. Building consensus among government, industry, the defense industrial base workforce and the military on the best ways to strengthen the defense industrial base. These sectors must work collaboratively to successfully address the concerns of all defense industrial base stakeholders.
6. Increasing cooperation among federal agencies and between government and industry to build a healthier defense industrial base. The Departments of State, Treasury, Energy, Commerce, Homeland Security and others in the executive branch should join the Department of Defense in working to bolster the defense industrial base.
7. Strengthening collaboration among government, industry and academic research institutions to educate, train and retain people with specialized skills to work in key defense industrial base sectors. The loss of U.S. manufacturing jobs has reduced the size of the workforce skilled in research, development and advanced manufacturing processes.
8. Crafting legislation to support a broadly representative defense industrial base strategy. Congress and the administration must collaborate on economic and fiscal policies that budget for enduring national security capabilities and sustain the industrial base necessary to support them.
9. Modernizing and securing defense supply chains through networked operations. These operations should be built on the excellent work that



DOD and industry are already doing to map and secure defense supply chains. The operations would provide ongoing communications between prime contractors and the supply chains they depend on. Closer communications, patterned on the networked operations of U.S. military forces around the world, would help managers identify and solve recurring problems with military supplies.

10. Identifying potential defense supply chain choke points and planning to prevent disruptions. This recommendation would require determining the scope of foreign control over critical military supply chains and finding ways of restoring U.S. control.

*This article is an excerpt from “Remaking American Security: Supply Chain Vulnerabilities & National Security Risks Across the U.S. Defense Industrial Base,” published in May by the Alliance for American Manufacturing at <http://americanmanufacturing.org/content/remaking-american-security>. The views expressed in this article are those of the author and do not reflect the official policy or position of DA or the U.S. government.*

BG JOHN ADAMS, USA (Ret), is president of Guardian Six Consulting LLC. He served his final military assignment as deputy U.S. military representative to the NATO Military Committee in Brussels, Belgium. He retired from the Army in September 2007. Adams is a Ph.D. candidate in political science at the University of Arizona and holds master's degrees in international relations from Boston University, English from the University of Massachusetts and strategic studies from the U.S. Army War College.



#### DAY-OR-NIGHT SUPERIORITY

Night vision devices, made with a rare earth element, represent a significant advantage for U.S. forces and enabled U.S. Navy SEALs hunt down Osama bin Laden. Loss of supplies of rare earth magnets and other exotic metals could put U.S. military power at risk. Here, a 7th Special Forces Group (Airborne) (7 SFG (A)) Green Beret checks an attached night vision device outside of a U.S. Air Force AC-130 before conducting a high altitude low opening parachute jump at Hurlburt Field, FL, April 23. (U.S. Army photo by SPC Steven Young, 7 SFG (A))



#### PREDICTING VULNERABILITIES

As foreign nations continue manufacturing an ever-larger share of America's defense supplies, the United States risks diminishing its capacity to design and commercialize emerging defense technologies. Here, members of a supply chain predictability team at the Defense Contract Management Agency (DCMA), Fort Lee, VA, brainstorm Aug. 23, 2012, about risk indicators to be considered before writing supply chain instructions. From left are Rosemarie Burnett, Rob Dowell, Richard McCaffery, Roland Quitoriano and Brian Reilly. (Photo courtesy of DCMA)



## FIELD EXPEDIENT

# A BOAR is BORN

Soldiers adapt Capability Set 13 technologies to create a more mobile communications solution for rugged terrain

*by Ms. Claire Heininger*

**L**TC Al Boyer was like a kid in a candy store. His unit had just been fielded with a batch of new communications technologies that he was convinced would save lives when his Soldiers got to Afghanistan. After growing up in the Army using FM radio and paper maps, the battalion commander was energized to see the military adapt to the battlefield the kinds of digital tools—smartphones, data radios, mapping software—that the civilian world thrives on.

There was only one problem: The packaging for all of this technology was a Mine Resistant Ambush Protected (MRAP) vehicle. Leading a light infantry unit

bound for austere, mountainous terrain, Boyer would need to go places that a networked MRAP couldn't.

So he turned a few tech-savvy Soldiers loose with the new capabilities, and the "Boar Battle Wagon" was born.

Named for the "Wild Boars" of the 4th Brigade Combat Team (BCT), 10th Mountain Division (Light Infantry) (4-10), the unit's solution was to configure a Gator all-terrain vehicle with components from one of the company command post kits that had been delivered as part of Capability Set (CS) 13. The Soldiers added a satellite communications antenna and a

1-kilowatt generator that originally was intended to charge batteries for their CS 13 handheld devices.

"I can put it in the back of a helicopter," said Boyer of the Boar Battle Wagon. Boyer is commander of the 4-10's 2nd Battalion, 30th Infantry Regiment. "If I need to get to an isolated forward operating base high up in the hinterlands, I can put this thing on a Chinook and fly it to where we need to go, and have almost the same capabilities as I do in one of the vehicles."

### **SCALABLE AND TAILORABLE**

The Boars' stroke of creativity was precisely what the Army had in mind





### A TECH-SAVVY GENERATION

Leaders credit young Soldiers who are already familiar with commercial communications technology and have a short learning curve with pushing CS 13 to its full potential. Here, a Soldier from the 3-10 communicates using a Nett Warrior handheld device during training at Fort Drum, NY, in April. (U.S. Army photos by Claire Heiningner)

when it adapted the CS approach to fielding the tactical network. CS fielding delivers technologies that are integrated across the BCT formation, rather than stand-alone systems.

CS 13, the Army's first such effort, is being fielded to select BCTs that are slated for deployment. It includes the Army's new mobile satellite communications backbone, Warfighter Information Network – Tactical (WIN-T) Increment 2, augmented by data radios, handheld devices, and the latest friendly force

tracking and mission command software. Together, the capabilities will allow Soldiers and leaders to exchange real-time information across echelons and to execute mission command using mobile communications technologies, rather than having to remain in a fixed location to access the network.

But the sets are not static; they are tailorable to a variety of missions. For example, in the midst of their training, the Army reorganized the 10th Mountain's 4-10 BCT and 3-10 BCT into

security forces advise and assist teams (SFAATs), formations smaller than a typical BCT that are focused on working closely with Afghan National Security Forces. While the Afghan forces take the lead in operations, the SFAAT units will use CS 13 to support them with situational awareness, air and artillery support, and other reachback communications.

"Especially as we are reducing our presence in Afghanistan, it is absolutely critical that we continue to understand what is happening around us, to continue to





### BUILDING A BOAR

PFC Jonathan Bole helped configure the Boar Battle Wagon, pictured here at the JRTC in March. Named for the Wild Boars of the 4-10 BCT, the Gator all-terrain vehicle equipped with components of CS 13 supports voice and digital communications in austere environments not accessible by networked MRAP vehicles. After validating the solution during its JRTC rotation, the 2nd Battalion, 30th Infantry Regiment of the 4-10 is planning to take the Boar Battle Wagon to theater.

understand the operational environment,” said COL Sam Whitehurst, commander of the 3-10, which followed the 4-10 in the fielding and training cycle for CS 13.

As the units’ task-reorganized into SFAATs this spring, the Army scaled the CS 13 network architecture to meet their new structure and requirements. In the case of the Boar Battle Wagon, the users also took matters into their own hands, recognizing the value of the capabilities and shaping them to fit their own unique requirements.

“This system is great as a heavy system tied to vehicles, [but] what if I need a light or medium system?” Boyer said. “Because of the design of the systems along the echelons and the different radios that are associated with that, we were able to tailor, pick and choose.”

The CS equipment is designed to be flexible and accommodate upgrades. For example, after Boyer’s unit finished its rotation at the Joint Readiness Training Center (JRTC), Fort Polk, LA, in April, Soldiers turned in their Android-based

handheld devices to be updated with new applications before the equipment was shipped to theater.

### A DIGITAL GENERATION

While leaders like Boyer and Whitehurst see the big picture of what the capability set provides, they are quick to credit their subordinates with pushing the new gear to its full potential. Young Soldiers who are already familiar with commercial communications technology have a short learning curve.



“It’s pretty phenomenal, the way the platoons and below have been using equipment given to them,” said SGM Joe Singerhouse, also of 4-10’s 2nd Battalion, 30th Infantry Regiment. “They’re dealing with iPhones and Androids and PlayStations and computers every day. The beauty of this system: These Soldiers, once they’ve figured out the architecture and what makes it go, now they know, ‘Hey I can take this capability, move it over here and be responsive to what the commander wants for mission command on the battlefield.’”

The Boar Battle Wagon was one example of the junior Soldiers’ ingenuity. Boyer explained to them what he needed—voice, email and blue force tracking capability, with connectivity beyond line-of-sight—and the limitations imposed by the terrain he would face. PFC Jonathan Bole and his buddies did the rest.

The generator was borrowed from the handheld devices, and the satellite antenna from the back of one of the MRAPs equipped with WIN-T Increment 2. The other components came from a CS 13 company command post training set kit, originally meant for use in a tactical operations center (TOC) to boost communications for company commanders. To further enhance the capability of the system, the Soldiers added a One System Remote Video Terminal (OSRVT) to remotely pull down surveillance images.

After securing the gear, Bole and a few other Soldiers configured it on the Gator, making sure the systems and antennas were properly placed. Then they let it fly.

“The colonel just wanted something he could load up on a Chinook and have basic communications with his troops, and keep an eye on them,” Bole said. “It

gives us the opportunity to get somewhere faster than a truck.”

Atop a ridge at the sprawling Louisiana training center, the helicopter offloaded the Boar Battle Wagon with rotors turning. Within a few minutes, Soldiers powered up its systems and sent messages more than 30 miles back to the battalion TOC, which received and replied to the missives. They made voice calls over satellite, pulled feeds from the OSRVT and viewed blue icons showing the locations of other friendly forces.

After validating the solution during the JRTC rotation, Boyer’s battalion is planning to take it to theater.

These smart young Soldiers, who have grown up with technology and have a native understanding of it, “have a frame of reference for how technology works and were able to say, ‘Yeah, I think I can make this work to meet the commander’s intent for operations,’” Boyer said.

“The challenge,” he continued, “has really been to get my leaders—people more attuned to the way that I was raised to fight—to embrace the technology and to power down to the younger Soldiers, and really let them experiment with the systems and find out what their capabilities truly are.”

For more information on Capability Set fielding, go to <http://www.bctmod.army.mil/>.

MS. CLAIRE HEININGER is a staff writer for Symbolic Systems Inc., supporting the U.S. Army Program Executive Office Command, Control and Communications – Tactical. Heininger holds a B.A. in American studies from the University of Notre Dame and has covered Army network technologies, policies and events extensively.

## COMMUNICATIONS ON THE MOVE

A Soldier from the 3-10 drives an MRAP equipped with WIN-T Increment 2 during training at Fort Drum in April. CS 13 allows Soldiers and leaders to exchange real-time information across echelons and to execute mission command using mobile communications technologies, rather than having to remain in a fixed location to access the network. The equipment is scalable and tailorable to different missions and environments.



- Know an AL&T Soldier or Civilian who deserves recognition for what he or she does every day?
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- Spotlight, Army AL&T magazine's quarterly in-depth profile.

Our writers work with nominees to develop profiles that feature their challenges, rewards and insights, so the time commitment is minimal. Profiles are posted to the ASC and ASA(ALT) websites and shared through social media channels.

For more information or to nominate someone, contact Tara Clements at 703-805-1006 or [tara.a.clements.civ@mail.mil](mailto:tara.a.clements.civ@mail.mil).

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# FACES OF THE FORCE



Part of our mission at Army AL&T is to "disseminate information pertinent to the professional development of the AL&T workforce." Sometimes a picture (worth the proverbial thousand words) is the best way to accomplish that mission. Here are the men and women of the Army Acquisition Workforce, at work.

Go to <http://www.flickr.com/photos/usaasc/sets/> for more information about the photos shown and to see more photos of the workforce.





**VISITING BRASS:** The Hon. Heidi Shyu, GEN Dennis L. Via and CSM Ronald T. Riling tour the RFAST-C Prototype Integration Facility at Bagram Airfield, Afghanistan.



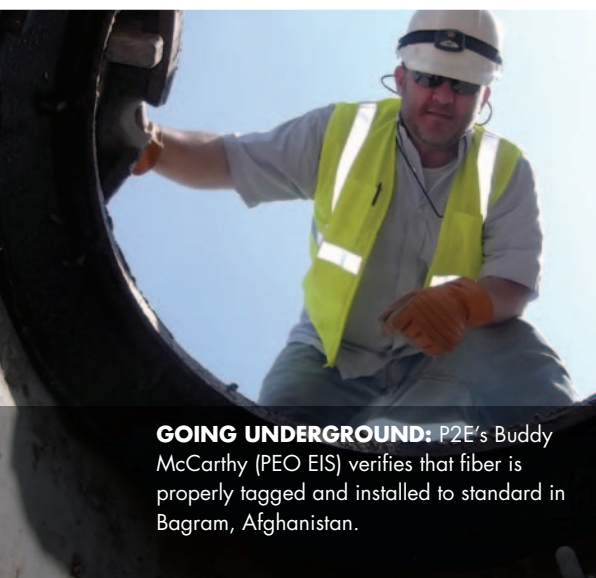
**LET 'ER FLY:** Rick M. Szczepanski, Puma product engineer for Small Unmanned Aircraft Systems (PEO Aviation), launches a RQ-20A Puma during a demonstration at Redstone Arsenal, AL.



**BRINGING IN THE BIG GUNS:** Mark Smith, right, M777A2 ILS Manager (PEO Ammunition), confers with David Lee, ARDEC weapons engineer, at Picatinny Arsenal, NJ.



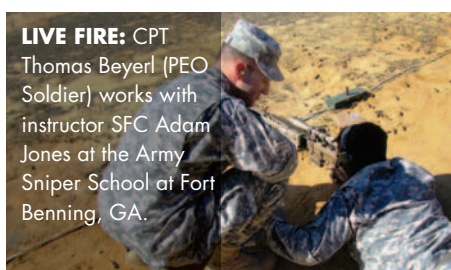
**CONNECTING EAST AND WEST:** Installing communications cables at Camp Humphreys, South Korea. PEO EIS supervised the effort.



**GOING UNDERGROUND:** P2E's Buddy McCarthy (PEO EIS) verifies that fiber is properly tagged and installed to standard in Bagram, Afghanistan.



**QUALITY ASSURANCE:** Victor Leong (PEO Ammunition), left, confers with ARDEC's Ronald Banta at Picatinny Arsenal, NJ.



**LIVE FIRE:** CPT Thomas Beyerl (PEO Soldier) works with instructor SFC Adam Jones at the Army Sniper School at Fort Benning, GA.



**STEPPING UP:** Newly promoted SFC Romeo Belunta, U.S. Army Expeditionary Contracting Command, accepts his cap from his wife, Kelly, after his promotion and reenlistment ceremonies at Redstone Arsenal, AL.

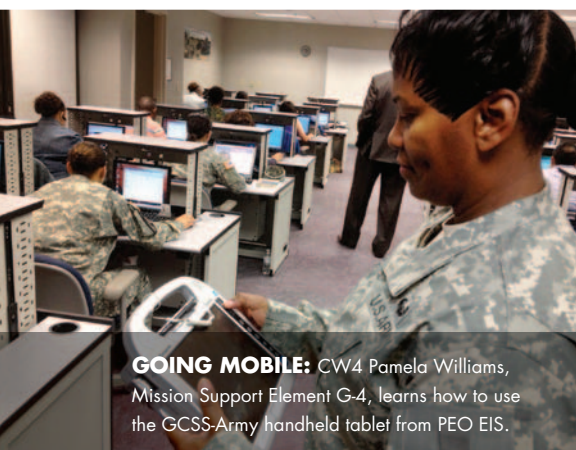




**REUSE AND RECYCLE:** PEO Ammunition's Mary Pereira uses a forklift to clear out unserviceable items in Kandahar, Afghanistan.



**STATUS CHECK:** The Deployable Force Protection program Joint Senior Steering Council receives a program review briefing in Crystal City, VA.



**GOING MOBILE:** CW4 Pamela Williams, Mission Support Element G-4, learns how to use the GCSS-Army handheld tablet from PEO EIS.



**BIOMETRIC SIGNATURE:** Scott Wenzel, Joint Personnel Identification (PEO EIS), preps for a demo of DOD biometrics equipment by scanning Rebecca LaPlante's irises.



**ACMA CHARTER:** Dawn L. Rosarius (MEDCOM) receives her official charter as the new acquisition career management advocate for MEDCOM from Tom Evans.



**TACTICAL NETWORKING:** MAJ Rachael Hoagland (JTNC) and Rich Ouellette (CECOM) attend the Soldier Radio Waveform Training Course in San Diego, CA.



**BLACK HAWK COUNT:** 1LT Lawson M. Bartlett (2-158), right, and Noel Rousseau (Science and Engineering Services) conduct an inventory on a UH-60M Black Hawk.



**RPG DEFEAT:** Jimmy Cooper (RRAD), left; Gary Frobish, Honeywell Logistics; and Susan Brown (PEO CS&CSS) examine an RPG Defeat Kit Net installed by RRAD.



**SATELLITE SUCCESS:** Joint Force Headquarters – National Capital Region and the U.S. Army Military District of Washington, Fort McNair celebrate the fielding of the Defense Wide Transmission Systems.



**TELEMEDIC:** Ben Foresta of CERDEC's Space and Terrestrial Communications directorate and SGT Andrew Danforth, 7207th Army Reserve, Fort Dix, NJ, check a smartphone used for telemedicine at Fort Dix, NJ.



# *It Takes a Team*

Forward-deployed Army materiel enterprise pools diverse skills  
to execute multifaceted mission in Afghanistan

*by COL William E. Cole*

**T**oday approximately 68,000 Soldiers, Sailors, Airmen and Marines are deployed in Afghanistan as the U.S. element of Operation Enduring Freedom (OEF). They are equipped with the best vehicles, weapons and electronics in the world, systems supported by a confederation of military personnel, DOD civilians and contractors who make up the materiel enterprise team. The members of that team issue new equipment to Soldiers, train them to use it, maintain non-standard equipment, provide technical advice, and even help retrograde vehicles and other systems out of Afghanistan.

The majority of the personnel making up the materiel enterprise team in Afghanistan come from the U.S. Army Materiel Command (AMC) and the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)). Just as AMC and ASA(ALT) organizations are teamed in the United States to form life-cycle management commands (LCMCs), in Afghanistan the deployed AMC and ASA(ALT) organizations partner to provide better support to the Soldier. Other partners in the materiel enterprise team include the Rapid Equipping Force, and members of the U.S. Army Test and Evaluation Command conducting forward operational assessments of new equipment.

The mission for most of the deployed ASA(ALT) personnel in Afghanistan is to field, upgrade or maintain non-standard equipment. This includes items not supported by existing Army maintenance and supply systems, perhaps because the

equipment is too new to have school-trained Soldiers supporting it, or because the equipment is so unique to the mission in Afghanistan that it may never become part of the Army's standard inventory. In either case, ASA(ALT) contractors provide and support the equipment in the field to keep it operational for Soldiers in the fight.

## **A DIVERSE ROSTER**

The largest AMC organization in the materiel enterprise team is the 401st Army Field Support Brigade (AFSB), headquartered in Bagram. The 401st AFSB provides field- and sustainment-level logistics for U.S. forces and selected coalition partners across Afghanistan. One element of the 401st AFSB, the Acquisition, Logistics and Technology Directorate (ALT-D), focuses on providing life support to deployed ASA(ALT) and AMC personnel who are fielding, upgrading or sustaining non-standard equipment.

Most deployed ASA(ALT) personnel fall under the 401st AFSB for administrative control, and they rely on the officers and civilians of the ALT-D to provide the living areas, workspace, vehicles and other support equipment necessary to perform their mission.

Some of those deployed ASA(ALT) Soldiers, DA civilians and contractors are upgrading vehicles with improved armor or fielding improved communication systems, including Capability Set 13. Others are fielding new targeting systems





### THE MATERIEL ENTERPRISE, IN PERSON

Deployed materiel enterprise members issue new equipment to Soldiers, train them to use it, maintain non-standard equipment, provide technical advice and help retrograde equipment out of Afghanistan. Here, Soldiers and government and contract employees gather after a change of responsibility ceremony at Bagram Airfield, Afghanistan, on May 24.

Front row, from left: MAJ Clive Cummings, 401st Army AFSB, ALT-D deputy; LTC Kent Guffy, 401st AFSB, ALT-D director; Roosevelt Rushton, Program Executive Office (PEO) Missiles and Space lead; Susan Brown, PEO Combat Support and Combat Service Support lead; Tom Coleman, deputy director, ASA(ALT) Forward Operations (OEF) (FWD-OEF); COL Brett A. Barraclough, director, ASA(ALT) FWD-OEF; COL William E. Cole, outgoing director, ASA(ALT) FWD-OEF; MAJ Alex Gonzales, RC – East acquisition adviser; MAJ Pete Amara, PEO Intelligence, Electronic Warfare and Sensors lead; Brian Cannon, lead for Project Manager Electronic Warfare and Product Manager (PM) Counter Remote Controlled IED Electronic Warfare; Roger Curry, PEO Soldier lead; and LTC Elliott Caggins, PM Mine Resistant Ambush Protected (MRAP) Vehicle Systems, Joint Program Office MRAP.

Back row, from left: LTC Bill Venable, Capability Set 13 lead; Eric Graf, Project Manager Force Projection lead; Frank Schlemmer, PEO Simulation, Training and Instrumentation lead; Ayodeji Omololu, Project Manager Mobile Electric Power lead; Brad Volz, PM Force Sustainment Systems lead; Bruce Gorski, PEO Ammunition lead; LTC Joe Conrad, PEO Ground Combat Systems lead; James McNight, Joint PEO Chemical and Biological Defense lead; Mike Valdez, PEO Command, Control and Communications – Tactical lead; William Slate, PEO Aviation lead; Paul Varian, Project Manager Unmanned Aircraft Systems lead; Tim McPherson, PM Crew-Served Weapons lead; and Kenny Light, RDECOM Science and Technology adviser. (U.S. Army photo by LTC John P. Juachon, 401st AFSB)

**THESE OFFICERS CAN REACH BACK TO THE ASA(ALT) PRODUCT AND PROJECT MANAGERS TO PROVIDE BATTLEFIELD FEEDBACK ON HOW NON-STANDARD EQUIPMENT PERFORMS IN COMBAT. TOGETHER, THEY HAVE HELPED THE COMMANDS EFFECT RAPID MODIFICATIONS TO EQUIPMENT TO REACT TO CHANGING BATTLEFIELD CONDITIONS.**

and precision munitions, including the Precision Guidance Kit for 155 mm artillery. Still others are training Soldiers to operate the non-standard equipment used in Afghanistan, such as the latest handheld mine and wire detectors. On many projects, such as vehicle upgrades, the ASA(ALT) teams partner with the 401st AFSB's own property managers and maintainers to accept systems from combat units, perform field maintenance and install upgrades, and then reissue the improved system back to the units. This provides a one-stop shop for the warfighter, who can drop off a vehicle and then pick it up a few days later with the upgrade installed.

Some other deployed civilians and contractors from ASA(ALT) and AMC's U.S. Army Research, Development and Engineering Command (RDECOM) are embedded with units, including the regional commands, reconnaissance and counter-improvised explosive device task forces, and special operations commands. They work alongside Soldiers from those units to sustain or even operate non-standard equipment in a tactical environment. Their missions include operating state-of-the-art sensor systems on aircraft and maintaining non-standard vehicles, electronics and weapon systems at remote locations.

A few of the military members of the materiel enterprise team act as advisers to combat units, helping them to determine their materiel requirements and obtaining necessary equipment. Regional Command (RC)-East and RC-South each have a field-grade officer from ASA(ALT) dedicated to supporting their operations.

These officers can reach back to the ASA(ALT) product and project managers to provide battlefield feedback on how non-standard equipment performs in



### LESSONS IN TEAMWORK

Susan Brown, OEF forward lead for PEO CS&CSS, advises anyone getting ready to deploy to "establish good working relationships, because in this environment we really need to help each other." Here, Brown and Jimmy Cooper of Red River Army Depot, TX, check a Heavy Expanded Mobility Tactical Truck for underbody blast protection armor. (U.S. Army photo)



### SENIOR LEADERSHIP LOOK

Army leadership has recognized the value of a forward-deployed prototype integration facility (PIF) staffed with government engineers and technicians to immediately capture Soldier-inspired ideas, rapidly engineer a solution, and fabricate a prototype at the speed of war. Here, Michael Anthony, left, then-director of RDECOM's Field Assistance in Science and Technology Center (RFAST-C), accompanies the Hon. Heidi Shyu, ASA(ALT); GEN Dennis L. Via, AMC commanding general; and MG Harold J. Greene, ASA(ALT) deputy for acquisition and systems management, on a tour of the RFAST-C PIF in Bagram, Afghanistan, Jan. 15. (Photo by LTC John P. Juachon, 401st Army Field Support Brigade)





combat. Together, they have helped the commands effect rapid modifications to equipment to react to changing battlefield conditions.

Other officers and NCOs from RDECOM help units and Soldiers by providing information on the latest technology and even providing prototypes that may give Soldiers an edge on the battlefield. The Soldiers then provide feedback, which will aid in future system development.

### THE RETROGRADE MISSION

Supporting our warriors in their combat operations is the materiel enterprise team's most important mission, but another increasingly important mission is retrograding excess equipment out of Afghanistan. For this mission, too, AMC and ASA(ALT) personnel partner to ensure that vehicles, electronics, weapons and other systems are shipped back to the United States and other locations around the globe, or are disposed of responsibly in Afghanistan if shipping the equipment out of the country would be uneconomical.

The 401st AFSB has the lead for retrograding Class VII equipment—major end items—from Afghanistan, and ASA(ALT) personnel provide the technical support to ensure that non-standard equipment is properly deinstalled from vehicles and prepared for shipment.

For the retrograde of Stryker combat vehicles, the 4th Battalion of the 401st AFSB in Kandahar partnered with the Project Manager Stryker Brigade Combat Team (PM SBCT) to develop a coordinated “racetrack” of activities to prepare those vehicles for retrograde. At different stations, 401st AFSB and PM SBCT personnel work together to remove mine rollers, gunshot detectors,



### TO SERVE AND PROTECT

LTC Gus Muller, right, who served as acquisition adviser, RC-South from December 2012 to May 2013, said the experience heightened his appreciation of Army Acquisition's mission to increase the lethality of Soldiers while providing them with ever-greater levels of protection from the enemy. Here, Muller and SFC Jason Wood discuss the operational employment of the M160 DOK-ING Mini Mine Clearing System. (Photo by Ana Chudkosky, ALT-D)

radios, jammers and other non-standard equipment mounted on vehicles in Afghanistan. After a cleaning and serviceability check, those systems are then available for reissue to other units or for retrograde if they are no longer needed in theater. The vehicles themselves are then thoroughly cleaned in preparation for shipment back to the United States. The teamwork between 4th Battalion and the PM allowed both organizations to reduce manpower while still meeting all mission requirements.

### CONCLUSION

By deploying to provide support in the combat zone, the members of the materiel enterprise team enable our Soldiers to fight while equipped with the world's most advanced vehicles, weapons, sensors and other systems. The partnership between ASA(ALT) and AMC, using a mix of government and contractor personnel, ensures that the materiel enterprise team has the right people with the right skills ready to support our Soldiers, Sailors, Airmen and Marines in Afghanistan.

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*COL WILLIAM E. COLE served as acquisition, science and technology adviser, U.S. Forces – Afghanistan and director, ASA(ALT) Forward Operations (OEF) from July 2012 to May 2013. He holds a B.S. in human factors psychology (ergonomics) from the United States Military Academy at West Point, an M.S. in systems acquisition management from the Naval Postgraduate School, and an M.S. in national resource strategy from the Industrial College of the Armed Forces. Cole is Level III certified in program management and Level II certified in communications/computer systems. Cole has been a member of the U.S. Army Acquisition Corps since 2002.*





## LTC AUGUST "GUS" MULLER

FORMER REGIONAL COMMAND — SOUTH ACQUISITION ADVISER  
ASA(ALT) FORWARD OPERATIONS (KANDAHAR)

# A WHOLE NEW PERSPECTIVE

**B**efore deploying to Afghanistan, LTC Gus Muller had seen Army acquisition from the inside out.

He was already well-versed in products and processes as a DA system coordinator in the Mission Command Directorate of the assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)). He had a deep appreciation of Army Acquisition's mission "to increase the lethality of our Soldiers and yet provide them ever-greater levels of protection from the enemy."

What he now understands, and says he could not have understood without deploying in support of Operation Enduring Freedom, is the true importance of the acquisition mission to the Soldier in the fight.

"You may have been an acquisition workforce member for years and years, but until you actually come into a deployed environment, you just don't get it. When you come here and you actually see the work of the Soldiers and you're sharing in the same hardships, it really does help reframe the importance of the work, and it's inspiring. It's no longer a 9-to-5 job. It's your responsibility and you've got to get it right, or lives are at stake."

Serving at Kandahar Airfield from December 2012 to May 2013, Muller was the Regional Command – South (RC(S)) representative to the ASA(ALT) Forward director and acquisition adviser to the RC(S) commander. As such, he represented the Army program executive office (PEO) and program management (PM) staffs deployed to the region, coordinating non-standard equipment system fielding operations, upgrades and modifications across the RC. In addition, he worked on the planning of retrograde and redeployment operations from Afghanistan as it gained momentum in anticipation of the withdrawal of U.S. troops by the end of 2014.

His goal in Afghanistan was to empower PEO and PM staffs in RC(S) to take on greater levels of initiative and responsibility by providing them with the latest information gleaned from his

engagements with senior RC(S) leadership. "It was my incoming goal to reduce the administrative burden on our PM staffs here in Afghanistan, yet improve our reporting accuracy to ensure that the [ASA(ALT) Forward] director is fully informed. I believe that in large part, the ASA(ALT) Forward leadership has accomplished that goal."

A couple of initiatives of which Muller is particularly proud are a project he led to integrate a series of coalition capabilities on a U.S. vehicle for use by one of our partner countries in Afghanistan; and leading the creation of a SharePoint portal that greatly improves the reporting and tracking of non-standard equipment, which will ease the redeployment burden on Soldiers as retrograde progresses.

The integrated capability represented "a very unique mission, one that's never been done before, stateside or in theater," he said. "The synergies that we were able to leverage in theater, the



### RISKY BUSINESS

Deploying to Afghanistan involves personal risks for everyone, but engaging and serving with the Soldiers who take the greatest risks is worth it, LTC Gus Muller said. Here, Muller, left, and CW4 Dewayne Casby inspect the Self-Protection Adaptive Roller Kit system attached to a Mine Resistant Ambush Protected All-Terrain Vehicle. (Photo by Ana Chudkosky, ALT-D)





***"YOU MAY HAVE BEEN AN ACQUISITION WORKFORCE MEMBER FOR YEARS AND YEARS, BUT UNTIL YOU ACTUALLY COME INTO A DEPLOYED ENVIRONMENT, YOU JUST DON'T GET IT. WHEN YOU COME HERE AND YOU ACTUALLY SEE THE WORK OF THE SOLDIERS AND YOU'RE SHARING IN THE SAME HARDSHIPS, IT REALLY DOES HELP REFRAME THE IMPORTANCE OF THE WORK, AND IT'S INSPIRING."***

subject-matter experts in fabrication and technical assessment, and reachback to CONUS for capability-specific advice were tremendous," adding up to a successful test and validation of the system.

The SharePoint portal, too, "was definitely a win, for [Soldiers] to be able to turn in their property and know exactly what they're turning in." It is specifically for non-standard equipment, such as the double-V-hull Stryker, for which there was no central repository of information, Muller explained.

Products and processes aside, what impressed Muller just as much about this in-theater development effort were the people involved, from the front offices to the forward operating bases (FOBs). "It's been extremely rewarding, personally and professionally, to work closely with combat brigade team and division-level staffs," he said.

"There is tremendous value in seeing, firsthand, the efforts of our Acquisition Corps, military, DOD civilians and contractors in their direct support to our troops at FOBs and combat outposts across Afghanistan," not to mention the wealth of advice and recommendations they offered to improve acquisition processes. Likewise, working with the 3rd Infantry Division in Kandahar was rewarding, given the unit's combat experience dating to World War I, Muller said.

"Seeing the daily commitment of Soldiers who know their mission, who work for great leaders and strive daily to exceed the standard in the accomplishment of their duties, is tremendously inspiring," Muller said. "As acquisition professionals,

our work is no less important, but it's not the 'tip-of-the-spear' experience that our Soldiers face in daily combat operations across Afghanistan."

Muller said that his deployment to RC(S) came with "a huge learning curve, because I had never worked in such a dynamic environment. While I might have known of some of these programs on the periphery, working with the program offices directly was a first." Before deploying to Afghanistan, Muller had deployed to Kosovo once and to Iraq twice. Likewise, the people are what Muller said he would miss the most after leaving Afghanistan.

"It's always amazing for me to see the folks who really get it and are dedicated. Across the military, DA civilian and contractor workforce, there are just great people, and that makes it a whole lot easier." Many of them are "two times a volunteer, three times a volunteer; they volunteered for military service and then, into retirement, volunteered again to come back out as a civilian to a combat zone." They "have accepted those risks, believe in their mission, and are living, working and fighting for us all. Those are great people who could probably enjoy a much easier life in the States," Muller noted. "And many of them have been here multiple years—two, three, four years."

That kind of commitment "needs a little bit more of a rugged person," he said. "You have to be willing to face and endure hardships. We don't have creature comforts here like we all enjoy in the States. You're definitely not going to go to TGI Fridays for a beer and a steak. We do have a Friday night steak night, but that's about it."

There is also, of course, tremendous personal risk in deployment to any war zone, Muller said, and the austere environment of Afghanistan can be challenging,

Muller's advice to others contemplating or preparing for deployment to a combat zone is to "come prepared to learn and grow professionally. Professionally, there is no substitute for experience, but a close second is subject-matter expertise in the systems and processes that you will use in your deployment." A given for every military acquisition member and DOD civilian is certification as a contracting officer's representative; understanding the "rules of the road" of contract management will make the regular engagements with support contractors significantly more efficient and effective, Muller said.

In short, Muller said, "Be confident, be professional, adapt and overcome! A combat deployment will place you outside of your comfort zone of skills, knowledge and abilities on the very first day."

Muller said that three things motivated him to persevere and succeed throughout the deployment: remembering all of the sacrifices that have been made on our behalf for liberty; working to improve the operating area and leave a better "foxhole" for the next Soldier; and knowing that he was part of an important team whose mission is to bring the best of technology to America's Soldiers.

"I came here to do the best that I could for the Soldiers," he said. "And I would come back."

**—MS. MARGARET C. ROTH**



## MS. SUSAN BROWN

OPERATION ENDURING FREEDOM FORWARD LEAD  
PROGRAM EXECUTIVE OFFICE COMBAT SUPPORT AND COMBAT  
SERVICE SUPPORT

# TAKING EXPERTISE WHERE IT'S NEEDED

In her four years of active duty in the Air Force, Sue Brown never deployed. Now, as a DA civilian and a member of the Army Acquisition Workforce, she is on her second deployment. She volunteered to deploy, she said, because “I knew what was going on with the equipment. I had worked with the PM for HEMTT [Product Manager Heavy Tactical Vehicles, including the Heavy Expanded Mobility Tactical Truck], and having that background, I knew the trailers, the type of other equipment we were sending in. I had a good background, and I felt like I was a good person to send.”

Brown serves as the Operation Enduring Freedom (OEF) forward lead for Program Executive Office Combat Support and Combat Service Support (PEO CS&CSS). In that role, she works closely with the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) Forward office and all the PM representatives under PEO CS&CSS.

“We provide a broad spectrum of training, sustainment support and equipment,” she said, “including material handling equipment, tools, force sustainment systems, mobile electrical power systems, tactical trucks and trailers, and route clearance vehicles,” not to mention upgrades to vehicle armor and trailers to fill operational needs.

On a good day, Brown’s job might be simple. But after a decade of war in Afghanistan, there’s a tremendous amount of heavy equipment in country. Until recently, the focus was solidly on fielding and upgrading equipment, but with the United States scheduled to leave Afghanistan by the end of next year, there’s a strong focus on the drawdown. Even as new equipment is being fielded, older equipment is being retrograded. Brown’s job of tracking heavy equipment and getting it to the people who need it begins to look more complex. Add to that the variety of organizations taking part in the materiel enterprise effort, and the job takes on an element of juggling cats, even as new cats are thrown into the mix.

But for Brown, it’s all in a day’s work if, say, a shipment of dozens of two-ton trailers that has been stuck at the port of Karachi, Pakistan, happens to show up unannounced.

“The primary mission of sustainment here,” she said, “is getting the old stuff out. We want to see the old, old equipment out of here first. But that doesn’t always happen” because of the sheer complexity of tracking more than a decade’s worth of materiel. Adding to the complexity, Brown said, is the possibility that something intended for delivery to a unit that day is no longer available in the morning.

Brown believes strongly that deployed civilians in the acquisition workforce provide a real benefit to Soldiers. “My acquisition background has enabled me to provide recommendations to ASA(ALT) regarding the availability of assets to fill theater needs and offer possible recommendations for optimal equipment,” she said, adding, “I’ve also been able to reach back to PMs [in the States] for their expertise as materiel developers while fielding important upgrades that will increase safety and provide enhanced capability to the Soldier.” So, for example, when a unit puts in a request for a particular piece of equipment, she can say, “No, you don’t want that. You want this new equipment that’s better, has better armor, is safer.”

Another benefit of having deployed acquisition professionals is “knowing that the information we provide to ASA(ALT) may

**“BEING PART OF THE ACQUISITION  
COMMUNITY, WE ARE UNIQUELY CAPABLE  
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#### A LOT OF MOVING PARTS

After a decade of war in Afghanistan, there's a huge quantity of heavy equipment in country, and with the United States scheduled to leave Afghanistan by the end of next year, there's a strong focus on the retrograde process even as new equipment is being fielded. Here, Brown and Gary Frobish of Honeywell Logistics inventory parts received for vehicle maintenance. (U.S. Army photo)

help guide Army leadership in important decision-making," she said.

Brown said she is motivated by "the sense of accomplishment when working directly with the Soldier, and being part of the acquisition community, we are uniquely capable of providing firsthand knowledge on the latest equipment, training and maintenance support."

The job isn't all about the equipment, however. For Brown, one of the most important things a deployed acquisition workforce professional can do is forge relationships across organizational lines. These relationships are important "because you have several different organizations trying to accomplish their missions," and while the ultimate goal of those missions is essentially the same, the

short-term goals can be vastly different and occasionally conflict. "If you make it clear what you're trying to accomplish" to other organizations, Brown said, "then they'll work with you." Building relationships can also help with things as mundane but as critical as knowing where to go to get a computer fixed. "Everybody's very professional and wants to help," she said.

To acquisition professionals getting ready to deploy, Brown advised, "Establish good working relationships, because in this environment we really need to help each other. ... We are all focused on our missions, but the focus varies, in that ASA(ALT) is equipping units for the fighting season while the sustainment side is managing an enormous retrograde effort. It's been important to keep open

communication and work together as a material enterprise team."

The work hours are long, Brown noted—typically 12-hour days, seven days a week, for government civilians, members of the military and contractors alike—and there isn't much else to do in Afghanistan besides go to the gym, sleep and eat, plus maybe a little shopping at the bazaar.

"There's no bowling alley, there's no swimming pool, but sometimes they set up a tent on a Friday night and run a movie," Brown said. "Other than that, it's hard to remember what day it is sometimes. You've got plenty of work, and everyone's focused on what needs to be done."

—MR. STEVE STARK



## MR. ANTHONY JONES

DA CIVILIAN CONTRACT SPECIALIST

U.S. ARMY CONTRACTING COMMAND DEPLOYABLE CADRE PROGRAM

REDSTONE ARSENAL, AL

# A NEWFOUND RESPECT

Anthony Jones could be climbing the career ladder of a bank manager by now, if not for a former colleague who introduced him, through her husband, to the Army contracting profession. Thanks to that introduction, he recently completed a once-in-a-lifetime experience as a contracting specialist deployed to Qatar in support of U.S. Central Command.

Jones, who deployed from Huntsville, AL, from October 2012 to April 2013 through the Deployable Cadre Program of U.S. Army Contracting Command (ACC), had the opportunity to contribute directly to lifesaving capabilities such as Scud bunkers and Mylar glass protection.

Along with other members of the cadre, Jones provided much-needed contracting manpower in Qatar. “We were able to provide the manpower that they didn’t really have,” Jones said. “I think it allowed us to maybe take a little more time to ensure that the customer was getting the best that we could provide. Anytime you have a small number of people doing a large number of things, something may slip through the cracks at times. We beefed up [the contracting operation] and made it that much better. We helped them prepare the requirements, helped them coordinate the work, just kind of facilitated.”

Jones had little idea of what to expect when he volunteered for ACC’s civilian Deployable Cadre Program early last year. He had been a contract specialist in the Army for five years at that point but had never served in uniform. Previously, he worked at a bank in Huntsville and was about to pursue a job there as a management associate when that fateful introduction happened and he took a civilian job with the Army instead. He subsequently received training as a contract specialist.

Volunteering for deployment was a logical next step in his professional development. “For me, it was a chance to do something different [and] be more directly involved supporting the warfighter. And there was some financial benefit,” Jones said.

He and his wife had just moved into a new house and had yet to finish unpacking when he left for Qatar. Those concerns faded quickly once Jones got down to work.

Particularly engrossing, and professionally satisfying, was the work he did to launch a contract for the construction of cement Scud bunkers, helping prepare the statement of work to ensure that it would provide everything that was needed, down to the strength of the concrete.

“That’s one of those things where it’s [a matter of] safety. I was just able to help start it. And there were some contracts we had for Mylar glass protection; it’s a film that prevents glass from shattering in case you have an explosion. To me the things like that, that are definite issues, were really important to me.”

Jones emphasized that “everything that we do in contracting is a team effort. There’s nothing that you can do in this line of work that doesn’t require help from somebody else. Everything that everybody does is important. This was just a small part of that bigger effort.”

The opportunity to work directly with Soldiers in this team effort was one of the major benefits of deploying to Qatar, Jones said. “I actually got to work more closely with our Soldiers, our 51 Charlies. I was able to meet a lot of Soldiers, a lot of guys who were really knowledgeable. I was able to learn some things from them. Each person you meet there brings something different to the table.”

Stateside, by contrast, “It all depends on what area you work in; you may work hand-in-hand with [Soldiers], or you may not.”

Working in Qatar posed certain challenges, but nothing akin to the hardships of working in Afghanistan. “I was still in a relatively easy environment. I can only imagine the guy who’s out there; he’s looking out for IEDs, or there’s a Scud attack, or anything like that where you have your wife, your kid





### FAMILIAR FACES

Being deployed to Qatar, where there is no shortage of familiar Western services including chain restaurants such as Applebee's, strengthened Anthony Jones' appreciation for the far more austere conditions that most Soldiers in theater encounter. "I definitely gained a newfound respect for exactly what they have to go through," he said. (Photo courtesy of ArabianBusiness.com)

thousands of miles away. Actually, the biggest challenge [in Qatar] had to do with connectivity, the Internet, because the system over there is not as stable as it is here. Also, if something goes wrong and you have to contact somebody back here stateside, you're nine hours ahead. So that lag sometimes makes it a little bit tougher to get the job done when it has to be done," Jones said.

Culturally, though, "Qatar was one of those unique places [in Southwest Asia] where you could go out and feel very safe," other than on the roads, where

Jones said "the driving was a little bit different." Also, there was no shortage of familiar chain restaurants, and his work schedule left enough time to enjoy them.

Jones' workday was typically 9-10 hours long, punctuated by a trip to the gym and then dinner. A typical workweek went from Sunday through Thursday, followed by a half-day on Friday or maybe on Saturday. "I rarely worked seven days," Jones said. "There were some times when I didn't work overtime because it wasn't needed."

The deployment did hold some surprises, though, including a confusing incident involving a tourist visa that almost cost Jones a hefty fee. Based on his experience, he advises anyone preparing to deploy to "be ready for anything" and "make sure you gain as much knowledge as you can about where you're going. You don't know that you don't know."

What Jones did know is that he wanted to be among the best at his job. "If I'm going to do something, I at least want to be able to say that I'm one of the better ones, although you can't always objectively compare. ... Then, of course, I want my parents to be proud of me. I want my wife to be proud of me."

Most important, "our job is to support the Soldier, and anytime that we fall short, there's something that isn't getting to the warfighter. ... If you can't get motivated about that as a contract specialist, then you're probably not in the right field. Some of the things that we buy as contract specialists, or we negotiate for, are not necessarily always the most interesting things—I mean, a contract for tissue—but it is important.

"We have situations where you know for a fact that Soldiers most definitely need this particular item or service, because they're out there fighting. ... I could call my parents and my wife every day if I wanted to, and I did." But Soldiers in theater can't always do that. "They're not always on the base; sometimes they're out in the field. I definitely gained a newfound respect for exactly what they have to go through."

—MS. MARGARET C. ROTH

**"WE WERE ABLE TO PROVIDE THE MANPOWER THAT THEY DIDN'T REALLY HAVE. ... I THINK IT ALLOWED US TO MAYBE TAKE A LITTLE MORE TIME TO ENSURE THAT THE CUSTOMER WAS GETTING THE BEST THAT WE COULD PROVIDE."**



## MR. SAM ZABRDAC

SYSTEMS ENGINEERING AND TECHNICAL ASSISTANCE  
TO PRODUCT MANAGER METEOROLOGICAL AND TARGET IDENTIFICATION CAPABILITIES  
PROGRAM EXECUTIVE OFFICE INTELLIGENCE, ELECTRONIC WARFARE AND SENSORS  
KABUL, AFGHANISTAN

# DEPLOYED AGAIN, BY CHOICE

**M**ore than two years may seem like a long time for a civilian to deploy to a war zone, but for Sam Zabrdac, it was a clear choice to deploy to Operation Enduring Freedom (OEF)—for the seventh time—shortly after retiring.

Working in theater is nothing new for Zabrdac, a retired Army sergeant major, and two years pales compared with his previous time in theater. In fact, he took little time to enjoy his retirement from the Army in early 2011 before deploying to Afghanistan in April of that year as a contractor with CACI International Inc. As theater manager/liaison and theater operations lead, he provides systems engineering and technical assistance (SETA) support to the Product Manager Meteorological and Target Identification Capabilities (PM MaTIC) within Program Executive Office Intelligence, Electronic Warfare and Sensors (PEO IEW&S).

Forward operating bases (FOBs) and combat outposts (COPs) are where Zabrdac would rather be. “I deployed to OEF six times from March 2007 through November 2010,” he said, working within the U.S. Army Intelligence and Security Command as theater liaison officer. “I traveled throughout theater major hubs and other FOBs and COPs to directly support operations with fielding, sustainment, operational planning and training. Also, I led an effort to build multiple operations and support facilities in Bagram, Kandahar, Salerno, Kabul and Herat.”

Now Zabrdac is again working near Kabul, this time supporting the Persistent Threat Detection System (PTDS) aerostat program in operations, fielding, sustainment and training.

PTDS, fielded under the auspices of PEO IEW&S, is a large aerostat tethered to a mooring platform, accompanied by a ground control station where a crew of five operates 24/7 in 12-hour shifts. Reaching heights of up to a mile and equipped with both visual and audio technology, PTDS provides commanders on the ground a vast perspective of the battlefield while remaining out of range of most enemy threats.

Supporting PTDS keeps Zabrdac busy, but is just a portion of his duties. Being the PM MaTIC liaison and SETA engineer requires long hours traveling to and working in program hubs and individual aerostat sites.

“I work late into the evening, coordinating aerostat theater operations and issues with IJC [International Security Assistance Force – Afghanistan Joint Command] and RCs [regional commands],” he said. Zabrdac updates the PM MaTIC office in the continental United States (CONUS) daily on program issues, adjusting goals and implementing new improvement initiatives as directed. He monitors and meets program theater requirements and objectives, answers requests for information from CONUS and overseas, tracks the status of systems, provides input to theater program operational and sustainment

**“IMPLEMENTING NEW OPERATIONAL AND TRAINING SUPPORT PROCEDURES TO EDUCATE CREWS AND STAFFS ON AEROSTAT OPERATIONS HAS CONTRIBUTED TO SAVING SOLDIERS’ LIVES ... OUR SYSTEMS AND CREWS HELP FIND THE THREATS. THAT’S WHAT MOTIVATES OUR ENTIRE TEAM.”**



plans, manages team personnel, and meets with RC and team personnel about the latest theater operational changes, along with any associated training and local support issues.

One of the biggest challenges that Zabrdac currently faces is logistics. “The movement control teams, personnel security detachments, and rotary- and fixed-wing support are fantastic; however, because of the huge volume of personnel and equipment movements, travel can take longer than anticipated. Also, the inclement weather further complicates the travel process. Nonetheless, the teams do an outstanding job working within their operational parameters and asset availabilities.”

There’s still some time to socialize, but that tends to become part of the mission as well. “About once a month when in their AO [area of operations], I have dinner with the PGSS [Persistent Ground Surveillance System, managed by the U.S. Navy] program leads to discuss common aerostat issues, and afterward I enjoy a cigar.” Overall, Zabrdac’s routine as a SETA contractor closely resembles his earlier way of life as a Soldier, including regular physical fitness, in this case three, hourlong workouts at the gym a week, including a quick run.

Based on his perspective as both a retired Soldier and a deployed contractor, Zabrdac has some advice for anyone in the Army materiel enterprise who plans to deploy to theater: Be flexible, be a team player and have a good training plan to support sustainment efforts.

“You may have great skill sets, but if you’re not a team player, it’s going to be hard to work in this environment.” In addition, “For equipment fieldings, your team needs a solid training and



#### BRIEFING THE BRASS

Sam Zabrdac, center right, supports the PTDS aerostat program in operations, fielding, sustainment and training. Here, Zabrdac describes the capabilities of the PTDS for the Hon. Frank Kendall, center left, undersecretary of defense for acquisition, technology and logistics, Feb. 4 at Bagram Airfield, Afghanistan. (U.S. Army photo by Summer Barkley)

sustainment implementation and support plan; and then be ready to adjust and reorganize in an ever-changing, fluid combat environment.”

Zabrdac said his team’s biggest impact was to standardize and formalize the PM’s program processes in theater. “Implementing new operational and training support procedures to educate crews and staffs on aerostat operations has contributed to saving Soldiers’ lives ... our systems and crews help find the threats. That’s what motivates our entire team.”

In the end, it’s all about keeping Soldiers safe, in which Zabrdac takes great pride,

he said. His motivation to excel comes from this strong belief that he and his team are serving a “greater cause” while deployed to theater.

“Our team is serving the greater cause for development of U.S. democratic ideals in a country ravished by war and suffering. I believe our team has a sense of purpose with the right skill sets, experience and knowledge to make a difference ... we just need to keep working hard, every day.”

—MR. ROBERT E. COULTAS



## MAJ CLIVE CUMMINGS, SC/AC

SYSTEMS ACQUISITION OFFICER

ACQUISITION, LOGISTICS AND TECHNOLOGY DIRECTORATE

BAGRAM AIRFIELD, AFGHANISTAN

# SETTING THE STAGE FOR SUCCESS

**M**AJ Clive Cummings' job for the 401st Army Field Support Brigade (AFSB) at Bagram Airfield, Afghanistan, is to provide administrative and logistic support to the in-theater program executive officers and program managers, and to the forward office of the assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)). More succinctly, Cummings refers to the description that a colonel in the 401st used during an interview. The colonel likened their role to being "roadies for a rock band."

Whatever a PEO or PM needs or does, the 401st helps to facilitate it, by keeping track of people, helping them find billeting and office or maintenance bay space, providing vehicles, making sure they get where they need to go, and supporting fielding, training and maintenance efforts. "Once the PM or PEO arrives in theater, we make sure they're not fighting to get accommodations or space to do their mission. We're here to make sure that when they hit the ground, they can move right into their mission," Cummings said.

The 401st is at the heart of the Army materiel enterprise for Soldiers who are deploying or returning from deployments. It

owns all of the theater-provided equipment (TPE), such as Mine Resistant Ambush Protected (MRAP) vehicles and Common Remotely Operated Weapon Station (CROWS) systems. "So, if the unit's leaving, the MRAPs, the CROWS systems, all the Harris radios, their UAVs [unmanned aerial vehicles]—they all stay in theater. ... We get the schedule, we track what's coming in, and we break that out according to what belongs to what PM. Then we notify the PMs that their equipment is coming in."

It could be chaos, given all the different players and their missions, but it's not. The 401st makes sure that the PMs for the various systems are in the right place at the right time. "The PMs work with the 401st to inventory the equipment," Cummings said, "and then the 401st will pull all that equipment off the vehicles, if it's an MRAP, because they have to tear the systems apart" to be upgraded and returned to full-machine capability (FMC) before deploying units use the systems.

MRAPs are just one example of this process, and only part of it at that. Cummings and his colleagues in the Acquisition, Logistics and Technology Directorate of the 401st work hand-in-glove with the ASA(ALT) Forward team, coordinating constantly. "We make sure that the PMs have the space, the maintenance bays—or outdoor space if it's a big piece of equipment, a trailer, a generator—so that they can do the maintenance on the equipment," Cummings said. "If they need tools, if they need resources, we work through the brigade or the garrison to make sure that they get that equipment." Those PMs bring the equipment back up to FMC, "and it goes back into the 401st pool, so the next unit can draw it and go out and do their mission."

For Cummings, his job is all about helping the warfighter. He does that by making sure that things run as close to clockwork as possible. "I believe my office has had a huge impact in helping PMs accomplish their mission," he said. "We are able to leverage [U.S.] Army Materiel Command [AMC] assets to better facilitate the PM efforts. Additionally, we're able to drive coordination

**"ONCE THE PM OR PEO ARRIVES IN THEATER, WE MAKE SURE THEY'RE NOT FIGHTING TO GET ACCOMMODATIONS OR SPACE TO DO THEIR MISSION. WE'RE HERE TO MAKE SURE THAT WHEN THEY HIT THE GROUND, THEY CAN MOVE RIGHT INTO THEIR MISSION."**





#### EQUIPPING THE WARFIGHTER

One of MAJ Clive Cummings' responsibilities is to keep track of incoming and outgoing units' equipment so that Soldiers continue to have what they need, when and where they need it. Here, Cummings, right, works with LTC Terry Crank of ASA(ALT)'s Systems of Systems Engineering & Integration Directorate to check out Capability Set 13 hardware installation in an MRAP All-Terrain Vehicle. (U.S. Army photo by LTC Kent G. Guffy)

efforts that may have been missed if the PMs did not have a direct link to the sustainment side of the material enterprise.”

Having acquisition professionals like Cummings in theater benefits the warfighter because of their knowledge of the many systems. Generally, Cummings said, PMs or field service representatives know only their own systems. Forward-deployed acquisition professionals know the bigger picture. “We’re that interface to the PM community. They’re not familiar with dealing with non-standard equipment. AMC has the Communications-Electronics Command [CECOM] and the Life Cycle Management Command [LCMC], which are used to dealing with standard Army systems that have a long track record.” But newer systems and non-standard equipment—often

commercially available products—can present challenges, he said. All systems must be accounted for, reset, retrograded or demilitarized.

Asked what motivates him to do the job well, Cummings replied, “Everybody says it’s a canned answer,” but “I’m not over here for myself. I’m over here to support the warfighter.” The second motivator is “my level of pride in what I do.” With a background in program management, “I came over here and I didn’t understand the logistician community.” That, he said, “demonstrated a need to research and better understand this side of the material enterprise. I experienced a very steep learning curve working to understand the organization, its mission and how it interfaced with the ASA(ALT) community. I take pride in getting my hands around

that and finding the shortcomings and then working to improve that,” he said, not only during his own tenure, but also for “the next guy coming through.”

When he arrived in Afghanistan in July 2012 for a one-year assignment, “we really couldn’t understand” why the disconnect between logisticians and PMs was still going on. “But picking through it and working through it, I think we got some processes into place that really benefit both the logistics community and the PM community. I think we’ve built some relationships there, with the 401st and the PMs.” The result, he said, is a working environment “that is much better than we found it.”

—MR. STEVE STARK

## MR. NOEL PLETA & MS. JENNIFER WHITMORE

ELECTRICAL ENGINEERS, U.S. ARMY COMMUNICATIONS-ELECTRONICS  
RESEARCH, DEVELOPMENT AND ENGINEERING CENTER  
ABERDEEN PROVING GROUND, MD

# BRINGING ENERGY TO THE MISSION

**W**hen Noel Pleta and Jennifer Whitmore arrived in Afghanistan in August 2012, the conditions were so poor that the engineers had to overhaul several combat outposts (COPs) to lay a sound power and energy foundation before implementing operational energy plans.

“Many of the COPs were on their last leg of generator power, causing them to shut down their sustainment or life support systems and focus on the tactical support systems,” said Pleta. “And we found that backup power for tactical operation centers [TOCs] wasn’t consistent.”

Pleta and Whitmore served as lead power assessment engineers in a team of 24 responsible for assessing and improving the energy stability of forward-deployed units throughout Afghanistan. They traveled in teams of five, assessing operational energy requirements in several COPs and village stability platforms (VSPs) and implementing energy improvement plans.

As electrical engineers from the Power Division of the U.S. Army Communications-Electronics Research, Development and Engineering Center (CERDEC), Pleta and Whitmore had the rare opportunity to deploy to Afghanistan for several months in support of Project Manager Mobile Electric Power (PM MEP).

Operational energy consists of the energy and associated systems, information and processes required to train, move and sustain forces and systems for military operations. A key enabler for Army operations, essential for combined arms maneuvers and required for Soldier sustainment, it supports everything from the operations center to running water and dining facilities. The Army is developing ways to increase performance, reduce consumption, increase efficiency and ensure availability.

As lead power assessment engineers, Pleta and Whitmore looked at a detailed layout of the area, the state of current power sources and consumption rates to develop tailored power grid plans that

could make the outposts fully operational and support quality-of-life amenities such as dining facilities and latrines.

“It was very informative to see how the Soldiers use the equipment, how often they perform maintenance... or don’t,” said Whitmore.

“In high elevations with extreme weather conditions, a warm shower can really boost morale. In one COP, the Soldiers were very thankful, especially with power and air conditioners. It makes a difference in temperatures exceeding 120 degrees!” Pleta added.

Most of the time, the power grid plans required new equipment in a “push package,” a list of equipment that was shipped to theater by air. “Our guys [at PM MEP] did a really good job



### PROUD TO MAKE A DIFFERENCE

“It’s been the highlight of my career to make a difference in a Soldier’s life,” said Noel Pleta. “If the TOC goes down, the mission is compromised as well as their safety. ... That’s why it’s so important to me to do it right the first time.” (Photos courtesy of CERDEC Public Affairs)





sending us what we needed. Whenever we needed something, they were always available to support—even on the weekend. They'd ship it FedEx, and we had it within a week," said Whitmore.

"If the TOC goes down, the mission is compromised as well as their safety, and that's priority," said Pleta. "That's why it's so important to me to do it right the first time."

"One of our responsibilities was to field new generator sets or Advanced Medium Mobile Power Sources" (AMMPS), a system for which CERDEC was involved in building initial program plans, he said. The new generators use up to 21 percent less fuel than older generators across the fleet.

But do they really work?

"We saw a decrease in fuel consumption with AMMPS that in turn has a significant impact on the unit. Especially for the remote COPs that require fuel to be flown in, the generators and right-sizing decreased refueling needs," said Whitmore.

And that's not the only payoff. For the first time, units can log consumption, record maintenance and track trends, which helps in developing future efforts.

For these two CERDEC engineers with family ties to military service, the experience had a big impact on how they see their future roles.



#### ON-THE-GROUND UNDERSTANDING

Deploying to Afghanistan greatly enriched Whitmore's perspective of what needs to be considered in the lab, reinforcing the need to make sure that equipment is user-friendly and easy to operate, she said. Here, Whitmore is on the move to yet another forward-deployed unit.

"It's been the highlight of my career to make a difference in a Soldier's life," said Pleta, an engineer recruited from industry who had a hand in developing the first CT scan. "As a member of the Army Acquisition Workforce, the experience gives a new perspective on the life cycle of these systems," he added.

For Whitmore, who has been an Army engineer for five years, the deployment enriched her perspective of what needs to be considered in the lab.

"[Deploying] is a completely different experience, to see where [equipment is] fielded and how it impacts the Soldiers'

lives. ... [W]e need to make sure the equipment is user-friendly and easy to operate," she said.

Just three months after her return to the States, Whitmore is working on new equipment to do just that: a microgrid, or system of generators, that can turn on automatically depending on load.

But the engineers' mission doesn't end with them. Pleta and Whitmore trained other engineers who are providing the same support to Soldiers in Afghanistan and will be there through the end of the year.

To fellow civilians considering a deployment, Whitmore offered this advice: "Bring your sleeping bag! When you're traveling, you never know if you'll have a comfortable place to sleep."

—MS. TARA A. CLEMENTS

**"AS A MEMBER OF THE ARMY ACQUISITION WORKFORCE, THE EXPERIENCE GIVES A NEW PERSPECTIVE ON THE LIFE CYCLE OF THESE SYSTEMS."**



## MR. MICHAEL ANTHONY

FORMER DIRECTOR, RDECOM FIELD ASSISTANCE IN SCIENCE AND TECHNOLOGY CENTER  
BAGRAM AIRFIELD, AFGHANISTAN

# PROVIDING SOLUTIONS FOR SOLDIERS

**I**n the forward-deployed environment, there is no Home Depot. But there is the RFAST-C, the U.S. Army Research, Development and Engineering Command (RDECOM) Field Assistance in Science and Technology Center. For Mike Anthony, who was deployed to Afghanistan for six months through May 2013 as director of the RFAST-C, that role was the pinnacle of job satisfaction.

“A lot of people—my family, friends, and co-workers—said, ‘Why are you volunteering to go over to Afghanistan?’” The living conditions are uncommonly austere, and the work hours virtually nonstop. For Anthony, the answer was clear. “In the States, there are challenging assignments, but you don’t always see the payoff for those for a long time.” In Afghanistan, “you see the payoff on a daily basis. You have the interaction with the end user on a daily basis, and that’s extremely rewarding.”

The RFAST-C is an embedded engineering and prototype fabrication capability with the mission to rapidly develop engineering solutions in support of operational requirements. The RFAST-C team consists of government engineers, scientists and technicians, and equipment operators. Personnel also include a power and energy cell with expertise in the monitoring and field testing of energy efficiency initiatives, microgrid technologies, advanced energy storage, modeling and simulation of energy use, expeditionary shelters and human factors.

RFAST-C provides support for materiel solutions to U.S. Forces – Afghanistan (USFOR-A); numerous maneuver units; joint task forces and their subordinate units; the 401st Army Field Support Brigade (AFSB); the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) program management teams; and others.

“We can pretty much take any Soldier-inspired idea and then iteratively design it, and provide something pretty quickly—and by quickly I mean within a day—and get it back to that

requesting unit or Soldier. They’ll take that item out on missions, and then come back and give us feedback.” Sometimes these are just one-off items, maybe a bracket a Soldier needs to keep a piece of gear in check. Often, however, the items become part of programs of record (PORs). Anthony said his group has produced several hundred Soldier-inspired items that are now elements of PORs.

For Anthony, the real impact of having acquisition personnel at the tip of the spear is speed—not just in getting Soldiers what they need when they need it, but also in training younger, civilian acquisition workforce members who may never have had any experience with the military, much less the operational Army.

**“A LOT OF PEOPLE—MY FAMILY, FRIENDS, AND CO-WORKERS—SAID, ‘WHY ARE YOU VOLUNTEERING TO GO OVER TO AFGHANISTAN?’ ... IN THE STATES, THERE ARE CHALLENGING ASSIGNMENTS, BUT YOU DON’T ALWAYS SEE THE PAYOFF FOR THOSE FOR A LONG TIME.”**





### TECHNICAL TEAMWORK

U.S. Army engineers in Afghanistan recently designed and fabricated a “batwing,” a command-wire detection hook to help Soldiers investigate possible improvised explosive devices (IEDs) from a safer distance. Batwings are attached to poles of varying lengths up to 25 feet, which Soldiers extend and drag along the ground to search for command wires on IEDs. Here, Mike Anthony, center, RFAST-C engineer Nick Merrill, left, and RFAST-C engineer technician Courtney Johnson discuss the design of a modified batwing for use with robots, April 25 at the RFAST-C Prototype Integration Facility. (Photo by LTC John Juachon, 401st Army Field Support Brigade)

With respect to getting Soldiers what they need, Anthony said that there is no substitute for the kind of support that deployed workforce members can provide. It’s not just RFAST-C’s capability to bend metal or write software. In the States, he said, someone might get an email expressing some kind of need. “Being forward-deployed, you actually have that face-to-face interaction with the unit or unit’s Soldiers, so there’s a big gap between working hand-in-hand with the Soldiers here and trying to rely on email.”

Also, he said, “in the States, we have access to a lot of resources. In a forward-deployed environment, you have limited resources, so you have to make decisions. You have to use whatever methods you can to create a field-expedient solution. I would argue that at the end of the day, a Soldier would much rather have an 80 percent solution today than a 100 percent solution three or four years from now.” At home, he continued, “sometimes we take it for granted that if we need a part,

we can just go to Home Depot and pick one up. In the forward-deployed environment, there is no Home Depot.”

Anthony said he was very pleased with the work of his team, and he was quick not to take credit for any of it. “I cannot and will not take credit for anything personally. Everything over here is a team effort. Sometimes it’s a team-of-teams effort,” he said.

He’s a big believer in deploying acquisition workforce members, not just for the value it brings to the fight but also to train younger workforce members. Anthony joined the Army after high school and then reenlisted, and his military background has helped him a lot in his work, he said. But for people without similar experience, immersion in the operational Army is invaluable, both for the individual and for the Army materiel enterprise.

He emphasized the importance of deployment for acquisition personnel, even after the U.S. withdrawal from Afghanistan is

complete, in a briefing to GEN Dennis L. Via, commanding general of U.S. Army Materiel Command, the Hon. Heidi Shyu, the Army acquisition executive, and MG Harold Greene, ASA(ALT) deputy for acquisition and systems management, during their visit to the RFAST-C in mid-January.

“In the States, at least on the R&D side of the house, you tend to work in labs and have very limited interaction with Soldiers,” said Anthony, who added that the complete immersion that deployment provides is “almost like being on 5-hour Energy. You get a lot of exposure to the operational Army in a really condensed period of time. So you really start learning operational lingo: What’s a squad. What’s movement to contact. You really get a flavor for how the Army operates.”

—MR. STEVE STARK



## LTC (USA RET) MARIE COCHRAN

SENIOR ACQUISITION ANALYST, DECISION GATE PROGRAM  
U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND  
FORT DETRICK, MD

# SAME MISSION, DIFFERENT TEAM

**A** lot has changed for Marie Cochran since she retired from the Army in 2010 and became a civilian contractor. The most important things about her job have not.

Cochran, a medical logistician by training, formerly held a variety of positions within the U.S. Army Medical Command, of which U.S. Army Medical Research and Materiel Command (USAMRMC) is a major subordinate command. Now she is working for USAMRMC as a senior acquisition analyst employed by BRTRC. She supports Decision Gate, Army medicine's acquisition, product development and program management process that bridges the gap between the science and technology world of ideas and the acquisition arena. "We take [a requirement] from the hands of the S&T world and help them 'lob it over the fence' to the advanced developers, and they work the business process to get the final product developed," Cochran explained.

While the transition from uniformed military to civilian contractor has required some adjustment, she considers herself lucky to be able to fulfill both roles and finds that what drives her to succeed remains the same. "You take the uniform off, and you realize your focus has to change," she said. "So you have to be prepared for that adjustment, and it's been kind of hard. I do miss the uniform, but it's because of the privilege to have worn the uniform that I realize just how important what we do here is."

Cochran, who deployed three times as an Army officer—to Operations Desert Shield and Desert Storm in 1991, Uzbekistan

in 2003 and Qatar from February 2005 to April 2006—has a strong sense of purpose born of working directly with and for Soldiers in theater. She deployed to Qatar in support of Operations Enduring and Iraqi Freedom as the officer in charge, essentially the commander, for the medical depot that supported the U.S. Central Command area of responsibility.

In Qatar, she saw firsthand the benefits of some of the medical materiel that emerged from USAMRMC's Decision Gate process: chitosan bandages, the Combat Application Tourniquet for one-handed use, the Individual First Aid Kit (IFAK). "Those are some of the quickly developed lifesaving products that were needed immediately downrange" and USAMRMC was able to provide.

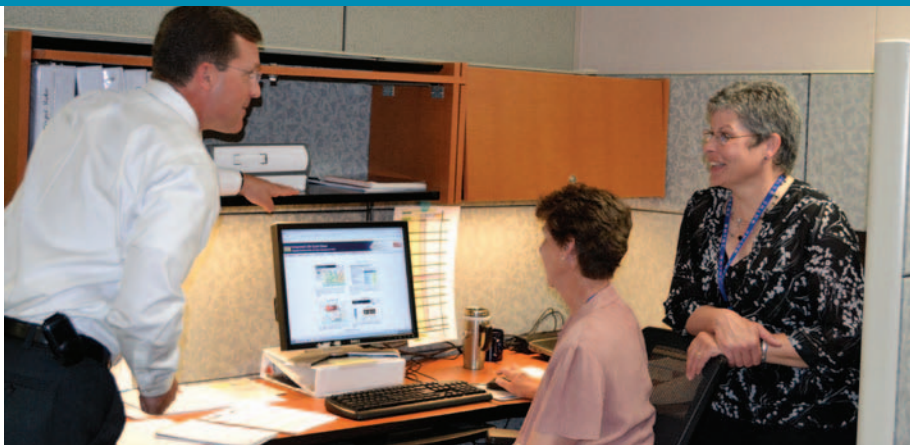
Now, as one of two senior acquisition analysts for the Decision Gate program, Cochran supports and addresses the needs of multiple integrated product teams, product life-cycle review committees, the Decision Gate secretariat, the Executive Management Committee and the Milestone Decision Authority to ensure the expeditious development of drugs, vaccines and medical devices for the Army and DOD. On a day-to-day basis, that means coordinating, analyzing, reviewing, evaluating, facilitating and recording executive-level Decision Gate events to ensure that products meet federal and DOD statutes and codes.

Compared with the day-to-day routine in Qatar of pulling together vitally needed, lifesaving medical supplies for rapid delivery to units downrange, Cochran's job may seem mundane, but its challenges can be equally rewarding. "In the current environment, ... my job is to help these people do their jobs and be successful. I do what I can to help the teams that are developing these products. There's a lot of work, a lot of coordination and a lot of money that's on the line with what these folks are developing. My job is to make sure that the lines of communication are open between the headquarters, the S&T world and the advanced developers.

"It's an admin job; it's not always sexy. But I believe it helps the leadership, and the developers know what to do, how they need

**"I DO MISS THE UNIFORM, BUT IT'S BECAUSE OF THE PRIVILEGE TO HAVE WORN THE UNIFORM THAT I REALIZE JUST HOW IMPORTANT WHAT WE DO HERE IS."**





### ON A NEW TEAM NOW

Marie Cochran's civilian job as a contractor at USAMRMC is removed from the front lines of medical logistics where she served as an Army officer, but she takes pride in helping the USAMRMC leadership navigate the complex requirements of medical product development, especially in these fiscally challenging times. Here, Cochran, right, discusses life-cycle management strategies with Robert Steigerwald and Patricia Bewley of the Decision Gate Support Office at USAMRMC, Fort Detrick, MD. (Photos by Jeffrey Soares, USAMRMC Public Affairs)

to do it and when they need to do it. And that's rewarding, because this is complex. One of the challenges is watching them try to find ways to stay on target with reduced budgets."

In Qatar, Cochran was part of a different team in the same overarching effort. "You knew that you were part of the medical team that was saving lives immediately," she said. "It didn't matter if you were filling the shelf, pulling stock from shelves, fixing a piece of equipment; you knew this stuff was going to be used on or needed by somebody to heal or potentially save a life. So everyone assigned to the depot held the sense that they were part of a team that dealt with life-and-death situations every day."

She remembers in particular receiving and rapidly fielding the IFAK, a simple but critical medical kit that every Soldier carried. "We got the IFAK shipments in and distributed throughout the battlefield in less than a week. ... Working with the Air Force, we were able to figure out the most expeditious deployment process for those kits and got them into the hands of the units in less than a week

from the date that they were shipped from the States."

"We worked hard with the Air Force to get those shipments shipped directly to the warfighter, and in one case I was told the Air Force air-dropped a shipment. That was pretty cool; it was fun to get that coordinated." Cochran is also particularly proud of the humanitarian assistance efforts that personnel at the depot in Qatar coordinated with a number of civilian organizations in the States to deliver donated pencils, candy, coats, clothing and other supplies to children in the war zones. The depot also sent hundreds of metric tons of supplies to northern Pakistan after the earthquake in October 2005.

"The generosity of Americans was always evident, and when we could, we would add a box or two of donated goods to medical supply shipments, knowing that eventually medics and other U.S. Soldiers would give the donated things to the local nationals," she said.

"Here, it's a third-tier reality; we're farther out from that bull's-eye of who's going to use this [medical materiel], but I think I

have a greater appreciation and a greater sense of patience for the dedication it takes to develop the products because of my experience downrange. I apply that patience to this process and know that, eventually, the right things will come out of this process: The right products, the right devices will be there when they are needed."

Cochran can also see the broader impact that USAMRMC has beyond the Army. "You know we're doing well not only for the services and our warfighters, our heroes, but in some cases for mankind. I mean, this command has that type of impact, and I'm really honored to be able to continue to be associated with this command."

The abiding motivation behind Cochran's work remains, "first and foremost, knowing that somebody else relies on something I do. If I didn't have that sense of purpose, it wouldn't matter. It is *the* motivator.

"The next important thing to me is to be the right type of person to be selected as a mentor, because you don't choose your mentees; they choose you. Knowing that someone is relying on me for advice and guidance is important to me. Even though I'm just an admin contractor now, I may have a leadership role to play in some small way."

"I think the last thing ... is to continue to strive to represent something bigger than myself. It sounds grandiose, but it's true: You want to be better because you're representing the United States Army; you're representing your command; you're representing the United States flag."

Meanwhile, she said, "Every day is a learning experience."

—MS. MARGARET C. ROTH

# New Heights in Education

Army's first civilian-only senior service college program receives military accreditation

*by Ms. Tara A. Clements*

The Army Acquisition Workforce is likely to see an increase in the number of qualified civilians competing successfully for critical key leader positions, now that students in the Senior Service College Fellowship program are eligible for Military Education Level 1 (MEL 1) credit. The new eligibility is the result of a collaborative effort between the U.S. Army Acquisition Support Center (USAASC), the Defense Acquisition University (DAU) and the Army War College, and has been three years in the making.

On March 28, 2012, LTG James L. Huggins Jr., deputy chief of staff, G-3/5/7, issued a memorandum stating that he was approving MEL 1-equivalent credit for civilians enrolled in the Senior Service College Fellowship (SSCF) program through DAU, "based on the extensive review of the program by the U.S. Army

War College," making SSCF the first approved civilian-only Army senior service college.

The SSCF program, established in 2006 by DAU, develops civilian acquisition leaders for critical senior leadership roles at the GS-14/15 level. SSCF provides up to one year of training, with leadership as the primary learning objective.

Deputy Secretary of Defense Dr. Ashton B. Carter recently announced that DOD will target individuals with "key leader potential," including those with executive leadership development training. There are 1,500 key leader positions in the U.S. Army Acquisition Corps (AAC), and only 1 percent of the AAC are SSCF graduates.

"We have 142 people out there who are now moving through the system into leadership positions within the

Army acquisition structure," said Jim McCullough, dean, DAU South Region and director of the SSCF program. "They will become the nucleus of the Army senior leadership for civilians in the years to come, especially as the baby boomers retire. These will be the people who step into these jobs, and they will be better-prepared because of the experience and tools we hope to provide them with this educational experience."

## AN UNMET NEED

Leader development has always been a foundation of training for the Army, but the focus has been on those who wear the uniform. For an acquisition workforce of which civilians represent 96 percent, the level of training isn't balanced between military and civilians, according to Scott M. Greene, chief of USAASC Acquisition Education, Training and Experience Branch.





### SYNERGY IN SSCF

The SSCF includes required certifications such as PMT 401, seamlessly integrating previous training into a new product. (Photos courtesy of DAU South Region)

“We didn’t believe that Army civilians were getting an equivalent senior-level training package like their military counterparts,” said McCullough.

So when a low number of civilians applied for senior service college in 2006, the Army acquisition community took note.

“We weren’t giving our GS-15 and Senior Executive Service civilians the same executive-level training as their military counterparts and didn’t have enough seats to train, and even when we did, people were unwilling to leave their homes for a year,” said McCullough.

For most, attending senior service college required a move. Having just two choices of location—the Army War College at Carlisle Barracks, PA, and the Dwight D. Eisenhower School for National Security and Resource Strategy (formerly the Industrial College of the Armed Forces), in Washington, DC—didn’t allow much flexibility. In addition, the senior service colleges allocated only six seats per year for civilians.

“We weren’t reaching the workforce,” McCullough said. “The objective was, ‘Let’s go train the workforce where the workforce is.’ That’s really the motivation behind the [SSCF] program.”

A combined effort between DAU and USAASC led to a pilot program to bring the training to the civilians of the Army Acquisition Workforce. The Hon. Claude M. Bolton Jr., then-Army acquisition executive, and LTG Joseph L. Yakovac Jr., then-director, AAC and military deputy to the assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)), approved the pilot SSCF program starting in July 2006 in Huntsville, AL. On the heels of this successful effort, Bolton expanded the program to Warren, MI, in 2007 and Aberdeen Proving Ground, MD, in 2009.

The results were significant. With the expansion to three additional locations, the SSCF program has produced more Army civilian leaders each year than all other senior service colleges combined, graduating 142 students to date.

“The experience was in turn extremely informative, exhilarating and tough,” said Colleen Setili, a SSCF student who graduated in May.

The fellowship programs can now train eight to 10 civilians per year in each location to develop as many as 24 to 30 civilians per year, providing significant leadership growth for the Army Acquisition Workforce.

One of the tools making this possible at the three added locations is telepresence technology, “giving the in-class feel with instructors from remote locations,” McCullough said. The technology, used in 30 percent of DAU classes, allows instructors to connect with students virtually with sophisticated video conferencing that integrates directly into the classroom. The technology has increased accessibility to instructors without the cost of a traditional in-classroom presence.

However, despite this increased access, the fellowship program wasn’t a recognized substitute among the service

colleges and did not provide the same credit that those who graduated from the traditional service colleges received.

### THE QUEST FOR EQUIVALENCY

“The greatest challenge was determining how to get the fellowship approved” for MEL 1 credit, “since it had never been done before for a civilian program,” said Greene, who was responsible for securing the approval.

Over the past three years, USAASC and DAU have worked closely with the Army War College to review and modify the fellowship curriculum to achieve MEL 1 equivalency. The program core areas include:

- Leadership training.
- The program manager’s “Critical Thinking Course” (adapted from Harvard University’s Case-Based Business School).
- Mentoring.
- Research.
- National speakers program.
- Tours to meet the warfighter.
- National Security seminar.
- Graduate classes from accredited academic partner.
- Community service.

“The curriculum consisted of a combination of global leadership classes, a research project (thesis), and various DAU and other courses to include critical thinking workshops on emotional intelligence, international studies, test and evaluation, contracting for executives, communication, business etiquette, professional image, mentoring and others,” said Setili. “We also read many leadership books, held book reviews, listened to guest speakers on a variety of topics, and traveled to the U.S. Army War College and other commands,” she added.



### CIVILIAN LEADERS

The civilians who make up 96 percent of the acquisition workforce now have new training opportunities available to develop their leadership skills.

According to Greene, the cost of the class increased approximately 35 percent after it was revamped to meet MEL 1 standards. However, he noted, “we have also trained more civilians than ever before in areas such as strategic thinking, theory and strategy of war, strategic leadership, and national security policy and strategy.”

Despite this increase in upfront training costs, the program has saved significantly in other areas.

“We’ve achieved \$1.56 million in cost avoidance as well as [saved] up to 48 man-years, as the new curriculum includes required certifications such as PMT 401 [Program Managers Course] and the opportunity for a master’s degree in this program,” Greene added.

### CONCLUSION

The MEL 1 equivalency will not be retroactive, as the curriculum has evolved over the past few years to meet the standards for equivalency. Students

graduating this year and in the future will receive the credit.

“If you have had Senior Service College Fellowship on your resume, I believe it will be a significant factor toward a decision in a hiring process,” McCullough said.

For those considering applying, “I would definitely recommend this program for anyone who wants to expand their leadership awareness, training and skills. I wish I had applied to this program earlier in my government career,” said Setili.

For more information on SSCF, visit <http://asc.army.mil> or [www.dau.mil/SSCF](http://www.dau.mil/SSCF).

*MS. TARA A. CLEMENTS is the USAASC public affairs specialist and the Access AL&T news service editor. She holds a B.A. in public relations from Radford University and has 11 years of Army public affairs experience.*





# MAINTAINING CRITICAL SKILLS

AMC cultivates depot and arsenal leaders to help preserve the defense organic industrial base

*by Ms. Sandra Gaston and Ms. Kim Hanson*

**I**n the surge of wars in Iraq and Afghanistan, the U.S. Army Materiel Command's (AMC's) organic industrial base (OIB) was revitalized to rapidly meet increasing demands. Depots, arsenals and ammunition plants across the nation ramped up production to support the war effort, manufacturing everything from bullets to Bradleys.

OIB leadership, mostly people from the operational Army with little or no previous experience in the industrial base, were challenged to lead large civilian populations in aging facilities to fill urgent operational requirements. Now, as the war effort of the past 12 years winds down and defense budgets continue to decrease, OIB leaders will face another challenge in the coming years: maintaining critical skill sets and keeping the industrial base warm at a time of sustainment.

"While the Army has myriad courses to develop and hone skills related to leadership, running a business requires a skill set not typically addressed in traditional Army training or available through education offerings or career experience," said William Marriott, AMC's deputy chief of staff for personnel, G-1. To address this need, AMC established the Depot and Arsenal Executive Leadership Program (DAELP) in 2003.

Administered by the Institute for Defense and Business (IDB) and delivered in partnership with the faculty of the University of North Carolina at Chapel Hill, DAELP is an executive leadership program serving the commanders and senior civilian leaders of the nation's depots and arsenals. DAELP provides training, education and experience to develop the business acumen necessary to better prepare command teams for the unique responsibilities of leading an industrial base facility. IDB is a nonprofit research and education institute formed in 1997 by the university and the State of North Carolina.

To remain relevant and effective, DAELP is custom-tailored to meet the specific needs of defense industrial base managers.

"The curriculum is designed to accommodate leaders with limited experience leading an industrial base facility and provide them the tools to succeed in a business, civilian-centric environment," said Marriott.

In its 10 years of existence, the course has provided a functional foundation to more than 200 graduates, including uniformed and civilian leaders from all branches of DOD, the Defense Logistics Agency (DLA) and the private sector.

## THE CURRICULUM

DAELP integrates leadership development and management concepts through resident and distance learning. Students participate in traditional classroom courses, online learning, business study tours and corporate residencies.

“The DAELP curriculum is tailored each year to meet the needs of the incoming cohort,” said retired Marine LtCol Ted Sturgeon, DAELP program director.

Broken into five phases, or residencies, the course spans nearly a year. “Because many DAELP participants are commanders who have just assumed command, DAELP is divided into phases to allow them to return to their duty stations,” Marriott said.

Between residencies, participants participate in an online Lean Six Sigma (LSS) Champion Certification program, provided by North Carolina State University, at their duty stations.

**The first residency**, lasting five days on-site at UNC-Chapel Hill, focuses on business strategy, operations, and logistics and supply chain management. During this phase, participants acclimate to the program and are introduced to the LSS Champion Certification curriculum. They have an opportunity to talk with senior AMC and joint military leadership about strategic opportunities and challenges that they may face at their installations. Faculty and industry experts present information on topics ranging from product life cycle for design and maintenance and operations management, to strategic communications and leading change in organizations.

The expertise of the presenters was one aspect of the course that stood out to recent DAELP graduate COL Doyle



## CORPORATE EXPOSURE

DAELP participants visit Infinia Corp., an energy technology company, in October 2012 as part of the Residency 2 benchmarking tour. From left are COL Dave Musgrave, commander, Pine Bluff Arsenal, AR; COL Joe Dixon, incoming commander, Crane Army Ammunition Activity, IN; Jerry Brown, DLA; COL Dave Luders, incoming commander, Rock Island Arsenal (RIA), IL; COL Garner Pogue, incoming commander, Corpus Christi Army Depot (CCAD), TX; COL Gerhard Schroter, commander, Tobyhanna Army Depot (TYAD), PA; Bob Sharp, CCAD; Paul McMillan, DLA; LTC Charlie Slosson, incoming commander, Sierra Army Depot, CA; COL Vic Hagan, commander, Lettinkenny Army Depot, PA; LTC(P) Dean Franks, U.S. Army War College; and Tom Pond, Watervliet Arsenal, NY. (Photos by Britney Minnick, IDB)

Lassitter, commander of Red River Army Depot (RRAD), TX.

“The caliber of the course was exceptional,” said Lassitter. “I was impressed by the level of expertise outside of academia of the guest speakers, lecturers, faculty and presenters throughout the course. They shared commercial-world success and failure stories that we can learn from and apply at our own depots and arsenals.”

**The second residency** takes participants out of the classroom and on-site to depots, arsenals and corporations for a five-day benchmarking tour. Participants see the facilities of DOD depots and maintenance installations, as well as private sector manufacturing, assembly and repair facilities.

“The tours allow them to benchmark against ‘for profit’ organizations and

compare methodologies, processes and management functions,” said Marriott.

Participants also engage in their first LSS practical application exercise—value stream analysis and mapping—reviewing, analyzing and determining value-added and non-value-added steps in selected processes.

**The third residency** takes students back to the classroom for a week at Chapel Hill, with a focus on managing and leading change in large organizations and business operating systems. Participants receive briefs on performance management and measurement, technology and supply chain innovation, and a variety of topics related to workplace safety. Two panel discussions—one with deputy commanders from within the DOD industrial base and the other with recently retired joint military flag and general



officers and senior executive staff—share best practices and lessons learned with participants and allow dialogue on a variety of relevant strategic topics.

**The fourth residency** is a two- to four-week placement at a leading private or public sector organization where participants immerse themselves in the commercial world. They are paired with executive mentors and have the opportunity to interact with executives and managers across functions and operating companies.

“This phase has proven to be, by far, the most valued by the students,” Marriott said.

Residencies typically include an orientation week at corporate headquarters to discuss corporate strategy, policy

development, structure and culture, followed by two to three weeks at various business units or manufacturing facilities. More than 75 private sector companies have hosted corporate residencies over the past decade for DAELP students, including Alcoa Defense, AM General LLC, Boeing Co., FedEx Corp., Lockheed Martin Corp., Toyota Motor Corp., United Technologies Corp. and the U.S. Chamber of Commerce.

**The fifth residency**, which wraps up the course, is a five-day session on-site at Chapel Hill. Participants have classes on effective media relations, productive maintenance and risk management, and trends in technology. During this phase, private sector executives share their perspectives on public-private partnerships, and participants share feedback and lessons learned from their commercial

industry residencies with senior leadership from various services, including AMC, the Marine Corps Logistics Command, retired flag officer executive fellows, and DAELP faculty advisers. The final session, “Taking Action for Change,” leaves participants with an inspirational discussion on methods of motivating people and organizations to implement change and transformation.

## BUILDING RELATIONSHIPS

“The DAELP program staff focuses a large amount of attention on dedicated relationship building with corporate hosts,” said Sturgeon, creating opportunities for tailored internships to meet the specific learning objectives and organizational needs of individual participants.

Lassitter, who had no prior experience serving at a depot or arsenal and took command of RRAD after serving as the chief of the Logistics Plans Division for U.S. Central Command, noted that his residencies with Caterpillar Inc. and BAE Systems were a highlight of the program. He gleaned important information about commercial manufacturing processes, safety programs and how to affect organizational culture through leadership and training, especially as it relates to adapting the Lean processes.

“My residencies with industry improved my understanding and application of the Lean processes taught in DAELP and gave insight on how to effect culture change within a manufacturing operation,” said Lassitter.

Today, most students have the opportunity to visit two or more organizations, which is a major improvement made to the curriculum over the past 10 years.

At the end of the program, participants receive graduation certificates from



## WHAT WORKS, WHAT DOESN'T

DAELP X Participants work on a value stream mapping assignment during the Residency 2 benchmarking tour at Tooele Army Depot, UT, in October 2012. From left are Bob Sharp, CCAD; Darren Jones, Marine Depot Maintenance Command; COL Gerhard Schroter, TYAD; and SGM Ceaser Roberts, RIA.

UNC-Chapel Hill's Kenan-Flagler Business School; an LLS for Executive Champions graduation certificate from NC State University; an average of 15 Continuing Education Units and 15 Professional Development Hours in transcript form from UNC-Chapel Hill and NC State; and 200 Continuous Learning Points toward professional acquisition and engineering development and career learning.

Aside from the formal degrees and credit hours, participants leave the course with stronger business acumen and a better overall understanding of how work at the depots and arsenals affects the bigger Army, said Lassitter.

"Because of DAELP, I am able to better understand the processes and importance of using Lean. This understanding enables us to be better at what we do as commanders and sharper across all

facets of our business," Lassitter said. "The processes taught at DAELP allow us to better understand the workload and factors that make us competitive with business and commercial industry, which helps improve quality and eliminates waste.

Building quality products for our warfighter is the reason we exist," he continued. "These Lean techniques have allowed our depots and arsenals to evolve into world-class, state-of-the-art operations supporting the nation's wartime requirements. The depots and arsenals across AMC have the flexibility and adaptability to provide quality equipment within schedule and cost to meet the changes of modern warfare."

### A DECADE OF LEARNING

DAELP has grown exponentially in scope and stature. In 2004, the program opened up to personnel from

organizations outside of AMC. It remains a commander's course prerequisite for AMC; commanders of government-owned, government-operated depots and arsenals are automatically slated to attend. It's also now a commander's course prerequisite for the Marine Corps Logistics Command.

Depending on class size, other organizations can request seats at the O-6 or civilian equivalent level. Commanders can nominate key civilian staff to attend, thus strengthening continuity at the depots and arsenals. No class is larger than 30 students, however.

The program administrators continue to explore ways to keep costs down, said Sturgeon. This is what led to the mix of on-site residencies and distance learning, easing the travel burden and allowing commanders to spend more time in their own organizations.

In 2011, DAELP went paperless, providing each participant with a tablet computer to hold all course materials, including presentations, required reading and information about program corporate sponsors.

Another program upgrade—a midweek benchmarking tour—was implemented for the weeks that participants spend at Chapel Hill. The tour, which is arranged with a local organization, gives participants the opportunity to see how other organizations operate.

The most important lesson learned over the past decade of DAELP, though, was that the program curriculum must be adjusted annually to meet the ever-changing needs of the industrial base, as well as the objectives and goals of the program participants, hosts, sponsors and other stakeholders, Sturgeon said.



### SEEING THE BIG PICTURE

The Kennecott Copper Mine in northern Utah was one of the stops for the DAELP X Residency 2 benchmarking tour in October 2012.





### MINING FOR INSIGHTS

DAELP participants visit Kennecott Copper Mine as part of the Residency 2 benchmarking tour in October 2012.

### CONCLUSION

Looking forward, program administrators are considering creating different tracks or electives within DAELP for logistics and the supply chain, acquisition, ammunition and other specialties, to tailor the program even more to individual participants.

“We have to continue to grow and adapt to keep the course as relevant and applicable as possible for our students,” said Sturgeon.

Program administrators say they are most proud of the positive impact their students have had on their organizations as a result of what they learned in DAELP.

“Past participants and organizations have gained tremendous education and produced outstanding results in implementing best business practices” from private and public sector organizations

within the industrial base, in areas such as lean enterprise and innovation, technology development and implementation, logistics and supply chain management, life-cycle sustainment, and manufacture repair and overhaul operations, Sturgeon said.

“As we move forward in times of uncertainty and transition from wartime production to materiel sustainment, AMC and our partners look forward to continuing to educate and develop the leaders of our nation’s depots and arsenals and provide our warfighters the decisive edge with the right equipment and services at the right time,” Marriott said.

For more information on DAELP, visit <http://daelp.org>.

MS. SANDRA GASTON is chief of the Strategic Analysis and Integration Division

for the AMC G-1. She has more than 10 years of Army program management experience, both military and civilian. A retired master sergeant, Gaston served 22 years in the Army. She holds a B.S. in business from Cardinal Stritch University, and an M.B.A. and an M.S. in human resource management from the Keller Graduate School of Management. Gaston is Level 1 certified in program management.

MS. KIM HANSON is a public affairs specialist within the Public and Congressional Affairs Office of AMC. She has more than 10 years of Army public affairs experience. Hanson holds a B.A. in journalism (public relations) and political science (international affairs) from Georgia State University, and an M.A. in communications from the University of Texas at Arlington. She is a graduate of the U.S. Defense Information School’s Public Affairs Officer Course.

# A SCEP *in the* RIGHT DIRECTION

How an Army intern program trained one of its future leaders to support the acquisition workforce and Soldier community

*by Ms. Karen Quinker*







#### KEEPING WARFIGHTERS LINKED

PM P2E provides the full spectrum of network and information services enabling Soldiers, commands and supporting organizations to access, process and act upon information anytime, anywhere. Here, Afghan Border Police and Soldiers of 2nd Battalion, 23rd Infantry Regiment conduct a joint patrol in Kandahar province, Afghanistan, Dec. 1, 2012. (U.S. Army photo by SSG Ryan Sheldon, 117th Mobile Public Affairs Detachment (Hawaii)).



Adam Babin was a junior in college when he happened upon a Program Executive Office Enterprise Information Systems (PEO EIS) booth at a career fair. Babin learned that day that his military background as a former Marine sergeant and a contractor in Iraq, as well as his academic field of study—information systems management—fit well with the PEO EIS mission of providing infrastructure and information management systems. Babin left his resume with the gentleman staffing the booth.

Two months later, Babin received a phone call asking whether he was interested in a job. It so took him by surprise that he had to recall where he'd had the initial conversation. He decided to take a chance and go for the position, which gave him the opportunity to apply his real-world experience and academic background, and to regroup after multiple deployments.

Babin's official assignment in August 2010 was to the Office of Personnel Management Student Career Experience Program (SCEP), where he began his career path in acquisition, logistics and technology (AL&T) as a government intern for the Army. Restructured and renamed in June 2012, the SCEP program is now officially called the Pathways Internship Program.

The Pathways program was designed for undergraduates and graduate students to gain experience working for the government in jobs related to their fields of study. For Babin, the offer was especially attractive because he embraced the opportunity to travel and perform in a tactical environment. Another key motivator was directly supporting Soldiers. The flexibility within Pathways allows for individual organizations to set requirements supporting their missions. As a Pathways

intern with the Product Manager Power Projection Enablers (PM P2E), Babin worked with various AL&T organizations as part of P2E's overarching global mission of providing large-scale technology and communication platforms.

#### LEARNING THE TECHNOLOGY

Babin's first assignment at PEO EIS was to intern for John Howell, director of the Integration, Strategy and Logistics Division, on the knowledge management team supporting area processing centers (APCs). The APC mission was to deliver standardized, secure, global enterprise services that set the conditions for deploying enterprisewide support and communications for the Army's current and future mission requirements.

Howell's team was charged with spearheading the creation of the P2E Knowledge Management Portal at PEO EIS, along with managing several Armywide contracts and acquisition efforts. Babin quickly gained the training and skills to become the SharePoint administrator for his team. According to Babin, "Mr. Howell was a great mentor for me when it came to understanding the technology at hand. He helped me understand the processes involved as a government civilian, and he worked with me through my first full annual review as a GS-5, Step 7."

Howell said Babin's experience as an active-duty Marine "allowed him to both be a leader on the team as well as the voice of reason, to make certain that solutions met the common-sense 'Soldier test' of usability and effectiveness."

Babin also gained critical knowledge management skills through Howell's mentorship by working on objectives and developing integrated product teams (IPTs). "We worked on building out



### THE POWER OF TEAMWORK

As the main link between P2E program headquarters and the field locations in Southwest Asia, Adam Babin played a critical role in the P2E organization. Here, members of the P2E team gather in Kandahar, Afghanistan. In front row, from left, are Project Integrators Mike McClinton and Richard Sollenberger; Country Manager Tony Frontera; Project Integrator Charlie Mackey; Contracting Officer's Representative Jorge Caballero, who introduced Babin to P2E operations in theater; and Project Integrator Joe Butner. In back, holding the flag, are Miguel Buddle, IPT lead, and Computer-Aided Designer Jerome Bannister. (Photo by Jim Rose, Space and Naval Warfare Systems Command)

diagrams for the tech control facilities, and I learned from Mr. Howell how projects were developed based on all of the projects at hand." By the end of August 2011, Babin had achieved the grade of GS-7 after completing his degree in information systems operation management and the hours required for the internship program.

### THE PATH DOWNRANGE

Babin's next assignment, in January 2012, was to work in a relatively new organization within P2E, the Support Operations Cell (SOC). As the conduit between the PM and the program personnel in Kuwait and Afghanistan, the SOC provides pre- and post-deployment logistics, operational support, commander's

critical information requirements, operational security requirements, training and overall situational awareness for the PM across the globe.

Under the supervision of the SOC lead, Jorge Caballero, Babin learned about forward operations in theater, which contracts were being handled downrange and how to conduct oversight visits at various locations in Kuwait and Afghanistan. He traveled with Caballero to Kandahar, Bagram, and Kabul and later became the forward government liaison when Caballero returned to the States. As the main link between P2E headquarters and the field locations in Southwest Asia, Babin played a critical role in the P2E organization.

The position required negotiation skills, knowledge of acquisition contracts and requirements, and balance and oversight in execution. Babin's acquisition expertise and stewardship were greatly needed, and he enjoyed helping those in theater by communicating the field's needs quickly and efficiently. His observations were a "direct shot back to the P2E leadership," Babin said. "If there were any issues in the field, I could reach out directly to the PM. Conversely, I was happy to be the eyes and ears for the PM."

The SOC position gave Babin a realistic understanding of the downrange community, he said, allowing him to learn "what is really going on and get to see the projects come to fruition. You literally get to see the fruits of your labor and meet the people your work is affecting. That personalizes it a lot."

### A STEP FURTHER INTO ACQUISITION

After Babin had spent six months in theater as a government liaison, P2E's assistant PM, MAJ Kyle McFarland, asked him whether he was interested in becoming an IPT lead. Babin volunteered to deploy again to Afghanistan. He enjoyed this role because it offered the challenges of drawing down acquisition support in Southwest Asia, as well as working with the Army Requirements and Resourcing Board (AR2B) and the 335th Signal Command (Theater).

Babin enjoyed overseeing projects and monitoring them through contract closeout; knowing the full history of the project was beneficial. As part of the drawdown, he learned various aspects of reprioritizing and accounting for materiel, as well as managing logistics and communications with the community amid rapid change.





### LEARNING FROM MENTORS

Adam Babin, right, learned the ropes in theater with the help of mentors Jorge Caballero, left, and P2E Assistant PM MAJ Kyle McFarland, who asked him whether he was interested in becoming an IPT lead. Babin said yes and deployed again to Afghanistan. “Adam has shown tremendous motivation in learning and applying new skills helping us manage projects in the dynamic theater of Afghanistan. He constantly looks for better ways to do business, while trying to understand and work with the complex acquisition environment over there,” McFarland said. (Photo by Dave Holmes, PM P2E)

The size and scope of some of the projects that Babin leads still amaze him, and he is very aware of his stewardship of taxpayers’ investment in defending American interests. His responsibility in leading high-profile projects has brought him a new perspective on, and a greater appreciation for, the gravity and importance of the mission.

### CONCLUSION

Babin is still an official Pathways participant, having transitioned into the internship phase as a GS-11.

His short-term goal is to earn a master’s degree in program management at the

Naval Postgraduate School in Monterey, CA. Long-term goals involve becoming a civilian Senior Executive Service professional supporting the Soldier community.

*For more information, contact Sarah Steenberge at [sarah.m.steenberge.civ@mail.mil](mailto:sarah.m.steenberge.civ@mail.mil).*

*MS. KAREN QUINKER is the marketing director for Connected Logistics and the public affairs officer for PM P2E. She has a B.S. in communications/political science from the State University of New York at Oswego and an M.S. in organization and strategic management from Mercy College.*

**“YOU LITERALLY  
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# Pathway *to* LEADERSHIP

Setting goals and building skills help grow careers and the Army AL&T workforce

*by Mr. Jonathan Capriles*

**T**he Pathways Internship Program, administered by the Office of Personnel Management, is an innovative training and recruiting initiative offering college students valuable immersive work experience with the Army that is directly related to their majors. The program helps the Army address critical workforce and knowledge gaps by attracting highly qualified applicants in needed areas.

I know a little bit about it, because that's how I got my job.

The job market in 2008 was weak and especially difficult to enter for graduates. Most job openings required a bachelor of science degree and at least two years' experience, which most students had not yet had the opportunity to build. My professors urged me to start the job hunt during my junior year at George Mason University in Fairfax, VA.

At a job fair, I visited the Army table, talked to the recruiter about the internship program and applied. I was surprised and honored when I received word of my acceptance into the program.

The Pathways program was especially attractive as it allowed me to work part time while I finished my degree, gaining critical on-the-job experience while providing me with full-time employee benefits such as a retirement plan, life insurance, retirement savings, health insurance, and access to continuing education and fitness programs. Best of all, I was guaranteed a full-time position after graduation.

Pathways requires a collaborative commitment of students, their respective schools and DA. Students must successfully complete all of their degree obligations and meet their on-site work requirements to be considered for permanent employment or a full-time internship position after completing the program.

## SETTING AND ACHIEVING GOALS

I set two goals for myself as a participant when I began the Pathways program: to serve my country and to develop my skills in program management. Pathways has allowed me to meet and exceed these goals. I have rotated within different project areas of the Product Director Korea Transformation





### GROWING COMMUNITY

The PD KT, for which the author has worked as a participant in the Pathways program, facilitates the relocation of U.S. forces from Seoul and outlying areas to U.S. Army Garrison Humphreys. That area is projected to grow from approximately 9,000 personnel to more than 29,000, with the addition of 25 million square feet of facilities by 2016. (U.S. Army photo)

***I SET TWO GOALS FOR MYSELF AS A PARTICIPANT WHEN I BEGAN THE PATHWAYS PROGRAM: TO SERVE MY COUNTRY AND TO DEVELOP MY SKILLS IN PROGRAM MANAGEMENT. PATHWAYS HAS ALLOWED ME TO MEET AND EXCEED THESE GOALS.***

(PD KT), a product office within the U.S. Army Program Executive Office Enterprise Information Systems (PEO EIS).

My experience has helped me gain technical, budget, contracting and management expertise, from developing secure mobile solutions to developing acquisition packages. The Pathways pay-for-performance system provides increases and awards for motivated participants. As my responsibilities, experience, talent and contributions increase over time, my compensation will reflect my advancement.

The access to continuing education programs is an added benefit that should

not be understated. I have received certifications in systems engineering and program management through the Defense Acquisition University and other industry organizations, as well as completing certifications in Security+ and Lean Six Sigma.

Pathways has provided the training and experience needed to develop my skills, and it has prepared me for advancement in my career field. As an intern for PEO EIS, I briefed senior officials such as the Hon. Heidi Shyu, assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)), and LTG William N. Phillips, principal military deputy (MILDEP) to the ASA(ALT). I have





### EXPLAINING THE OPERATION

The author briefs Program Executive Officer EIS Douglas Wiltsie, left, and LTG William N. Phillips, MILDEP to the ASA(ALT), on the mission of the PD KT at PEO EIS headquarters, Fort Belvoir, VA, May 30, 2012. (Photo by William Hitchcock, Program Management Directorate, PEO EIS)

worked with senior leaders nationwide, traveled around the world, collaborated with White House staff members, supported multimillion-dollar projects, and gained leadership experience working with our industry partners and other military and civilian professionals.

### CONCLUSION

The experience offered by the Pathways program is uncommon among entry-level positions, allowing me to meet my goals in starting a new career while also providing me the opportunity to serve my country.

My accomplishments as a Pathways participant include receiving the Department of the Army Commander's Award for Civilian Service, sharing with my team the 2011 Army Acquisition Corps Award in the information-enabled Army category, and sharing in the 2011

ComputerWorld Honors Laureate in the innovation category for my team's effort in leading the initial secure implementation of iPhone and Android devices within DOD.

My experience in the program has confirmed my career goal of becoming a program manager within DOD, and I strongly believe I would not have the leadership experience and level of responsibility I hold today without Pathways and the support of my leadership. The amount of support and trust they have given me—along with their mentorship, empowerment and career-building opportunities—led to my successful experience as a Pathways participant.

I am grateful for the opportunities the program has provided me and have

enjoyed its experiences and challenges. The program has opened my eyes to the need for support and service to DOD and, most important, the warfighter. I continue to learn new leadership qualities and techniques, incorporating them into my daily practice.

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*MR. JONATHAN CAPRILES is a program management specialist for the Installation, Information, Infrastructure, Communications and Capabilities – Pacific project within PEO EIS at Fort Belvoir, VA. He holds a B.S. degree in business administration from George Mason University. Capriles is a Lean Six Sigma Green Belt.*







# Fresh Faces

The Pathways and other intern programs help  
PEO EIS train future civilian leaders

*by Ms. Sarah Steenberge*

The Program Executive Office Enterprise Information Systems (PEO EIS) has seen success with the establishment and use of the Student Career Experience Program (SCEP), having trained 71 educated and talented individuals just entering the acquisition career field since 2009. Participants in the internship programs are motivated to learn and take advantage of the training opportunities provided by PEO EIS, the acquisition community and the Army.

The PEO plans to continue to recruit, retain and train these individuals through the new and improved Pathways programs, as well as the PEO EIS Local and Developmental Intern Program, to become future leaders supporting the acquisition workforce and Soldier communities.



#### CAREER CHOICES

Army garrisons around the globe are increasing the use of job fairs and transition support for Soldiers while also offering new opportunities for recent graduates. (U.S. Army photo)



### PATHWAYS TO ACQUISITION

Since 2009, PEO EIS has used the SCEP program, which was absorbed into the Pathways programs in 2012, to train 71 individuals entering the acquisition career field. PEO EIS currently sponsors 14 Pathways participants and has transitioned 18 interns into the Local and Developmental Intern Program. (SOURCE: U.S. Army Acquisition Support Center)

President Obama signed Executive Order 13562, “Recruiting and Hiring Students and Recent Graduates,” on Dec. 27, 2010. The order established the internship program for current undergraduates, and the Recent Graduates Program for those who have recently graduated from qualifying educational institutions or programs. It also reinvigorated the Presidential Management Fellows (PMF) Program for individuals who have obtained an advanced degree within the preceding two years.

Collectively referred to as the Pathways programs, these initiatives are tailored to promote employment opportunities in the federal workforce for students and recent graduates.

The new Pathway programs became effective July 10, 2012, for current students and recent graduates. All PEO EIS current and new hires in SCEP and the

Student Temporary Employment Program (STEP) were transitioned to the new program.

To complement Pathways, the PEO EIS leadership has worked to expand its internship-level positions with the Local and Development Intern Program, providing continuous career-developing employment opportunities for graduated Pathways interns in a career field of interest. This program established a structured process to further educate entry-level employees and provide full-time experience with training and developmental opportunities in the interns’ respective career fields.

PEO EIS currently sponsors 14 Pathways participants and has transitioned 18 interns into the Local and Developmental Intern Program. Pathways is tailored to support not only the organization’s mission but also participants’ career goals

by providing them with challenging assignments and training for a future as successful Army acquisition professionals.

### ELIGIBILITY REQUIREMENTS

For the Internship Program, the intern must have been accepted for enrollment or be enrolled and seeking a degree (diploma, certificate, etc.) in a qualifying educational institution on a full- or half-time basis. PEO EIS requires that the intern obtain and maintain a 2.7 or higher grade-point average. In addition to their studies, students must be able to maintain a minimum 16-hour-per-week work schedule year-round.

The Recent Graduate Program provides developmental experiences in the federal government. It is intended to promote possible careers in civil service to individuals who, within the previous two years, have graduated from qualifying educational institutions





### ON THEIR WAY

In accordance with Executive Order 13562, "Recruiting and Hiring Students and Recent Graduates," the Army can offer internships to current undergraduates and newly graduated students from qualifying educational institutions or programs. (Photo by David Hsu, Getty Images)

with an associate, bachelor's, master's, professional, doctoral, vocational or technical degree or certificate from qualifying educational institutions.

Applicants must apply within two years of degree or certificate completion, except for veterans who are precluded from doing so by their military service obligation. Veterans have up to six years after degree or certificate completion to apply.

This program allows eligibility for

noncompetitive conversion from the internship program to a term or permanent position in the competitive service, provided that all the terms of 5 CFR 362.204 are met and there is an available position within 120 days of successfully completing the program.

For the Local and Developmental Intern Program, interns must meet governing qualification standards for entry into a career series at the GS-5 or

GS-7 level, or complete the Pathways program. In addition, interns must meet the requirements for conversion of the initial entry position to a developmental career ladder position within the assigned organization.

During the final year of this program, it is possible for an intern to be chosen for a noncompetitive, permanent AcqDemo position within the organization, should all requirements be met or exceeded and management approves.

*For more information, contact the author at [sarah.m.steenberge.civ@mail.mil](mailto:sarah.m.steenberge.civ@mail.mil).*

**THE PEO PLANS TO CONTINUE TO RECRUIT, RETAIN AND TRAIN THESE INDIVIDUALS THROUGH THE NEW AND IMPROVED PATHWAYS PROGRAMS, AS WELL AS THE PEO EIS LOCAL AND DEVELOPMENTAL INTERN PROGRAM, TO BECOME FUTURE LEADERS SUPPORTING THE ACQUISITION WORKFORCE AND SOLDIER COMMUNITIES.**

*MS. SARAH STEENBERGE is the intern program coordinator for PEO EIS within the Human Resource Directorate. She has a B.B.A. in management from Radford University and is a PEO EIS SCEP graduate.*



## CAREER CORNER

### USAASC PERSPECTIVE

FROM THE DIRECTOR,  
U.S. ARMY ACQUISITION SUPPORT CENTER

# People First

As I have mentioned in several previous columns, my philosophy at the U.S. Army Acquisition Support Center (USAASC) is “People First.” The theme for this edition of Army AL&T magazine is “The Army Acquisition Workforce.” If you are a frequent reader of my column, you’ve seen an in-depth focus on the training, education and experience that Army Acquisition Workforce members need to best serve the Soldier, as well as insights on how the men and women of the Army Acquisition, Logistics and Technology (AL&T) Workforce succeed in their jobs.

But how is policy converted into practice? That is done by our little organization called the USAASC. (See Figure 1 on Page 152.) It’s my organization, one of only 10 direct reporting units (DRUs) in the Army. I believe it is altogether fitting to provide a “Did You Know?” accounting of how USAASC professionals put the 42,000-plus people who make up the Army Acquisition Workforce first by sustaining strategic planning, personnel security, force protection, data management, human resources, resource management and force structure for 12 program executive offices (PEOs) throughout the



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

country. As the Director, Acquisition Career Management (DACM) Office, we also foster the professional growth of the Army AL&T Workforce through functional and developmental training.

Here’s how the seven divisions of Headquarters, USAASC and the Army Acquisition Center of Excellence (AACoE) execute these missions.

#### ACQUISITION CAREER DEVELOPMENT

As the deputy DACM, I am responsible for the career management and development of the AL&T Workforce

and U.S. Army Acquisition Corps (AAC). The Acquisition Career Development Division (ACDD), in coordination with USAASC’s Workforce Management Division (WMD), serves as the Army DACM Office responsible for acquisition pronency, advocating for members of the Army AL&T Workforce and AAC in 14 acquisition career fields (ACFs). Specifically, ACDD:

- Attends Office of the Secretary of Defense-level functional integrated product team (FIPT) meetings in support of these ACFs as Army DACM Office representatives.
- Handles DOD Instruction 5000.66, “Operation of the Defense Acquisition, Technology, and Logistics [AT&L] Workforce Education, Training and Career Development Program,” tenet 5.3, on the responsibilities of heads of DOD components.
- Duties include providing opportunities for both civilian and military members of the Defense AT&L Workforce to acquire the acquisition education, training and experience (AETE) necessary to qualify for senior positions; designating AT&L critical acquisition positions; and selecting key leadership positions for approval by the





**BECAUSE WE PUT PEOPLE FIRST, THE AL&T PROFESSIONALS OF OUR ARMY WILL CONTINUE TO BE RECOGNIZED AS THE DRIVING FORCE BEHIND MAINTAINING OUR SOLDIERS AS THE DECISIVE EDGE.**

undersecretary of defense for AT&L.

- Manages the Army's Defense Acquisition University (DAU) course application process and forecasts AL&T Workforce and AAC course demands annually to ensure that all Priority 1 Army acquisition personnel requiring DAU courses for certification receive seats.
- Through its Acquisition, Education and Training Branch, manages a portfolio of Army AETE programs including the Competitive Development Group (CDG)/Army Acquisition Fellowship, Acquisition Leadership Challenge, Senior Service College Fellowship Program, Executive Leadership and numerous tuition assistance programs.
- Communicates AL&T Workforce and AAC data for the general officer/Senior Executive Service (SES) quarterly Acquisition Workforce forum.
- Actively participates in the Assistant Secretary of Defense for Acquisition Workforce Management Group (WMG) meetings, where AL&T Workforce challenges, initiatives and FIPT issues are discussed. (See related article on Page 170.) The Hon. Frank Kendall, undersecretary of defense for AT&L, hosts quarterly senior steering boards where initiatives from the WMG are vetted and approved.
- Is responsible for the Army's Defense Acquisition Workforce Development Fund and manages an annual budget of more than \$100 million in support of its initiatives.
- Publishes the quarterly DACM Newsletter, available at <http://asc.army.mil/web/publications/dacm-newsletter/>.

## WORKFORCE MANAGEMENT

USAASC's Workforce Management Division (WMD) provides career management and career development assistance and support to the AL&T

Workforce worldwide. It serves the workforce by:

- Providing career management support, advice and assistance to civilian workforce members, commands, PEOs and acquisition career management advocates.
- Executing career field certifications, AAC membership fulfillments and waivers for DA civilians.
- Marketing acquisition career management training programs including Acquisition Tuition Assistance, CDG, the Naval Postgraduate School and Army AETE.
- Providing acquisition career management training to organizational points of contact.

## RESOURCE MANAGEMENT

The Resource Management Division (RMD) believes that proactive management of resources—dollars, manpower and time—is an integral part of doing business. RMD provides budget guidelines, allocates funding and oversees the execution of obligation plans for the PEOs and USAASC, totaling \$5 billion to \$7 billion. RMD also supports budget-related Program Objective Memorandum matters within the Army's PEO structure. RMD administers and reviews Headquarters, USAASC financial management activities totaling \$85 million to \$160 million. In addition, the division:

- Annually processes about 1,200 Standard Form 182s ("Authorization,

Agreement and Certification of Training") in support of the Acquisition Tuition Assistance Program, School of Choice programs and 5,000 DAU travel orders.

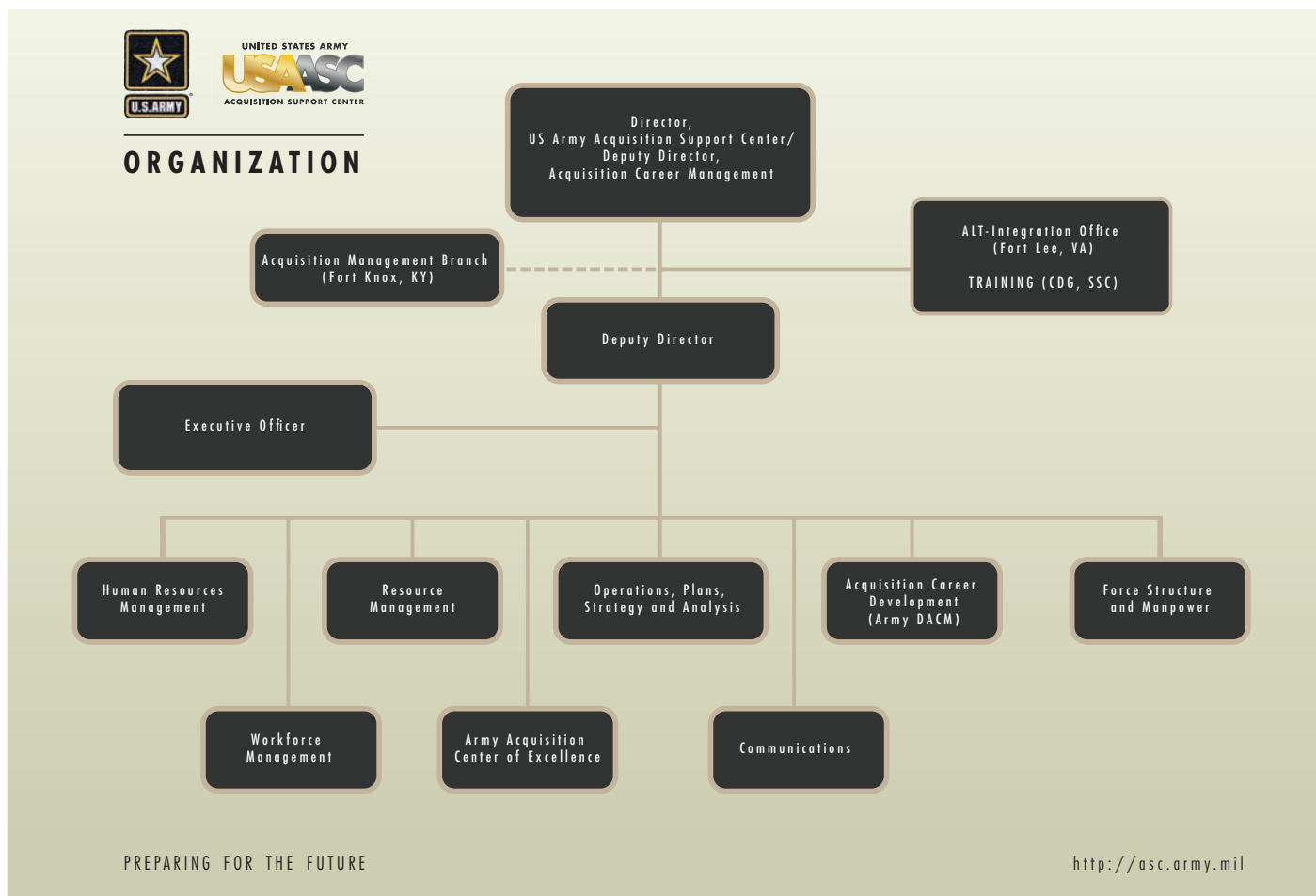
- Manages approximately \$5 million annually for AETE and an annual operations budget of approximately \$20 million.

## HUMAN RESOURCES MANAGEMENT

The Human Resources Management Division (HRMD) provides consistent HR support for more than 5,000 Army civilian employees in both acquisition and non-acquisition career fields, as well as more than 570 AAC officers within the DRU.

- The Civilian HRMD Branch provides PEOs and direct-reporting program managers with the most current civilian personnel policies, procedures and programs, in accordance with Title 5 of the U.S. Code and Title 5, Code of Federal Regulations, and support functions including recruitment, staffing and classification; delegation of authority; performance management; merit system principles and prohibited personnel practices; awards and recognition; labor-management relations; overseas allowances and differentials; retirement and voluntary separation programs; telework; furlough; base realignment and closure; professional development, education and training programs; Senior Enterprise

FIGURE 1



#### USAASC AT A GLANCE

USAASC, one of only 10 DRUs in the Army, is organized to support the 42,000-plus people of the Army Acquisition Workforce in the areas of career development, strategic planning, workforce management, human resources, resource management, force structure and communications, among others. (SOURCE: USAASC)

Talent Management; and SES personnel management.

- HRMD's Military HR Branch ensures that the right officer with the right skills is assigned to the right position to support the Army's acquisition projects and programs. The branch coordinates assignment instructions with PEOs and the U.S. Army Human Resources Command (HRC) for more than 200 AAC officers every year. Along with HRC, the branch updates AAC officers on critical HRC programs and policies,

as well as informing them if they are chosen for a centralized selection list (CSL) position, which provides the vital leadership and program management knowledge, skills and abilities for the DRU

#### FORCE STRUCTURE AND MANPOWER

The Force Structure and Manpower Division (FSMD) provides managerial assistance to the PEOs and acquisition commands by supporting

program structure requirements. FSMD leads the planning, coordination and execution of the annual Military Acquisition Position List (MAPL) and CSL reviews. These include more than 1,660 MAPL positions and 100 CSL position requests from multiple Army and joint organizations and defense agencies.

FSMD's mission is to provide world-class support to the senior Army acquisition leadership and the acquisition community by:





- Developing policy and communicating real-time information.
- Analyzing and resourcing manpower and force structure requirements.
- Streamlining, managing and overseeing the command support process to ensure that the Army selects expert acquisition leaders.
- Developing applications to support functional needs (Acquisition Workbook Analysis Readiness Evaluation and MAPL).
- Providing essential customer support information.
- Supporting decision-making by the Army acquisition executive (AAE) and the principal military deputy to the assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)).

## OPERATIONS, PLANS, STRATEGY AND ANALYSIS

The mission of the Operations, Plans, Strategy and Analysis (OPS&A) Division is to maintain a superior acquisition personnel development system and PEO support capability through a strong strategic planning foundation along with accurate and timely data and analysis, resulting in better acquisition professionals, superior Army materiel and a strong Army. OPS&A achieves this by:

- Facilitating strategic planning and continuous process improvement within USAASC.
- Performing data analysis and performance measurement.
- Identifying and implementing software enhancements to acquisition applications.
- Ensuring compliance with information technology and assurance requirements.
- Performing internal administrative and facility operations.
- Providing knowledge and records management.
- Overseeing force protection programs for the DRU.

## COMMUNICATIONS

The Communications Division develops and manages all USAASC and many ASA(ALT) outreach communications efforts and branding strategies, providing the necessary message synergy and interconnectivity with other Army elements, including programs, products, program management offices, PEOs, operational units and warfighters by:

- Working directly with the AAE and ASA(ALT) to publish Army AL&T magazine, a quarterly hardcopy and online professional development publication, ensuring that the desired philosophy, operational goals and content are in consonance with official Army policy and AAC's vision, mission and brand.
- Conducting the annual Acquisition Virtual Boards process, which supports the AAC annual awards ceremony by capturing nominations from across the Army and administering online voting.
- Publishing Access AL&T, an online news outlet, to inform AL&T Workforce members about processes, procedures, techniques and management philosophy, and to disseminate other information pertinent to their professional development.
- Creating, maintaining and updating the USAASC website, featuring workforce management and career development information, the digital Army AL&T magazine and Access AL&T, with Web-exclusive, acquisition-focused articles.
- Providing support for senior ASA(ALT) leadership participation in conferences and trade shows.

## ARMY ACQUISITION CENTER OF EXCELLENCE

Located on the campus of the University of Alabama in Huntsville, AACoE centralizes Army institutional training, education and career development courses for the AL&T Workforce and improves the effectiveness of leader development efforts while increasing acquisition synergy. (See related article on Page 178.)

AACoE supports the Chief of Staff of the Army's objective to transform the Army to meet the needs of the 21st century by providing an ideal training set to build and transform the AL&T Workforce. AACoE courses include:

- Acquisition Foundation.
- Intermediate Program Management.
- Intermediate Contracting.
- Basic Contracting.
- Acquisition NCO Leadership.
- Contracting Officer's Representative.
- FA 51 Intermediate Qualification.

## CONCLUSION

All of the USAASC entities described above act together in supporting the AL&T Workforce with superior personnel development systems and management support capabilities. Because we put people first, the AL&T professionals of our Army will continue to be recognized as the driving force behind maintaining our Soldiers as the decisive edge.

*For more information on how USAASC accomplishes the mission, go to <http://asc.army.mil/>.*



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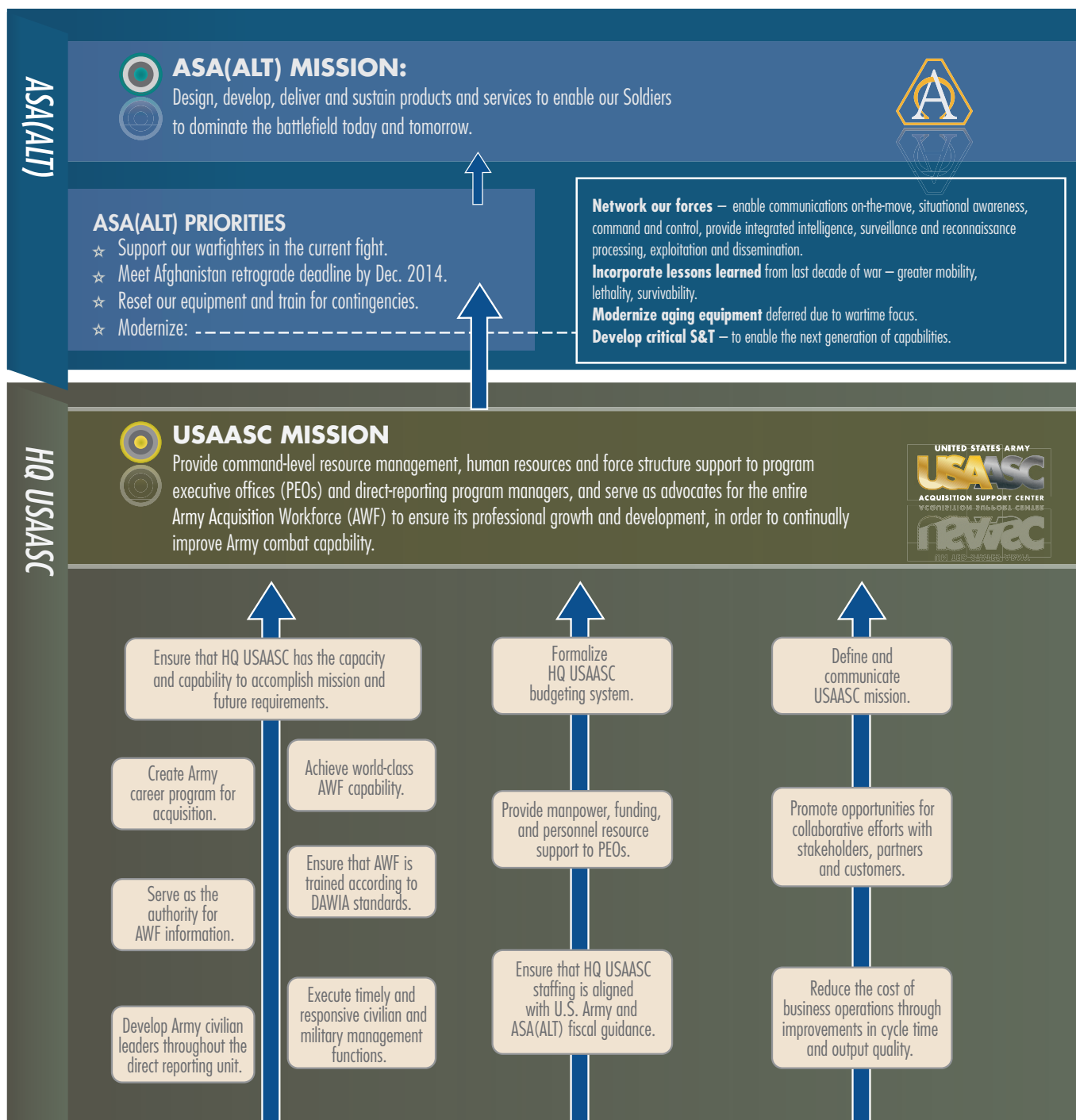


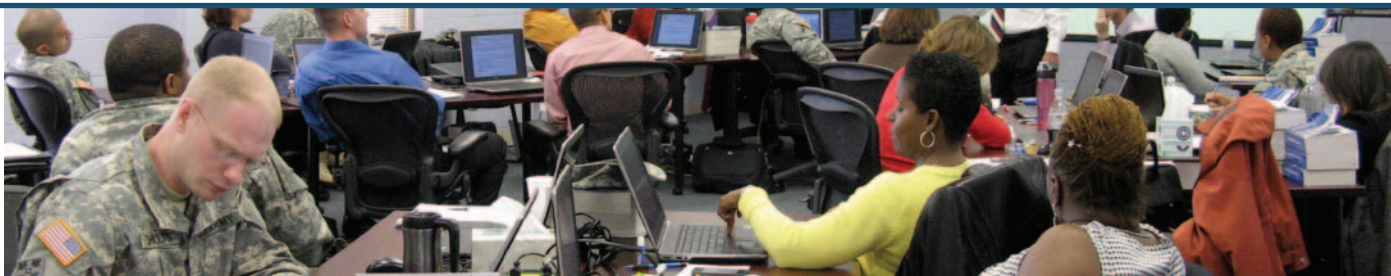


## MISSION AND PRIORITIES

### Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)) and U.S. Army Acquisition Support Center (USAASC)

Meeting the mission of equipping the Army for 21st-century operations is a multifaceted effort requiring superior personnel development, management support capabilities, and effective and efficient equipping, as well as a culture of continuous improvement. (SOURCE: USAASC)





## EDUCATION and TRAINING UPDATE

### EDUCATION AND TRAINING OPPORTUNITIES

Even in the face of significant fiscal constraints, our acquisition workforce has statutory requirements to meet. Therefore, we will still be offering many of our acquisition education, training and experience (AETE) opportunities. In addition, the Hon. Frank Kendall, undersecretary of defense for acquisition, technology and logistics, on March 13 published a memorandum (“Continuation of Centrally Funded Defense Acquisition Workforce Development Fund Initiatives,” online at <https://dap.dau.mil/workforce/Pages/Default.aspx>; go to “Human Capital Initiatives – Highlights”) in which he states that we “must continue acquisition workforce initiatives centrally funded by ... the DAWDF [Defense Acquisition Workforce Development Fund]. These initiatives include targeted hiring for mission-critical acquisition functions and other ongoing DAWDF initiatives to bolster and sustain the quality of the acquisition workforce. Quality initiatives include training, development, recruitment and retention initiatives.”

The **Excellence in Government Fellowship** (EIGF) announcement will be open until July 15 to all eligible personnel in grades GS-13 to GS-15 or broadband/pay band-equivalent positions who have met their current position certification requirement. EIGF offers senior acquisition workforce members the opportunity to network and team with

fellow senior leaders from across the government. The program focuses on learning best practices and then returning to your organization to implement them. For more information, visit <http://asc.army.mil/web/career-development/programs/excellence-in-government-fellows-program/>.

To apply for this program, visit the Army Acquisition Professional Development System (AAPDS). To access AAPDS, log in at the Career Acquisition Management Portal using the following link: <https://rda.altess.army.mil/camp/>. Next, click on the Career Acquisition Personnel and Position Management Information System (CAPP MIS). Once in CAPP MIS, select the “AAPDS” tab, and then the “Application Module” link. Click on “Apply” and view all available opportunities from the Army Director of Acquisition Career Management (DACM).

### DEFENSE ACQUISITION UNIVERSITY TRAINING

The FY14 schedule is now available for students to apply for classes, at <https://atrrs.army.mil/channels/aitas/>. Students should continue to apply for FY13 courses available on the schedule, including any required course prerequisite(s) for a course they intend to take in the future. Planning and applying early increase the chances of obtaining a class in the timeframe requested. Students should encourage their supervisors

to approve training requests as soon as they apply. Checking the Defense Acquisition University (DAU) iCatalog at <http://icatalog.dau.mil> will ensure that they meet the prerequisite(s) before applying to a DAU course.

A low-fill list is posted weekly at <http://icatalog.dau.mil/onlinecatalog/tabnav.aspx> to provide students an opportunity to attend classes with available seats that start within the next 60 days. Low-fill classes have not yet reached the minimum number of reservations in order to be conducted. Space in low-fill classes is available on a first-come, first-served basis.

Training required for Army Acquisition Workforce members is a mission-critical activity and is exempt from recent cuts, as stated in a Jan. 10, 2013, memo from Deputy Secretary of Defense Dr. Ashton Carter. DAU travel for required Defense Acquisition Workforce Improvement Act (DAWIA) certification courses is centrally funded by DAU through the U.S. Army Acquisition Support Center (USAASC). Some acquisition workforce members’ travel for DAU acquisition certification training is being canceled by organizations due to their interpretation of budget execution mitigation efforts.

Carter’s memo outlines that DAU central funds are entirely separate from budgetary actions within a service or agency to





FIGURE 1

PRIORITY	DEFINITION
<b>P1</b>	<b>Position requirement:</b> Training required to meet position certification or program requirements.
<b>P2</b>	<b>Career development:</b> Training to become eligible for the next-higher certification level above that required for an individual's position or career development; individual has met position certification requirement.
<b>P3</b>	<b>Cross-functional training:</b> Desired training in a different acquisition career field than the one the individual occupies; individual should complete all mandatory training required for current position first.  Career development: individual has not met position certification requirement.
<b>P4</b>	<b>Previously taken training or already certified:</b> Describes individuals who previously completed the DAU course, or have received equivalency, or are already certified at the career level and have not previously taken the course.
<b>P5</b>	<b>Non-acquisition workforce:</b> Describes individuals who are not in a designated acquisition workforce position; they will be trained on a space-available basis. Individual's command will be required to fund the travel and per diem; training (classroom or Web-based) will be at no cost to the student.

#### PRIORITY RANKING

Prospective students fall into five priority bands sorted by level of need. (SOURCE: Office of the Army Director, Acquisition Career Management)

mitigate budgetary issues in FY13. Army acquisition students who have approval to use DAU central funds to attend training should not cancel the training due to budget constraints. Cancellation requests from students who have approval to attend will be denied if they are received less than 30 days from the class start or reservation cutoff date with funding constraints cited as a reason. Students then will be deemed “no-shows” if they do not attend the scheduled training.

For FY13, USAASC will continue to centrally fund training at cost-effective locations selected by the student. Commands and supervisors should continue to support and send their employees to required DAWIA training. To view the DAU travel status memo, dated Jan. 29, 2013, go to <http://asc.army.mil/web/wp-content/uploads/2013/01/DAU-Travel-Status-Memo-2013.pdf>.

For FY14, travel funds will be cut significantly. At this point, USAASC expects to fund only Priority 1 (required training) travel to cost-effective locations. Depending on the situation, USAASC may elect to centrally fund Priority 2 training as well. (See Figure 1.)

DAU plans to support the teaching schedule under furlough conditions. Students can view the furlough schedule at <http://www.dau.mil/pages/Student-Furlough.aspx>. Students attending a DAU course will assume the furlough schedule of DAU, not that of their home organization, for the duration of their DAU training.

DAU course management has a new process to allow higher-priority, specifically Priority 1, students' first preference in the DAU resident courses. As a result, students in Priorities 2 through 5 will be wait-listed for classes showing available

seats; 65 days before the class start date, students placed on a waiting list will roll into a reservation for seats that have not been reserved by Priority 1 students. Lower-priority students could still be bumped up to five business days before the class reservation cutoff date or start date, whichever is earlier, if a higher-priority student applied within the 65 days. The new process minimizes bumping and allows Priority 1 students to see which courses have seats available for them to obtain their required position certifications.

Apply through the Army Training Requirements and Resources Internet Training Application System (AITAS) at <https://www.atrrs.army.mil/channels/aitas>. Applications cannot be processed by the Army registrar's office until the supervisor has approved the training. It is imperative that the student's and

supervisor's email addresses are correct in the AITAS student profile.

Once a student has received a confirmed reservation in the requested class, he or she should attend the class as scheduled. Cancellation requests for confirmed reservations must be submitted at least 30 calendar days before the class starts or by the reservation cutoff date, whichever is earlier, to avoid a no-show.

*For more information on DAU training, including systematic instructions, training priorities and frequently asked questions, go to <http://asc.army.mil/web/career-development/programs/defense-acquisition-university-training/>.*

*If you have questions on any AETE programs or DAU training, contact Acquisition Education and Training Branch Chief Scott Greene at [scott.m.greene14.civ@mail.mil](mailto:scott.m.greene14.civ@mail.mil).*

# CAREER MAPPING 101

Civilians seeking to advance have many tools to find their best route

*by Mr. Scott M. Greene*

Currently, there is no one path ahead for civilian career advancement or a prescribed step-by-step path to Senior Executive Service; it is a spider-web trail from your start point to success. In acquisition, we have a generic Army Acquisition Career Development Model (AACDM) that provides a three-level approach—functional training, career broadening and strategic leadership—but it is not a prescriptive model.

People often compare the relatively undefined civilian career path to the well-thought-out, repeatable path to which the military adheres. But even in the military population, everyone has their own individual stories of how they got to where they are today. The acquisition training path and career progression can be quite similar from officer to officer or NCO to NCO, but there is no one single path. Each military member attends the same types of training activities to advance through the ranks,

but each has a wide range of career-broadening assignments and levels of responsibility, and comes from a basic branch that may differ from that of an acquisition battle buddy.

Ultimately, though, the typical military career path boils down to a handful of traditional assignment and educational paths. Military leaders are exposed to a variety of acquisition experiences to gain a breadth and depth of acquisition skills—and an understanding of how they fit in the acquisition process. That's how the military in our acquisition workforce become such well-rounded leaders, and that's what sets their path apart from that of their civilian counterparts.

## PLANNING RESOURCES

Civilians do not have assignment officers to provide them with a career path. This is why the Army's Office of the Director, Acquisition Career Management (DACM) at the U.S. Army



# DACM

DIRECTOR, ACQUISITION CAREER MANAGEMENT





Acquisition Support Center (USAASC) developed the first version of the Army Acquisition Civilian Leadership Development Plan (AACLDP). The AACLDP is a step toward a more clearly defined career path for our civilians.

Previously, when civilians wanted to seek advanced degrees, leadership development and/or functional diversity, there was no central resource. Therefore, the Office of the DACM has sought to provide a first edition of the AACDM comprising:

1. The Acquisition Career Development Pyramid for each acquisition career field, due out in the summer of 2013.

2. The AACLDP.

The AACLDP, shown in Figure 1 on Page 160, clearly lays out, by grade, the statutory certification training and Civilian Education System (CES) requirements alongside the leadership training and higher education readily available to all acquisition civilians once they have met their position certification requirements. This plan is a general guide for all levels of our acquisition workforce but specifically targets highly motivated civilians looking to move up the leadership ladder.

Using this model, acquisition workforce members can see the training requirements of each level. In addition, they can use this plan to identify desired training opportunities available at upper levels. The goal of the model is to provide a guide for functional (Defense Acquisition University) training, Army leadership training (CES) programs to obtain advanced degrees, and an entire portfolio of leadership and experiential programs at every career level. Based on a particular civilian's interests, competency gaps or identified developmental needs,



### WORK SMARTER

Lean Six Sigma training helped MAJ Charles F. Faison shorten a 51-day software distribution process to three days. The AACLDP makes it easier for civilians to plan and integrate similar training. (Photo by Meg Carpenter, Program Executive Office Command, Control and Communications – Tactical).

the model should provide a path forward for everyone.

### BREAKING IT DOWN

The AACLDP divides training into two sections: requirements (Defense Acquisition University (DAU) certification training and Army CES courses) and recommendations (higher education and leadership training), and splits those two sections into four clusters of civilian pay grades, modeled after the Acquisition Demonstration Project used widely within the Defense Acquisition Corps.

The model is further divided into four segments. From bottom to top, they are:

- **DAWIA/DAU training**—functional required training per the Defense Acquisition Workforce Improvement Act (DAWIA), from Level I up through 400 Level courses.
- **CES courses**—Army G-3/5/7 required courses (Foundation Course > Basic >

Intermediate > Advanced > Continuing Education for Senior Leaders, depending on rank).

- **Leadership training**—all the leadership opportunities available in our acquisition education, training and experience (AETE) portfolio, as well as a few DOD and U.S. Army Materiel Command (AMC) programs.
- **Higher education**—bachelor's and master's degrees, as well as Senior Service Colleges (SSCs) and SSC fellowships.

Within the model, all courses have hyperlinks that connect to dedicated websites for each course or program. A full version is available for download at <http://asc.army.mil/career-development/civilian/career-planning-steps/>.

### CONCLUSION

Civilian workforce members should take time to review any of the above programs of interest to them and document

the courses on their Individual Development Plans (IDPs). Next, they need to meet with their supervisors to discuss career goals and leadership training of interest, then formalize any approved training on the IDP.

It is important to remember that civilians must first meet DAWIA certification requirements and work on the Army CES training requirement. At that point

civilians become eligible for a wide portfolio of Army AETE opportunities.

*For questions about career management, education and training, or for comments or questions regarding this article, contact the author at [scott.m.greene14.civ@mail.mil](mailto:scott.m.greene14.civ@mail.mil) or the DACM Office at [usarmy.belvoir.usaasc.mbx.usaasc-acq-training-opportunities@mail.mil](mailto:usarmy.belvoir.usaasc.mbx.usaasc-acq-training-opportunities@mail.mil).*

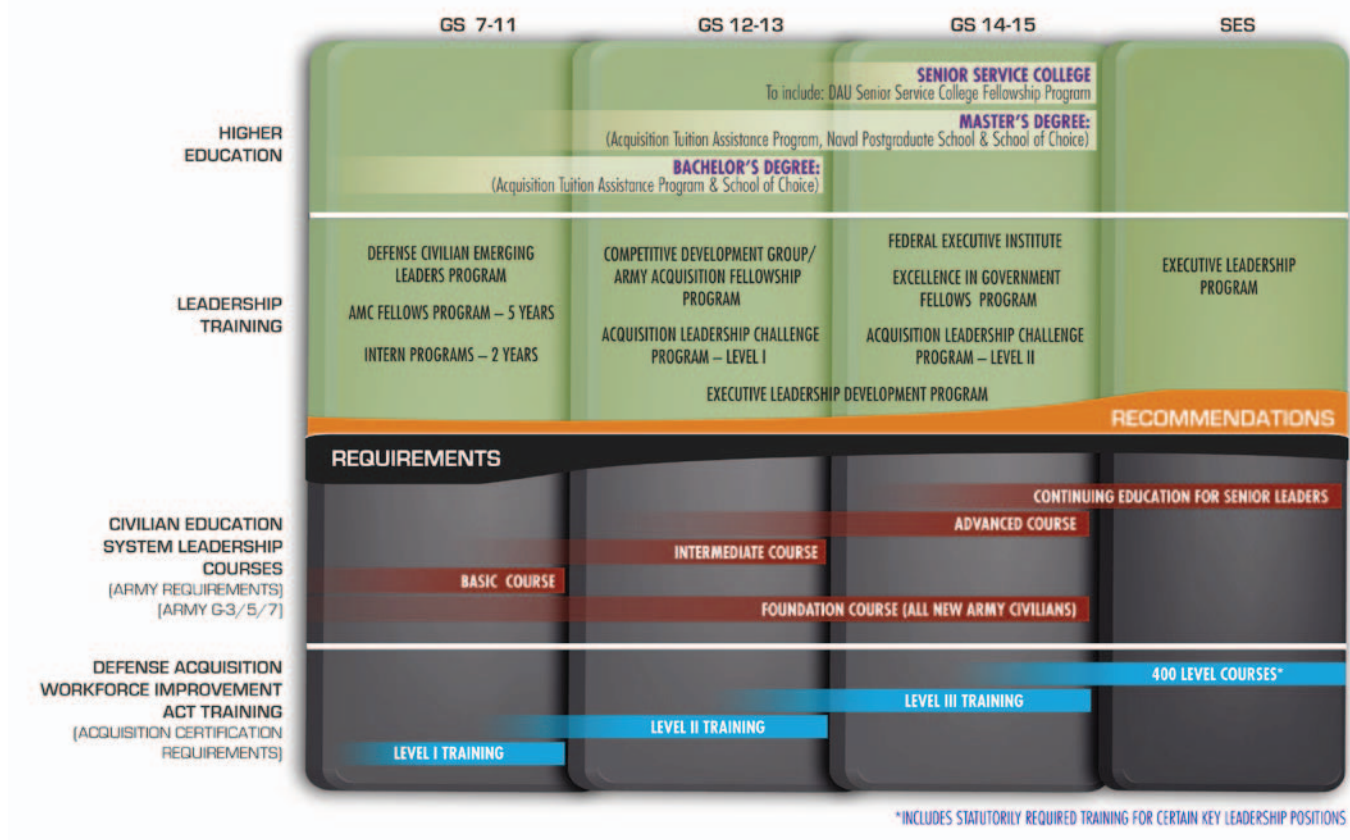
*MR. SCOTT M. GREENE is chief of the Acquisition Education and Training Branch for the Army DACM. The branch resides within the Acquisition Career Development Division of USAASC. Greene holds a B.A. in American politics from the University of Virginia and an M.S. in management from Marymount University. He is a member of the U.S. Army Acquisition Corps and is Level III certified in program management.*

FIGURE 1

## ARMY ACQUISITION CIVILIAN LEADERSHIP DEVELOPMENT PLAN

Visit the AETE catalog for more information:

<http://asc.army.mil/web/career-development/programs/acquisition-education-training-and-experience/>



(SOURCE: USAASC)





## *Working with you to achieve mission success*

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The DAU Alumni Association opens the door to a worldwide network of Defense Acquisition University graduates, faculty, staff members, and defense industry representatives—all ready to share their expertise with you and benefit from yours.

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- Stay connected to DAU and link to other professional organizations.
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- Attend the DAUAA Annual Acquisition Community Conference/Symposium and earn Continuous Learning Points (CLPS) toward DOD continuing education requirements.

Membership is open to all DAU graduates, faculty, staff, and defense industry members. It's easy to join, right from the DAUAA website at [www.dauaa.org](http://www.dauaa.org).

For more information,

Call 703-960-6802 or 800-755-8805, or e-mail [dauaa2@aol.com](mailto:dauaa2@aol.com).



# NEW HORIZONS *of* EXCELLENCE

Training with Industry program brings best practices  
from private sector to Army acquisition

*by Mr. Robert E. Coultas*

LTC Jay Ferreira had two objectives when he began his Training with Industry (TWI) assignment in June 2012 with EADS North America's Lakota Helicopter Program Office in Huntsville, AL.

"First, strategically, I wanted to broaden my awareness by gaining firsthand exposure to EADS North America's corporate business operations. Second, tactically, I wanted to gain project-level experience in the management, planning and execution of a large ACAT [Acquisition Category] I defense aviation program through daily involvement in the UH-72A Lakota Helicopter Program Office. This plan exposed me to both the corporate operations of EADS North America and several Lakota Helicopter Program Office integrated product teams."

Taken together, Ferreira's two objectives exemplify the purpose of the TWI program, which is offered through the U.S. Army Acquisition Corps (AAC) and administered by the U.S. Army Acquisition Support Center (USAASC). TWI is a 10- to 12-month rotational opportunity



## IMMERSION EXPERIENCE

LTC Jay Ferreira, left, and Steve Ferguson, Station No. 4 production lead, inspect a tail boom on one of the UH-72A Lakota helicopters in production at the American Eurocopter Corp. facility in Columbus, MS, May 16. (Photo by Jodie Whittington, American Eurocopter Corp.)





### THE BIG PICTURE

Ferreira visits the production floor at the American Eurocopter Corp. production facility. Ferreira spent a year working on the UH-72A Lakota program at EADS North America through TWI. (Photo by Jodie Whittington, American Eurocopter Corp.)

for acquisition officers in grades O-4 to O-5 to work and train at top civilian companies, with the objective of bringing back the latest commercial business practices, organizational structures and cultures, technology development processes and corporate management techniques—then translating these into better Army acquisition outcomes in future assignments.

### SELECTION PROCESS

The application process begins when the TWI candidate consults with his or her assignment officer to discuss professional background and interests. Depending on the officer's previous assignments and educational background, the acquisition officer may be a good match for more than one company.

Participating TWI companies also provide information on what backgrounds

they are seeking—for example, an engineering degree, Lean Six Sigma training, an M.B.A. or specific experience gained in past assignments. USAASC's Acquisition, Education and Training Branch conducts a review board to select an officer for each of the 10 positions available each year. The Deputy Director for Acquisition Career Management approves the selections.

Companies that partner with the Army in TWI are developers of innovative, cutting-edge technologies as well as established leaders in their respective fields of business. Those currently participating are the Coca-Cola Co., Microsoft Corp., EADS North America, Lockheed Martin Corp., General Dynamics Land Systems, Intel Corp., Cisco Systems Inc., Computer Sciences Corp. and Boeing Co. The acquisition officers get a wide range of experience in their respective TWI

assignments, in contracting, logistics, program management and budgeting. They also get a different perspective from the Army way of doing business.

### 'COMPREHENSIVE EXPOSURE'

Ferreira worked at EADS North America's Lakota Helicopter Program Office from June 2012 to June 2013. The office is responsible for the management, production, training, fielding and sustainment of the Army's UH-72A Lakota helicopter program.

Ferreira's travels with EADS North America took him to a program management and design review at the Eurocopter Deutschland facility in Donauwoerth, Germany; a management visit to subcontractors American Eurocopter Corp. and Turbomeca USA in Grand Prairie, TX; participation in the delivery of new-production Lakota helicopters to



#### READY TO FLY

In his TWI tenure at EADS North America, Ferreira had the opportunity to be involved in multiple aspects of program management and design review for the UH-72A Lakota helicopter. Here, Ferreira stands by one of the newly produced UH-72A Lakotas at the American Eurocopter Corp. facility in Columbus, MS, May 17. (Photo by James Darcy, EADS North America)

an Army unit; a new material introductory brief and orientation at a National Guard aviation unit in Williamstown, WV; participation in the assembly-line build of new Lakota helicopters at the production facility in Columbus, MS; and a flight in one of the new-production helicopters.

“This comprehensive exposure provided me with a solid understanding and appreciation of the requirements and complexities associated with operating a large, unique ACAT I defense aviation program like the UH-72A Lakota helicopter,” Ferreira said.

His biggest challenges during the TWI assignment, he said, were a lack of experience with and understanding of the aviation defense acquisition “business” and unfamiliarity with the people, products, processes and organizations.

So this assignment was a perfect fit for Ferreira, allowing him to broaden his acquisition horizons.

“Overcoming this obstacle was not too difficult,” he added. “EADS North America took a very active role in my assignment. I had a very good sponsor, Mr. John Burke, vice president and program manager, UH-72A Lakota Helicopter Program, who interacted with me on almost a daily basis. He supported my training plan and any endeavors I wished to pursue. Additionally, I had the entire EADS North America Lakota Program Office team, plus the corporate team, who all went out of their way to educate and assist me. All the industry employees that I interacted with were more than willing to educate and involve me in this business.”

Ferreira’s follow-on assignment is as the director, Missile Test Division (MTD)

at Fort Bliss, TX. MTD is a subordinate organization of the Fires Test Directorate at Fort Sill, OK, which is part of the U.S. Army Operational Test Command.

Ferreira found his most rewarding TWI experience was working with the people of EADS North America, immersing himself in their culture and encountering a unique opportunity to grow and diversify his professional acquisition knowledge.

“As a Soldier, it was extremely rewarding to be part of an organization committed to supporting the Army by providing high-quality products like the UH-72A Lakota Helicopter to the warfighter, Ferreira said. “Our military careers can be somewhat predictable due to the pre-ordained requirements, qualifications and gates we must meet as acquisition professionals. Participating in TWI not only gives you the opportunity to broaden your abilities but also improves your profession.”

*For information on AAC’s TWI program and the companies involved, go to <http://asc.army.mil/web/career-development/programs/aac-training-with-industry>. To apply for TWI, contact your assignment officer. For other inquiries about TWI, contact Marti Giella at 703-805-2700 or [marti.a.giella.civ@mail.mil](mailto:marti.a.giella.civ@mail.mil); or Scott Greene at 703-805-1229 or [scott.m.greene14.civ@mail.mil](mailto:scott.m.greene14.civ@mail.mil).*

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# *Your* ACQUISITION **CAREER** *Made* EASIER



USAASC's Workforce Management Division shows the way to certification

*by Ms. Mary Kate Aylward*

“

How do I get certified? What is required? How do I get this added to CAPPMS?” These are the kind of questions that the U.S. Army Acquisition Support Center (USAASC) Workforce Management Division (WMD) fields, according to Tom Evans, division chief.

Nine acquisition career managers—seven at Fort Belvoir, VA, and two in White Sands, NM—staff the WMD, dedicated to career management for civilian acquisition personnel.

## HERE TO HELP

If you've ever had to get your certification approved through the Career Acquisition Personnel and Position Management Information System (CAPPMS), you've dealt with WMD. The division executes career-field certification for civilian acquisition personnel, processing applications and materials and sending them for approval to certifying officials and their acquisition functional representatives.

The division also handles applications for membership in the U.S. Army Acquisition Corps. In the last fiscal year alone, the division received 1,600 applications; approximately 1,400 were approved. Additionally, the division also processes waivers and fulfillments for DA civilians.

And if you've ever had a question about training, you may have dealt with WMD. It is responsible for marketing training to the acquisition workforce—such as the Acquisition Tuition Assistance Program, Competitive Development Group/Army Acquisition Fellowship, Naval Postgraduate School, and acquisition, education, training and experience—and for being able to answer any questions about training.

“Our White Sands office maintains a telephone help desk, and they're responsible for answering and providing responses and emails back. They average about 250 to 300 phone calls a week to support the workforce,” said Evans. The Workforce Management Inquiry System, which tracks queries as part of the Career Acquisition Management Portal, handles more than 12,000 inquiries annually.

It might sound improbable for nine people to support all the career management needs of 42,000-plus acquisition personnel—particularly given the Better Buying Power 2.0 emphasis on professionalism through rigorous certification and qualification requirements. How does WMD do it? Automated processes, cross-training, and first-line points of contact (POCs) within individual acquisition organizations make it possible.



#### FOSTERING PROFESSIONAL GROWTH

Among its many and varied roles, WMD is responsible for marketing training to the acquisition workforce. Here, Michael R. Hutchison, executive director of U.S. Army Contracting Command – Rock Island (IL) (ACC-RI), joins with ACC-RI contract specialists Julie Lawrence, left, and Mary Beth Landphair on Aug. 23, 2012, to celebrate their completing the Defense Civilian Emerging Leader Program. (Photo by Liz Adrian, U.S. Army Materiel Command)

#### AUTOMATED SYSTEMS

Before 2007, “certifications were done basically manually,” Evans said. “They were mailed to us and then mailed or emailed to a certifying official, who then signed the documentation and mailed them back to us. The process time was about anywhere from one to two months.” In 2007, the division automated the certification process.

Now, Army Acquisition Workforce members submit an application “that is sent electronically with all the supporting documentation that’s already in CAPPMS. Then it hits a certifying

official, and if you’re a Department of the Army employee who is in an acquisition career field, those certifying officials look at their documentation. If you meet all the standards that are published by Defense Acquisition University, you receive your certification electronically,” Evans explained. The bottom line is that what used to take two months now takes about four hours. In FY12, the WMD processed 21,000 certification requests.

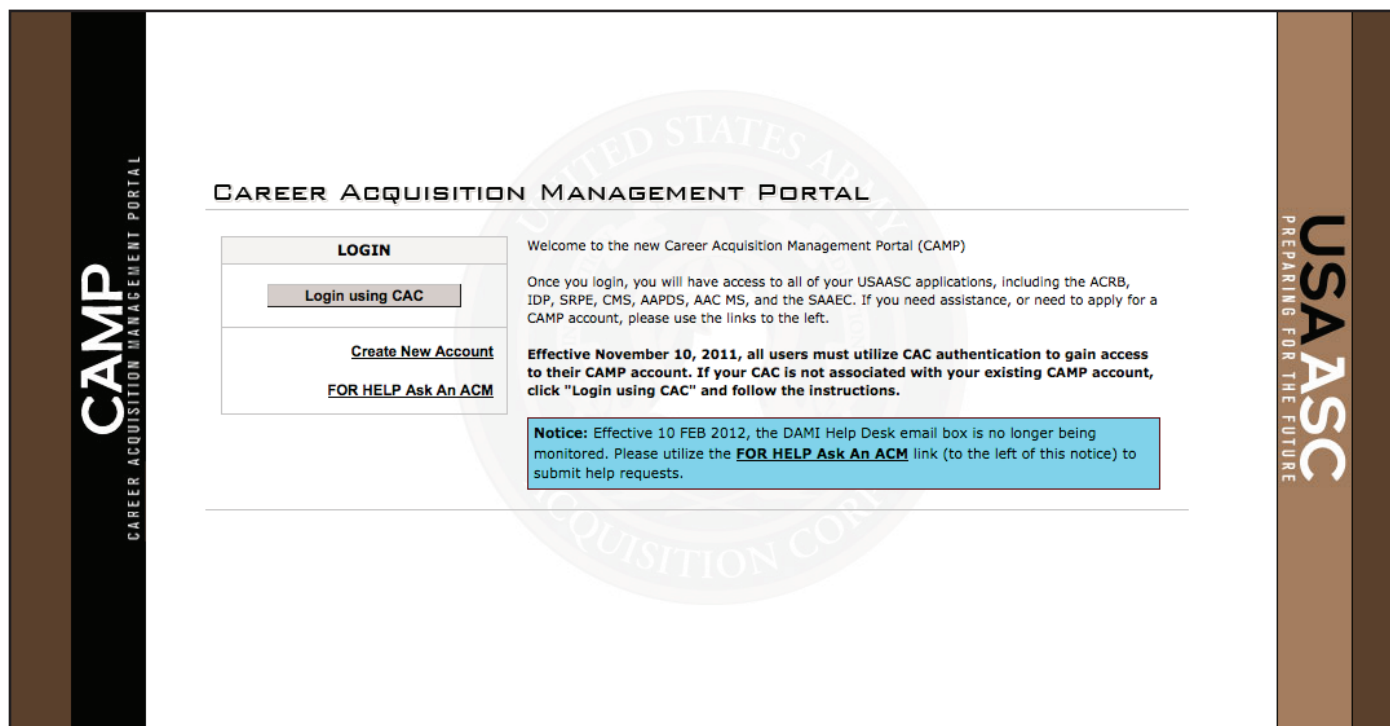
#### KNOWLEDGEABLE PEOPLE

To run efficiently, automated systems need knowledgeable people behind them.

Evans and his staff cross-train, rotating in and out of different specialty areas, to gain and maintain familiarity with every acquisition career field and every kind of career management issue.

“You have to see the problems and questions, and you have to see the results in the documentation for certifications of Corps membership and waivers and fulfillments,” Evans said. “So what we try to do is rotate our career managers from a desk into another section of [WMD] about every 12 to 18 months. It also keeps them fresh ... a career manager normally spins up in about





### PORTAL TO CERTIFICATION

The Career Acquisition Personnel and Position Management Information System (CAPP MIS), accessible through the Career Acquisition Management Portal, has made all the difference in handling requests to approve certifications. Before 2007, handling them was essentially a manual process, taking one to two months. Now, Army Acquisition Workforce members submit certification applications electronically with the supporting documentation already in CAPP MIS, a process that takes about four hours. (SOURCE: USAASC)

six to seven months before they feel comfortable. So normally a year or so after that we will move them, because we have fairly extensive training in policies, procedures and the law.”

### REACHING ACROSS THE ARMY

Organizational acquisition POCs (OAPs) are a force multiplier for WMD. It’s an additional duty that 421 people across the Army have taken on, providing day-to-day, face-to-face support for the career management needs of the acquisition workforce.

“We provide them all the details about policy changes, adjustments, reporting capabilities for their organizations,” Evans said, and the OAPs transmit that

information to their acquisition colleagues. OAPs also provide broad career management guidance to their staffs.

In addition, they support acquisition career management advocates (ACMAs) in the commands. ACMAs are elite acquisition professionals, typically at the GS-15 or Senior Executive Service level, who serve as go-betweens for the workforce and USAASC. Currently there are about 50 ACMAs across the Army.

### CONCLUSION

In short, WMD supports acquisition organizations’ ability to accomplish their requirements as spelled out in law and policy, Evans said.

“As a member of the acquisition workforce, you are responsible for certain training levels, certain skill sets. In an effort to help you get there, we’re here.”

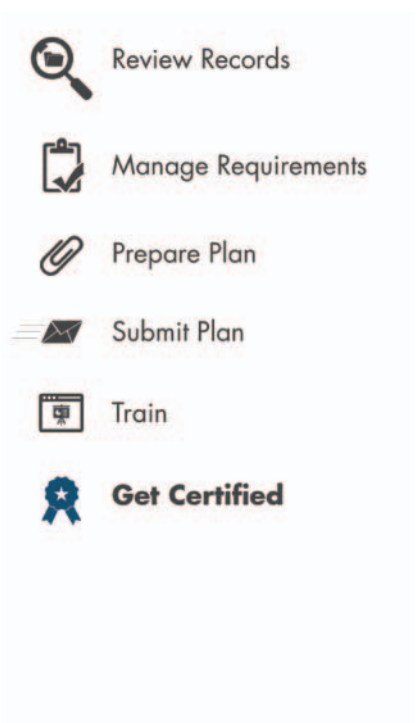
For more information about WMD, go to <http://asc.army.mil/web/workforce-management/>.

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# Six Steps to Certification:

## Your Path to Acquisition Success

*by Ms. Stephanie L. Watson*



If you are a civilian in the U.S. Army Acquisition Corps or Army Acquisition Workforce, it is essential to know your position's Defense Acquisition Workforce Improvement Act (DAWIA) certification requirements and to use the resources and automated tools provided to achieve that certification.

Knowing the process for meeting certification in your current position is paramount to a successful acquisition career. Once you verify with your supervisor that you are in a designated acquisition workforce position, find out what your acquisition position category is and at what level you should be certified. All acquisition positions require certification; critical acquisition positions and key leadership positions require Level III certification.

Achieving certification within the time permitted is an area of strong emphasis for Army Acquisition leadership, as witnessed by the steady increase in recent years in the percentage of workforce members who are certified. (See Figure 1.) There are six steps to follow to efficiently and effectively manage your acquisition career.

**STEP 1. Review your Acquisition Career Record Brief (ACRB).** The ACRB is your official acquisition record, and your responsibility to update and maintain accurately. You can access your ACRB via the Career Acquisition Management Portal, specifically through the Career Acquisition Personnel and Position Management Information System (CAPP MIS), the central repository for all acquisition workforce information.

**STEP 2. Manage position certification requirements.** These can be found in the Defense Acquisition University (DAU) Interactive Catalog at <http://icatalog.dau.mil/>. The career field category and level required for your position are in Section I of your ACRB.

**STEP 3. Prepare or update your Individual Development Plan (IDP).** The IDP allows you and your supervisor to track career objectives in the long and short term. It is available through CAPP MIS. If you are a new acquisition employee, your IDP will already include the training you must take to achieve your certification requirements.

**STEP 4. Submit your IDP to your supervisor for approval.** After identifying and verifying the training and education





objectives you wish to attain, submit your IDP electronically, through CAPP MIS, to your supervisor for review and approval. Your supervisor will receive email notification of your IDP updates and will log in to approve the request. After your supervisor has approved or denied your request, you will receive email notification. The entire process is user-friendly and fast.

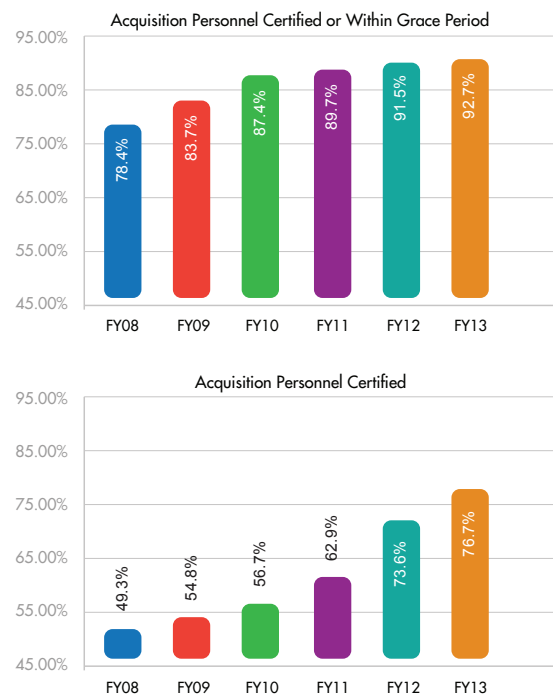
**STEP 5. Once your IDP is approved, apply for DAU training.** To apply for DAU courses, go to <https://www.atrrs.army.mil/channels/aitas/main.asp>. You cannot register for DAU courses unless they are approved on your IDP.

**STEP 6. Apply for certification through the Certification Management System (CMS):** Certification is not granted automatically. You must apply via CAPP MIS-CMS after completing the training and experience requirements. After the certifying official reviews your application, you will be notified by email of the approval or denial decision. If your application is denied, a justification will be provided with further instructions, if applicable.

Becoming certified in your position is mandatory. What you learn from training, education and experience affects the entire Army, most notably the warfighter. Before applying for multiple certifications, you should focus first on obtaining the highest level of certification in your career field.

Equally important to know are the ramifications of not getting certified. Once you are placed into an Acquisition Corps or workforce-coded position, you have 24 months to earn your certification. As stated in the Jan. 30, 2012, Director of Army Acquisition Career Management Memorandum #8 (online

FIGURE 1



## U.S. Army Acquisition Certification Trends

at [http://asc.army.mil/docs/policy/DACM\\_Memo\\_8-Enforcement\\_of\\_DAWIA\\_Certification\\_Compliance\\_Policy\\_with%20Policy.pdf](http://asc.army.mil/docs/policy/DACM_Memo_8-Enforcement_of_DAWIA_Certification_Compliance_Policy_with%20Policy.pdf)), those who fail to meet the statutory acquisition career field certification within the grace period are subject to various personnel actions, such as reassignment, reduction in grade or pay band, loss of consideration for promotion, or separation from federal service. Your command can request a waiver, using DD Form 2905, to give you extra time if mandatory classes are filled or you cannot make certain training schedules required for certification.

For a detailed six-step guide to acquisition career management, go to

<http://asc.army.mil/web/career-development/civilian/career-planning-steps/> on the U.S. Army Acquisition Support Center (USAASC) website.

*For additional information on acquisition career management, call the help desk at 575-678-2247, or submit a help ticket at <https://rda.altess.army.mil/camp/index.cfm?fuseaction=support.helpRequest>.*

*MS. STEPHANIE L. WATSON works at USAASC in the Workforce Management Division. She holds a B.S. in business management from George Mason University. Watson is Level II certified in program management.*

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# Standard-Bearers

Functional integrated product teams  
set criteria for success

*by Mr. Nelson McCouch III  
and Mr. Steve Stark*

**E**ver wonder where the standards for qualification as an acquisition professional come from? Why, for instance, does a Level I information technology expert, with a degree in software engineering, need training in “Fundamentals of Test and Evaluation”? Who says a Level III key lead program manager with 10-plus years’ experience needs “Joint Systems Integrated Support Strategies”?

Blame it all, or in part, on each career field’s functional integrated product team (FIPT), along with a concerted effort over the past 23 years to develop world-class, multifaceted acquisition experts supporting our warfighters.

Some quick background: Before the establishment of the 1990 Defense Acquisition Workforce Improvement Act (DAWIA), there was no acquisition workforce, technically. There were engineers, contracting personnel, scientists, logistics experts and others, but their qualifications were dictated by the Office of Personnel Management and their position descriptions. They were treated as individuals with individual skill sets, not as a cohesive group. Professional development was left up to individual initiative or the organization’s own policy.

That all changed when DAWIA came into existence, with a demand for professionalism and career development for the acquisition workforce. The law has been revised over the years





to reflect the evolving needs of DOD acquisition, but the core requirement that personnel in acquisition career fields be trained and certified has remained.

## DEFINING WORKFORCE NEEDS

DOD identifies acquisition workforce needs through a joint team of subject-matter experts from the services and the Office of the Secretary of Defense (OSD) and workforce career managers. The work of meeting those needs falls to the FIPT, led by a functional lead who is appointed by the undersecretary of defense for acquisition, technology and logistics (USD(AT&L)).

These experts are the functional leaders of the team, with overall responsibility to establish, oversee and maintain the career field position category descriptions; the education, training and experience requirements; and competency and certification standards. Functional team leads also make certain that Defense Acquisition University (DAU) training curriculum requirements reflect the needs identified by the services and the secretary of defense.

To this team, the Army provides both an acquisition functional leader and an acquisition career field (ACF) proponent officer. Each has a keen understanding of his or her own career field and the people in it, advocating for them by networking with the other services, understanding the issues, and actively communicating with the functional chief representative and the director, acquisition career management (DACM).

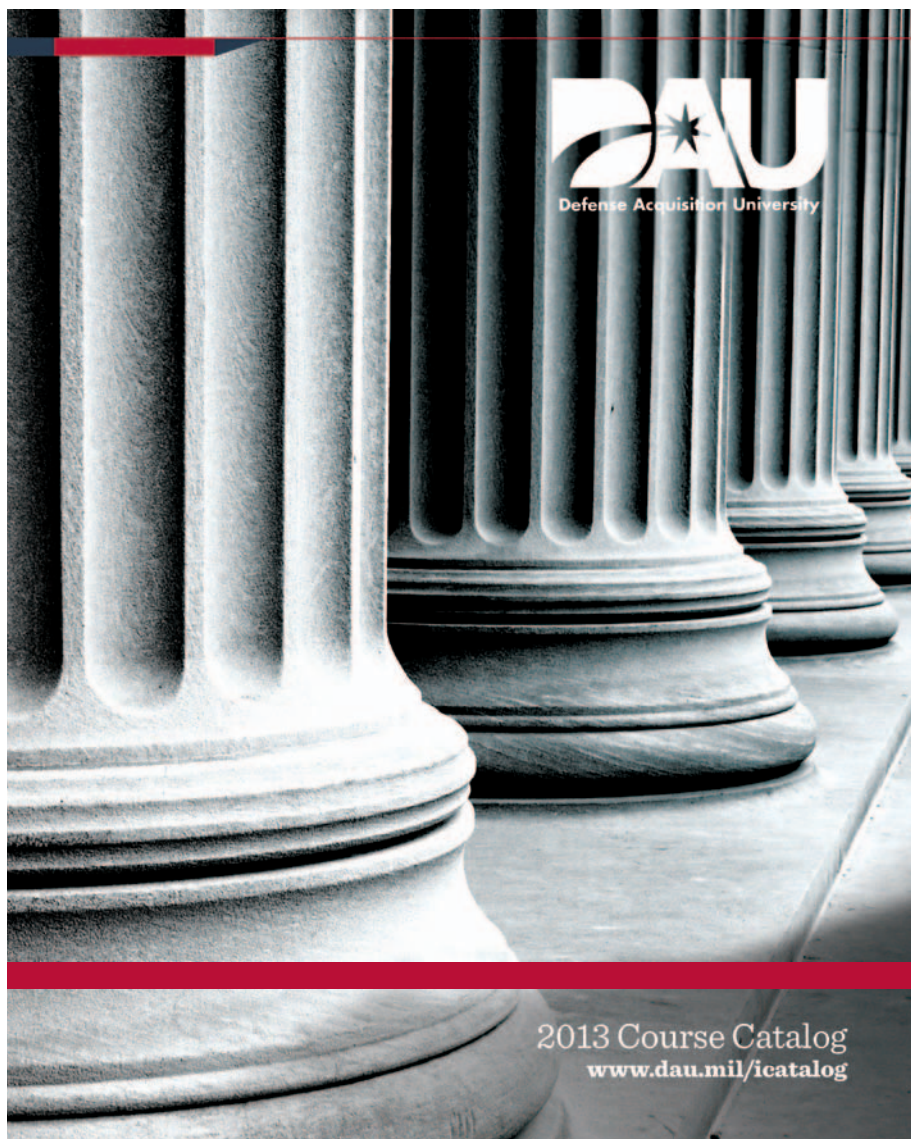
“Army acquisition functional representatives are senior subject-matter experts in that career area who attend the FIPT meetings,” said Diane Murtha, chief of the Policy and Proponent Branch

of the U.S. Army Acquisition Support Center (USAASC). “We rely on that senior subject-matter expert to reach out to other subject-matter experts across the Army, to gather information, [act] as a touch point, to assist in various initiatives, to validate recommendations.” Together, the Army acquisition functional leader

and the ACF proponent officer form a strong duo in advocating for workforce qualification standards.

## HOW THE FIPT WORKS

Generally, the FIPT meets quarterly to discuss any issues with respect to that career field and to review the “health” of

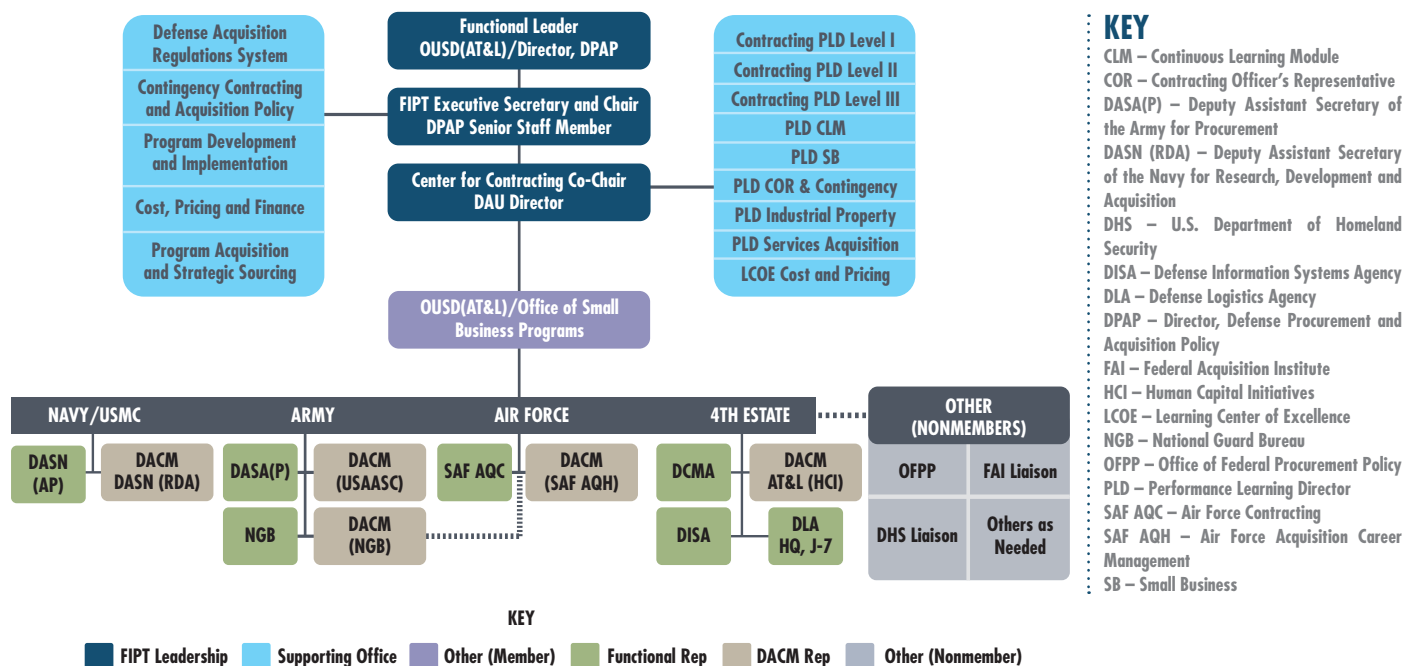


## KEEPING IT RELEVANT

FIPTs ensure that the courses DAU offers are appropriate to the career field. Team members play an important role in ensuring that the course content is correct, has value and is relevant to the workforce. (SOURCE: DAU)

## Contracting Functional IPT

Meets at least quarterly—advises Contracting Functional Leader on career field competencies, DAWIA certification and workforce training requirements.



### ANATOMY OF A FIPT

This chart shows the structure of the FIPT for the contracting career field.  
(SOURCE: USD(AT&L))

the field. In this case, health is measured as the percentage of workforce members who are appropriately certified in their positions or within the 24-month grace period. Increasing percentages of certified workforce members represent “a success story” for the Army, said Joyce Junior, the proponent officer for the program systems engineer, test and evaluation, and systems planning, research, development and engineering career fields.

The Army DACM, LTG William N. Phillips, takes DAWIA requirements very seriously, Junior said. “He is committed to promoting and ensuring 100 percent certification of the Army acquisition workforce.”

The Army acquisition workforce has made immense progress in overall certification rates. As of June, the certification and “within grace period” rate stood at 93 percent, compared with 78.4 percent in 2008. The surge, Junior continued, “is a direct reflection of devoted acquisition professionals and their supervisors committed to meeting DAWIA standards and supporting current and future Army needs.”

### CONCLUSION

A significant part of what the FIPT does is to ensure that the training and certification of the acquisition workforce deliver the skills needed to perform well in each acquisition career field. The FIPT’s goal is to provide the OSD functional leader with perspectives and

recommendations—to guide decision-making with respect to DOD’s human capital strategy, DAU curriculum content and requirements for continuous learning modules, and ACF development, career and workforce management, including recruiting and retention strategies.

FIPTs ensure that the courses DAU offers are appropriate to the career field, and they play an important role in seeing “that the course content is correct, has value and is relevant to the workforce,” Murtha said.

She added that occasionally FIPTs might recommend adding or deleting courses or modules in courses, but in doing so, one of their tasks is to consider the second- and third-order effects of such actions





### ACQUISITION AREAS OF EXPERTISE

The Army acquisition functional leader and ACF proponent officer use their in-depth knowledge of career fields to advocate for relevant workforce development. (SOURCE: DAU)



### BRINGING IT ALL TOGETHER

FIPs translate DAWIA requirements into effective workforce development programs that translate training, education and certification into professionals who are qualified in their career fields. (SOURCE: USAASC)

on the workforce. Such decisions take time. “Sometimes we really have to do a deep-dive analysis,” she said: “How many people take this course? What’s the failure rate? What’s the success rate? What types of people take this other course?”

“The FIPs are there to advocate for their career fields,” said Junior. “We’re here to ensure that each career field has a voice, and to make sure that everyone in that career field gets the right education, training and experience.”

*For more information on the ACF proponent mission, go to <http://lasc.army.mil/web/lacacquisition-career-development/>.*

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*MR. STEVE STARK provides contract support to USAASC for SAIC. He holds a B.A. in English from George Mason University and an M.A. in creative writing from Hollins University. Stark has worked in a variety of positions supporting communications for the U.S. Army and U.S. Navy, and has written about defense-related topics for more than a decade. He was the founding editor of the Program Executive Office Soldier Portfolio and edited the U.S. Army’s Weapon Systems handbook for six years.*

# MAXIMIZING Resources

USAASC adapts to constraints on  
available money and manpower

*by Ms. Margaret C. Roth*

**M**aking the most of limited resources, both funding and human capital, is Topic A nowadays for the Resource Management Division (RMD) and Human Resources Management Division (HRMD) of the U.S. Army Acquisition Support Center (USAASC).

Whether it's sequestration or the DOD-wide reductions in travel—except for students fulfilling acquisition education, training and experience requirements—the two divisions' personnel have spent much of FY13 determining how best to keep funding and hiring operations working smoothly for the more than 42,000 people who make up the Army Acquisition Workforce.

"The continued austere funding situation, coupled with the Army hiring freeze, has limited our ability to fill gaps in an already lean organization," said Sherry L. Taylor, outgoing chief of RMD. "As we have indicated in the recent Commander's Narrative

Assessment for Fiscal Years 2015-2019, now, more than ever, we must develop and implement innovative and creative solutions and understand the risks of not meeting the desired end state. We must do business in a fundamentally different way, finding ways to eliminate redundancies and inefficiencies to optimize resources as force structure is reduced."

Accomplishing their missions requires the two divisions to maintain close and continuous collaboration with Army leadership at all echelons, from the Pentagon to the program executive offices (PEOs) and program management offices (PMOs). In that respect, too, the divisions are looking for ways to be more efficient and effective.

For example, whereas traveling to the PEOs used to be considered essential to managing manpower needs, video teleconferences (VTCs) are now more the norm. "At times of financial constraints such as we're in, we've had to come up with some other



RMD is responsible for training all the PEOs in GFEBS. Army commands are to eliminate legacy contract unliquidated balances and begin migrating to GFEBS in January 2014. (Image courtesy of PEO Enterprise Information Systems)





(SOURCE: Photos.com)

way to try to maintain those relationships,” said Larry Israel, chief of HRMD.

### RESOURCE MANAGEMENT

The overarching vision of RMD is the effective and proactive management of resources—dollars, manpower and time. Its mission is to support the assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)) and the acquisition community.

RMD provides budget guidelines, allocates funding and oversees the execution of obligation plans for the PEOs and USAASC, totaling between \$5 and \$7 billion. The division also supports budget-related Program Objective Memorandum matters within the Army’s PEO structure. RMD administers and reviews

Headquarters, USAASC financial management activities totaling between \$85 and \$160 million.

On a day-to-day basis, lately RMD has been addressing quick-turnaround inquiries on the impacts of sequestration and issues relating to PEOs’ Operations and Maintenance, Army (OMA) and Overseas Contingency Operations (OCO) funding accounts.

RMD is responsible for reconciling funds and managing accounting ledgers; conducting weekly budget reviews with the PEOs on OMA and OCO funding execution; preparing travel orders for Army students to attend courses at the Defense Acquisition University; and ensuring the proper

management of funds to support the Defense Travel System.

Asked how collaboration could improve to support RMD’s mission, Taylor said that PEOs and PMOs “have the ability to take ownership of funding efforts from cradle to grave,” that is, even after funds are obligated. “The PEOs/PMs should continue their efforts with the expense and eventual liquidation of contracting efforts,” she said.

The Army’s transition to the General Fund Enterprise Business System (GFEBS) has been another major undertaking for RMD, which is responsible for training all the PEOs in GFEBS. The assistant secretary of the Army for financial management and comptroller (ASA(FM&C))

regularly conducts audit readiness testing, which requires that RMD distribute testing samples to the appropriate PEOs and follow up to ensure that the data are uploaded as required. Army commands are to eliminate legacy contract unliquidated balances and begin migrating to GFEBS in January 2014.

## HUMAN RESOURCES MANAGEMENT

The two primary mission responsibilities of HRMD are to perform major Army command functions related to civilian and military personnel management; and to support USAASC and the U.S. Army Human Resources Command (HRC) Acquisition Management Branch (AMB) in military and civilian acquisition career management, career development, acquisition organization structure and Defense Acquisition Workforce Improvement Act (DAWIA) implementation.

The Civilian HR Branch of HRMD provides HR support for more than 5,000 Army civilian employees in both acquisition and non-acquisition career fields within USAASC, a direct reporting unit (DRU). It provides policy guidance and expertise on subjects

as varied as recruitment, staffing and classification; performance management; honorary awards and recognitions; labor-management relations issues; voluntary early retirement and voluntary separation incentives; telework; the Senior Enterprise Talent Management program; and, of course, the furlough of DA civilians.

HRMD's Military HR Branch supports the more than 500 U.S. Army Acquisition Corps (AAC) members within the DRU, working to ensure that the right officer, with the right skills, is assigned to the right position to support the Army's acquisition projects and programs. To accomplish this, the branch coordinates directly with the PEO organizations and HRC, Fort Knox, KY, to provide assignment instructions for more than 200 AAC officers annually. It also takes the lead in informing officers of their selection to centrally selected list (CSL) positions.

HRMD is also heavily involved in helping CSL PMs to obtain suitable positions after their PM tours (typically three years) are complete, and in helping the assistant secretary of the Army for manpower and reserve affairs to obtain suitable positions for senior service college graduates.

The CSL, a selection process dating back 20 years, is where USAASC's Force Structure and Manpower Division (FSMD) and HRMD intersect. FSMD primarily manages the "spaces," whereas HRMD manages the "faces." The program has grown from 40-50 spaces in the beginning to more than 150 now, with the growth in the number of Army acquisition programs and their complexity, Israel said.

On the civilian side as well as with military personnel, HRMD wants to ensure that it is fully informed of what both

employers and employees need. With that in mind, Garet McKimmie, chief of the Civilian HR Branch, urged organizations to "give us the whole story"—not just what the job requirements are.

"Tell us what you want to do when you are requesting assistance with a personnel action," McKimmie said. "For example, if you want to put someone on a new PRD [position requirements document] and move them to a different part of the organization, give us all the information upfront. We need to know what you are trying to accomplish."

The Army's hiring freeze has created a new responsibility for HRMD, Israel added: managing requests for hiring exceptions. With the decision to furlough civilian employees, it is difficult to justify exceptions to the freeze. "All the commands have to be extremely careful when we hire people," Israel said. "We want to hire only the positions we really need to hire at this particular time."

An important exemption to the hiring freeze is for post-utilization positions, the jobs that follow PM assignments. The rationale for the exemption is that the best candidates for PM jobs will be more likely to accept the three-year assignment if they know they will be able to continue to grow in their careers afterward. "Anybody can pick them up, and that has proved very beneficial. We have PEOs competing with one another" to hire former PMs, Israel said.

Working hand-in-glove with PEOs and the many others throughout ASA(ALT) and HRC who have a stake in HR, on routine as well as pressing issues such as the hiring freeze and furlough, is now done more virtually than in person, Israel said. Budget constraints have greatly reduced USAASC's ability to build professional

**"THE CONTINUED AUSTERE FUNDING SITUATION, COUPLED WITH THE ARMY HIRING FREEZE, HAS LIMITED OUR ABILITY TO FILL GAPS IN AN ALREADY LEAN ORGANIZATION."**





#### AREA OF EXPERTISE

Whereas HRMD used to meet in person on a regular basis with the PEOs and HRC, the division now saves money by conducting business via VTC and telecon. Here, MSG Barrett Taylor, left, U.S. Army Contracting Command (ACC), prepares for a VTC of the ACC Noncommissioned Officer of the Year board. The same budget constraints that affect HRMD have led ACC to conduct the formal board virtually from ACC headquarters at Redstone Arsenal, AL. (U.S. Army photo by Edward G. Worley)

relationships in person, even within the Baltimore-Washington area, he noted.

Until a couple of years ago, HRMD civilian and military personnel managers made it a point to visit every PEO on a regular basis, as well as to conduct annual conferences, usually three days long, which both military and civilian PEO HR representatives attended. There are no more HRMD staff visits to the PEOs, nor annual conferences. Instead, “the telecon business and the VTC business are increasing,” Israel said.

Now, “We meet with HRC AMB on a monthly basis via VTC. What we are

looking at is the ability to maintain that closeness, so that when a problem arises, a unique problem, they know us so well that they call us. We’ve been able to eliminate a lot of problems before they became problems,” Israel said.

For example, the Military HR Branch recently hosted a VTC on the Army regionalization program for captains and majors, said Michael Beans, branch chief.

However, the topic “needs to be something major to derive maximum benefit,” he said. Also, organizations need to combine efforts where possible. “You

can’t have everybody doing it, because then you hit our customers with five different VTCs,” Beans said.

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# Focused *on the* FUTURE

The Army Acquisition Center of Excellence  
has more than training in mind

*by Mr. Steve Stark*

Since its inception in January 2011, the Army Acquisition Center of Excellence (AACoE) has offered courses in conjunction with the Army Logistics University, Fort Lee, VA, and the U.S. Army Training and Doctrine Command (TRADOC). At the same time, leadership has come from the U.S. Army Acquisition Support Center (USAASC), because of the nature of the training AACoE provides. That arrangement has worked, but it has not been flexible enough to keep up with the demands DOD has placed on AACoE, according to AACoE Director Kevin Zurmuehlen.

That is about to change.

“TRADOC serves as the gatekeeper for all Army training programs and requirements and executes a very deliberate training management decision process” that often takes more time than what DOD allows for AACoE to implement new curriculum and required schedule changes, Zurmuehlen said. As a consequence, as of the Oct. 1, 2013, beginning of FY14, AACoE will be an independent schoolhouse, thanks to an agreement with TRADOC. With that independence will come the kind of agility and responsiveness that the center needs to fulfill its current and future roles in the complex world of acquisition, logistics, technology and contracting.

## **BUILDING LONG-TERM RELATIONSHIPS**

AACoE, in Huntsville, AL, is the first stop for any officer or NCO who has been selected to be part of the Army Acquisition Workforce. For eight weeks, officers and NCOs are immersed in the world of acquisition on the campus of the University of Alabama in Huntsville. Zurmuehlen sees those who come through the center as the future leaders of the acquisition workforce.

He emphasized, however, that the center isn’t just a place for training required under the Defense Acquisition Workforce Improvement Act (DAWIA), “but a place that they can come back to throughout their careers, not only for training but for research, for consultation. Our staff and faculty field calls daily from former students. They’ll get into a situation where they don’t know where to turn next,” he said, and the center provides a “ready resource of experienced personnel who can at least point them in the right direction and do some of the legwork and research” on some of the more difficult questions acquisition personnel face. As the center becomes an independent schoolhouse, Zurmuehlen anticipates that it will expand its role as a hub of information for the acquisition workforce.

“Acquisition,” he said, “is a very fluid, dynamic and complex environment, and if we can be of assistance at all in helping somebody





### BUILDING FUTURE LEADERS

The Hon. Heidi Shyu, assistant secretary of the Army for acquisition, logistics and technology, speaks April 3 to students at the AACoE in Huntsville. (Photo by Skip Vaughn, the Redstone Rocket)

navigate through those waters—especially when they’re in the first couple of years of their acquisition career and just getting their feet on the ground—then that’s what we want to be for them in the future: a place they can reach back to for information and possible assistance in the future.”

### A CONVERGENCE OF EXPERTISE

Huntsville has become a major defense contracting hub, Zurmuehlen noted. It is home to Redstone Arsenal and numerous major defense companies that do business at Redstone. “We’ve got Lockheed

right across the street. We’ve got Boeing with a significant presence right down the road,” plus many more.

The center hosts “an incredible amount of Army acquisition experience in program management and contracting,” Zurmuehlen said. Add to that the alliance between AACoE and the University of Alabama, and military, industry and academia converge to provide significant expertise that the workforce can rely on. Becoming an independent schoolhouse is the first step to helping AACoE make training more responsive to the evolving issues that the workforce is facing.

“Everything we come up against is covered in DAWIA,” Zurmuehlen said. “It’s just not always too in-depth. So if we can take existing curricula and actually show students real-world examples next to [classroom training] during our instruction, issues that they’re going to see as soon as they leave the schoolhouse and get to their first job, then we’re providing a better educative experience.”

For example, he said, “One of the things we teach here is how to write a performance work statement [PWS]—not only for weapon system development, but for your normal, everyday service contract.”



### HANDS-ON PROBLEM-SOLVING

AACoE students, from left, MAJ David Spanton, CPT Brian Ramirez, MAJ Anthony Passero and CPT Gregory Holden apply what they learned about developing an acquisition strategy in the Army Acquisition Foundation Course in May. (Photo by Michele Custer, AACoE)

If a former student is looking for the best way to write a PWS for a particular type of good or service, he or she can reach back to the center. “We may not be able to give them the specific language they’re looking for, but we can at least point them in the right direction to somebody who’s maybe accomplished a similar effort recently.”

That kind of utility also directly addresses Better Buying Power 2.0, Zurmuehlen notes: “We try to get into greater applicability, not just talk about better buying power as a concept, but how does better buying power translate into

application? That’s what we’re trying to teach in the classroom, that’s what we’re trying to find out from our contemporaries in the acquisition workforce, and having the students come through here and establishing a relationship with them as they’re beginning their acquisition careers really helps us with that.”

### A VIRTUOUS CIRCLE

The student coming through the AACoE becomes both a consumer and a provider of information for the center. The same is true of the center itself, as it keeps tabs on issues surfacing with the program

executive offices (PEOs) and program management offices. The AACoE’s job, when a PEO floats an idea with industry, is to “be aware of the idea that’s being floated, then stay in touch with our PEOs to understand what their trends are, what their concerns are, and what they’re asking of their industry partners,” Zurmuehlen said. That knowledge, he said, can then be translated back into the classroom to make students aware of the issues that they are likely to see when they leave the school.

“We’re watching that interaction,” he said. As AACoE becomes an independent





#### ON THEIR WAY

In the Army Basic Contracting Course, instructor Tyson Bell lays the groundwork for an acquisition education drawing on military, industry and academic expertise for AACoE students, from left, SGT Kevin Lommer, CPT Mike Alabre, MAJ Charlie Mack, CPT Jonathan Kennedy and SSG Jon Anderson. (Photo by Michele Custer, AACoE)

entity and a hub for information flow, the center is working to develop a circle of interaction encompassing the PEOs, the university, current and former students, and the acquisition workforce at large.

Students “go out to their jobs, and they know the latest and greatest trends, the latest and greatest issues that are happening within the workforce, within our programs, within our contracting environment. And when they call back and ask us a question, not only can we help answer their question and point them in the right direction, but we

can glean information from them as well, and try to be a place where we can not only point them to the right people but—because of that garnering of information—put together our own trend analysis.

“We haven’t gone too in-depth with that, [but] that’s really a future capability that I would like to see.”

*For more information on the resources available from the AACoE, contact MAJ Jon Spurlock at [jonathan.spurlock@us.army.mil](mailto:jonathan.spurlock@us.army.mil) or 256-824-4443; or AACoE Deputy Director Craig Gardunia*

*at 256-824-4394 or [craig.gardunia@us.army.mil](mailto:craig.gardunia@us.army.mil).*

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*MR. STEVE STARK provides contract support to the USAASC for SAIC. He holds a B.A. in English from George Mason University and an M.A. in creative writing from Hollins University. Stark has worked in a variety of positions supporting communications for the U.S. Army and U.S. Navy, and has written about defense-related topics for more than a decade. He was the founding editor of the Program Executive Office Soldier Portfolio and edited the U.S. Army’s Weapon Systems handbook for six years.*



## ON THE MOVE

### SHYU TAPS NEW DASA FOR PROCUREMENT

The **Hon. Heidi Shyu**, assistant secretary of the Army for acquisition, logistics and technology (ASA(ALT)), announced the selection of **Harry P. Hallock** to be deputy assistant secretary of the Army for procurement (DASA(P)), effective July 15.

“Mr. Harry Hallock has more than 20 years of acquisition, logistics and contracting experience, most of which has been in direct support of our warfighters. His leadership and contracting expertise will make him an invaluable asset to our team,” said Shyu in an announcement June 14.

Hallock leaves his position as the executive director of the U.S. Army Contracting Command – Warren (MI) after six years at the helm. “I am deeply honored to have been considered for this critical position in our Army. At the same time, it is with a heavy heart that I depart ACC-Warren and the TACOM Life Cycle Management Command,” he said.

“I’m very proud that Harry has been selected for this very important position,” said **MG Camille M. Nichols**, ACC commanding general (CG). “Harry is



### A NEW DASA(P)

Harry P. Hallock was appointed DASA(P) by the Hon. Heidi Shyu, who cited his “more than 20 years of acquisition, logistics and contracting experience, most of which has been in direct support of our warfighters.” (U.S. Army photo)

an innovative leader who cares deeply about his people and has done much to advance the Army acquisition career field. As one of the founding leaders of ACC, he has helped shape and establish our command as the DOD’s preeminent provider of decisive-edge contracting solutions and practices.”

Hallock, who assumes his post on July 15, began his career in Army contracting as a 22-year-old intern at the Detroit Arsenal and rose to the ranks of the Senior Executive Service (SES), joining it in 2007. He holds a bachelor’s degree from the University of Delaware and a master’s from the Naval Postgraduate School, Monterey, CA. He is Level III certified in contracting, program management and logistics.

Hallock continues to serve as the U.S. Army Acquisition Support Center’s acquisition career management advocate for contracting for the Acquisition and Technology Workforce in Warren and the entire North Central region. He is also the acquisition career manager for the entire contracting and acquisition career program workforce within the center, and is responsible for training and developing all career field employees.

He has received the Department of the Army Achievement Medal for Civilian Service, the Department of the Army Commander’s Award for Public Service and the Meritorious Civilian Service Award.



## CATALDO IS NEW DASA FOR DEFENSE EXPORTS AND COOPERATION

**Ann Cataldo** assumed the role of DASA for Defense Exports and Cooperation (DE&C) in April. Cataldo formerly was managing director, planning, performance and systems (PPS) in the U.S. Department of State's Office of Foreign Assistance Resources.

In her role at PPS, she led the implementation of key Quadrennial Diplomacy and Development Review initiatives: the development and implementation of multiyear joint State Department and U.S. Agency for International Development strategic planning, budgeting, monitoring and evaluation of foreign assistance programs; the management of the Foreign Assistance Coordination and Tracking System; and the development and implementation of foreignassistance.gov, the U.S. government's official public portal for foreign assistance spending.

Previously she was the principal director of business operations in the Defense Security Cooperation Agency (DSCA). She assumed this position in May 2007, when she joined the ranks of the SES.

In May, Cataldo urged the audience at the 2013 Security Cooperation Workshop, hosted by the Office of the DASA (DE&C), to view the current strategic budgetary challenges as an opportunity to develop new ways of thinking about security cooperation (SC). As the U.S. military's overseas posture changes and fewer troops are permanently stationed abroad, SC engagements and the relationships they sustain will be increasingly important, she noted.

Cataldo also told the audience at the Arlington, VA, workshop about several

DASA (DE&C) initiatives undertaken to ensure that SC activities are targeted and effective, such as the Materiel Enterprise International Engagement Strategy, designed to help tailor security assistance efforts to meet partner nations' capability requirements while providing support to Army acquisition programs and the U.S. defense industrial base.

Cataldo began her career with the federal government as an Army officer in the Judge Advocate General (JAG) Corps. She was the first female JAG assigned to the Demilitarized Zone, 3rd Brigade, 2nd Infantry Division and Camp Howze, Korea. In addition, she served in Panama, Honduras, at the U.S. Army Command and General Staff College and as DSCA deputy general counsel.

She holds a bachelor's degree in English from Siena College; a master's degree in modern European history and a J.D. from Catholic University; and a master of law in military law from the Judge Advocate General's School.

## PEO C3T WELCOMES NEW DEPUTY

**Mary Woods** became the new Deputy Program Executive Officer Command, Control and Communications – Tactical (DPEO C3T) on May 5.

Woods has served in multiple positions within the Army acquisition community since 1985 and with PEO C3T since 2005. Before her selection to be the DPEO, she was chief of staff and, prior to that, director of operations and business management. In that position, she institutionalized the unit set fielding process across the PEO.

Woods holds a B.A. in political science and a master of public administration



## A NEW DEPUTY PEO

Mary Woods is the new DPEO C3T. Woods has worked in the Army acquisition community since the mid-1980s and has been the PEO C3T chief of staff since 2010. (U.S. Army photo)

from the University of South Florida and an M.B.A. from Georgetown University. She is Level III certified in program management and in information technology. Woods is a recipient of the Decoration for Exceptional Civilian Service and the Meritorious Civilian Service Award.

## NEW AMCOM DEPUTY RECEIVES AWARD

**Mary "Cathy" Dickens**, deputy to the CG, U.S. Army Aviation and Missile Life Cycle Management Command (AMCOM), received the Exceptional Civilian Service Award in a ceremony May 13 at Redstone Arsenal, AL, a week after assuming her new responsibilities.

"When E.F. Hutton talks, people listen; when Cathy talks, people listen," said **Michael Hutchison**, deputy to the CG of the U.S. Army Contracting Command (ACC), who presided over the ceremony. "They listen to Cathy because she is a true leader, self-assured and confident. She truly cares about the workforce and recognizes the importance of balancing work and home."



### EXCEPTIONAL SERVICE

Deputy to the CG, AMCOM Mary “Cathy” Dickens receives the Exceptional Civilian Service Award from Michael Hutchison, deputy to the ACC CG, on May 13 at Redstone Arsenal, AL. (Photo by Lauren Smith, AMCOM)

Dickens previously was the executive director of ACC-Redstone and was nominated for the award by **MG Camille M. Nichols**, ACC CG. Hutchison credited Dickens for overseeing the realignment of contracting duties under ACC-Redstone and ACC, increasing the ACC-Redstone talent pool and increasing training for its acquisition employees, while managing 900 acquisition personnel, \$25 billion in contract awards in 2012 and \$110 billion in active contracts.

“This award belongs to ACC-Redstone for providing the best global contracting support within DOD,” Dickens said. “At ACC-Redstone, I’ve been blessed to work with a group of people who are truly patriots and will do whatever it takes to complete the mission.” At the ceremony, Dickens also received the Order of St. Michael from the Army Aviation Association of America (AAAA).

### GENERAL OFFICER ANNOUNCEMENTS

Chief of Staff of the Army GEN Raymond T. Odierno announced the following officer assignments:

**LTG William T. Grisoli**, for reappointment to the rank of lieutenant general and assignment as director of the Army Staff, Office of the Chief of Staff, U.S. Army, Washington, DC. He is currently serving as director, Office of Business Transformation in the Office of the Undersecretary of the Army.

**MG Alan R. Lynn**, CG, U.S. Army Network Enterprise Technology Command, Fort Huachuca, AZ, to vice director, Defense Information Systems Agency, Fort Meade, MD.

**BG(P) Jonathan A. Maddux**, deputy CG (DCG), support, Combined Security Transition Command – Afghanistan, Operation Enduring Freedom (OEF), to assistant military deputy to the ASA(ALT) Washington, DC.

**MG Michael E. Williamson**, assistant military deputy to the ASA(ALT), Washington, DC, to DCG, support, Combined Security Transition Command – Afghanistan, OEF.

### ASSOCIATION HONORS CECOM CG FOR INSTALLATION LEADERSHIP

**MG Robert S. Ferrell**, commanding general of the U.S. Army Communications-Electronics Command (CECOM) and senior commander of Aberdeen Proving Ground (APG), MD, received the Military Leader of the Year award from the Association of Defense Communities during a ceremony June 13 in Washington, DC.

Ferrell was one of 10 people nationwide who received awards from the association, a national membership organization representing 200 communities, states and regions with a significant military presence. “This award recognizes an individual from the military

whose outstanding leadership has been essential in building and sustaining partnerships with defense communities,” said **Tim Ford**, association CEO.

**David Craig**, county executive of Harford County, MD, next to APG, nominated Ferrell. “He has led a number of initiatives to foster and continue to build the relationships between the installation and the local communities,” said Craig, who noted Ferrell’s emphasis on science, technology, engineering and math education.

Ferrell also directed the first installationwide advance planning briefing for industry, a three-day event outlining business opportunities available in each of the installation’s five program areas.

“I am incredibly humbled to receive this award,” Ferrell said. “It really reflects the hard work and support of our APG team members and the many dedicated community leaders who, working together, make APG such a special place to live and to serve.”



### DISTINGUISHED LEADER

APG Senior Commander MG Robert S. Ferrell, with his wife, Monique Ferrell, expresses his appreciation to the Association of Defense Communities after accepting the organization’s Military Leadership Award during a breakfast June 13 in Washington, DC. (Photo courtesy of CECOM)





## SENIOR EXECUTIVE SERVICE ASSIGNMENTS

The secretary of the Army approved the SES appointment of **Jeffrey L. Langhout** to the position of director for aviation engineering, U.S. Army Aviation and Missile Research, Development and Engineering Center, U.S. Army Research, Development and Engineering Command, Redstone Arsenal, AL, effective April 13.

**Kathy A. Krewer**, chief counsel, U.S. Army TACOM Life Cycle Management Command, Warren, MI, was reassigned to the position of deputy command counsel, Headquarters, U.S. Army Materiel Command, Redstone Arsenal, effective June 2.

## NEW PROGRAM MANAGERS

At **PEO Combat Support and Combat Service Support**, Warren, MI, **LTC Chris Ford** took over from **LTC Eric Rannow** as the Product Manager (PM) Sets, Kits, Outfits and Tools (SKOT) on June 12. PM SKOT falls under the Project Manager Force Projection.

Within **PEO Missiles and Space**, Redstone Arsenal, AL, **LTC Robert J. Thomas** relinquished the charter of PM Radars to **LTC Teresa A. Starks**, April 23 at APG in a ceremony officiated by COL Terrence L. Howard, Project Manager Cruise Missile Defense Systems.

At **PEO Aviation**, Redstone Arsenal, **COL Rob Barrie** assumed responsibilities as the Project Manager Cargo Helicopters from **COL Bob Marion** on May 16. Program Executive Officer Aviation **MG William "Tim" Crosby** presided over the event.

Crosby praised Marion for the project management office's achievements during his tenure, including the recent successful negotiation of the CH-47F



MG William "Tim" Crosby, center, PEO Aviation, passes the colors to COL Rob Barrie, signifying Barrie's assumption of leadership as the new Project Manager Cargo Helicopters. Outgoing project manager COL Bob Marion, right, has assumed a new leadership role at the Pentagon in the Office of the ASA(ALT). (Photo by Sofia Bledsoe, PEO Aviation Public Affairs)

Chinook multiyear II contract that is saving American taxpayers \$810 million.

Marion noted the enormous challenges that program managers sometimes must overcome to execute a program successfully. "I've never forgotten when General Crosby said, 'Sometimes we succeed because we execute the processes and we understand them. And sometimes we succeed in spite of the process.'"

During the ceremony, Marion received the Legion of Merit and AAAA's Order of St. Michael Silver award.

Barrie, whose new responsibilities reunite him with his family in Huntsville, told them, "I have noticed every day there was something missing in my life, and that is you guys." Barrie previously served as the executive officer to the principal military deputy to the ASA(ALT) at the Pentagon.

## NEW MEDCOM ACMA

**Dawn L. Rosarius**, deputy principal assistant for acquisition with the U.S. Army Medical Research and Materiel

Command (USAMRMC), Fort Detrick, MD, received her official charter as the new acquisition career management advocate (ACMA) for the U.S. Army Medical Command (MEDCOM) May 1. Having joined USAMRMC in 1993 in a contractor support role, Rosarius became a civilian staff member in 1998 when she began work for the U.S. Army Medical Materiel Agency.

As the sole ACMA for the MEDCOM, Rosarius has quite a task ahead of her. "My role as the ACMA is to ensure that the MEDCOM personnel receive their certification within their two-year period, and then sustain that certification with CLPs [Continuous Learning Points]," she said.

"Actually, I think this could be a full-time job initially, because there are many things we must do at this point to make sure everyone is current in their certifications," she said. "I would say that about 10 percent of my daily work will involve the ACMA function."



# SPOTLIGHT

## MR. SOLINA MAO

*by Mr. Robert E. Coultas*

**F**or Solina Mao, the most rewarding part of deploying as a DA civilian was seeing what his colleagues in Afghanistan needed and helping his colleagues in the States help them.

“I get gratification knowing that what I do is helping people in country ... seeing what issues they have and then bringing [the issues] back home to hopefully address them,” said Mao, who deployed to Afghanistan from December 2012 to June 2013 as the Southwest Asia liaison officer (LNO) for Product Director Automated Movement and Identification Solutions (PD AMIS), part of Program Executive Office Enterprise Information Systems (PEO EIS). Mao is a Radio Frequency In-Transit Visibility (RF-ITV) system analyst for PD AMIS.

As the LNO, Mao ensured RF-ITV support in Southwest Asia’s most austere environments. He made certain that experimental power sources, such as solar, remained operational in remote sites and forward operating bases (FOBs). In addition, Mao was responsible for coordinating transportation and protection for field service engineers as they traveled to interrogator sites throughout the country so that they could conduct routine and emergency services to ensure that RF-ITV was not degraded or lost.

“I check 117 RFID [radio frequency identification] sites to make sure all of the RF-ITV systems are up and running,” said Mao while still in country. “I also make sure we have our personnel accounted for, including AMIS contractors.”

RF-ITV is a system that provides RFID technology support to military commanders, logisticians and coalition partners, letting them track their shipments. The system uses active RFID technology to track materiel in the DOD logistics pipeline. By placing active RFID tags (powered transponders) on the materiel, shipments can be tracked at any time during deployment, ensuring that they arrive at the correct destinations.

### WORKING HIS WAY UP

Mao started his affiliation with the military when he joined the U.S. Army Reserve in 2001 as a multimedia illustrator (Military Occupational Specialty 25M). He deployed twice in support of Operation Iraqi Freedom—first in 2004, with a quartermaster unit, to FOB Speicher, and again in 2007, with a psychological operations unit in Baghdad. “We used to [print] a lot of pamphlets to send out to the Iraqis, and multimedia-type stuff to send out to the units with news. We shipped them through the central receiving and shipping point that would place RFID tags on the packages. That



**LOOKING UP**

Solina Mao, right, and Nicholas Kozoroz, a field service engineer supporting PD AMIS, install an RF-ITV interrogator in Afghanistan in May. The interrogator is a transmitter/receiver that reads the contents of active RFID tags in the vicinity. (Photo by Danilo Bartolome, PD AMIS)





#### KEEPING TRACK

RF-ITV is a system that uses active RFID technology to allow military commanders, logisticians and coalition partners track materiel in the DOD logistics pipeline. Here, Solina Mao, left, and Danilo Bartolome, a field service engineer supporting PD AMIS, meet with Soldiers of the 1st Sustainment Brigade "Durable," 1st Infantry Division, in Bagram, Afghanistan, in April. (Photo by Nicholas Kozoroz, PD AMIS)

was my first exposure to identification technology," he said.

In 2009, after serving eight years in the Reserve, Mao went to a job fair at George Mason University in Fairfax, VA, where he visited a booth staffed by PEO EIS' Product Manager Joint-Automatic Identification Technology (PM J-AIT), now PD AMIS. "I spoke with the deputy PM about the program and J-AIT technology and found it very interesting. I applied for a PEO EIS internship, and they accepted me."

Since starting as an intern in May 2009, Mao has assisted with moving the server site to PD Acquisition, Logistics and Technology Enterprise Systems and Services; procured and renewed RF-ITV

hardware software; served as strategic management system administrator for J-AIT; and currently is the RF-ITV configuration manager. When the opportunity arose to deploy, Mao volunteered. "I wanted to assist the program in another way. I knew the program needed someone, and I wanted to experience Afghanistan and see how it was different from my previous deployments to Iraq."

During his deployment in his new position, Mao said his traveling from site to site gave him insight on how operations really work. "You meet a lot of different people, and you get to travel to see different parts of the country. You talk to people [personnel] and see the different issues they may have as they are

trying to do their jobs. You get to see how the system works in an operating environment. It gives you an idea of how the system is actually being utilized by the warfighter."

Based on time constraints, logistics and available equipment, Mao had to make many on-the-spot troubleshooting decisions during his site visits, and received kudos from PEO EIS for making wise choices. For example, he said, "Assessing the situation, I would sometimes decide to wait to make repairs until there was sufficient time to do the job right."

#### A DEEP-SEATED INSPIRATION

Besides wanting the mission to succeed, Mao has a lifelong motivation: his family.





### QUALITY ASSURANCE

Solina Mao and Nicholas Kozoroz perform a quarterly quality assurance inspection of RF-ITV equipment in Afghanistan in May. (Photo by Danilo Bartolome, PD AMIS)



### SNOW DAY

In Afghanistan, Solina Mao was responsible for visiting RFID sites to make sure all of the RF-ITV systems were operational. Here, a Soldier installs a camera at a site during a visit by Mao and Bartolome in March to inspect an RFID interrogator installed by the AMIS team. (Photo by Nicholas Kozoroz, PD AMIS)

Mao was born in 1983 to Cambodian parents in a refugee camp in Thailand. He came to the United States when he was 2 years old, settling with his parents in Northern Virginia.

“They were refugees from Cambodia having nothing, and just coming to the U.S. and slowly building their life back up. They always talked ‘education, education, education.’ And you know, I have seen as I was growing up how much they had to struggle with not having that education. And so, family is my number one motivation.”

Mao finished his M.A. in information technology from George Washington University one week before he deployed in 2012.

Now redeployed back to Virginia, Mao recommends that anyone who is newly deployed should get to know as many people as possible in order to see what they do and how they do it. “Because you may find yourself needing help with an issue and you may not know the subtleties, but they may know because they have been in country for a while. So the more people you know, the better it is,” he said.

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*MR. ROBERT E. COULTAS is the Army AL&T magazine departments editor and an Access AL&T News Service editor. He is a retired Army broadcaster with more than 40 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.*

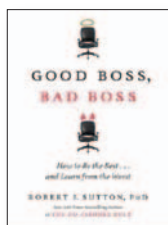


## OFF THE SHELF

### RECOMMENDED READING LIST

Army leaders have always encouraged their Soldiers to read. Even—and especially—in this age of information overload, the pursuit of knowledge through books is essential to develop a fuller understanding of acquisition, logistics and technology. In the words of Chief of Staff of the Army GEN Raymond T. Odierno, “We can never spend too much time reading and

thinking about the Army profession and its interaction with the world at large. ... There is simply no better way to prepare for the future than a disciplined, focused commitment to a personal course of reading, study, thought, and reflection.” On that note, we publish “Off the Shelf” as a regular feature to bring you recommended reading from Army AL&T professionals.



#### **GOOD BOSS, BAD BOSS: HOW TO BE THE BEST ... AND LEARN FROM THE WORST**

by Robert I. Sutton

(New York, NY: Business Plus, 2012, 352 pages)

No one sets out to be a bad boss, yet everyone has at least one horror story about a terrible boss they had at one time. So what makes a good boss, and how can you become one? How can you learn from the mistakes the worst bosses make without making them yourself? Bad bosses inspire funny stories; good bosses have the power to inspire great work, pride and commitment.

Sutton, a professor of management science and engineering at Stanford University and a student of innovation, leadership and civilized workplaces, reveals that good bosses know that their success depends on self-awareness, accurate interpretation of the effects they have on others, and the ability to make adjustments on the fly that spark effort, dignity and pride among their people.

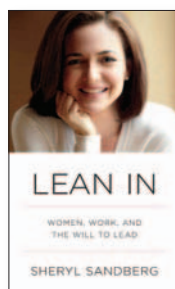


#### **BUSINESS BRILLIANT: SURPRISING LESSONS FROM THE GREATEST SELF-MADE BUSINESS ICONS**

by Lewis Schiff

(New York, NY: HarperBusiness, 2013, 272 pages)

What do Steve Jobs, Warren Buffett, Suze Orman and Richard Branson have in common? Wealth and success in their chosen fields, along with a unique understanding of what their priorities need to be to get there. In “Business Brilliant,” Schiff mines the stories of legendary entrepreneurs for practical advice on career success for anyone. Schiff, executive director of Inc. Business Owners Council, a membership organization for Inc. Magazine’s top entrepreneurs and owners of closely held family businesses, identifies seven principles exemplified by individuals who may or may not be any smarter than the rest of us but seem to understand instinctively how to make money.



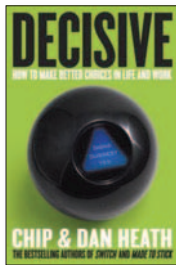
#### **LEAN IN: WOMEN, WORK, AND THE WILL TO LEAD**

by Sheryl Sandberg

(New York, NY: Alfred A. Knopf, 2013, 240 pages)

Chances are you’ve heard of Sheryl Sandberg’s groundbreaking book about her experience as a woman in the upper echelons of Facebook, Google Inc. and the U.S. Treasury. In “Lean In,” Sandberg delves into the obstacles—individual, organizational and societal—that keep many women out of leadership positions. She includes personal anecdotes, hard data and research to cut through the ambiguities and biases in the lives and choices of working women. Blending government and corporate leadership experience, Sandberg’s insights hold something for everyone—men and women, CEOs and civil servants.





## DECISIVE: HOW TO MAKE BETTER CHOICES IN LIFE AND WORK

by Chip and Dan Heath

(New York, NY: Crown Business, 2013, 336 pages)

Picture this: You're at your desk, trying to decide between two great options—or two not-so-great options. Or you're driving home, second-guessing a choice you made at work or in your personal life. Brothers Chip and Dan Heath, having surveyed the research on decision-making psychology, move beyond *why* decisions are hard to *how* we can do better.

Chip Heath is a professor of organizational behavior in the Graduate School of Business at Stanford University. Dan Heath is a consultant at Duke Corporate Education, one of the world's top providers of executive education. The two best-selling authors introduce a four-step process designed to overcome an array of biases and irrationalities, such as overconfidence and the tendency to seek out information that supports us and downplay what doesn't.

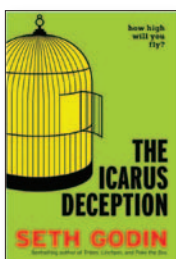


## HUMAN RESOURCE MANAGEMENT IN PUBLIC SERVICE: PARADOXES, PROCESSES, AND PROBLEMS

by Evan M. Berman, James S. Bowman, Jonathan P. West and Montgomery R. Van Wart

(Thousand Oaks, CA: SAGE Publications, 2012, 552 pages)

The fourth edition of this guide to managing in the public sector looks at the issues from both employee and manager perspectives. Now, more than ever, public service presents managers with unique legal and political challenges, as detailed by the authors, who are academics in the field of public administration. In this time of budget constraints, especially, this comprehensive guide offers practical solutions based on real public service experience.



## THE ICARUS DECEPTION: HOW HIGH WILL YOU FLY?

by Seth Godin

(New York, NY: Portfolio Penguin, 2012, 256 pages)

We're used to hearing about Icarus, who ignored his father's warnings and flew straight at the sun, as a cautionary tale. Seth Godin, a best-selling author and the founder and CEO of the recommendation website Squidoo.com, suggests we reconsider. In today's workplace, flying too low may be the greater danger, says the former vice president of marketing at Yahoo Inc. With creativity in short supply and high demand, Godin argues that the most successful people treat their work, whatever it may be, as a work of art.

*A wealth of suggested reading titles is in GEN Odierno's professional reading list, online at <http://www.history.army.mil/html/books/105/105-1-1/index.html>. Is there a book you'd like to recommend for this column? Send us an email at [armyalt@gmail.com](mailto:armyalt@gmail.com). Please include your name and daytime contact information.*

# THEN & NOW

## 1993 & 2013

**\$** 6,000 coffeepots. \$100 hammers. Pliers for nearly \$1,000... and that infamous toilet seat. Those who are old enough will remember the scandal over military procurements gone wrong in the mid-1980s.

With the high degree of professionalism of our current acquisition workforce, it's hard to imagine this kind of waste occurring, but 25 years ago, there was controversy over whether DOD needed a professional acquisition workforce at all. Today, we take it for granted that highly qualified contracting and acquisition personnel are essential to meeting the needs of the Soldier and today's Army while exercising good stewardship of taxpayer dollars. Better Buying Power 2.0, with its focus

on the professionalism of the acquisition workforce, underscores the importance of training, education and recognition.

It was not always so. Army RD&A (now Army AL&T) dedicated its September-October 1993 issue to the acquisition corps, and the latest attempts to improve the workforce took center stage.

President George H.W. Bush signed the Defense Acquisition Workforce Improvement Act (DAWIA) into law in 1990 after President Reagan's Blue Ribbon Commission on Defense Management, better known as the Packard Commission, found that acquisition personnel—many of whom handled procurement as a secondary duty—lacked training and expertise.

As a result, DAWIA directed DOD to establish the Defense Acquisition University, which was founded in 1992.

Periodic attempts had been made, most of them halfhearted, to study and change the acquisition workforce. "I experienced a rush of cynicism" after hearing about DAWIA, wrote Marilyn Harris in an opinion piece in the September-October 1993 Army RD&A. Harris, then chief of the Army's Contracting Command in Fuerth, Germany, wrote, "A large part of the contracting workforce remains untrained even after the establishment of 'mandatory' courses 30 years ago." Recalling her earlier years in contracting, when she was told it was merely clerical work, Harris wrote: "We spent so much of the taxpayers' money and were not even considered 'professionals.'"

### THE RIGHT STUFF

As a result of DAWIA, today's acquisition workforce, civilians and military members alike, is well-trained and diligently developed to provide high-quality systems and services to warfighters on the battlefield as quickly as possible. Here, students in a recent Army Intermediate Program Management course at the Army Acquisition Center for Excellence (AACOE)—from left, CPT Andrew Rieck, CPT Matthew Anderson and MAJ Joseph Miozzi—work on a practical exercise following instruction on developing an acquisition strategy. (Photo by Michele Custer, AACOE)



Contrast that with today's acquisition workforce, in which it takes 24 business hours and Level II DAWIA certification in one of 14 acquisition career fields to qualify personnel for membership in the U.S. Army Acquisition Corps (AAC). Even at the entry level, acquisition boot camps for new hires help instill esprit de corps for the Army and the acquisition profession. All of these initiatives have contributed to a professional acquisition workforce.

*For a historical tour of AL&T over the past 52 years, visit the Army AL&T magazine archives at <http://asc.army.mil/web/magazine/alt-magazine-archives/>.*



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“Academic knowledge without firsthand experience in this business is of limited value. Until you put yourself on the line and test the limits of your abilities, you really can’t understand how much you know or don’t know.”



**Nathan Mathis**

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