# Defense AT&L

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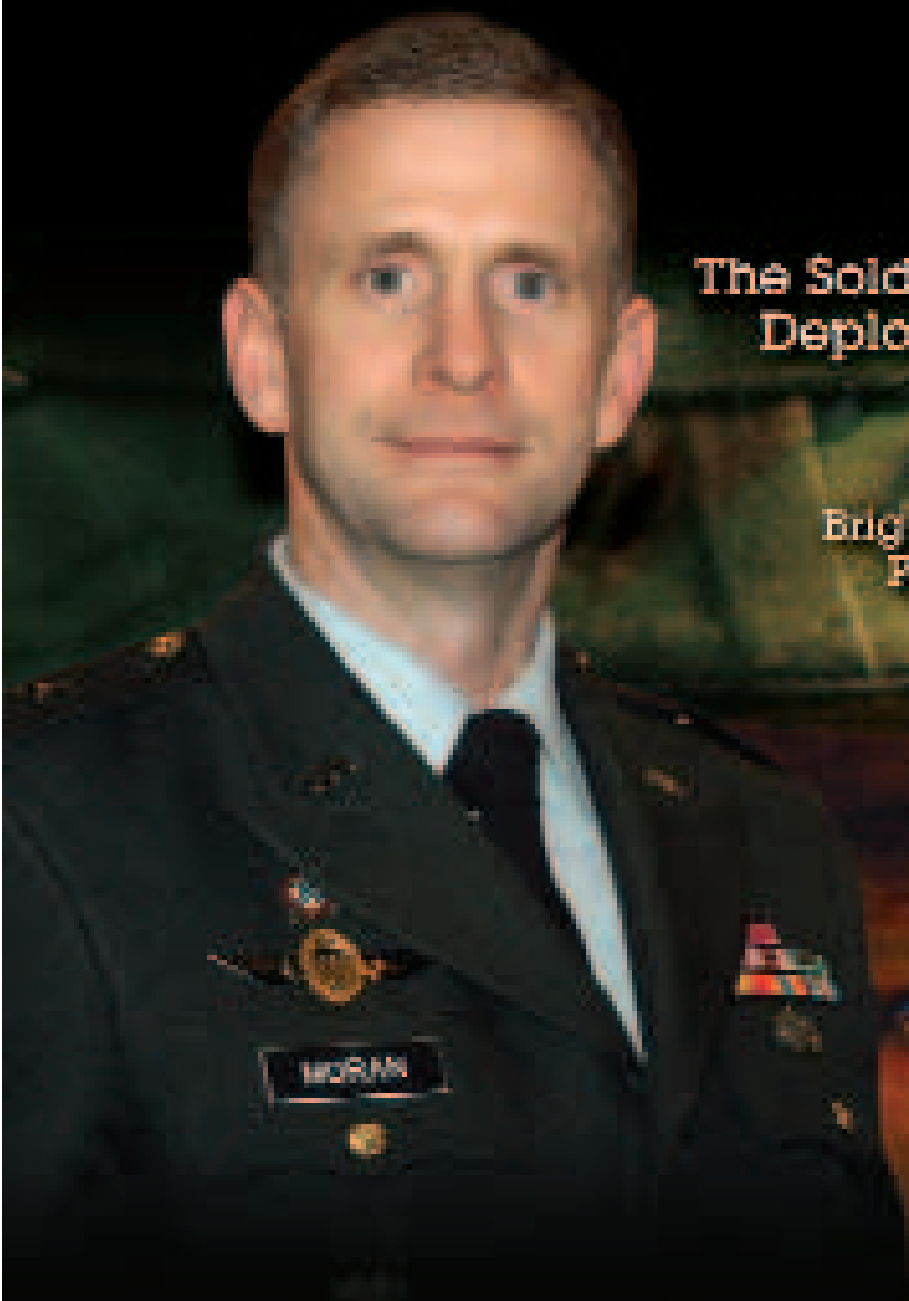


## The Soldier—America's Most Deployed Combat System

Defense AT&L Interviews Brig. Gen. James Moran, USA Program Executive Officer for PEO Soldier

**Also**

Defense Systems Director Glenn Lamartin on Three Major Imperatives for DoD's New Defense Systems Directorate

KC-135 Tanker Aircraft—First DoD Program to Become Global Air Traffic Management (GATM)-Compliant

Managing a Product Development Team: Part II

Fast-Track Armaments for Iraq and Afghanistan

Defense AT&L

A Publication of the

Some photos appearing in this publication may be digitally enhanced.

Vol XXXIII, No.3, DAU 179

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In response to imperatives expressed by the under secretary of defense (acquisition, technology and logistics), OSD's new Directorate of Defense Systems will help meet DoD's objective of more interoperable joint capability.

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## *Defense AT&L* Interviews

# Army Brig. Gen. James R. Moran,

## Program Executive Officer Soldier

On June 7, 2002, Claude Bolton, assistant secretary of the Army for acquisition, logistics, and technology, activated Program Executive Office (PEO) Soldier at Fort Belvoir, Va., < https://peosoldier.army.mil > . Team Soldier's mission focuses directly on the soldier as the central component of the Army's most important weapon system. PEO Soldier has the responsibility to develop, field, and sustain virtually everything a soldier wears, carries, or operates. Using the concept of "Soldier as a System," PEO Soldier is saving warfighters' lives, improving their quality of life, and increasing their combat effectiveness.

Viewing the individual warfighter as the nexus of a weapon system contrasts with the Army's traditional focus on equipment and armaments. Such a focus often resulted in equipment that was not integrated. The Army recognized a need to create a single entity that would lead the transformation of the soldier to the "Soldier as a System."

Army Brig. Gen. James R. Moran serves as the office's program executive officer. Stating that soldiers have always been the centerpiece of the U.S. Army, Moran gives the mission of PEO Soldier as making the Soldier as a System a reality. *Defense AT&L* Magazine interviewed Moran on the successes and future goals of PEO Soldier.

**Q**

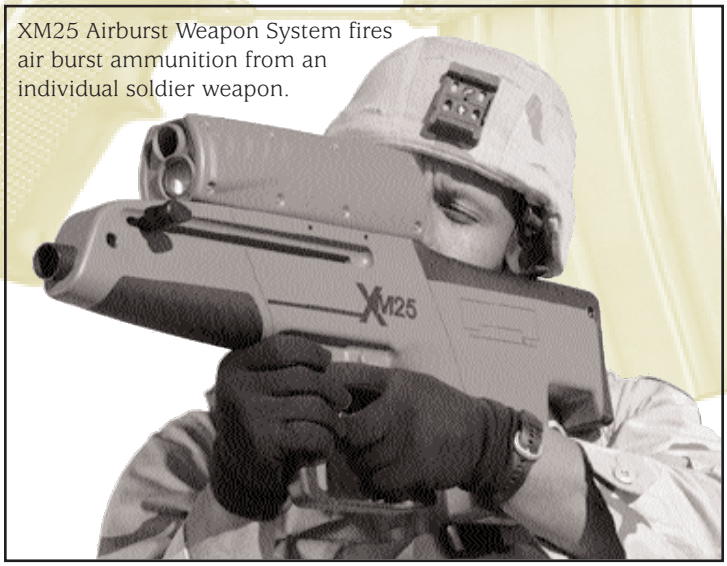
*You've been quoted as saying "the soldier is the most deployed weapon system in the Army … yet until recently, the focus of change has been on equipment and armaments, not on the individual who wields them." What has influenced the change in the cultural climate to shift the focus to the individual soldier?*

**A**

As project manager Abrams, I had one operational requirements document (ORD) to procure the Abrams tank. When I became PEO Soldier, we had over 300 ORDs. If I had procured the Abrams, for example, as we have traditionally procured equipment for the soldier, the track pads on the Abrams would have had their own ORD and would have been procured separately. The soldier is our Army's most fundamental weapon, but we haven't viewed him or her as a weapons system. The Army's recognition of the soldier as the central component of a weapons system has fundamentally changed the way we develop requirements and procure weapons and equipment.

**Q**

*The U.S. Army's rapid fielding initiative (RFI) is intended to respond quickly to current needs for individual soldier equipment requirements and to provide soldiers engaged in or preparing for real-world operations with state-of-the-art individual weapons, clothing, and equipment. Last year, for example, RFI was used to equip soldiers from the 82d Airborne Division based on lessons learned from operations in Afghanistan. Has RFI earned a good track record? Have results been measurably better than previous turnaround times for procuring such items?*




XM25 Airburst Weapon System fires air burst ammunition from an individual soldier weapon.

XM307 Advanced Crew Served Weapon provides soldiers the ability to defeat exposed and defiladed personnel targets as well as lightly armored targets

**A**

RFI provides soldiers with the most up-to-date equipment in the categories of force protection/mobility, lethality, soldier mission-essential equipment, and individual weapons/optics. Currently the RFI list numbers 54 equipment and clothing items. The task of fielding RFI to our soldiers is a tremendous undertaking. A brigade combat team (BCT)'s worth of equipment requires over 70 463L pallets and requires the equivalent of four C17s to transport. In fiscal year 2003, we fielded eight BCTs in total. In the last 90 days alone, we fielded eight BCTs—or over

Aviation Night Vision Imaging System with Heads Up Display for continuous "Heads Up" flight without the need to look into the cockpit for flight data.

CROWS (common remotely operated weapon station) allows under armor/remote operation of the suite of weapons.

26,000 soldiers—on our way to fielding approximately 120,000 soldiers this fiscal year. RFI has been very successful in responding quickly to real-world, individual soldier equipment requirements and has greatly streamlined new or improved equipment acquisition processes that previously took months or years. Using a variety of innovative methods, such as working with existing contractors to refine equipment or purchasing, and adapting commercial off-the-shelf (COTS) items, RFI has reduced some acquisition cycles to weeks or even days.

**Q**

*One difference in the RFI process has been going to the field and asking warfighters directly what they require to operate effectively. Using this direct input, RFI is able to provide needed equipment in dramatically less time. How significant has the direct input from the field proved? In terms of the helpfulness of the input, are the results quantifiable yet?*

**A**

Input from the field is very helpful. We have sent teams to the field to ask soldiers, commanders, and non-commissioned officers in units such as the 10th Mountain Division, 82d Airborne Division, and the 101st Airborne Division (AASLT) what equipment is needed. Team Soldier invited then Sergeant Major of the Army Jack L. Tilley and other CSMs to a conference at Fort Belvoir, and we engaged in very meaningful discussion on what equipment soldiers need. We receive input from the soldiers and proponent schools that allows us to develop an optimized list that is then taken to Training & Doctrine Command (TRADOC) and Headquarters Department of the Army (HQDA). Quantifiably, what units purchase supports operational needs and dictates what is developed and what is included in the next generation weapons systems. PEO Soldier not only supports those needs near term through RFI, but also facilitates long-term support for future soldier items.

**Q**

*Project Manager Soldier Warrior supports soldiers through the acquisition of all warrior systems. Its systems include the Air Warrior, heralded as the first fully integrated system for Army aircrews and noted for being more comfortable and convenient than other uniforms. The helmet contains an enhanced face shield and earpiece for communication; the suit contains a floatation collar, signal radio, flares, and soft body armor. An extraction restraint allows the soldier to be airlifted alone or with another person without the need of a harness. A cooling unit that can cool to 62 degrees is included along with a water carrier. The Land Warrior is anticipated to provide infantry soldiers with a similar fully integrated system shortly. What has been the reaction to these new systems? How has the new focus of PEO Soldier shaped the development and procurement of such a system?*

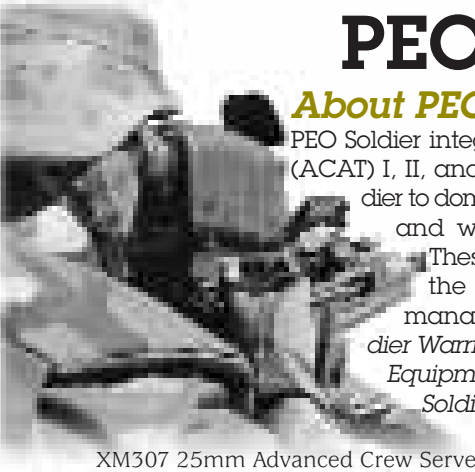
**A**

Initial training and aircraft kit installations are under way for full Air Warrior fielding later this fiscal year, and preproduction clothing and individual equipment were introduced to members of the 101st Aviation Brigade in

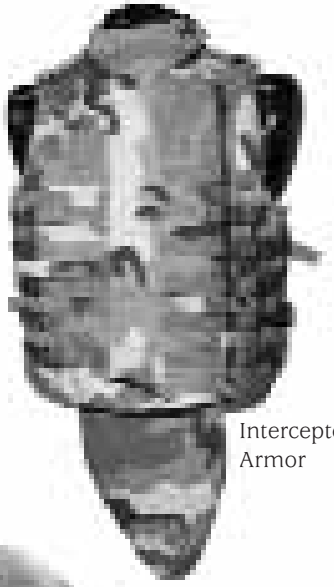
# PEO Soldier—Championing the

## *About PEO Soldier*

PEO Soldier integrates 346 Acquisition Category (ACAT) I, II, and III programs, enabling the soldier to dominate the full spectrum of peace and war, now and in the future. These Soldier Systems fall under the purview of three project managers: *Project Manager Soldier Warrior*, *Project Manager Soldier Equipment*, and *Project Manager Soldier Weapons*.



XM307 25mm Advanced Crew Served Machine Gun

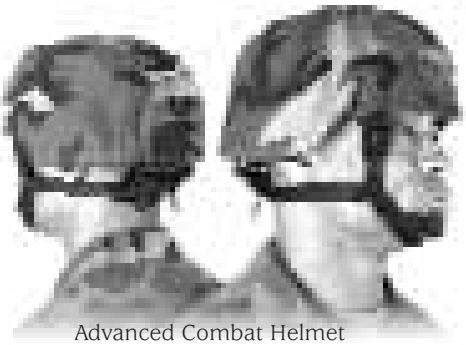


Interceptor Body Armor

Air Warrior

**Project Manager Soldier Weapons** supports soldiers through the development and production of current and future weapon systems, ammunition, and associated target acquisition/fire control products. The next generation of weapons includes: XM25 25mm Airburst Weapon System, XM8 Lightweight Carbine, XM307 Advanced Crew Served Weapon, and the XM312 .50 Caliber Machine Gun. Two product managers support Project Manager Soldier Weapons: *Product Manager Crew Served Weapons Programs* and *Product Manager Individual Weapons Programs.*

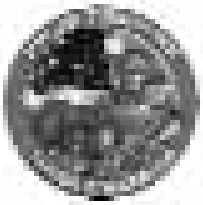
XM8 Carbine Compact Configuration



Advanced Combat Helmet

Joint Service Lightweight Integrated Suit Technology (JSLIST)

**Project Manager Soldier Warrior** supports soldiers through the acquisition of all warrior systems. Two product managers support Project Manager Soldier Warrior: *Product Manager Air Warrior* and *Product Manager Land Warrior*. Both provide significant improvements—in the air or on the ground—in four strategic areas: soldier lethality, survivability, mobility, and sustainment.



XM312 Lightweight .50 Caliber Machine Gun



Photos courtesy PEO Soldier

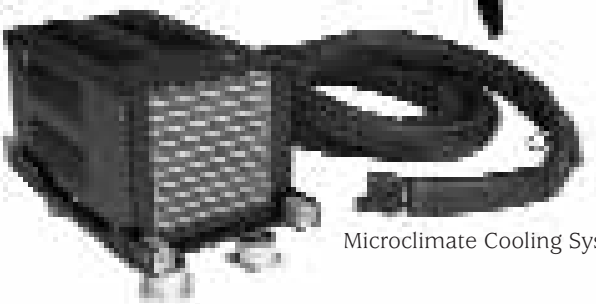
# Warfighting Needs of the Soldier

Land Warrior with XM8 Carbine

Advanced Tactical Parachute System

M9 Pistol

Commander's Digital Assistant



Microclimate Cooling System

Intermediate Cold/Wet, Marine Corps Hot Weather, and Air Force Desert Flyer Boots

**Sniper Accessory Kit**

- Wind meter
- Improved Cleaning Kit
- Polarized Filter
- Improved Bipod
- Buttstock Cheek Pack
- Marksman Data Book
- Weapon Drag Bag
- Ammo Pouch
- Ballistic Calculator

SRU-37/P One Man Life Raft and Container

**Project Manager Soldier Equipment** provides advanced technologies to allow the dismounted soldier to "own the night," as well as man-portable laser technologies for illuminating, pointing, range-finding, and designating targets. Supports soldiers in operational environments and improves their lethality, survivability, situational awareness, health, safety, mobility, and sustainability by providing state of the art equipment. Two product managers support Project Manager Soldier Equipment: *Product Manager Sensors and Lasers Programs* and *Product Manager Clothing and Individual Equipment Programs.*

**The Army's recognition of the soldier as the central component of a weapons system has fundamentally changed the way we develop requirements and procure weapons and equipment.**

Iraq last fall. Soldiers fitted with Air Warrior equipment and with recent combat experience have provided positive feedback that Air Warrior is the solution to several current equipment shortcomings, notably that the new equipment is lighter, fits better, and allows greater freedom of movement.

The Land Warrior system has been tested and evaluated by soldiers in several situations, including rigorous squad- and platoon-level exercises and warfighting experiments. Feedback and lessons learned have been incorporated into Land Warrior system design. Because of a very successful advanced warfighting experiment in September 2000, several system improvements were accomplished, including component location on the soldier, improved daylight video sight, and a weapons user interface system control device. The Land Warrior program uses spiral development to incorporate soldier feedback and the latest technologies into the Land Warrior system. The spiral development approach enables the product manager to design a little, build a little, and test a little with lower cost and risk. Those technologies deemed ready are then incorporated into the system design.

**Q**

*Project Manager Soldier Equipment has fielded some of the most advanced night-vision and laser technologies available. What innovations have been procured for the soldier, and what new technologies are in the near future?*

**A**

Product Manager Sensors and Lasers has accelerated the development and fielding of an integrated man-portable laser designating and range-finding system as well as hand-held and weapons-mounted forward-looking infrared (second generation FLIR) systems. These systems include the lightweight laser designator rangefinder (LLDR) and the thermal weapons sight (TWS). We have procured the latest generation III image intensification (I2) technology in goggles, monocles, and weapon sights for use by our soldiers and aviators.

The future for night vision systems is fused image technology, and Product Manager Sensors and Lasers is accelerating the development of the enhanced night vision goggles that fuse second generation FLIR and I2 images to give the soldier better situational awareness in day, night, and obscured conditions. We are working with the night vision labs and the Special Operations Command to develop fused weapon sights and sense through the wall technology for the individual soldier. We are developing a weapon-mounted multiple laser system integrating a solid state laser rangefinder; visible and IR pointers; IR illuminator; multiple integrated laser engagement system (MILES)-like training capability; connectivity to various global positioning satellite (GPS) systems; and wearable computers for squad level target laser range finding and pointing. Finally, Product Manager Sensors and Lasers is developing an ultra-lightweight laser designator to reduce the weight of a designating module to less than five pounds.

**Q**

*The new interceptor body armor procured by Product Manager Clothing and Individual Equipment has been so well received by soldiers that copycat industries have sprung up trying to sell imitations to consumers with currently deployed family members. How is PEO Soldier managing demand and quality control on this valuable piece of equipment?*

**A**

Interceptor body armor (IBA) consists of an outer tactical vest (OTV) and a set of small arms protective inserts (SAPI). The OTV protects against fragmentation and up to 9mm ball ammunition. The addition of SAPI plates increases protection up to 7.62mm ball ammunition. All SAPI plates procured by the Army meet stringent qualification standards that have been adopted for use by the National Institute of Justice (NIJ). Each lot of ballistic plates delivered to the Army is tested by an independent NIJ-certified laboratory. In this way, the Army ensures that each IBA meets or exceeds the protection requirements for our soldiers.

Yes, it's possible to find and purchase body armor on the Internet. A typical search engine yields thousands of hits on the query "interceptor body armor"; however, this

doesn't mean that any of these products meet the ballistic and weight requirements of the U.S. Army. PEO Soldier has conducted and continues to conduct market surveys. All recent contacts with vendors claiming to have plates available for our soldiers found they were attempting to obtain them from the existing Army sources for resale, or they were making false claims and did not have the machinery or necessary raw materials to produce plates that meet ballistic protection requirements.

**Q**

*The stated mission of Project Manager Soldier Weapons is to provide "individual and crew-served weapon systems with decisive overmatch capability by dramatically increasing lethality and range at lower weight." How are new weapons systems improved over previous incarnations?*

**A**

New developments in technology have allowed Project Manager Soldier Weapons to design and develop weapons that provide increased modularity, lethality, reliability, maintainability, and sustainability. For example, the XM8 lightweight modular carbine system represents the state-of-the-art in assault rifles. A unique feature of the XM8 modular system is the ability to easily and quickly reconfigure the weapon from one variant to the other to meet changing mission requirements. This modularity includes interchangeable assembly groups such as the barrel, handguard, lower receiver, buttstock modules, and sighting system. The XM25 air burst weapon system will provide individual soldiers with precision airburst capability. The XM25 incorporates a target acquisition fire control that integrates thermal optics, powered direct view optics, laser range finder, compass, fuse setter, ballistic processor, and internal display.

**Q**

*The PEO Soldier Web site currently invites U.S. soldiers to give input, through a survey, on a design and color scheme for the next Army Class A uniform. The Army Knowledge Online Web site also invites discussion and collaboration from the end user concerning the advantages and disadvantages of various pieces of equipment. What kinds of responses does your office receive through such surveys? What other types of outreach programs are in place to generate direct feedback from the soldier?*

**A**

Through Army Knowledge Online and the Project Manager Soldier Equipment Web site, we receive general clothing and equipment inquiries, detailed or specific suggestions to improve current equipment, and drawings of prospective new equipment. In addition, we often receive actual product items proposed to be issued or made available to soldiers. The Soldier Enhancement Program (SEP) is a vehicle by which soldiers and others may recommend COTS items for procurement.

## Brigadier General James R. Moran, USA

Brig. Gen. James R. Moran assumed his new position as Program Executive Officer Soldier, Fort Belvoir, Va., on June 7, 2002.

Moran was born in Hopewell, Va. After graduation from the United States Military Academy at West Point, he was commissioned as a second lieutenant and awarded a bachelor of science degree. He holds a master's degree in mechanical engineering from the Air Force Institute of Technology and a master's in national resource strategy. Moran's military education includes completion of the Material Acquisition Management Course; the United States Army Command and General Staff College; Defense Systems Management College, Program Management Course; and the Industrial College of the Armed Forces.

Moran's assignments include commandant DAU/Defense Systems Management College; project manager Abrams Tank System; product manager for both the Army Tactical Operation Center Program and the Extended Air Defense Command and Control System; Department of the Army system coordinator for national missile defense; space systems engineer in the USA Space Command; staff officer in combat developments at the Ordnance Center and School; and exchange officer in the United States/German Scientist and Engineer Exchange Program at the IABG Armor Test Center. He has also served as a company commander in the 1st Cavalry Division.

Moran has received the Defense Meritorious Service Medal; Legion of Merit; Meritorious Service Medal with two oak leaf clusters; the Army Commendation Medal with four oak leaf clusters; the United States and German Army Parachute Badges; the United States Air Force Space Badge; and the Army Staff Identification Badge.

**Q**

*Hundreds of thousands of pieces of equipment have reportedly been sent to U.S. soldiers deployed in both Iraq and Afghanistan to use and field-test, including the M107 long-range sniper rifle, the common remotely operated weapon station (CROWS), and the M4 carbine (modular). How is feedback collected from the soldiers? What are the criteria in determining what new pieces will be sent to troops in the field for testing?*

**As newer, better products are made available, we insert that technology into our basic equipment because we have designed it that way as a system.**

**A**

Often the most immediate and valuable feedback is received during new equipment training (NET) when civilians and soldiers take weapons and equipment into the field to train and gather input. Daily training sessions in such an environment provide frank and unbiased feedback that is documented and consolidated upon the team's return. In addition, PEO Soldier personnel routinely visit both theaters to gather feedback on systems and talk to the soldiers using them.

Determination of the new pieces to be sent for testing to troops in the field is initially based on the operational need of a particular unit. An operational need statement (ONS), is established and submitted through the unit's command chain to HQDA for approval. PEO Soldier works to ensure that all systems sent for testing in theater are sufficiently mature and safe.

**Q**

*In the first Gulf War, GPS systems were almost unheard of; now GPS devices are commonplace in training and on deployments. What are some other significant high-tech devices being fielded for the warfighter by PEO Soldier?*

**A**

High-tech systems fielded for the soldier include optics for the M4 carbine and the M107 .50 caliber long range sniper rifle. The M107 was introduced in the first Gulf War but was used only by Marines and Special Operations forces. It is now a standard sniper system for the Army and is used for long-range target engagement for both anti-materiel and anti-personnel targets. Its effective range is between 1,600 and 2,000 meters, which provides greater lethality and probability of kill.

CROWS mounts onto a variety of vehicle platforms, including the high mobility multipurpose wheeled vehicle (HMMWV), providing soldiers with the capability to acquire and engage targets on the move, while protected by the vehicle. It supports the MK19 grenade machine gun, Cal. 50 M2 machine gun, M249 semi-automatic weapon, and M240B machine gun. It includes two axis-stabilized mounts, a sensor suite, and fire control software, allowing on-the-move target acquisition and first-burst target engagement.

Product Manager Air Warrior has provided such high-tech devices (in this case for helicopter crews) as the electronic data manager, which interfaces with blue force tracking to provide a GPS moving map combined with two-way situational awareness display up front in the cockpit for the first time. The system will allow rapid in-flight mission planning or changes and bring a low-cost, lightweight, portable digital flight management system to our non-digitized aircraft until the fielding of future, more capable platforms. The Air Warrior Microclimate Cooling System (MCS) will allow air crewmembers to don full survival and protective equipment, including chemical protective equipment if necessary, and perform their mission in hot environments. A wireless intercom system is being developed that will free the UH-60 and CH-47 aft crewmembers from the operational and safety restrictions of a tethered cord and has great potential for use by other platforms.

Project Manager Soldier Warrior has also provided the commander's digital assistant (CDA) to infantry units in handheld and tablet forms for evaluations during Operation Iraqi Freedom. The CDAs have been providing the leaders of both the second and third brigades of the 82d Airborne Division with improved situational awareness, enabling leaders to share combat data using digital messages, perform command and control functions, develop mission plans, and keep track of unit personnel (blue force tracking). We also distributed multiband inter/intra team radios (MBITRs) to improve infantry unit communications at squad/platoon level.

It's interesting that high-tech solutions are often required to satisfy the most basic soldier needs. I'd like to point out that although high-tech is aggressively pursued as a materiel solution, many solutions to what the soldier needs and wants would be considered low tech—such solutions as the ability to reduce the weight of what a soldier must carry, the ability to keep him or her hydrated, solutions to keep the soldier warm and dry at night so sleep is most beneficial.

**Q**

*If technology is a driving force behind equipping the U.S. soldier with the latest pieces of equipment, how does PEO Soldier anticipate obsolescence and system compatibilities when testing new equipment?*

**A**

We anticipate obsolescence and system compatibilities (interoperability) during the initial development phase of acquisition. Our approach to mitigating the impact of early obsolescence in high-tech equipment is to use the fundamental management processes that provide our soldiers with a quality product on schedule and an evolutionary (incremental) approach, and to ensure that both we and our industry partners follow disciplined development processes and use meaningful metrics to measure our progress. All this results in realistic expectations and a product available sooner and at a lower cost. Wherever possible, we adapt commercially available products. As newer, better products are made available, we insert that technology into our basic equipment because we have designed it that way—as a system.

As for system compatibility, that is one of the very reasons this PEO came into being. It is one of our core tenets since PEO Soldier manages virtually everything worn, carried, or operated by the soldier.

**Q**

*How will the SEP provide enhancements and new systems to the soldier more rapidly? How will you collect and evaluate input to this process from all areas?*

**A**

The goal of SEP is to improve lethality, survivability, command and control, mobility, and sustainability for all soldiers. Its mission is to identify and evaluate commercially available individual weapons, munitions, optics, combat clothing, individual equipment, water supply, shelters, and communication and navigational aids that can be adopted and provided to soldiers in three years or less.

PEO Soldier and TRADOC System Manager (TSM) Soldier are charged with managing the SEP program for the Army. The program solicits suggestions annually from individual soldiers, field commanders, industry, and combat and materiel developers worldwide. Each year SEP receives and reviews nearly 125 proposals for suitable solutions to keep up with ever-changing technologies and new and improved ways to equip and maintain our forces. "New start" proposals that match up with user deficiencies are presented at the annual PEO/TRADOC SEP review and compete for funding in the upcoming fiscal year. Those proposals selected and funded are taken through a series of steps to buy or produce an item, evaluate, conduct field-testing, standardize, and issue it to the field. Examples of recent SEP programs are the close quarters battle kit and the integrated laser/white light pointer (ILWLP). The close quarters battle kit consists of such items as weapons camouflage, shoot-around corners prism, and ambidextrous controls that will increase soldiers' lethality and survivability. The ILWLP addresses the need by combat and combat support soldiers for a single integrated device to acquire and engage targets with the M9/M11 pistol on the battlefield and in close-quarters combat engagements during limited visibility conditions or in total darkness.

**Input from the field is very helpful. We have sent teams to the field to ask soldiers, commanders, and non-commissioned officers what equipment is needed.**

**Q**

*General Moran, you have taken on this job at a time when the United States is at war and the nation collectively feels a heightened sense of obligation to our soldiers. How has that affected your organization—and you personally?*

**A**

The great men and women of Team Soldier realize that what we do touches the lives of soldiers each day. We all take this very seriously, especially when we hear stories of soldiers' lives being saved with our equipment. We are committed to saving warfighters' lives, improving their quality of life, and increasing their combat effectiveness.

# Focusing on Customer Success

## Acquisition Planning and Support Services (APSS)

*Bob Hunter*

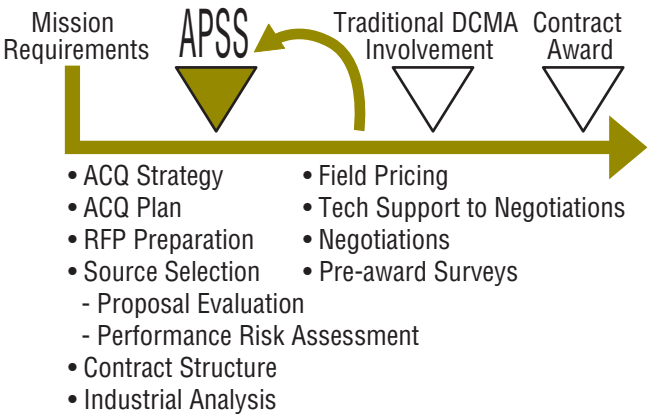
"The Defense Contract Management Agency (DCMA) will engage in Acquisition Planning and Support Services (APSS) activities at the start of the acquisition strategy and contract structuring processes, and will remain engaged throughout the acquisition life cycle."

With this intent statement, Army Brig. Gen. Edward M. Harrington, DCMA director, reiterated the agency's long-standing commitment to the acquisition community. DCMA, with its experienced on-site acquisition professionals, is well positioned to provide customers with unique and valuable insight in planning acquisitions. With both a pre- and post-award contract perspective, we are able to assist in developing acquisition strategies; identify performance risk at prospective contractors; perform industrial capability assessments and market analyses; help construct more effective requests for proposal; structure contracts that are more easily managed; and conduct sole source negotiations. Early engagement with DCMA has been recognized throughout the acquisition community as an important factor in the success of acquisition programs.

### The Beginnings: Early CAS

DCMA's focus on APSS began in the mid-1990s. In May 1994, DCMA's precursor, the Defense Contract Management Command (DCMC) initiated a new line of customer services known collectively as early contract administration services (Early CAS). Early CAS was defined as teaming with buying commands early in the acquisition process to help plan acquisition strategies; develop requests for proposal; structure contracts; conduct source selections (for example, past performance/performance risk assessment, cost/price analyses, etc.); and conduct sole source negotiations (such as integrated product team (IPT)

FIGURE 1. **DCMA Pre-contractual Involvement in the Acquisition Process**




**Hunter** *is the Defense Contract Management Agency's performance advocate for acquisition planning and support services. He works in the Headquarters Program Support and Customer Relations Directorate.*

pricing, alpha acquisition, and so on). This was a major step forward for the agency, as our traditional involvement prior to contract award had been limited to the performance of pre-award surveys, field pricing, and technical support to negotiations (Figure 1).

The March 1995 final report of the Department of Defense (DoD) Contract Administration Services Reform Process action team recommended that Early CAS be institutionalized within the DoD acquisition process: "Our conclusion is that significant benefits may be gained from greater participation of contract administration personnel during the pre-contractual stages of the acquisition process. Accordingly, the IPT recommends that DoD establish contract administration support during the pre-contractual phase as a basic mission necessity."

One of the implementing taskings of the report was for component acquisition executives to "share advance planning information between buying activities, program offices and DCMC and ensure that buying activities give consideration to the DCMC liaison officer as a member of their procurement planning committees and provide access to the acquisition planning processes."

In addition, support to program offices and buying activities in pre-contractual efforts leading to solicitation or award was incorporated into the Defense Federal Acquisition Supplement as a formal contract administration office function (DFARS 242.302(a)(67)).

These efforts led to the increased involvement of DCMC and then DCMA in Early CAS efforts, as the acquisition community learned that our continuous interaction with the contractor community gave DCMA unique insight into contractor capabilities and past performance. The community also learned that DCMA brings to the acquisition planning table a wealth of risk-based acquisition strategy and contracting lessons learned. By providing these insights when they can do the most good—prior to contract award—we are able to improve the acquisition process and increase the likelihood of acquisition program success. DCMA's involvement helps to minimize post-award problems by helping buying activities to select more capable contractors, to more reliably identify performance risk, to construct more effective solicitations, and to develop contracts that are easier to execute.

**DCMA, with its experienced on-site acquisition professionals, is well positioned to provide customers with unique and valuable insight in planning acquisitions.**

### The Evolution of APSS

Over the next several years, Early CAS became institutionalized as one of DCMA's core business areas. As our involvement increased, it became clear that there were opportunities for this support throughout the acquisition

**As DCMA transforms to a customer-centered culture and focuses on customer outcomes as a measure of our success, the importance of APSS to our future becomes apparent.**

## Putting APSS Support to Work for You

The earlier DCMA joins the buying activity pre-award team, the greater the opportunity for value-added insight. Customer liaison representatives, located at major buying activities, are the focal points for requests for APSS. Find them at <**http://home.dcma.mil/dcma-pi/liaisons.htm**>.

If you don't have a customer liaison at your activity, contact your APSS performance advocates:

**DCMA East**
Vera Daniel
Vera.Daniel@dcma.mil
(617) 753-4089

**DCMA West**
Julia Johnstone
Julia.Johnstone@dcma.mil
(310) 900-6580

**DCMA International**
Ray Powell
Ray.Powell@dcma.mil
(703) 428-1748

**DCMA Headquarters**
Bob Hunter
Bob.Hunter@dcma.mil
(703) 428-0456

life cycle. These opportunities were recognized with the name change to APSS, which is now identified as one of DCMA's 13 service sets.

Acquisition reform and DCMA's identification of special emphasis areas have provided us with additional opportunities to support the DoD acquisition community in the APSS arena.

The DCMA Industrial Analysis Center supports DoD with industrial capability and surge analyses for major weapon systems acquisition, logistics, and readiness programs. Its products are helpful in planning for and maintaining military readiness, preserving essential/unique industrial capabilities, protecting critical infrastructure, and making informed defense industrial base investment decisions—all critical factors in acquisition strategy planning.

The Quadrennial Defense Review of September 2001 required DoD to implement performance-based logistics (PBL) to compress the supply chain and improve readiness for major weapons systems and commodities. DCMA has

provided APSS to PBL-related processes and capabilities, including supply chain management, demand forecasting, obsolescence management, logistics surveillance, and partnering arrangements. This has been a growth area for DCMA support over the last two years.

Another focus area for APSS within DCMA has been performance-based payments (PBP). With its many years of experience, DCMA is able to advise buying activities on how best to develop PBP plans of action. In fact, the Professional Services Council IPT is considering recommending coordination with DCMA and the Defense Finance and Accounting Service (DFAS) to improve contract structuring and facilitate timely payments of certain contracts, including those containing performance-based payment provisions.

### APSS in Action

DCMA has provided APSS support to many major defense acquisition programs over the years, most recently to such programs critical to DoD's future as Future Combat Systems, DD(X), Joint Tactical Radio System (JTRS), the High Mobility Artillery Rocket System (HIMARS), E2 Advanced Hawkeye, Tactical Tomahawk, Joint Standoff Weapon (Baseline and Unitary), Advanced Extreme High Frequency (AEHF) Satellite, Multi-Sensor Command and Control Aircraft System (MC2A), and the Joint Strike Fighter. As DCMA transforms to a customer-centered culture and focuses on customer outcomes as a measure of our success, the importance of APSS to our future becomes apparent. It is by helping our customers to succeed that we will become an indispensable partner.

**Editor's note**: The author welcomes questions and comments and can be reached at bob.hunter@dcma.mil.

## Learn More About DCMA and APSS

The Defense Acquisition University (DAU) Continuous Learning Center has a continuous learning module entitled "Leveraging DCMA for Program Success." The module provides details on the products and services provided by DCMA to a program manager and program management office staff. You'll learn how DCMA support can be used to reduce program risk and how to contact DCMA to arrange for program support. Also included is a lesson describing DCMA's APSS support and how you can best utilize APSS to improve your acquisitions. You can access the continuous learning center modules at <**http://clc.dau.mil**>.

DCMA's Web site, <**www.dcma.mil**>, has additional information describing agency policies on APSS, DCMA's *APSS Guidebook*, and links to other APSS-related policy and guidance.

*Office of Force Transformation Unveils Primer on*

## Network-Centric Warfare (Jan. 7, 2004)

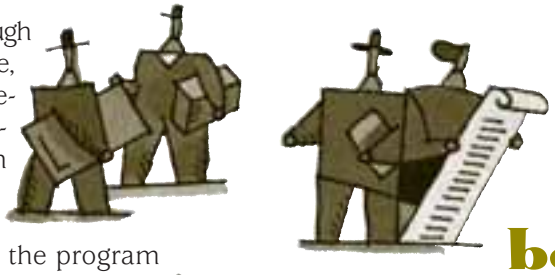
*To download a copy, go to the Office of Force Transformation Web site at:*

**http://www.oft.osd.mil/index.cfm**

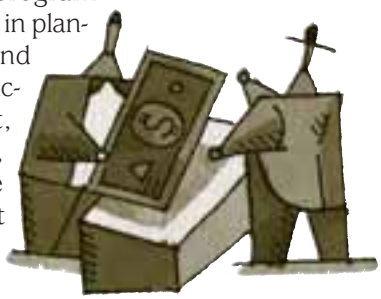
# The Ideal Program Manager

## A View from the Trenches

*Owen C. Gadeken*

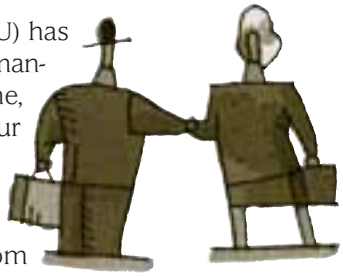


Program management is a tough job. Meeting cost, schedule, and performance requirements on challenging acquisition programs takes both skill and teamwork by the project team or program office. But at the heart of effective performance is the program manager (PM). The PM plays a major role in planning the program, building the team, and managing for results. While program success can be defined as meeting cost, schedule, and performance requirements, PM success is much harder to define. Here we are looking for the key PM skills that when properly applied lead to successful program results.



**While program success can be defined as meeting cost, schedule, and performance requirements, PM success is much harder to define.**

The Defense Acquisition University (DAU) has been in the business of training program managers for over 30 years. During this time, we have taken considerable data from our students on characteristics of effective PMs. This interesting perspective constitutes a view from the trenches, a perspective on program management—from those being led as well as the group being groomed to become our PMs of the future.



### Leadership Exercise Yields Valuable Data

Some of the most interesting DAU data come from a leadership exercise carried out in the 14-week Advanced Program Management Course (APMC) from 1999 to 2002. In the exercise, students defined the attributes of the ideal PM leader by recalling examples of good and poor leadership they had observed from their previous acquisition experiences. The examples were written up on "yellow stickies" (3M Post-it® notes) and sorted into categories by groups of six students. The students then came up with a name for the primary skill or attribute represented by each category. The exercise concluded with the student groups sharing their top five category names with the class and providing the list to their instructor to support this research. In all, a total of 326 student groups representing 1,956 students participated in the PM leadership exercise.

The top-rated category rankings from the APMC leadership exercise are summarized in Figure 1. In all, 72 different categories were identified, but the results clustered heavily into the seven listed in the left column. The next seven categories (*motivation/ inspiration*, *decision making*, *decisiveness*, *mentor/coach/develop*, *trust*, *organization skills*, and *courage*) were ranked much lower, with 54 down to 28 student groups ranking them in their top five.

While there are a range of skills represented in the figure, interpersonal skills clearly lead the field with four of the

**Gadeken** *is a professor at the DAU Fort Belvoir campus. His current interest centers on helping program managers become effective leaders. Gadeken received his doctorate in engineering management from The George Washington University.*

top seven responses (*communication*, *delegation/empowerment*, *people skills*, and *team building*). This should not be surprising given the large number of people, organizations, and stakeholders involved in acquisition programs.

## 360 Degree Feedback Adds Insight

The logical follow-on from the key PM leadership skills identified in the APMC exercise is to assess how well Defense Department PMs actually perform on these skills in the workplace. While we have no data on current PM performance, we again have considerable data from the APMC student population who were preparing to be PMs. Every APMC student was given a 360 degree feedback report that contained a broad-based assessment of his or her performance on 24 skill factors built up from 135 separately rated job behaviors. The report was based on workplace feedback from supervisors, peers, and subordinates as well as on the student's own self-assessment. In all, 7,796 students were given 360 degree feedback reports from 1995 to 2002.

Figure 1 also contains a summary of the 360 degree feedback ratings for the most important categories from the APMC leadership exercise. When the feedback ratings were rank-ordered for the 24 skill factors, the top eight factors were considered *high*, the second eight factors *medium*, and the last eight factors as *low* in relative performance. Using this breakout, Figure 1 allows us to compare importance categories with actual performance of our APMC student population. From the figure, *integrity*, *people skills*, *communication*, and *competence/expertise* have both high performance and high importance ratings, indicating that APMC students are already doing well in these areas. Team building has a medium performance ranking but also ranked seventh in importance, so it may be properly balanced—in other words, no major skill development is needed.

The most striking imbalance occurs with the *vision/strategy* and *delegation/empowerment* skills. They are the second and third ranked importance factors, yet they are near the bottom of the performance ratings. This means that APMC students were not seen as having these skills, which are considered very important to their future success as PMs.

What should we conclude from this analysis? Well, going back to our original premise, these data represent both the view from the trenches on PM leadership skills as well as performance of those in the trenches who are being trained to move up to PM positions. There is good news here as well as bad news. Future PMs appear to be doing well in many of the top rated importance categories, such as *communication*, *integrity*, and *people skills*. However, the two skill areas of *vision/strategy* and *delegation/empowerment* are ripe for improvement. This should not be surprising since APMC students may not have had significant leadership opportunities to allow them to develop and demonstrate these skills thus far in their careers. Yet there is still cause for concern since we don't want to put people in the sink-or-swim position of having to develop these skills after they get their first PM jobs.

## How to Achieve Success

There are several approaches to develop *vision/strategy* and *delegation/empowerment* skills for future PMs.

### Seek Job-related Opportunities

The first approach is to seek job-related opportunities. Almost any job with supervisory responsibility affords the opportunity to develop these leadership competencies. However, acquisition-related roles, such as integrated product team (IPT) lead or functional team lead, which are in the PM environment, would be particularly useful for developing these skills. The important aspect of skill development here is to try the skill and get immediate feedback either from people on your team or from others who can observe your performance. A feedback loop is critical to effective human performance, just as feedback is critical to effective performance of technical or information systems. You may also want to seek the support and feedback from your boss, another senior manager in your organization who can serve as a mentor, or perhaps an outside consultant in the emerging role of executive coach.

### Take Formal Training

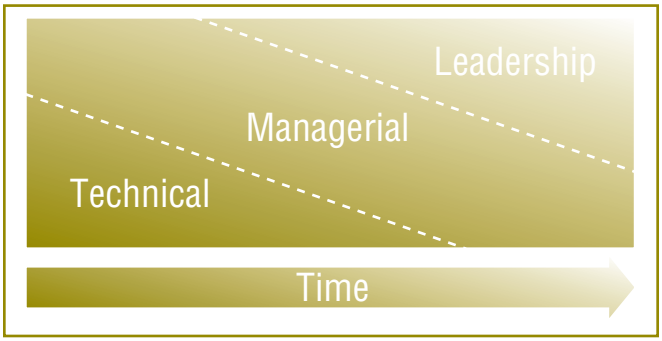
The next approach is to use the array of training opportunities available in your organization and career field. DAU, for example, offers a broad selection of PM-related courses addressing PM leadership issues. The more senior courses stress these leadership themes, but the challenge here is to get exposure to leadership issues early in your career to gain the most benefit in your initial PM assignments. Beyond the formal career development path, you should also explore outside seminars, guest speakers, and graduate coursework.

FIGURE 1. **Program Leadership Skills**

| APMC Leadership Exercise* Importance Ratings | Student Groups | 360 Feedback** Performance Ratings |
|---|---|---|
| Communication | 224 | High |
| Vision/Strategy | 203 | Low |
| Delegation/Empowerment | 151 | Low |
| Integrity | 128 | High |
| People Skills | 111 | High |
| Competence/Expertise | 95 | High |
| Team Building | 88 | Medium |

*1,956 APMC students in 326 student groups
**7,796 AMPC students

FIGURE 2. **Program Management Career Balance of Expertise**




### Pursue Self-Development

Finally, there is the self-development approach. This may appear less viable on first glance. "How can I teach myself something I can't do?" you ask. But experience (even unsuccessful experience) and reflection are often the best teachers. Never underestimate the power of reading, observing, reflecting, and critical thinking in developing or honing your skills. The success literature is full of personal examples of people who have pulled themselves up by their own boot straps. All of us need to become continuous learners, using the above tools and processes as we adapt to the changing world around us.

### The Key is People

In summary, the view of PM leadership from the trenches is a view that emphasizes people. It stresses developing a vision or strategic direction for the program and communicating that vision so people working on the program buy in to a common goal. The PM leader excels at people skills to build the team, then he or she delegates and empowers team members to take the lead in achieving key parts of the vision. Finally, the PM leader has credibility based on both competence and personal integrity.

This view of PM leadership is summarized in Figure 2, which traces the evolution of technical, management, and leadership roles in a typical program management career. We may think of program management as an effective combination of technical and management skills. But the view from the trenches is that the successful PM is first and foremost a leader. And leadership is all about people.

**Editor's note**: The author welcomes comments and questions. He can be contacted at owen.gadeken@dau.mil.

**We may think of program management as an effective combination of technical and management skills. But the view from the trenches is that the successful PM is first and foremost a leader. And leadership is all about people.**

*Director, Force Transformation Publishes*

# Military Transformation—a Strategic Approach

*Fall 2003*

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# Fast-Track Armaments for Iraq and Afghanistan

## Picatinny's ARDEC Provides America's Warfighters with Full Spectrum Fighting Power

*Michael P. Devine • Anthony J. Sebasto*

At the U.S. Army's Armament Research, Development and Engineering Center (ARDEC) at Picatinny, N.J., engineers and scientists are providing America's warfighters with solutions to today's battlefield challenges faster than ever before. In an environment that once measured progress by decades, the laboratories here are creating new metrics that are based on speed, flexibility, value, and customization.

Often called the home of Army lethality, Picatinny's ARDEC and its Program Executive and Project Manager Office partners have together provided more than 90 percent of the Army's weapons and munitions systems for well over a century. Current support to Iraq and Afghanistan represents a new chapter in this long tradition of supporting the soldier.

**Gunfire Detection System.** This device quickly detects and locates the origin of small arms fire, allowing troops to rapidly return fire and enhancing their survivability.

ARDEC's rich heritage and strong knowledge base acts as a springboard for innovative armaments engineering practices and technologies. U. S. forces are benefiting from the full spectrum of Picatinny's armaments expertise in four important ways.

### 1. Urgent Fieldings

ARDEC understands the immediacy of the soldier's needs. Over a recent 12-month period, the center and its partners have responded to urgent Army and Joint Service requests by fielding some 17 specialized weapons and ammunition systems in record time, among them the:

**Gunfire Detection System**. This device quickly detects and locates the origin of small arms fire, allowing troops to rapidly return fire and enhancing their survivability. Twenty detection systems—10 fixed and 10 vehicle mounted—were fielded within 90 days of the receipt of a requirement.

**M211/212 Advanced Aircraft Infrared Countermeasure Flares**. The M211/212 flares counter all known surface-to-air missile (SAM) threats by serving as decoys that confuse the SAM's infrared guidance systems. Army aviator Chief Warrant Officer Al Mack of the 160th Special Operations Aviation Regiment summed up the M211/212's effectiveness when he said, "Our MH47E fleet had 16 confirmed SAM firings during the first six months of the Afghanistan

**Devine** *is the technical director at U.S. Army Armament Research, Development and Engineering Center (ARDEC). He has a bachelor's degree in physics from St. Joseph University and a master's degree in physics from Drexel University.* **Sebasto** *is an associate senior technical executive for technology at ARDEC. He has a bachelor's degree in mechanical engineering from the University of Delaware and a master's degree in management from the Florida Institute of Technology.*



Photos courtesy ARDEC External Affairs Office

**M211/212 Advanced Aircraft Infrared Countermeasure Flares.** The M211/212 flares counter all known surface-to-air missile (SAM) threats by serving as decoys that confuse the SAM's infrared guidance systems.

conflict. I had two SAMs fired during a daylight flight with Gen. Tommy Franks on board. ... Flares dispensed automatically. ... I think I am sitting here writing because our ASE [Aircraft Survivability Equipment] worked."

**XM1060 40mm Thermobaric Grenade**. This 40mm device, developed and fielded by Picatinny within a four-month span, is the very first small arms thermobaric device released to the war theatre. It is applauded as a critical tool for military operations in urban terrain and close-quarters cave applications.

**Advanced M26 TASER Stun Pistol**. Adapted for Army use from a commercial design, the M26 nonlethal weapon is utilized for crowd control and detainee management. It provides the soldier with a less-than-lethal option appropriate to control personnel situations.

## 2. On-The-Ground Support

ARDEC engineers are found wherever U.S. troops are living and fighting. They serve as the Army's "911" lifeline for lethality assistance and troubleshooting. This always-open line of communications helps engineers assess the effectiveness of existing and newly fielded weapons systems as well as identify warfighter needs. Some recent examples of this support follow.

—ARCENT [U.S. Army Forces, U.S. Central Command] Kuwait and the 82nd Airborne Division at Fort Bragg, N.C., reported unacceptable readiness and performance of various small arm weapons. Picatinny engineers were deployed and on the ground within 72 hours performing weapon inspections, training the troops on scheduled maintenance procedures, and developing workable field inspection and repair criteria. These reports prompted a Picatinny-led mission in July 2003 of representatives from Fort Benning, Ga., ARDEC, and PM Soldier Weapons to evaluate reliability and performance of individual soldier weapon and ammunition systems under combat conditions. The team visited Tikrit, Mosul, Irbil, and Baghdad, and sites in Afghanistan. It interviewed 1,000 soldiers and obtained valuable feedback on weapon performance and field problems.

**Often called the home of Army lethality, Picatinny's ARDEC and its Program Executive and Project Manager Office partners have together provided more than 90 percent of the Army's weapons and munitions systems for well over a century.**

—The 101st Airborne Division reported that its air Volcano systems were inoperative for an upcoming deployment. ARDEC engineers immediately deployed to Fort Campbell, Ky., to troubleshoot and repair the systems and conduct a new equipment training refresher course. The ARDEC team returned two of the three systems to operation and was presented a certificate of appreciation by the 101st Division commander.

—The Picatinny Explosive Ordnance Disposal (EOD) unit collected vital information about enemy ordnance and explosive devices while in Iraq and Afghanistan. The unit developed protocols that enable U.S. Joint Forces personnel to download information on how to render safe foreign ground combat enemy weapons, and procedures guides

**ARDEC's current support to Iraq and Afghanistan represents a new chapter in the center's long tradition of supporting the soldier.**

for disarming and disposing of captured and abandoned tanks, missiles, and attack helicopters.

—In recent months, Picatinny engineering teams provided on-site support to the new Stryker Brigade Combat Team (BCT). The teams assisted the BCT Project Manager's Office and its industrial contractors by integrating and testing various Picatinny-developed weapon systems for Stryker armored vehicles headed to Iraq. A Picatinny team also trained soldiers from Fort Lewis, Wash., on a newly developed logistics software program for efficient and safer configuration of munitions for loading onto shipping platforms.

### 3. Ensuring Strength of America's Armaments Inventory

The majority of weapons systems and ammo used by the Army are drawn from standing inventories. These items were designed by Picatinny engineers and many industry partners. Several of these systems deserve highlighting because of their superb performance in theatre operations in both Iraq and Afghanistan.

—The Bunker Defeat Munition has destroyed hardened emplacements, masonry walls, and light armored vehicles. "This thing is a real kick in the pants," says Staff Sgt. Lonnie Schultz, Infantry Squad Leader, 31st Infantry Regiment, 10th Mountain Division, when describing this lightweight 83mm shoulder-launched weapon.

—The SADARM (Search and Destroy Armor) precision smart-guided 155mm artillery munition "exceeded expectations and became the preferred precision munition for the field artillery battalions and their supported maneuver commanders," according to a 3rd Infantry Division After Action Report. "Very effective against tanks/light armored vehicles, with three rounds killing at least one tank ... (it) never missed," said Lt. Col. Doug Harding, former 3rd Brigade Combat Team fire support coordinator, 1/10 Field Artillery commander. Of 121 SADARMs fired in Operation Iraqi Freedom, 48 pieces of enemy equipment were completely destroyed. SADARM defeated all known armor and artillery targets on the battlefield.

—The M109A6 Paladin 155 self-propelled artillery howitzer is the most technologically advanced cannon in the current Army inventory with highly mobile "shoot and scoot" capability. Fielded after Operation Desert Storm, it fires a first round 30 seconds after stopping and delivers devastating firepower at ranges up to 30 kilometers. This capability, realized by its highly automated navigation and fire control system, got rave reviews from howitzer crews and commanders alike during the "dash to Baghdad."

**Advanced M26 TASER Stun Pistol.** Adapted for Army use from a commercial design, the M26 non-lethal weapon is used for crowd control and detainee management. It provides the soldier with a less-than-lethal option appropriate to control personnel situations.

**Armed TALON.** The Armed TALON is a small, highly maneuverable, remote controlled tracked vehicle fitted with lethal and non- lethal armaments. TALON's introduction to the battlefield will provide a new dimension to warfighting capability and greater soldier survivability.

—Current and small arms superiority stems from weapons like the M4 carbine, M249 squad automatic weapon, and M240 machine gun, which continued to receive high praise from soldiers. "Our stuff worked great ... weapons worked well enough that it saved lives," said the commander of 2-187th Infantry. Soldiers have hailed the M240 machine gun as one of the best weapons on the battlefield. "Three different soldiers firing the same gun outperformed a group of 30 gunners using other equipment," said Master Sgt. Michael Valdez, 82nd Airborne Division. The new, urgently fielded XM107 Barrett .50-caliber Sniper rifle was recognized as a key element in urban fighting.

## 4. Developing Advanced Weapon Systems

U.S. military capability must keep pace with the changing world to assure supremacy in the spectrum of conflict. Looking ahead, ARDEC engineers are working on a range of advanced warfighting and counter-terrorism systems in support of Army transformation:

**Armed TALON**. The Armed TALON is a small, highly maneuverable, remote controlled tracked vehicle fitted with lethal and non-lethal armaments. The system is currently undergoing tests at Picatinny. TALON's introduction to the battlefield will provide a new dimension to warfighting capability and greater soldier survivability.

**Armaments for the Army's Future Combat System (FCS)**. Leading industry combat vehicle developers like General Dynamics and United Defense have entered into cooperative research and development agreements with Picatinny's ARDEC in support of the FCS-mounted combat system, non line-of-sight cannon (NLOS-C), and NLOS mortar variant and other cannon, fire control, and munition technologies.

**—Electromagnetic Gun Technology.** ARDEC, working with the Army Research Laboratory and U.S. Navy partners, is expanding research and development efforts on a novel pulsed-power gun concept that eliminates the need for energetic propellants. Development activities are maturing the technology and generating notional system designs ranging from small arms to large caliber direct and indirect firing systems that provide either very high velocity defeat of advanced targets or very long range for projectiles depending on the application.

—**Leap-Ahead Disruptive Technologies**. ARDEC's development portfolio supports exploration into leap-ahead technologies—like nano technology and direct energy-based, scaleable effects weapon systems—enhancing weapon performance and future warfighter capabilities in the spectrum of conflict.

Warfighting will continue to depend on the combatant's ability to address the full spectrum of conflict by delivering desired effects on target in order to reduce threat capabilities. Picatinny's mission is to research, develop, and integrate advanced armament technologies into weapon systems that meet warfighter needs. No other organization in the world provides the overall world-class portfolio of armament systems and advanced technologies that support a broad range of Joint Service warfighters today and for tomorrow.

**Editor's note:** For questions or comments on this article, contact the ARDEC External Affairs Office at <eva.j.bush@us.army.mil>.

# First in Fleet: KC-135 Global Air Traffic Management (GATM)

*Lt. Col. L. D. Alford, USAF*

The advent of global air traffic management (GATM) is radically changing the world of global reach aviation. To ensure the United States military access to global air routes, all aircraft using them must reach these standards by the time the world's air traffic control systems are converted to meet the GATM requirements. The complex modifications to aircraft and operations are made more difficult by the amorphous and changing requirements of the overall GATM system. The Global Reach System Program Office put together a program to meet the GATM needs of the KC-135 tanker aircraft being flown by the Air Mobility Command. The KC-135 GATM program has the privilege of being the first Department of Defense (DoD) GATM program to deploy a full-up GATM capability.

## The KC-135 Program

The success of the KC-135 GATM program can be traced directly back to the building block nature of the program and lessons learned from earlier KC-135 programs. The Air Force did not want the first GATM aircraft fleet to end up a boat anchor. Actually, the KC-135 was not originally intended to be the Air Force's first GATM program. The C-5 Aviation Modernization Program (AMP) went on contract before the KC-135, and the KC-10 and C-17 were scheduled to deliver aircraft with GATM ahead of the KC-135. The KC-135 GATM program pulled ahead and passed all of these programs because it met key Air Force needs: a program that could lead the fleet and supply a first capability to support the deployed air forces with tankers and cargo carriers, and that could pave the way for the GATM modifications in other Air Force aircraft.

Lessons learned from past KC-135 programs among others indicated the need to address three key program areas: a strong systems engineering development approach, a solid system safety engineering process, and a robust test program. The KC-135 GATM program focused on these areas to improve and capitalize on the lessons learned. The Wright-Patterson program was set up to ensure a developmental approach to the integration of mainly commercial-off-the-shelf (COTS) equipment. Both the contractor and the government strove to develop a MIL-STD-882 safety program that would guarantee the completed product would be airworthy and meet user needs without major changes. Developmental and operational testers were brought early into the program to make certain a sufficient level of test and evaluation was used to wring out the design and the final aircraft.

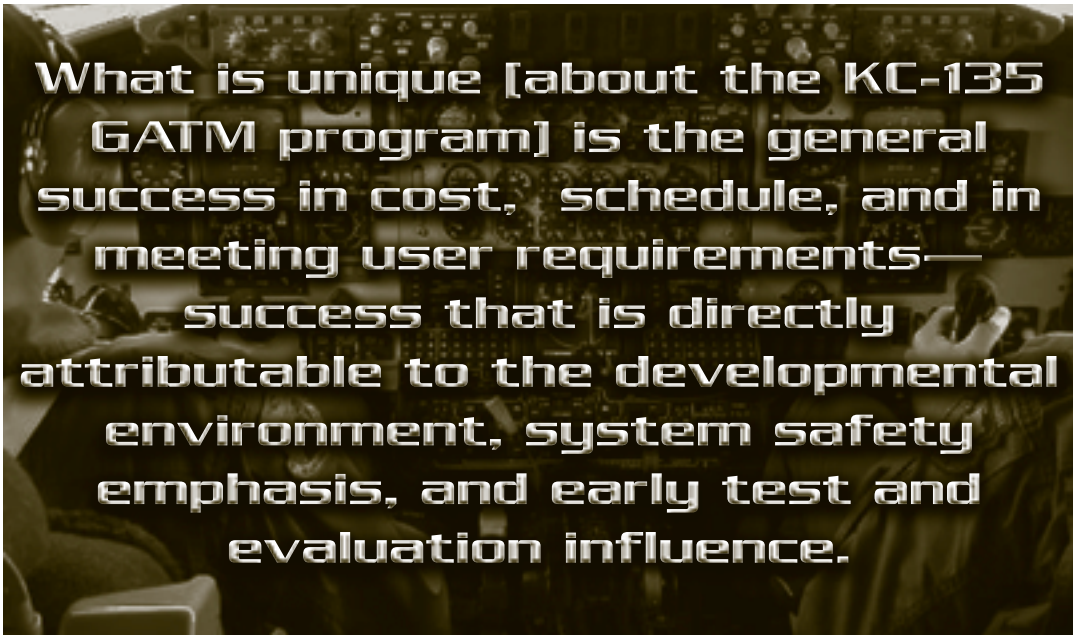
These steps were very successful and produced a product on time with little cost growth. The details of the organization of these three critical pieces of the KC-135 GATM program will benefit the design of any government acquisition program, especially for COTS-based or largely COTS-based acquisitions that require military agency certification.

## Systems Engineering Development Approach

Major modifications to complex systems are not exclusively sustainment activities. They necessitate the involvement of developmental system experts and expert integrators. In the Air Force, the Aeronautical Systems Center is the primary developer for aviation systems. The use of this organization's deep engineering experience and tight relationship with the Air Force Research Lab was fundamental in aiding the success of the KC-135 GATM program. Additionally, the Electronic Systems Center provided support to the program in avionics and data systems. This support included a GATM performance assessment and a data chain certification of the Air Force Flight Management System (AFFMS) and the digital aeronautical flight information file (DAFIF) it uses. This focus on a data chain certification to assess the navigation database subsystem is unique in the military but reflects an obvious need to ensure the safety and airworthiness of these types of highly integrated navigation systems. This is a parallel effort with civil systems such as the Jeppeson navigation database, but it takes a step ahead under the aegis of Air Force airworthiness that is necessary for military systems. The eventual goal for the Air Force is to achieve a fully airworthy navigation database.

The integration of COTS items is a developmental effort. This focus in the program was a key factor leading to its success. Every effort was made in the KC-135 GATM program to acquire previously certified and civil-certified

**Alford**, *chief of system safety for the Mobility SPO, is an Air Force experimental test pilot with over 5,000 hours in more than 60 different kinds of aircraft and is a member of the Society of Experimental Test Pilots.*




components. This saves money by significantly reducing the cost to test, verify, and certify individual components. This way, the focus of the program was fully on making the pieces work together and certifying the integrated system. A program that doesn't ensure this requires deep investments in engineering, test, and safety to develop and certify the components as well as the overall integration.

COTS itself can become both a cost and sustainment driver in the support of a program. No program can completely isolate itself from these certain problems, but the KC-135 GATM program did work to reduce these problems by using state-of-the-art and certified equipment.

The key to a successful low-cost program of this type is the basic focus on engineering development.

### Emphasis on System Safety Engineering

The key to ensuring airworthiness and successful integration of anything in a complex system is system safety engineering, the function that joins together the disparate engineering functions and test and evaluation and that ensures the overall safety of the components, integration, and design. Although other functions handle pieces of system safety, only system safety engineering brings together these areas and sculpts the overall airworthiness and safety of the complete system. It is key to note that some of the greatest disasters related to the lack of appropriate system safety are not just the missing function, but rather, the fact that full integration of system safety at any point in the program would likely have prevented the mishap as well as reduced the program costs and overruns.

With this is in mind, the KC-135 GATM program incorporated, and the contractor supported, a very strong system safety process. This was a reaction to past KC-135 programs and to several mishaps in other systems that were directly attributed to a failure to incorporate system safety.

The system safety program from government to contractor was characterized by good communications and strong and appropriate government insight and oversight. Specifically, the deliverable documents to the government system safety process and the approval of those documents were the key to communication, contractor and government understanding of the safety of the system, and risk acceptance by the U.S. government. In an era when programs seek to reduce deliverables as much as possible, these reports and analyses are obviously core to successfully producing a system the government can certify. Additionally, in the KC-135 GATM program, these documents ensured that the program met costs and schedule. Without these deliverables, the program would not have been able to certify the system airworthy in a timely or cost-effective manner.

### Importance of Test and Evaluation

The KC-135 GATM program was unusual in its dedication to early test planning and integration. Additionally, the strong system safety function pushed the program to ensure a good verification strategy as a part of the system safety process. Although all training and guidance on acquisition recommends early test involvement, an unfortunate characteristic of many acquisition programs is the lack of adequate test planning until the end portion of the program. This results in poor verification, lack of timely deficiency identification, and other serious problems in the system that cause cost and schedule growth or, even worse, safety mishaps. Another critical issue is the Air Force's policy not to make operators unintentional developmental test pilots. The danger of this is obvious and the potential lack of user trust if an improperly or untested system harms the operator or leads to a military failure is a significant national policy issue.

Unlike many programs that don't bring in testers early, the KC-135 GATM program fully integrated both developmental and operational testers and test into the program. Test and evaluation found many deficiencies and verified the overall capabilities of the system. The key

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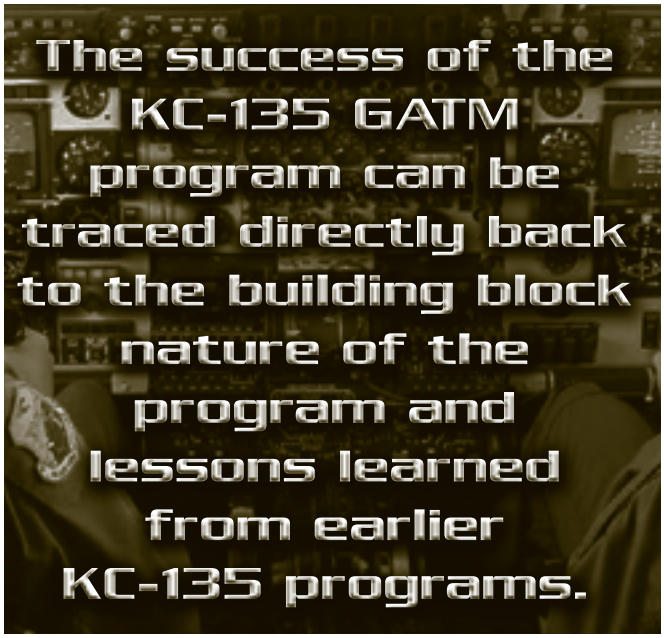


input to the program was the verification of the safety and airworthiness of the system, but the discovery of deficiencies prior to operational test or operational use is a necessary method of ensuring the user does not get an unsafe or unusable system.

The dedication of the KC-135 GATM program to test and evaluation resulted in a capable system that has already easily passed operational test and evaluation. The program influenced the integration of operational and developmental test, and inspired the program team to implement a new acquisition best practice. Usually modern programs use combined test and evaluation to save test costs and to improve the test collaboration between operational and developmental test and evaluation. The KC-135 GATM program took test and evaluation to the next level by integrating the developmental tests and operational tests to improve the system prior to dedicated operational test. This collaboration ensured the program met the operational requirements and succeeded in dedicated operational test.

## A Model for Success

The KC-135 GATM program is not a singular or unique program. It is representative of the types of programs that the DoD is working on now and those that it will fund in the future. What is unique is the general success in cost, schedule, and meeting user requirements—success that is directly attributable to the developmental environment, system safety emphasis, and early test and evaluation influence. Modern complex integration programs in the DoD that involve system of systems controlled by public agencies will succeed if they follow the model of the KC-135 GATM program.

**Editor's note**: The author welcomes comments and questions. He can be contacted at lionel.alford@wpafb.af.mil.

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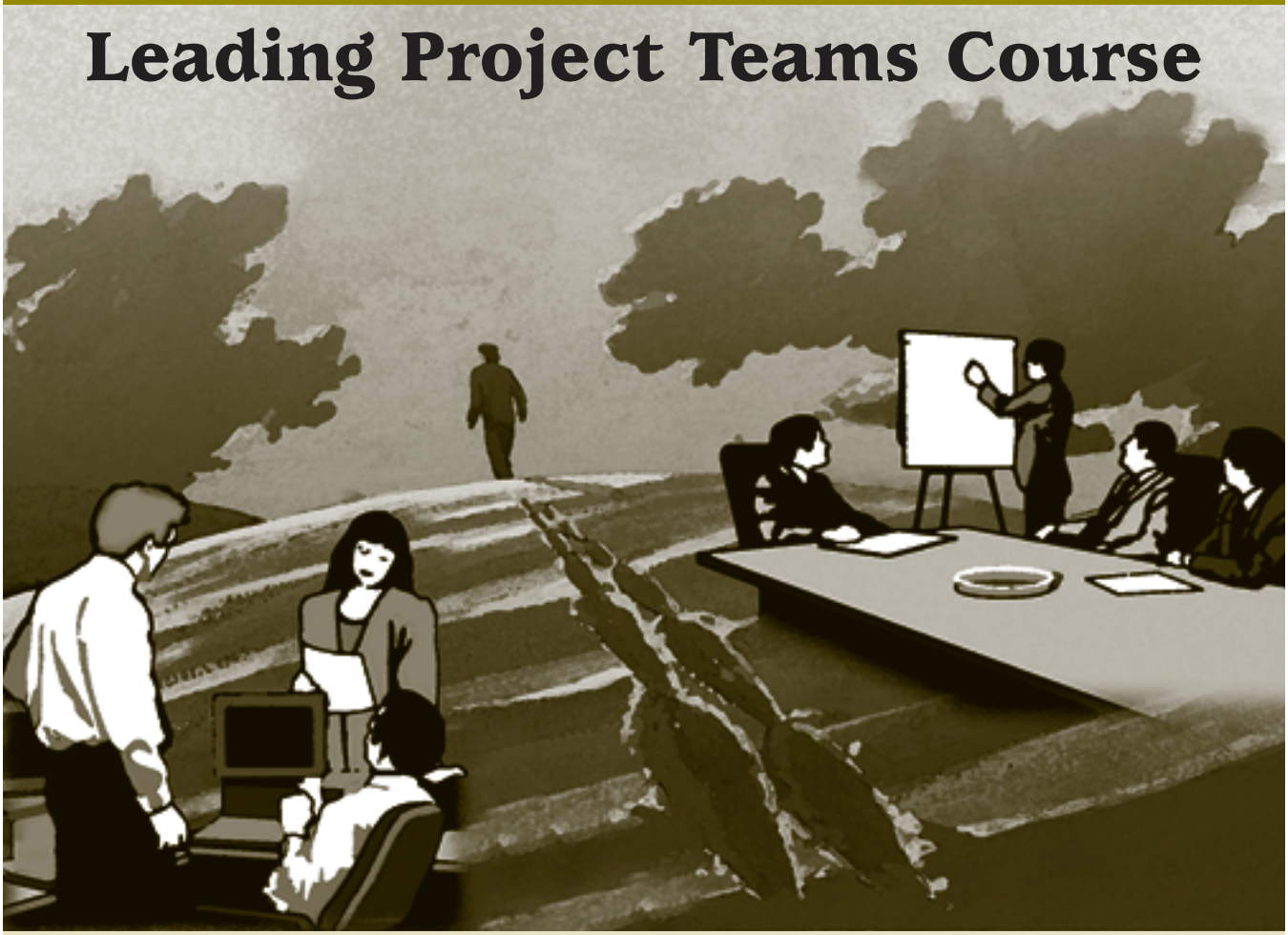

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# The Directorate of Defense Systems

## Expanded Mission and Focus

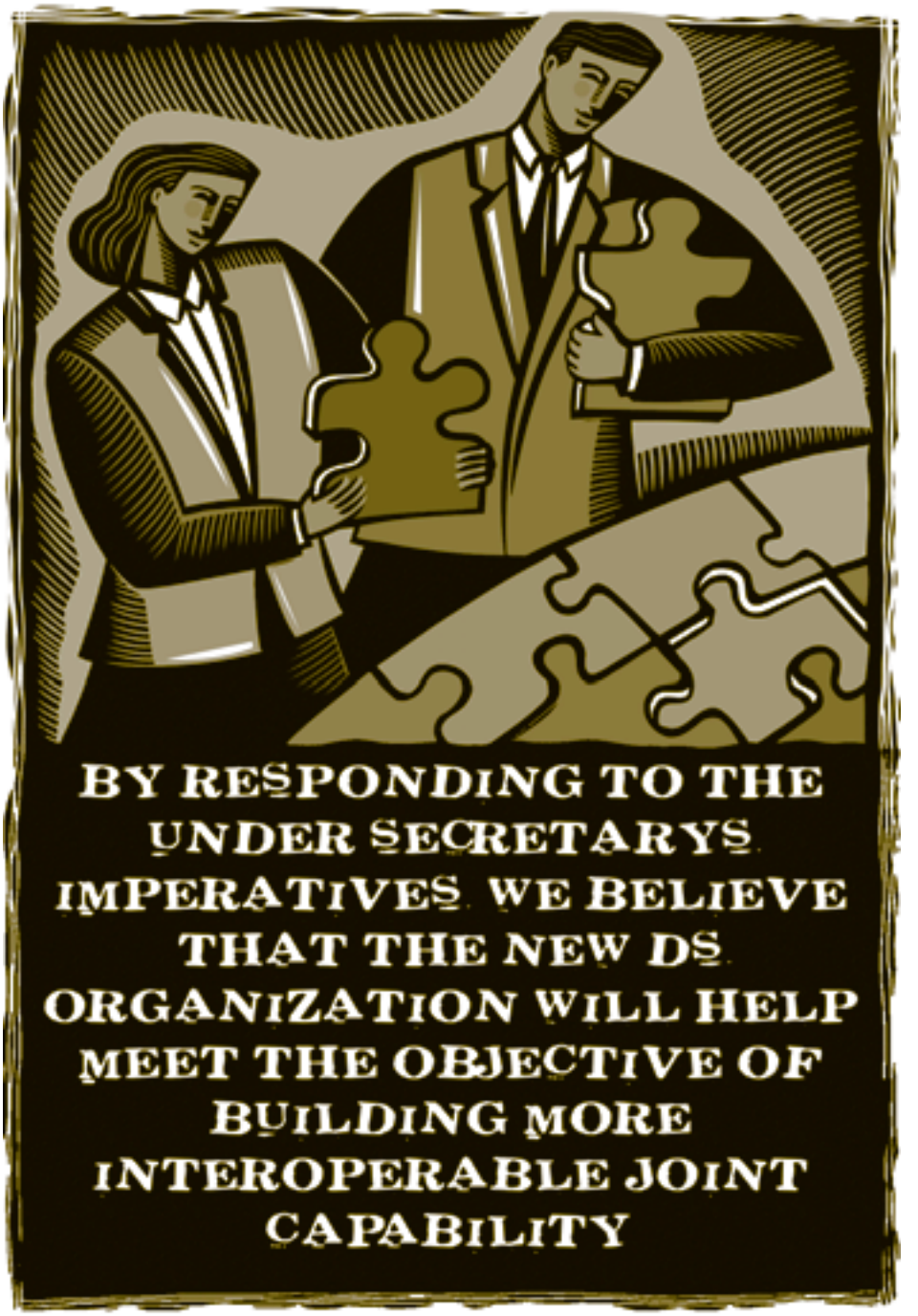
*Glenn F. Lamartin*

In 2002, the under secretary of defense for acquisition, technology, and logistics (USD(AT&L)) directed a reorganization of his Strategic and Tactical Systems (S&TS) and the Interoperability (IO) Directorates into a new Defense Systems (DS) Directorate.

While DS would retain as its core responsibilities the review and oversight of acquisition programs and an emphasis on interoperability of systems as performed by S&TS and IO, the under secretary expected the new organization to respond also to his belief that we too often lack a mission context within which to make decisions about individual acquisition programs and that we need to drive good systems engineering practice back into the way we do business. He subsequently established three imperatives for the new organization:

- "Provide a context within which I can make decisions about individual programs."
- "Achieve credibility and effectiveness in the acquisition and logistics support processes."
- "Help drive good systems engineering practice back into the way we do business."

This article describes the new DS organization, our mission, and the progress we have made to date implementing the under secretary's imperatives. By re-




**Lamartin** *is the director of defense systems, Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics). He received his doctorate in public administration from the University of Southern California.*

sponding to his mandates, we believe that the new DS organization (Figure 1) will help meet the objective of building more interoperable joint capability. To this end, DS consists of three directorates:

- Systems and Mission Integration (SMI)
- Systems Acquisition (SA)
- Systems Engineering (SE).

## Addressing First Imperative: Systems and Mission Integration

SMI, derived from the former Interoperability Directorate, works with the Joint Staff, military services, combatant commands, defense agencies, and other Office of the Secretary of Defense (OSD) organizations to help evolve increasingly effective joint capabilities for the warfighter. The directorate has the lead to develop Department of Defense (DoD)-wide "roadmaps" for critical areas like joint battle management command and control and for integrated air and missile defense. This responsibility also includes leading the development of "systems views" of joint integrated architectures for warfighting capability areas such as precision engagement or combat identification (Figure 2 on page 26).

The organization's deputy directors and staff specialists act with considerable autonomy as they lead the development of roadmaps and the systems view of joint integrated architectures, defining what systems to bring together in a system-of-systems approach to meet warfighter needs. Of significance, SMI also works with the intelligence, network information, and operational communities to sort out how best to use systems to achieve mission capability.

While the Joint Staff leads the development of the operational view of the architectures—what the warfighter wants to be able to do and how—SMI represents the acquisition community to make clear what is practical and reasonable. Among the tasks assigned to SMI are guiding first-order capability analyses, helping to lay out capability roadmaps, allocating performance and schedule expectations to individual systems, and working to harmonize development plans and schedules. SMI also promotes initiatives that advance integration across capability areas (for example, the common operating picture), identifies technology gaps and shortfalls, and works with the science and technology community to address them.

SMI consists of three offices: Joint Force Integration (JFI), which establishes and leads key initiatives involving families-of-systems focused on capabilities that cut across traditional Service and combatant command boundaries; Joint Force Application (JFA), which focuses on the integration of weapon systems and platforms into joint integrated architectures in a system-of-systems approach; and Joint Force Operations (JFO), which leads our activities aimed at capabilities enabling joint force operations, such as integrated logistics and electronic warfare.

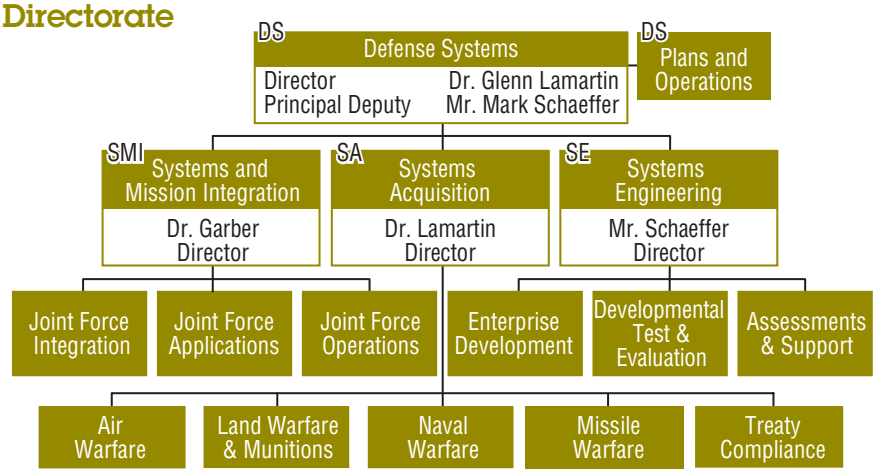
The net effect of SMI's work is to help meet the under secretary's first imperative: *to provide a sound context within which he can make decisions about individual programs*. While the Defense Acquisition Board (DAB) continues to focus on program maturity and readiness to proceed to the next phase of the acquisition process, now it can also review them in the context of what capabilities a weapon system contributes. This represents a major shift in the Department's review process.

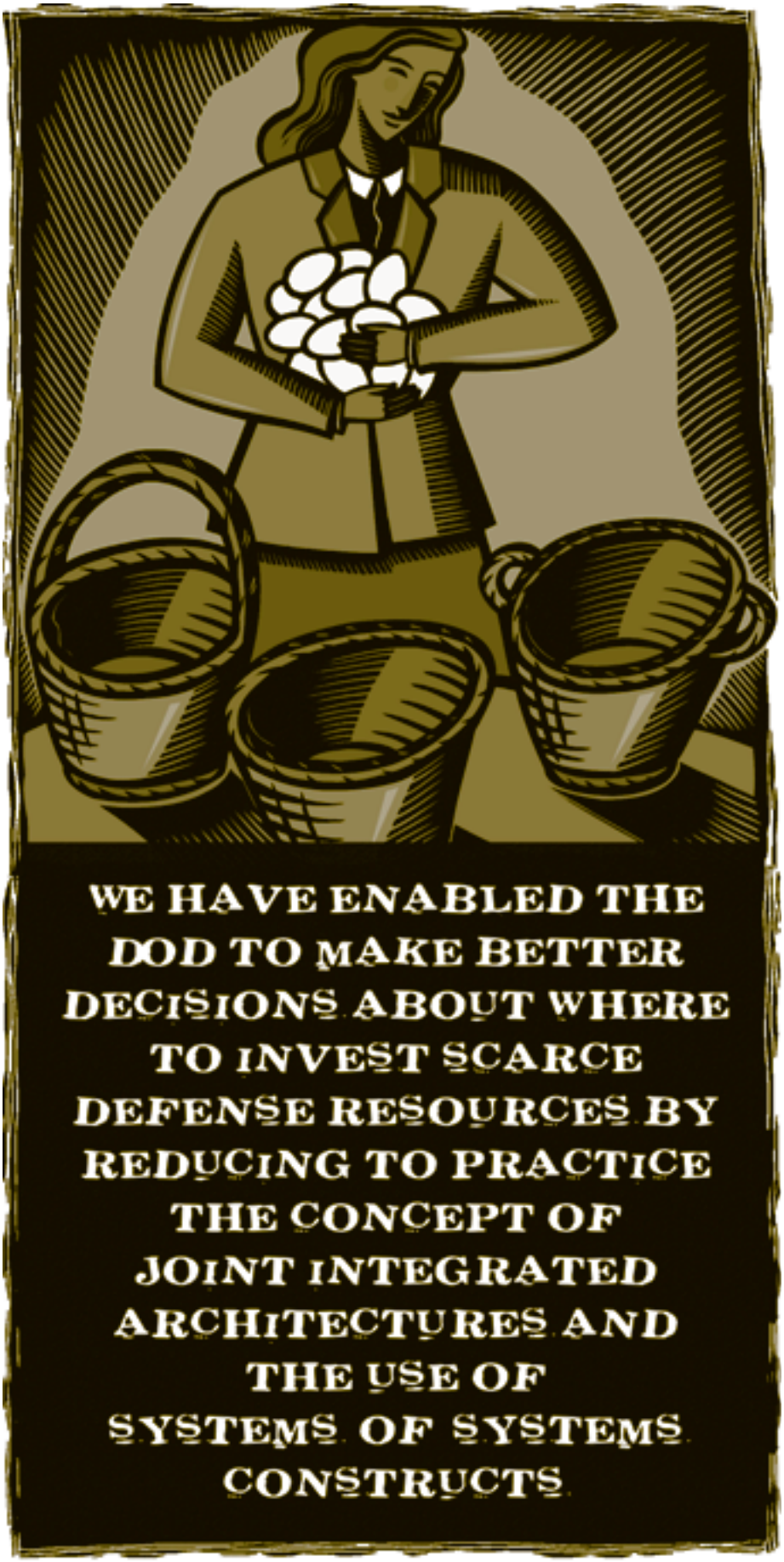
## Addressing Second Imperative: Systems Acquisition

Program managers (PMs) for major defense acquisition programs (MDAPs) and their senior staffs are probably familiar with the warfare offices that now constitute SA: Air Warfare, Land Warfare and Munitions, Missile Warfare, and Naval Warfare. These offices continue to oversee and review acquisition programs in their mission areas. However, with the reorganization, their work has been expanded from acquisition oversight to acquisition support, a more active role of helping ensure that programs succeed as they progress through the acquisition process.

SA helps programs to plan properly, fund adequately, and execute properly. SA also ensures that programs comply with established policy, including the emphasis on capability-based acquisition and use of the spiral development approach. SA surfaces and resolves programmatic issues; assesses progress and ensures that program managers apply best practices in management, acquisition, and en-

FIGURE 1. **Organization of the Defense Systems Directorate**






gineering; promotes coordination, cooperation and cross-Service management of joint programs; and promotes initiatives to improve commonality among like systems and processes. SA staff specialists serve as technical representatives to outside organizations and committees on system acquisition matters (providing executive secretaries to Defense Science Board reviews or responding to congressional inquiries, for instance).

Another key element of the SA organization, Treaty Compliance, provides technical support to strategic and conventional arms negotiations, makes recommendations concerning treaty implications on the acquisition of new systems, and monitors compliance with treaties and similar agreements.

SA's work is critical to meeting the under secretary's second imperative: *to achieve credibility and effectiveness in the acquisition and logistics support processes*. We believe that SA's staff specialists will be even more effective with the establishment of our new systems engineering directorate.

### Addressing the Third Imperative: Systems Engineering

We specifically established the SE directorate to address the under secretary's third imperative: *to help drive good systems engineering practice back into the way we do business*. SE is now working to set policy for systems engineering practice across the Defense Department's acquisition programs and will see to its implementation. The directorate also leads, as needed, assessments of engineering capability and progress and provides independent expert support to program managers who request it. SE will integrate the results of these assessments to gain insight into the causal factors that contribute to problems meeting performance expectations.

SE is divided into three offices: Enterprise Development (ED), Developmental Test and Evaluation (DT&E), and Assessments and Support (AS).

Enterprise Development, at the heart of the systems engineering revitalization effort, is working to raise awareness of the importance of good systems engineering within OSD and the components, to ensure that program managers apply best practices in the planning and execution of programs, and to assess program performance. ED, in collaboration with the military services, academia, professional associations, and industry, is currently defining what constitutes good systems engineering—not in a general or theoretical sense, but in practice—and sharing the results with the acquisition community to ensure the application of best practices in system design, development, production, and support. The office also champions systems engineering training, both for the government workforce and within the private sector. SE promotes the use of sound engineering management tools and the development of new tools and methods.

The Developmental Test and Evaluation office ensures the seamless integration of test and evaluation throughout the development process so that systems are ready to proceed to and succeed in formal operational tests. DT&E continues to serve as the primary office on all matters dealing with developmental test and evaluation issues and policy, and is responsible for the review and approval of system T&E master plans (TEMPs). DT&E also promotes the development of new ways for developers, testers, and operating forces to address interoperability among systems. This effort includes the expanded use of modeling and simulation (M&S).

DT&E's staff specialists will provide the focus across DoD to better leverage M&S to establish environments and processes. Our initial goal is to establish a small community of interest across the DoD acquisition community to define a specific vision and roadmap for improving application of M&S in acquisition. This is a significant step toward fielding improved capabilities in less time and with sufficient confidence that the fielded capabilities will perform effectively in both the system and joint mission environments.

The Assessment and Support office conducts assessments to improve the balance of cost, schedule, performance, and risk within and across programs that will operate in a system-of-systems environment. AS uses DoD staff resources possessing a wide range of experience and expertise from many organizations. The goal of AS is to help program managers reduce risk through tailored application of an assessment methodology and development of specific recommendations. We conduct two major types of assessments: support and oversight. PMs request support assessments, with the resultant findings and rec-

## Glenn Frederick Lamartin

*Director, Defense Systems, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics)*

Assigned to his current position in 2002, Dr. Glenn Lamartin is responsible for matching systems solutions to warfighters' needs, performing technical and programmatic oversight of a wide range of Department of Defense (DoD) acquisition programs for strategic and tactical systems, and for ensuring that individual programs apply good systems engineering discipline.

Lamartin joined civil service in 1972 as a flight test engineer at the Naval Missile Center, Point Mugu, Calif. In 1977, he transferred to Washington, D.C. as a Naval Air Systems Command project engineer and later joined the Joint Cruise Missiles Project Office. In 1984 he was appointed director for Tomahawk system-level test and evaluation.

Lamartin served in a variety of Office of the Secretary of Defense (OSD) positions from 1986 to 2001. He managed shipboard sensors and weapons acquisition programs; and directed design and construction of surface ships and their combat systems, sensors, and weapons. At the end of his first OSD tour, he was responsible for identifying and developing advanced technologies for and the acquisition of ballistic missile defense, cruise missile defense, and offensive strategic weapons systems.

In 2001, Lamartin accepted a position in the Missile Defense Agency where he developed missile defense policy and programmatic guidance, designed acquisition strategies, determined best value for future investments, allocated fiscal resources, established agency management processes, and directed internal reviews of agency operations.

Lamartin received a bachelor's degree in aerospace engineering from the University of Maryland, and a master's in systems management and a doctorate in public administration, both from the University of Southern California.

ommendations developed exclusively for the PM's use. Oversight assessments, on the other hand, provide independent, predictive views on the health of programs as part of the DAB process. We will ensure both types of assessments are constructive, providing actionable recommendations to position programs for success.

AS also conducts systemic analysis on the collected findings from multiple individual assessments. From this analysis, we will develop a set of systems engineering best practices. We will then share these best practices with the acquisition community, including PMs, military services and OSD acquisition staffs, the Defense Acquisition University, industry, and professional associations.

## Working Across Directorates

DS's three directorates must work closely together to carry out DS-assigned tasks successfully and meet the under secretary's imperatives. The SMI directorate depends on the product experts in the SA warfare offices for insights into system capabilities and programmatics. In turn, the SA offices look to SMI to provide the system-of-systems context; allocate expectations to individual systems; and lay out mission area capability, roadmaps, and investment plans. The warfare offices also look to SE for advice on what constitutes good engineering practice and to assist in assessments of program plans and progress. In turn, SE relies on the warfare office program experts to ensure that programs properly implement systems engineering policy and best practices.

To help with the integration of the three directorates' efforts and to engage with outside agencies on selected actions, we have established a DS planning and analysis team (PAT). This is not an organizational unit. Rather, it operates as an integrated process team. The PAT is the DS focal point for interaction with the policy community on issues such as strategic planning guidance and joint programming guidance; engagement on Joint Capabilities Integration Development System (JCIDS) strategy and top-level, cross-cutting architecture matters; coordination of all formal study and analysis activities across DS and with outside groups; and engagement in planning, programming, budgeting, and execution system (PPBES) activities. All the DS directorates contribute people to the PAT.

This integration helps to remove organizational boundaries within DS in the daily conduct of our business. Its success depends on an open, collaborative approach.

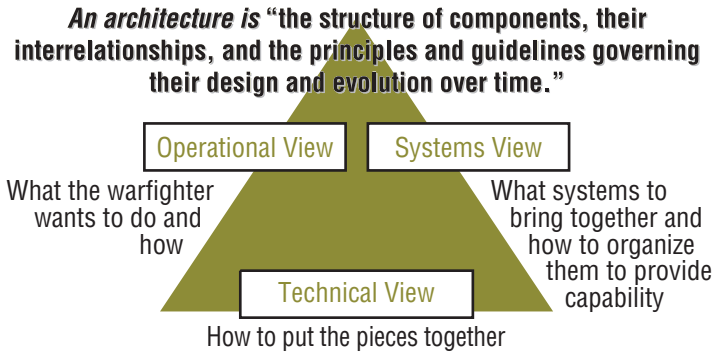
## Recent Accomplishments

In the past year, the Defense Systems directorate has compiled an impressive record of accomplishments. We have enabled the DoD to make better decisions about where to invest scarce defense resources by reducing to practice the concept of joint integrated architectures and the use of system-of-systems constructs. This work proved important to make the case to establish the $3.9 billion Joint-Unmanned Combat Air System (J-UCAS) program.

DS-led analytical work has contributed to the definition of systems architecture views and has produced capability roadmaps and investment strategies for air and missile defense, combat identification, and precision engagement. These have served as a guiding example of how to do it right in setting cost, schedule, and performance expectations for individual programs. We are conducting a new "capability area" review for our air and missile defense mission. Our aim is to help make decisions about individual programs in the context of how their attributes contribute to the overall mission, rather than making a decision about an individual program based on narrowly defined requirements. This means proper execution is a necessary, but not necessarily sufficient, basis for a program to move to the next acquisition phase. Of equal importance is the Department's understanding and acceptance of the fact that the program adequately contributes to the overall mission. This is a major shift in the Department's thinking. DS has built on this by further organizing and leading the development of a roadmap to guide investment and assure interoperability and battle management, command, and control capability across the Joint Force.

A DS assessment established the context for the Milestone B decision for Future Combat Systems (FCS), a highly complex, transformational program that is a key to building the Army's future force. The DS-led team found nearly 50 areas where the Army and its lead contractor could improve their systems engineering approach. The innovative process met with favorable reviews by both the Army and the lead contractor's senior engineering staff. As a result, the program has already adopted almost all of the recommendations and is working on the others. This assessment was a major factor in the under secretary's decision to approve the program's entry into sys-

FIGURE 2. **Development of Systems Views of the Joint Integrated Architectures**




Source:DoD Integrated Architecture Panel, 1995 • Based on IEEE STD 610.12

tem design and development and the concurrent commitment of about $15 billion. Because of this engagement, the Department is more confident of the FCS' contributions to warfighter capability and in the Army's ability to execute the program successfully.

Defense Systems' traditional role in the DAB review and decision process continues to be a major thrust of the organization. Over the last 18 months, DS has organized 15 DAB reviews for many of the Department's key weapons programs and led the overarching integrated product team (OIPT) to ensure that the Department's leadership has the right information, at the right time, to be able to make sound technical, business, and programmatic decisions. We have improved the OIPT process by reaching beyond the DoD to include representatives of the Office of Management and Budget (OMB) and the National Geospatial-Intelligence Agency (NGA). By inviting the OMB to see and understand the rationale for our acquisition decisions and their impact on the president's budget, we have taken a major step toward approval of our budget requests, and the inclusion of NGA has helped strengthen ties with the intelligence community. Among the major programs DS has guided to successful DAB outcomes are the FCS, the Virginia Class Submarine (SSN-774), F/A-22, Global Hawk UAV, V-22 Osprey, and Patriot. Each of these programs is critical to our future warfighting capability.

To win over the military services to the value of sound systems engineering, DS has moved quickly to establish systems engineering assessments as a key part of OSD engagement with acquisition programs. In addition to the FCS assessment, DS has conducted collaborative engineering assessments of such high-visibility programs as the F/A-22 and the Joint Strike Fighter. This renewed emphasis on systems engineering, corresponding with the under secretary's goals and objectives, has been met with enthusiasm by PMs and senior corporate executives.

As the DoD retools its acquisition, requirements, and budget processes to enable joint interoperability, Defense Systems is on track to implement the changes and to meet the imperatives set for it by the USD(AT&L). There remains much for us to do, however, including implementing additional tools to support decision-making by the under secretary; strengthening relationships with other OSD staffs, the Joint Staff, Services, combatant commanders, and other stakeholders; and continuing to enable the Department's transition from legacy activities to the new capability-based planning paradigm. Defense Systems, from its directors to the staff specialists, is committed to meeting its mission in support of the success of the AT&L community and the Defense Department in national defense.

**Editor's note**: The author welcomes comments and questions and can be reached at glenn.lamartin@osd.mil.

## Bradley M. Berkson

*Designated Acting Senior Official for DoD Logistics and Materiel Readiness*

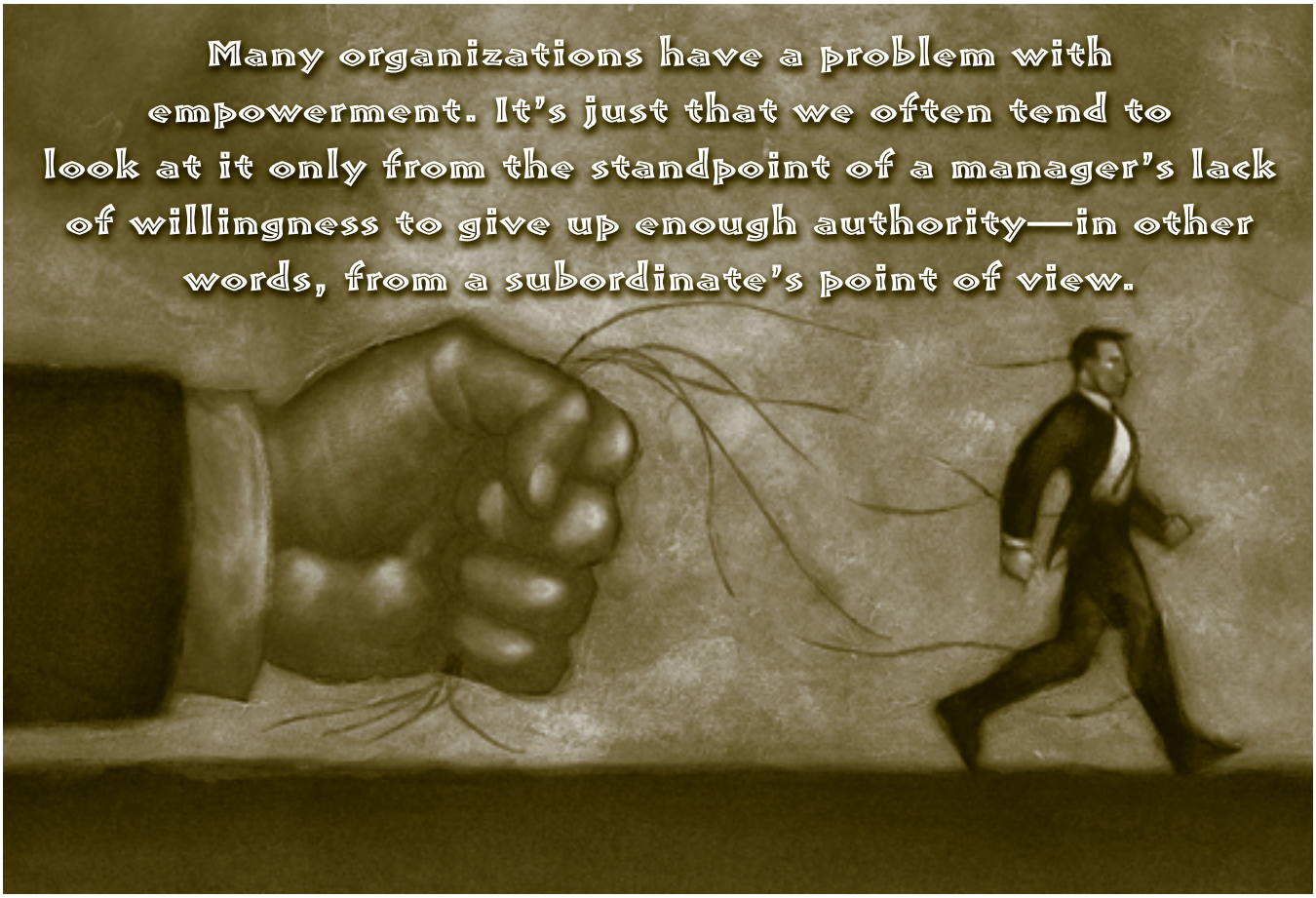
Bradley M. Berkson was designated Acting Principal Assistant Deputy Under Secretary of Defense for Logistics and Materiel Readiness (Acting PADUSD(L&MR)), in January 2004. Berkson joined Office of the Secretary of Defense in January 2003 and is serving as Director, Studies and Analysis for the Senior Executive Council. The Senior Executive Council is the Secretary of Defense's senior management team and includes the Deputy Secretary, the Secretaries of the Military Departments, and the Under Secretary of Defense for Acquisition, Technology and Logistics.

Prior to his appointment, Berkson was president of NEW Customer Service Companies, Inc. He came to that position from IP-Mill, Inc., that he, as founder and CEO, sold to NEW in 2000. IP-Mill, Inc. was engaged in efforts to commercialize business process technology using unique identifiers across the supply chain. Prior to his entrepreneurial efforts at IP-Mill, Inc., Berkson was a Partner at McKinsey & Company, Inc., a leading international management consultancy. At McKinsey, Berkson co-led the firm's Corporate Strategy and Finance, Innovation and Technology Management, and Energy Practices. His client efforts included leading global electronics, energy, and technology companies in work including product development, organizational and financial restructuring, merger, acquisitions and alliances, and operational performance improvement. Berkson also co-led McKinsey's work with the U.S. Marine Corps and Southwest Airlines on best practices in front-line performance. Prior to graduate school, Berkson worked as a Senior Engineer in Exxon's Prudhoe Bay operations on the North Slope of Alaska.

Berkson received a bachelor of science degree in Engineering cum laude from the University of Tulsa in 1985, where he was selected as one of the university's top 10 graduates. He also graduated with a master's in business administration with scholastic honors from Harvard University in 1991. Berkson is married, has two sons, and is a licensed pilot. He flies as a volunteer for several mercy medical airlift organizations, transporting cancer and other patients and their relatives for treatment.

# Help! My Team Won't Accept Empowerment!

*Lt. Col. Martin Tillman, USA*




A friend and colleague recently dropped by the office to tell me about his new job. It sounded fantastic, lots of responsibility and challenges—setting up a new organization and merging an existing organization into it. But Rick (not his real name) had one major frustration: the people at a remote site were just not interested in helping to set up the new organization. They weren't offering any ideas on how to make the transition happen or—more important—how to make the new organization successful. As a result, Rick felt the people at the remote site were resisting his efforts to empower them.

This is a particularly interesting situation because Rick has been in charge of several mid-sized organizations over his career, is a graduate of the Defense Acquisition University's Advanced Program Management Course, and has taught strategic direction in days gone by. So if anyone should know how to handle a situation like this, Rick should. But Rick believes he has a team that doesn't feel empowered despite his best efforts to empower them.

As a result of my experience and outside readings, I know Rick's situation isn't all that unusual. Many organizations have a problem with empowerment. It's just that we often tend to look at it only from the standpoint of a manager's lack of willingness to give up enough authority—in other words, from a subordinate's point of view. According to the April 2001 GAO report (GAO-01-510) *Best Practices: DoD Teaming Practices Not Achieving Potential Results*, "In

**Tillman** *is currently assigned as an instructor of program management and leadership with the Defense Acquisition University at Fort Belvoir, Va. He has previously held positions in both program management and contracting with the U.S. Army and the United Nations Headquarters.*

the programs experiencing problems, the teams either did not have the authority or the right mix of expertise to be considered integrated product teams." Yet Rick's situation involves not lack of authority or expertise—they are adequately trained, have the necessary skills, and he wants them to take ownership—but lack of willingness on the part of subordinates to accept the level of empowerment offered by their manager.

Rick didn't indicate, during our chat, a problem with the people themselves. According to Rick, they are all typical, hardworking DoD employees, such folks as you and I might come into contact with on any given day in the offices where we work. He also didn't think that resistance to change was the problem. Sure, Rick admitted, they'd been through some reorganizations and downsizings before and might, therefore, be a little skeptical of the new organization. There's bound to be some fear of change no matter where you work—it's just human nature—but Rick said he'd offered reassurances to the team that the positions and people wouldn't be negatively impacted by the reorganization.

### Point One: Not Everyone Wants to be Empowered

As I think about Rick's situation, a number of possible reasons for why his folks refuse to get engaged come to mind. First, it may be as simple as this: the people at the remote location just don't want to be empowered. They're quite satisfied with the old business model of just doing as they're told and going home every evening unencumbered by thoughts of work.

It's not uncommon to assume—mistakenly—that everybody wants to feel empowered and to influence his or her areas of responsibility. To know for sure what's going on, Rick would probably have to conduct a survey of some sort followed by additional research to corroborate the findings. Rick didn't mention this as a possibility, and it's not an approach typical of DoD folks—in my experience there are just too many type A personalities around. I'll put that one on hold for now and mention the possibility to him the next time we talk.

### Point Two: Make Sure There's a Common Vision/Strategic Direction

A second possibility that comes to mind relates to leadership—whether there exists a common understanding of where Rick wants to take the organization and how he wants it to function. How can we, as leaders or managers, expect our subordinates to help us achieve our hopes and dreams for the organization if they aren't even sure where we're leading them? I wonder if Rick really tried to include his new teammates in developing the plan for getting the new organization on board. You know, developed a clear vision of where the organization is headed, created a mission statement to better define everyone's boundaries, and set some goals to help crystallize individual short-term efforts. Has he attempted any team-building activities or started on a charter? If he has, team members could then use their individual skills and knowledge to help the organization achieve that vision. I suspect Rick has probably covered this adequately—it's pretty much common sense for an experienced, senior leader of his stature—but I'll make another note to myself to ask next time I see him, just in case.

## Key Considerations to Empowerment

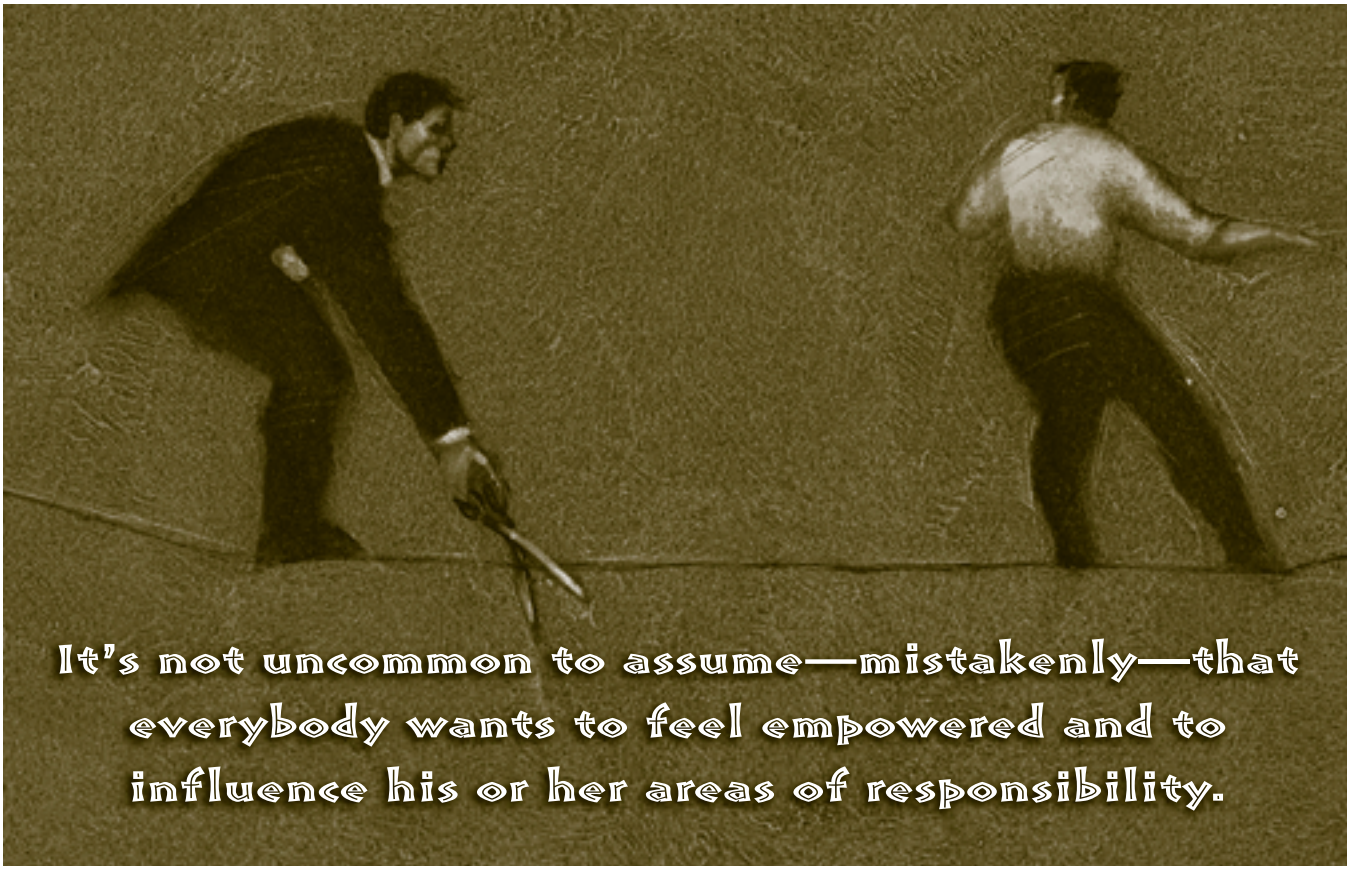
- ☞ Not everyone wants to be empowered
- ☞ There must be a common vision/strategic direction
- ☞ Convey the strategic direction in a manner that inspires and helps people to see their role in its accomplishment
- ☞ Gain your subordinates' trust
- ☞ Build on shared values
- ☞ Strive for complete business process/vision alignment
- ☞ Don't forget to use the right tools

### Point Three: Convey the Strategic Direction so People See their Roles in its Accomplishment

As John P. Kotter argues in his book *Leading Change*, a critical and unfortunately often-missing part of strategic direction is the ability of managers to sufficiently convey their vision to subordinates. A properly communicated strategic direction is not only clear to all employees, but it also helps them to "see" their own roles in making the achievement of the vision possible and to stir their emotions so they *want* to make it happen—a more difficult task to accomplish. Maybe this is something Rick inadvertently tripped over. I'd better ask if the first-line supervisors are meeting with their folks to personally explain the vision and their role in achieving it. Has he identified milestones or key events as metrics to be reported back to him periodically? Does he actively promote and publicize, in a variety of ways, comments about where they are going and the progress being made?

### Point Four: Gain Your Subordinates' Trust

Sometimes the root of the problem is really something much more fundamental. Rick may not have his subor-




dinates' trust. It's a new organization and he is a new boss, and trust does not happen overnight. In fact, it takes a lot of our valuable time to cultivate it. First, we must make ourselves available to everyone who works for us—to appropriate degrees, of course, based on whether they are direct reports or not. Second, we must get to know each of "our" people, and they must get to know us so that we can all feel comfortable in our back-and-forth communications. This involves accepting a certain amount of vulnerability. We may not be as impressive as we sometimes would like to pretend. In other words, our subordinates have to feel they know us well enough that they can present an idea or opinion in such a way that we will listen. Rick's folks have to feel that they can express their opinions in their own way without hurting themselves, crossing an immediate supervisor, or offending Rick.

### Point Five: Build on Shared Values

Shared values also have a lot to do with gaining trust. Rick's folks won't automatically subordinate their personal values to the organization's values just because they work there most of the day. In other words, employees don't necessarily give up their own priorities (such as time) just because the organization decides an end product is needed next week, when in reality it should take a month to complete. In addition, most of us (including Rick's people) have learned over the years that what a boss may say from the corner office or top floor is not always what he or she really expects or wants. So Rick's folks really need that trust relationship in order to discover what is truly valued by the organization. Rick will get team buy-in when his folks' individual values intersect with the new organization's values. Rick needs to spend time with his people explaining just what is truly valued by the new organization and why, then helping each direct subordinate to understand why accomplishing it is in his or her personal best interests as well—it's not just a matter of "because it's your job." And then the subordinate managers must likewise spend time with their own subordinates.

For example, if such values as quality, speed, honesty, and fairness are shared between the new organization and each of the individual employees, isn't it more likely that everyone in the organization will feel comfortable (read this as trust) talking about what's going on and the issues surrounding those values? If everyone shares those same values, couldn't Rick expect his subordinates to be more participative in a meaningful way? He might even find the organization functions more as a team. It all boils down to *really* valuing people's opinions and *truly* wanting them empowered, not just giving it lip service.

### Point Six: Strive for Complete Business Process/Vision Alignment

Individual members may not fully commit to each and every organizational value, but if they are not actually averse to a particular value and they see that it is backed

by appraisal, reward, and punishment processes, they will most likely adapt to it on the principal that it's easier and in their best interests to go along. Individuals will help to obtain the new vision by bringing those processes or issues that are in conflict with the team's efforts to the manager's attention and seeking resolution in order to make their jobs easier. This is important because our organizations are growing, changing creatures, so there is always a need for our policies and processes to be better aligned with our goals.

### Point Seven: Use the Right Tools

There are so many other things that, by extension, affect our feelings of empowerment and success—motivational factors (does the remote location feel a need to get on board right now), conflict management, accountability, and coaching to name a few. Rick may already have thought about all these ideas and successfully accomplished them and instead is stymied by something so simple that he overlooked it. Is he using the right tools to get their input? It could be that the team Rick is so concerned about is made up of very strongly introverted personality types, and he just needs the right vehicle to get them actively involved. Rick may need to provide an agenda ahead of meetings so that attendees can be better prepared to comment. Maybe he shouldn't expect an immediate reaction to new issues but allow time for reflection so that his people can formulate their thoughts ahead of time for the next meeting. He might even try one of the management tools for problem solving, like silent brainstorming, radar charting, affinity diagrams, or using a prioritization matrix to get their input.

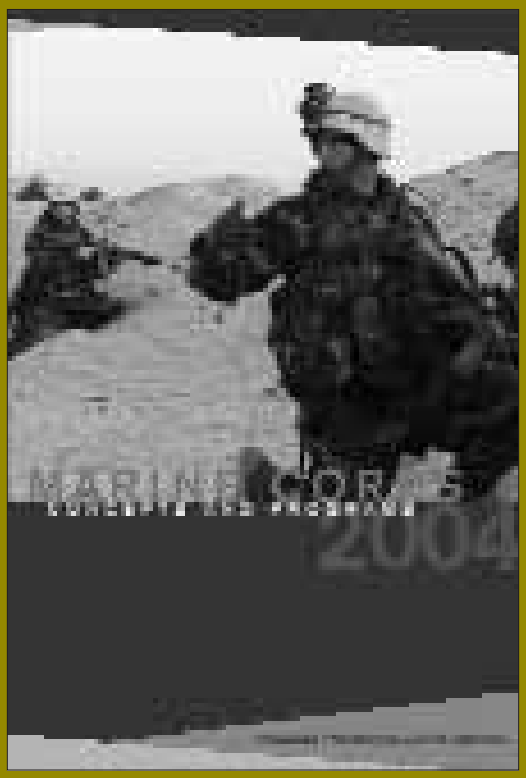
### What's in it for You?

Maybe you've been experiencing a similar situation to Rick's in your work environment—either as a manager, feeling that your subordinates are not willing to accept empowerment, or as a subordinate, not feeling empowered. This article is written as a reminder of some pretty basic concepts regarding empowerment. I find that in my life it's often not the complex, hard-to-fix issues that get overlooked so much as the commonsense, fundamental stuff that everyone knows. Now may be as good a time as any to consider whether you are appropriately empowered in your current job. The organizational benefits of empowerment are well known and documented. Does your boss feel the same way you do about your degree of empowerment? If not, is it one of the basics mentioned above standing in the way of success, and if it is, what can you do to kick-start the solution?

Having thought about Rick and his situation, I think I'll give him a call and see what he came up with for a solution. I'll let you know in a later article.

**Editor's note**: The author welcomes comments and questions. He can be reached at martin.tillman@dau.mil.

## Marine Corps Commandant Releases 2004 Version of *Concepts & Programs*




*Marine Corps Commandant, General Michael W. Hagee has released the 2004 version of* Concepts & Programs*, which describes major programs of the U.S. Marine Corps and how they support the ideas and concepts that are significantly enhancing the ability of the nation's naval expeditionary forces to project sustainable combat power in the 21st century.* Concepts & Programs*, available for downloading at <* ***http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC1.HTM*** *> also contains data that provide a snapshot of the Marine Corps organization, personnel, and resources. This information, Hagee said in a message published in the frontispiece of* Concepts & Programs*, "provides an important reminder of what it takes—along with an unwavering warrior ethos and devotion to duty—to create and maintain a successful fighting force."*

# Managing a Product Development Team: Part II

## Growing the Team

*Larry Barrett • Ken Lehtonen*

*In Part I of this article (*Defense AT&L*, March-April 2004), the authors presented several of the management issues hampering the effective startup of a project to re-engineer the aging Hubble Space Telescope (HST) ground system. The initial challenges facing the management team were significant. The schedule was aggressive and non-negotiable. The team had to maximize use of existing maintenance personnel to undertake new development, while at the same time creating "new and better ways of doing business" that required discarding business processes that were ingrained in the user community. The primary project management goal became to eliminate the sources of inefficiency on the project by building a culture that fostered an atmosphere of cooperation and that was success-oriented. Several of the actions taken to overcome these issues were presented in the previous article. Part II builds upon these, discusses the methods used to build a cohesive, synergistic team environment, and presents several implementation strategies that were used successfully on the project.*

As noted in Part I, one of the original constraints of the Hubble Space Telescope (HST) project was to use a legacy software staff. Despite our doubts about the technical currency of this team, they embodied the Hubble domain knowledge that was both critical and necessary to development of the new control center. Since a decision had been made to develop the control center using object oriented (OO) technology targeting a Unix® environment, the challenge became one of "converting" as many legacy programmers as possible to the object management technology (OMT) methodology. One of the greatest obstacles was convincing the team of both the personal and programmatic benefit to transitioning their design skills. This the management team did through a series of technical briefings that demonstrated the additional capabilities and flexibility of the OO technologies. These briefings served to convince senior members of the legacy staff that the HST project would benefit from employing modern software design principles, such as OO programming, in order to develop a system that had to last at least another decade.

At this point, the green light was given by HST senior management for a hiring binge to acquire additional staff with key OO and C++/Java skills. A major objective was to use these new team members to bring the legacy staff up to the necessary level of technical capability. This was accomplished through the following multi-faceted training approach.

We initiated a massive, just-in-time training effort for the whole development team (at this point the architecture of the new Hubble control center system was just about completed). We brought in house some of the top OO trainers in the nation to provide targeted training. The traditional training approach was reversed by first training the team in the C++ language specifics (they were already familiar with FORTRAN and in some cases the C language) and then providing onsite training courses in generalized OO analysis and OO design. This approach worked better because the staff were more comfortable with implementation technologies from which they could then abstract the methodological underpinnings.

The vendors of the major commercial off-the-shelf (COTS) products that were selected into the architecture of the new system were willing to train the team in the specifics of their products. To supplement the standard classroom training, technical consultants (see next page) were brought in; they not only mentored the team, but were exemplar software developers in their own right.

To improve our contacts with outside industry, the staff were encouraged to attend technical conferences and to present papers or provide demonstrations of the Control Center System (CCS) technologies under development.

Internal technical demonstrations of mature software were scheduled not only for the CCS staff, but for Goddard senior management as well. This was not only a

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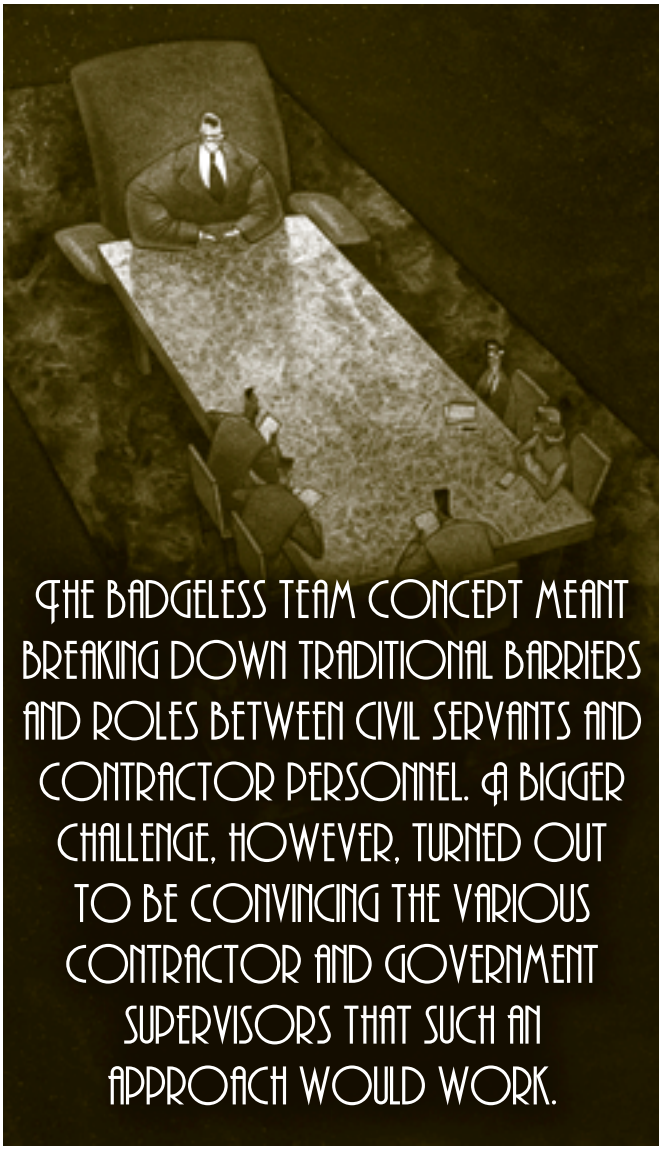



morale boost for the presenters, but provided another means for communicating technical information throughout the development team and to the stakeholders back at Goddard. A side benefit of the demonstrations was that they helped identify specific technical skills of project teammates to the rest of the staff.

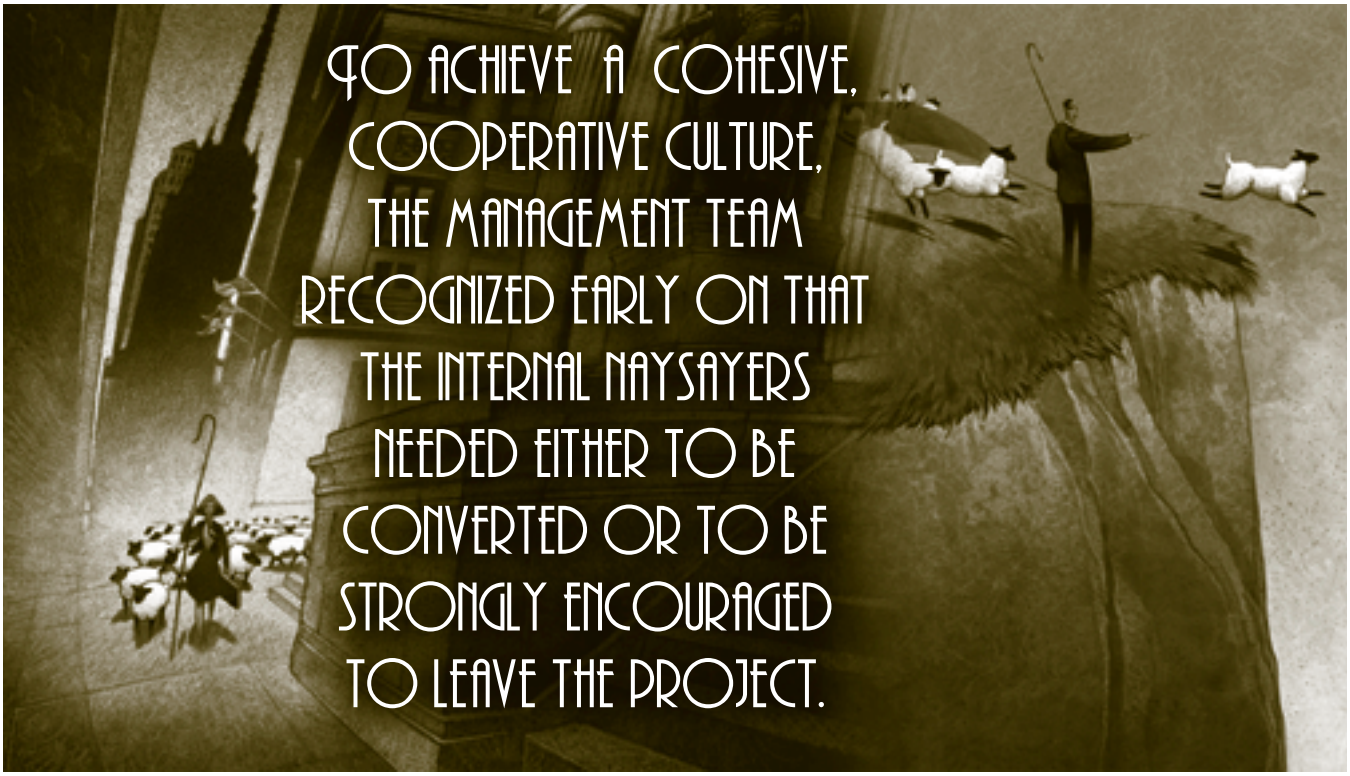
In spite of the focused training effort, it became apparent during our design activities that we needed to sprinkle our emerging OO team with some experienced on-site OO and C++ expertise. With senior management's approval and as part of the CCS management philosophy to engage outside expertise, we contracted with an organization expert in OO development to provide a small number of on-site consultants. To avoid the traditional (often contentious) consultant-client relationship, the management team decided to assimilate these consultants rapidly into our own evolving culture and make them an active part of the CCS team. For their part, the consultants provided mentoring services on a one-to-one basis in analysis and design, C++ language skills, and software debugging. We also made them an integral part of the development team by assigning them key pieces of application software to design and code. (One of the consultants was tasked to lead the Middleware team until a permanent replacement could be found.) The consultants were instrumental to the successful, on-time delivery of the Release 1 system and provided a significant return on investment for their services.

### Developing a Cohesive, Cooperative Culture: the Badgeless Team

By being physically separate from the Goddard mainstream, the product development team (PDT) was able to develop its own unique management culture and style to fit the environment and its goals. One of the first management goals was to replace the typical atmosphere of competition and animosity between contractors and the customer with a more universally cooperative environment. This transformation was effected by restructuring the team dynamics to implement and expand upon the concept of a "badgeless team."

The badgeless team concept meant breaking down traditional barriers and roles—often contractual—between civil servants (HST being a government-run project) and contractor personnel, as well as among a variety of support contractors, since there were eventually over a dozen different companies represented on this PDT. A bigger challenge, however, turned out to be convincing the various contractor and government supervisors that such an approach would work. In practice, there were civil servants reporting to contractor personnel; contractors reporting to contractors of the same company; and contractors reporting to contractors of different companies. This represented a radical departure from what senior NASA management viewed as the way civil servants and contractors were supposed to relate to each other. It should be noted that this was an evolutionary process, since not everyone on the CCS PDT was comfortable with this new management philosophy, and some chose to leave the project.

In retrospect, this management strategy became one of the main reasons the team was so successful. The emphasis on technical achievements and shared vision, along with a tight focus on the CCS goals (rather than on which particular company should get the credit for the work accomplished), created a unique situation. The ultimate goal was to erase from people's mindset the process of going through "channels." Everything you needed to get your job done was resident at the collocation facility (lovingly referred to by the staff simply as "Colo"). Again, the relative physical isolation enabled the staff to significantly reduce, but not entirely eliminate, traditional corporate politics and jurisdictional disputes that had previously hindered close, tech-




nical exchanges and cooperation between different companies working on the same project.

To achieve this cohesive, cooperative culture, the management team recognized early on that the internal naysayers needed either to be converted or to be strongly encouraged to leave the project. Teamwork and the free exchange of ideas were to be the hallmarks of this project. Over time, these radical ideas bore fruit as team members freely circulated around the building and became comfortable creating ad hoc teams in the hallways. There was a high measure of trust between management and team personnel as well as between and among the individual teams. The overall collegial, community atmosphere allowed all members of the CCS project to excel and exceed expectations from both a technical and personal perspective.

## Management Principles: Implementation Strategies

The following management principles (listed in no significant order) served to sustain the high productivity environment. Some of these principles are obvious, some are espoused in current management science texts, and some will work only in a collocated environment.

### Use integrated product teams to provide short-term results

A meta-goal of every project is to make good design decisions and to develop the corresponding products as quickly as possible. The CCS PDT management selected from the entire organization those persons who could best produce a particular product; assembled them into a small team; gave them the authority to make the necessary decisions; and when the product was completed, returned them to their core technical teams.

### Use the 80/20 rule

As is the case with most projects, the CCS PDT existed in a very dynamic environment where technology was rapidly evolving, and user requirements were negotiable. Recognizing this, a decision was made to expedite the decision-making process and to avoid "paralysis by analysis" by employing the 80/20 rule. For example, if a COTS product could be found that satisfied at least 80 percent of the target user requirements, then feedback from the users would be solicited to determine if this was adequate. The process was driven by the understanding that not all user requirements are equal, and thus, implementation of the least important 20 percent can often be deferred, sometimes indefinitely. This process also served to keep the user community involved in critical design decisions so they remained part of the solution.

### Establish proof of concept and/or prototyping teams

Early on, the core technical teams were tasked with performing risk-mitigation activities while the final architecture of the control center was being hammered out. (Remember that the team was originally front-loaded with a legacy software staff.) The proof-of-concept (POC) team was instrumental in identifying and demonstrating promising new technologies, such as Java applets, collaborative tools, and COTS packages. The results were fed back to

the top-down architecture team to help justify and substantiate the proposed control center architecture. This served as an excellent risk-mitigation activity by introducing the staff to a significant number of new (and sometimes unproven) technologies. One of the PDT's primary objectives was to leverage COTS hardware and software solutions as much as feasible; and thus, many of the teams worked to prototype these packages in an environment as close as possible to that envisioned for the actual control center. Out of these prototyping activities emerged a suite of commercial off-the-sheft (COTS) and government off-the-shelf (GOTS) solutions that was later integrated into the control center design, with the added benefit of reducing both risk and implementation time.

### Implement a "rewards and awards" program

After each successful delivery of a control center system release, the project lead acknowledged each individual who contributed to that release with a KUDOS® Brand candy bar. These informal rewards were so well received that team members came to expect a visit right after each software delivery. It was one strategy that cost so little but paid out with immeasurable returns. The upper management team at Goddard was also very supportive of both individual and team efforts. Instead of just funding the prime contractor's award fee, management funded an incentive program that rewarded the Hubble control center team members with bonus checks upon a successful software delivery

### Integrate and elevate traditionally background activities into the main software development cycle

The PDT recognized the importance and value of traditional support functions to the successful development and deployment of the control center system. Four examples illustrate this:

- The infrastructure team provided the systems administration, networking, and hardware expertise necessary to define the overall system topology and operations concept.
- The quality assurance team was responsible for ensuring that processes were followed and that design and coding standards were adhered to during all phases of development.
- The methodology team was responsible for tailoring and maintaining the CASE tool used to capture all the design information for the developers.
- The configuration and change management team developed the electronic tools necessary to support our software baseline control process (configuration management) and the rapid capture and dissemination of problem reports (change management).

FIGURE 1. **Management Actions Contributing to Goal Satisfaction**

| | Organizational Structure | Team Identity | Balance Resources | Manager Risk | Leverage Staff Skills | Accurate Status | High Productivity | High Quality Product | Minimize Rework | Process Improvement | Staff Synergy | Conflict Resolution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flatten Organizational Structure | ■ | | | | | ■ | ■ | ■ | | | ■ | ■ |
| Empower Staff | | ■ | | | ■ | | ■ | ■ | | | ■ | |
| Create Dynamic Matrix | ■ | | ■ | | | | | | ■ | | | |
| Allow Failure without Retribution | | | | | ■ | | | | | ■ | | ■ |
| Perform Post-Mortems | | | | ■ | | | ■ | | ■ | ■ | | |
| Collocate Staff | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | | | |
| Encourage Internal Communication | | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | |
| Sponsor Social Events (Barbecues) | | ■ | | | | | ■ | ■ | | | | ■ |
| Management By Walking Around | | | ■ | ■ | ■ | ■ | | | | ■ | | ■ |
| Up-to-date Design Information on Web | | | | ■ | | ■ | ■ | | ■ | | ■ | |
| Mandatory CASE Tool Usage | | | | ■ | | | ■ | ■ | ■ | | | |
| Multi-faceted Staff Training (Formal, OJT) | | ■ | | ■ | ■ | | | ■ | | ■ | | |
| External Technical Interaction (Conferences) | | | | | ■ | | | | | ■ | | |
| Internal Technical Demos | | ■ | | ■ | ■ | | | ■ | | ■ | ■ | |
| Establish Badgeless Team | ■ | ■ | | | ■ | | | | | | ■ | |
| Remove Naysayers | | ■ | | | | | ■ | ■ | | | ■ | ■ |
| Use Integrated Product Teams | | | ■ | ■ | ■ | | ■ | ■ | ■ | | | |
| 80-20 Rule | | | | | | | | | ■ | | | |
| Actively Perform Prototyping | | | | ■ | ■ | | | ■ | | | | |
| Provide Rewards and Awards | | ■ | | ■ | | | ■ | ■ | | ■ | | ■ |

### Hire college students for the summer

An often-overlooked area that paid big dividends for this PDT, three summer-hire college interns contributed significantly to the development process. Specifically, these summer interns contributed to the conversion of the command subsystem from VMS to Unix, developed and tested Java applets for the GUI subsystem, and developed performance benchmarks for a newly procured tape-based archive system. The interns were treated as full members of the overall team, were challenged technically, and helped the PDT to maintain an optimal skill mix.

### Establish a mechanism for detecting and resolving conflict as quickly as possible

Conflict is inevitable no matter the size of the team or its objectives. Establishing mechanisms to deal with the various forms of conflict is critical to the success of any team. In this case, specific technical issues that cut across core team boundaries were referred to the Control Center System Architecture Board (CAB), chaired by the lead systems engineer. All issues related to the architecture, design, implementation, and correction of the control center software were also referred to the CAB for resolution.

DESPITE THE PROGRESS MADE OVER THE LAST 25 YEARS IN ADVANCING THE STATE OF SYSTEM AND SOFTWARE ENGINEERING PRACTICE, PROJECT SUCCESS STILL COMES DOWN TO PEOPLE.

Intra-team conflicts were expected to be resolved within the specific core team boundaries. At any time, a member of a core team could refer unresolved non-technical conflicts directly to the PMT. In such cases, the staff member's company supervisor could be included in the process to ensure a timely and equitable resolution.

## Final Remarks

Because of the relative isolation from its predecessor culture, the Hubble Control Center System PDT management team was granted a great degree of latitude in applying unconventional management techniques. The goals of the management team were no different from those of most systems development projects:

- To establish an organizational structure that provides the right level of control without impeding progress
- To establish and maintain a high level of morale that fosters a team identity
- To allocate project resources in a balanced manner
- To intelligently manage technical and non-technical (e.g., schedule, cost) risk
- To leverage the existing skill set of the staff while continuing to build up weaker areas
- To acquire accurate and timely status of the overall project as well as each sub-element
- To meet or exceed expected productivity estimates
- To develop and deliver a high quality product to the customer
- To empower the staff to make timely and accurate design decisions to minimize rework
- To institute a method of achieving internal process improvement
- To enable synergy and a spirit of cooperation within the project
- To detect and resolve internal conflict quickly.

Figure 1 (page 39) summarizes this information. Each column represents one of the management goals itemized in the previous list. The rows identify key management actions presented throughout the main body of this paper. Marks in the table indicate those management actions that directly or indirectly contributed to the satisfaction of the corresponding goal. It should be noted that these marks represent the assessments of the authors and were not measured using any formal metrics.

In summary, despite the progress made over the last 25 years in advancing the state of system and software engineering practices—including improved methodologies, new languages, visual tools, online debuggers, lightning-fast PCs, and CASE tools—project success still comes down to people. Management still needs to find the best people available or be willing to invest the time and training dollars in the current staff. Once an exceptional staff is in place, it's necessary to keep the team focused on the technical milestones (eliminating the politics if possible) and to provide means of recognition from something as simple as a candy bar to a full-scale incentive bonus.

The Hubble control center PDT management team undertook all of these actions and was rewarded with a highly skilled, productive, cohesive, and communicative staff with an attrition rate that was significantly less than industry norms of the time. However, like all good things acquired, there is an upkeep cost: people need technical challenges, opportunities for additional training and professional growth, and a little TLC and recognition every now and then. But the results are well worth it—and besides, you can't be successful without them!

**Editor's note**: The authors welcome comments and questions. Barrett can be reached at lbarrett@hst.nasa.gov and Lehtonen kenneth.e.lehtonen@nasa.gov.

# Simulation & Modeling for Acquisition, Requirements, and Training—SMART

Does your program or project need assistance in implementing Simulation and Modeling for Acquisition, Requirements and Training—SMART? Army SMARTeam contact teams provide information, recommendations, and technical assistance to programs and projects about simulation support planning and implementing SMART. Contact team members discuss how to apply modeling and simulation (M&S) throughout the acquisition life cycle, including how to identify opportunities to reduce risk and costs and accelerate traditional acquisition processes. They share information about models and simulations that could be reused or adapted, as well as SMART lessons learned and best practices from other programs and projects. Contact team members also offer advice on simulation support planning, available M&S products and tools, simulation environments, and advanced collaborative environments. Army SMARTeam contact team customers include integrated concept teams, program and project managers.

For more information on contact team assistance, contact the SMARTeam Project Director: Leah Treppel/PEO STRI/DSN 970-3563/Leah.Treppel@peostri.army.mil.

For more information on SMART, log on to <http://www.amso.army.mil> or contact James Wallace/AMSO/DSN6640262/james.wallace@hqda.army.mil.

## Brig. Gen Darryl A. Scott, USAF

*Director, Defense Contract Management Agency (DCMA), Alexandria, Va.*

Brig. Gen. Darryl A. Scott, USAF, became the director of the Defense Contract Management Agency on Dec. 5, 2003. As the Director, Scott is responsible for leading and managing over 11,500 civilian and military leaders, managers, and technical experts who perform worldwide acquisition life cycle contract management for Department of Defense weapon system programs, spares, supplies and services. This includes ensuring on-time delivery, at the right cost, and in accordance with performance standards prescribed in over 325,000 contracts valued at over $852 billion with over 25,000 domestic and foreign contractors.

A native of Washington, D.C., Scott entered the Air Force after graduating from the U.S. Air Force Academy in June 1974. Scott has served as principal contracting officer for space, missile, aircraft, and C4ISR. He has twice commanded and has served staff tours at both major command and Air Staff levels.

Prior to assuming his current position, Scott served as Vice Commander, Warner Robins Air Logistics Center, Air Force Materiel Command, Robins Air Force Base, Ga.

# Integrating Systems Engineering with Earned Value Management

*Paul J. Solomon*

Program managers (PMs) expect their supplier's earned value management system (EVMS) to accurately report the program's integrated cost, schedule, and technical performance. However, EVM data will be reliable and accurate only if the right base measures of technical performance are selected and if progress is objectively assessed. If you are measuring the wrong things or not measuring the right way, then EVM may be more costly to administer and may provide less management value.

During my experience monitoring EVM on many programs, I often observed programs that were behind schedule in terms of validating requirements, completing the preliminary design, meeting weight targets, or delivering software releases that met the requirements baseline. Yet 100 percent of earned value was taken and reported, in compliance with the industry standard for EVMS, because the EV completion criteria were not based on technical performance or were not defined clearly and unambiguously. Furthermore, during technical reviews, some of these adverse conditions were not described as problems or issues. They were classified as *risks* towards achieving subsequent objectives.

EVM can be more effective as a program management tool if it is integrated with technical performance and if the EVM processes are augmented with a rigorous systems engineering process. The recommendations that follow are based on lessons learned from major programs and on observing the processes of major contractors and subcontractors. Guidance is provided for PMs to ensure that reported EV is a valid indicator of technical performance. Pre-contract and post-contract actions are recommended to implement performance-based earned value that is quantitatively linked with:

- Technical performance measurement (TPM)
- Progress against requirements

**Solomon** *manages EVMS within the Northrop Grumman Corp., and is a visiting scientist at the Software Engineering Institute. He won the DoD David Packard Award with the team that wrote EVMS. He holds a bachelor's degree and a master's in business administration from Dartmouth College and is a project management professional (PMP).*

- Development maturity
- Exit criteria of life cycle phases
- Significant work packages and work products.

Guidance for getting more value out of earned value is consistent with the Department of Defense (DoD) Risk Management Guide (Guide), the Interim Defense Acquisition Guidebook (IDAG), and with industry standards that have been adopted by the DoD:

- Processes for Engineering a System (EIA 632)
- Standard for Application and Management of the Systems Engineering Process (IEEE 1220)
- EVMS (ANSI/EIA-748-A-1998).

Additional guidance is consistent with the Capability Maturity Model®-Integration (CMMISM).

Better integration of systems engineering, risk management, and EVM will benefit the PMs of both the acquisition and supplier organizations.

## EVM Limitations

With regard to a PM's needs, there are several limitations of EVMS that can be overcome by integrating EVM with robust systems engineering. First, EVM is perceived to be a risk management tool. However, EVMS was not designed to manage risk and does not even mention the subject.

Unfavorable cost or schedule variances result from past events. They are already problems or issues. A cost overrun indicates that, with 100 percent probability, subsequent cost objectives will not be achieved unless the plan for remaining work is revised.

Second, earned value is a *derived* measure. Consequently, its effectiveness to integrate technical and cost performance depends on its base measures and on the capabilities of the systems engineering processes that are employed on a program.

Third, EVMS does not require precise, quantifiable measures. It states that objective earned value methods are *preferred* but it also states that management assessment (subjective) may be used to determine the percentage of work completed.

Finally, EVMS states that EV is a measurement of the quantity, not *quality*, of work accomplished. A PM should ensure that EV also measures the quality and technical maturity of technical work products instead of just the quantity of work. Robust systems engineering processes should provide TPM and exit criteria for assessing technical maturity that are quantitatively linked to EV.

The following guidance will help a PM overcome EVM's limitations.

## Risk Management Guide and TPM

Per the Guide, risk management is concerned with future events whose outcome is unknown and with how to deal with these uncertainties. That guidance is in contrast to risk-handling actions that should be reflected in integrated program planning, scheduling, and work packages. In other words, risk handling actions become part of the EV performance measurement baseline (PMB).

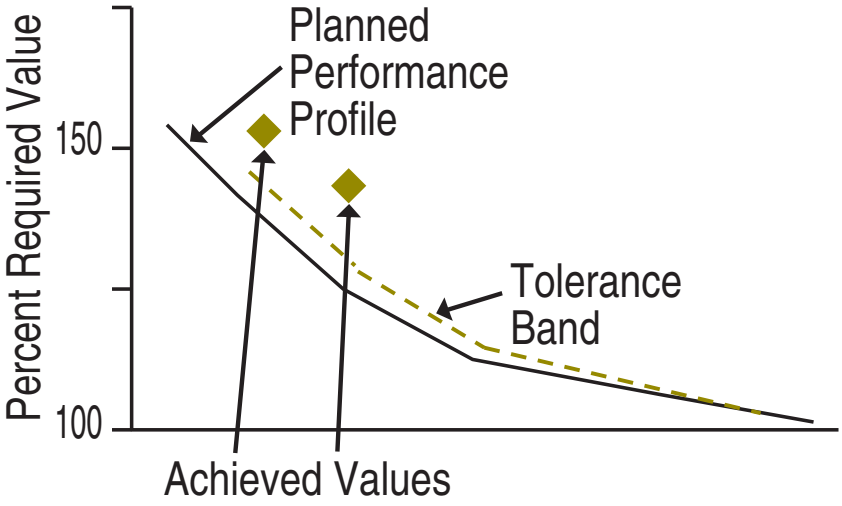
In my opinion, the Guide's statement that "periodic EV data can provide indications of risk" is misleading. As discussed above, by the time a cost overrun is reported, the unfavorable event has occurred and there is a problem or issue, not simply a risk.

The same premise—that deviations from a plan are issues, not risks—should apply to TPM. Per the Guide:

- Technical ... parameter values to be achieved ... are forecast in the form of planned performance profiles.
- Achieved values for these parameters are compared with the expected values.
- Events, tasks, and schedule resulting from the integrated planning are linked with …techniques, such as TPM.
- Linkage provides a significant monitoring tool, giving specific insights into the relationships among cost, schedule, and performance risks.

An example of a TPM planned performance profile that also shows achieved values and a tolerance band is shown in Figure 1.

FIGURE 1. **TPM Plan and Achievement**



However, some PMs classify TPM as a risk management technique and do not integrate the planned performance profile into the schedules and work packages. Later, if achieved values for these parameters fall short of the expected values, neither the schedules nor the earned value show a behind-schedule condition.

Mike Ferraro describes DCMA research and pilot tests for integrating TPM and EVM ("TPM, a PM's Barometer," *PM*, November-December 2002). The earliest research, published in 1995, found that there was not clear linkage between technical parameters and work packages. Ferraro concluded that this continues to be an issue.

So how can a PM obtain contractual commitment to integrate TPM and EVM? Fortunately, there are two industry standards that provide specific guidance for TPM that are consistent with the Guide: IEEE 1220 and EIA 632. Both standards provide guidance for TPM planning and measurement (Figure 2) and for integrating TPMs with EVM. The DoD has adopted both standards.

A PM may require compliance with the TPM components of either of these standards in the solicitation. Another approach is to provide financial incentives for contractor compliance. After contract award, the PM may use the integrated baseline review (IBR) to verify that the integrated planning includes TPMs and that the EVM is quantitatively linked to achieved values in appropriate work packages. If the PM uses simulation-based acquisition and modeling & simulation as discussed in IDAG, then the achieved values should be credible. Finally, the PM should address TPM achievement and reporting during technical assessment reviews.

## Other Systems Engineering Best Practices

IEEE 1220 and EIA 632 provide additional guidance for systems engineering process improvement regarding progress, planning, and measurement. It may be used to select performance-based earned value measures. A PM may choose to mandate compliance with pertinent components of the standards in the solicitation or to provide other incentives for compliance.

## Progress Against Requirements

Master schedules and PMBs often reflect the tasks that were proposed, estimated, and negotiated. However, tasks that formed a basis of estimate for negotiation are not necessarily those that should be planned and tracked during program execution. The PM should select base measures of progress for EV that indicate objective progress towards development, implementation, and testing of the requirements.

The Guide discusses product-related metrics that include requirements traceability and requirements stability. Progress against requirements, including the percentage of requirements that are traced upwards and downwards and those that are validated, would be a highly effective base measure of earned value. It is especially important to validate the requirements baseline early in development and prior to the start of design by the prime and subcontractors.

The industry standards' guidance for assessing progress against requirements is shown in Figure 3 (page 46).

## Design Maturity

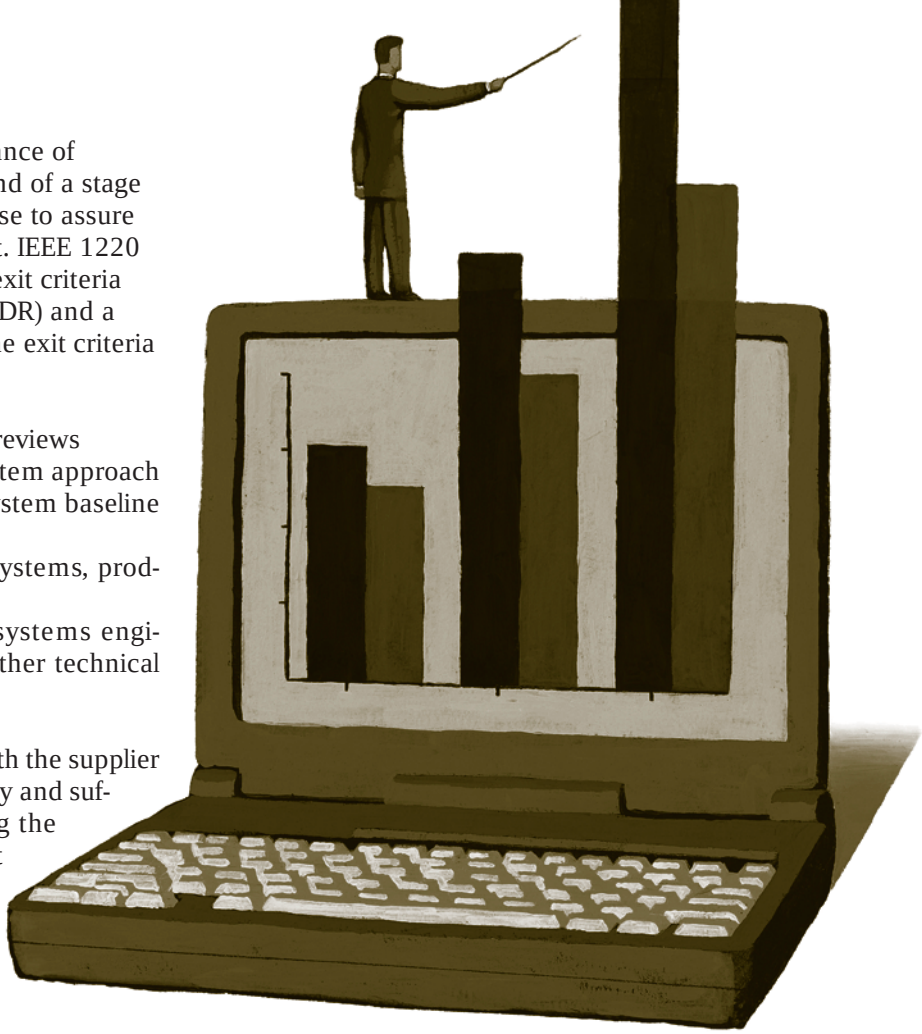
The Guide discusses design maturity as a product-related metric and provides examples of design maturity measures. Adherence to the standards will support the requirement in DoD Instruction (DoDI) 5000.2 for a design readiness review during system development and demonstration. The design readiness review assesses design maturity as evidenced by such measures as:

- Number of subsystem and system design reviews successfully completed
- Percentage of drawings completed
- Planned corrective actions to hardware/software deficiencies
- Adequate development testing.

Objective assessment of a system's design maturity, in compliance with the standards, would also be a sound basis for earned value.

FIGURE 2. **TPM Planning and Measurement**

| **IEEE 1220: 6.8.1.5** | **EIA-632: Glossary** |
|---|---|
| Performance-based progress measurement | |
| *TPMs* are key to progressively assess technical progress | Predict future value of key technical parameters of the end system based on current assessments |
| • Track relative to time with dates established as to when:<br>- Progress will be checked<br>- Full conformance will be met<br>• Use to assess conformance to requirements | • *Planned Value* profile is time-phased achievement projected<br>• Achievement to date<br>• Technical Milestone where TPM evaluation is reported |



**Exit Criteria**
The standards discuss the importance of holding technical reviews at the end of a stage of development or a life-cycle phase to assure that all exit criteria have been met. IEEE 1220 is especially helpful by providing exit criteria for a preliminary design review (PDR) and a detailed design review. Some of the exit criteria for a PDR are:

- Prior completion of subsystem reviews
- Determination whether total system approach to detailed design satisfies the system baseline
- Mitigation of unacceptable risks
- Resolution of issues for all subsystems, products, and life cycle processes
- Definition of exit criteria in a systems engineering management plan or other technical plan.

A PM should review these plans with the supplier and reach agreement on the validity and sufficiency of the exit criteria during the IBR. It is also recommended that the work packages that measure progress against requirements and development maturity be reviewed to understand the time-phased plan for meeting the exit requirements, the related EV techniques, and the base measures.

**By requiring or encouraging suppliers to adhere to industry standards for systems engineering or engineering processes, EVM will provide more reliable information.**

**Systems Engineering Work Products**
The systems engineering process generates significant work products that should be included in integrated planning and measured with earned value.

The process products of IEEE 1220 are:

- Requirements baseline
- Validated requirements baseline
- Functional architecture
- Verified functional architecture
- Physical architecture
- Verified physical architecture.

The process products of EIA 632 are:

- System technical requirements
- Logical solution representations
- Physical solution representations
- Specified requirements
- Validated system technical requirements
- Validated logical solution representation
- Verified design solution.

Depending on the selected standard, these work products should be included in the master schedule and in work packages. Additional recommendations for work products are provided below in a discussion of the CMMI.

**Bad Rap for Level of Effort (LOE)**
Many PMs expect that the percentage of LOE budget should not exceed a certain level. I believe that setting an arbitrary maximum threshold for LOE can increase contract costs and cause management to waste time by focusing on the wrong things. It costs money to

**FIGURE 3. Progress Against Requirements**

| IEEE 1220 | EIA 632 |
|---|---|
| 6.8.1.5 Performance-based progress measurement<br>6.8.6 Track Product … Metrics | 4.2.1 Planning process,<br>Req. 10: Progress against requirements |
| 6.8.1.5 d) Assess:<br>• Development maturity to date<br>• *Product's ability to satisfy requirements*<br>6.8.6 Product metrics … at pre-established control points enable:<br>• Overall system quality evaluation<br>• Comparison to planned goals and targets | • Assess Progress … comparing currently defined system definition against requirements<br>a) Identify product metrics and expected values:<br>• Quality of product<br>• *Progress towards satisfying requirements*<br>d) Compare results against requirements |

measure processes and progress. But as Navy Rear Adm. Dave Antanitus wrote in *PM*, "Be careful here—just because you can measure something does not mean it is a useful metric!" ("The Business of Metrics," March-April 2003).

Many tasks that are measurable are not indicators of technical performance. Examples are technical assessment meetings and recurring reports, such as cost performance reports (CPR). If a CPR is delivered late, there is no schedule impact on a subsequent activity and no impact on final costs. So why incur the costs to measure CPRs discretely or to analyze schedule variances?

The same is true for technical assessment reviews, such as technical interchange meetings (TIMs), PDRs, and final design reviews. Per IEEE 1220 and EAI 632, a purpose of the reviews is to assess progress and development maturity. However, it is common practice to base earned value on completion of the milestone event (TIM or PDR was held) instead of on the quantified assessment of progress and maturity. For a PDR, if earned value were based on the event instead of the assessment and if the preliminary design did not meet the exit criteria, then earned value would mask a behind-schedule condition. Likewise, the master schedule would be misleading if the PDR event showed completion despite a shortfall in technical performance.

It would be cheaper to designate non-technical tasks as LOE, to manage LOE cost performance, and to apply more management attention to technical performance. Both EIA 632 and IEEE 1220 focus on technical progress. The budget for non-technical tasks, such as preparing for and conducting a PDR, could be planned as LOE even if the LOE percentage exceeded arbitrary limits. The EVMS standard discusses that LOE is supportive work that is impracticable to measure. Non-technical work may fit this definition.

A PM should be careful when analyzing summary earned value information. A summary of only the discrete tasks that measure technical performance should be prepared. The performance-based earned value will show schedule and cost variances that are not distorted by LOE content. Also, the related cost performance index will be a truer indicator of future costs. LOE should be summarized and analyzed separately.

## Additional Resources

The industry standards provide information as to what to do, and they provide a basis for acquisition management. Process models like CMMI provide information for implementing processes. The CMMI provides a framework for process improvement towards integrating systems engineering and EVM.

The Carnegie Mellon Software Engineering Institute's publication *Using CMMI to Improve EVM* (<www.sei.cmu.edu/>) provides information on the following processes and topics:

- Requirements development
- Requirements management
- Measurement and analysis
- Process and product quality assurance
- Risk management
- Typical work products
- Performance-based earned value.

Guidance for requirements-based planning is provided in "Practical Software Measurement, Performance-Based Earned Value" (*CrossTalk: The Journal of Defense Software Engineering*, Sept. 2001, <www.stsc.hill.af.mil/crosstalk>).

A contractor may be compliant with EVMS but fail to truly integrate measurement of cost, schedule, and technical performance. A PM should ensure that integrated plans, schedules, and the earned value PMB are linked with the contract requirements, TPMs, and unambiguous exit criteria. By requiring or encouraging suppliers to adhere to industry standards for systems engineering or engineering processes, EVM will provide more reliable information.

**Editor's note**: The author welcomes comments and questions and can be reached at SolomonPBEV@msn.com.

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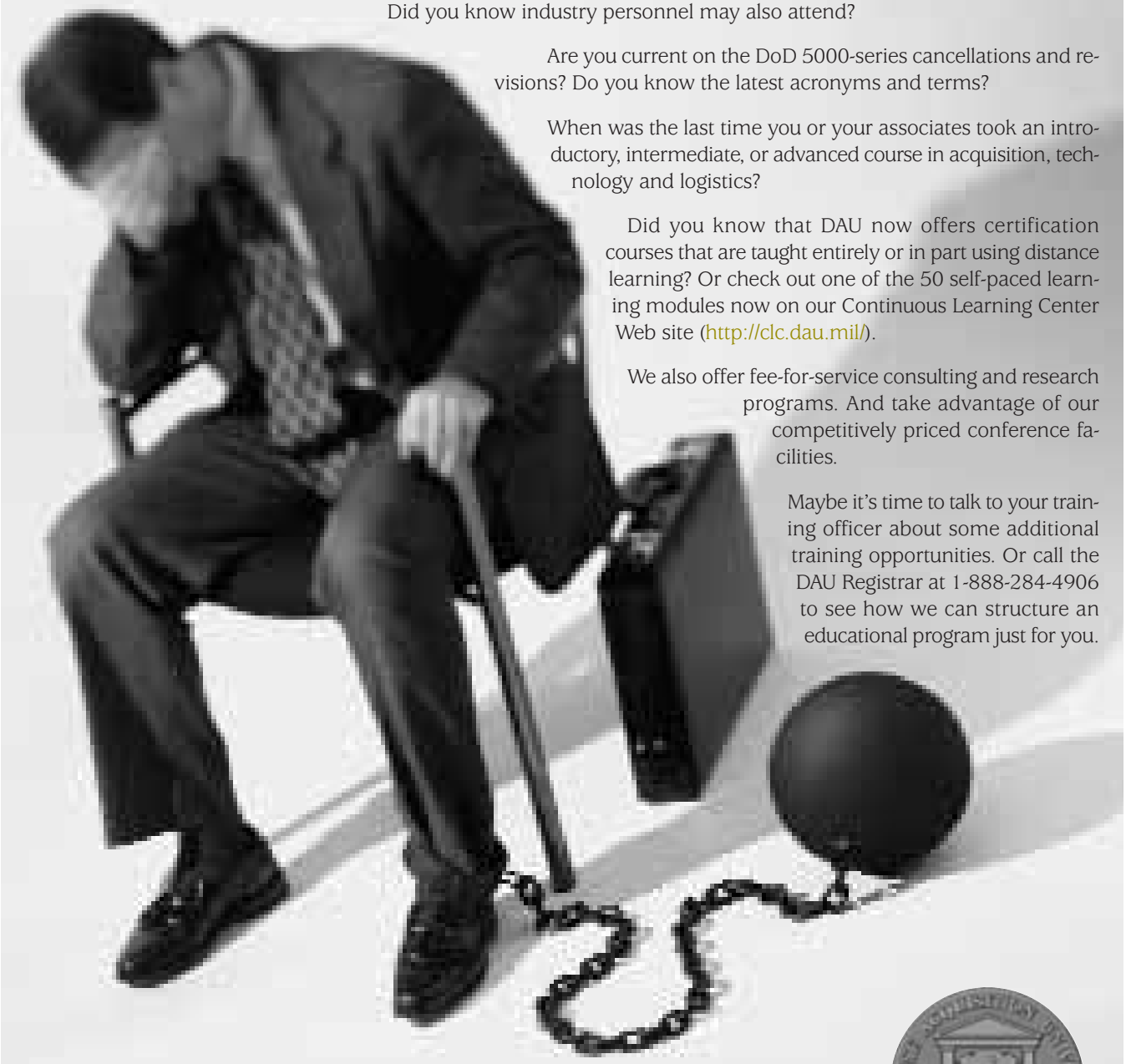

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# Effective Succession Planning

*Matthew Tropiano, Jr.*

An Indian proverb states, "Nothing giant grows under the Banyan tree," which can be attributed to the fact that the large tree blocks the sun and, therefore, restrains growth. Nevertheless, large organizations, public and private, are ensuring and investing in succession planning to disprove this notion.

While I was working on a team at the General Accounting Office (GAO), we examined selected human capital integration actions, which include succession planning, with the Federal Emergency Management Agency (FEMA), General Services Administration (GSA), Internal Revenue Service (IRS), Social Security Administration (SSA), U.S. Coast Guard (USCG), and U.S. Geological Survey (USGS). This article outlines the main components of succession planning and examines how these and—through an analysis of other studies and the literature of succession planning—other leading organizations in the public and private sectors approach the process.

## Defining Succession Planning

What is succession planning? What are the vital components, the operational energy, the heart and soul that breathe life into succession planning?

Succession planning has been defined over the years in numerous ways. Some have referred to it as the deliberate and systematic effort to project leadership requirements, to identify a pool of high-potential candidates, develop leadership competencies in those candidates through intentional learning experiences, and then select leaders from the pool of potential leaders. Others have referred to it as a strategic, systematic, and deliberate activity to ensure an organization's future capability to fill vacancies without patronage or favoritism. Numerous other examples could be cited, and most of them contain some common themes.

For the purpose of this article, succession planning will be defined as *the strategic, systematic and deliberate effort to develop competencies in potential leaders through purposed learning experiences such as* targeted *rotations and educational training in order to fill high-level positions without favoritism*.

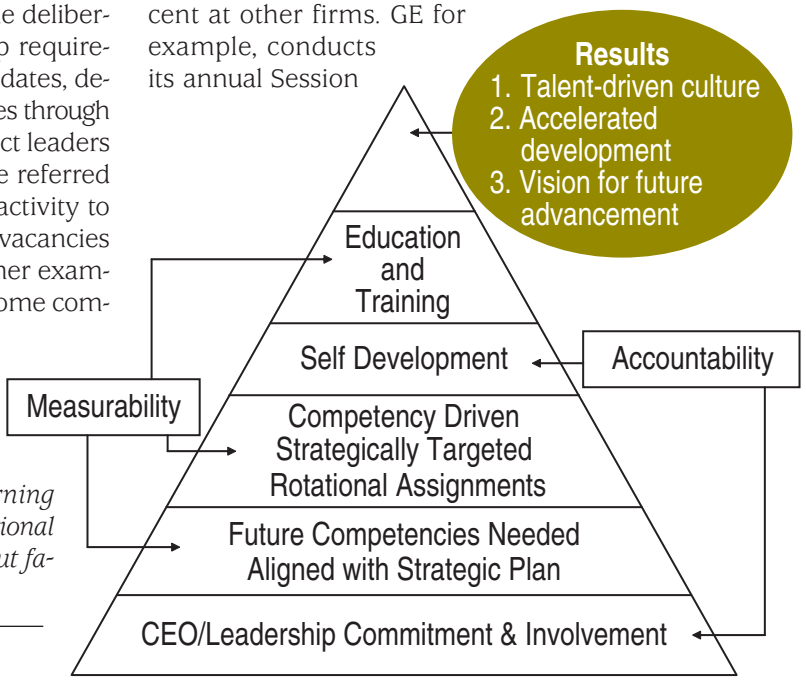
***Tropiano**, the program manager for Naval Sea Systems Command (NAVSEA)'s acquisition intern programs, holds a bachelor's degree in electrical engineering, a master's in religious studies, and a master's in business administration.*

## CEO and Leadership Commitment and Involvement

The commitment and involvement of the CEO and organizational leadership are the heart and soul of the succession planning organism. Leadership commitment is the regular and consistent driving of the body and not a momentary administration of CPR or a spank at birth. Without CEO and leadership commitment and involvement, you are left with decaying non-living elements. According to the National Academy of Public Administration (NAPA), the first benchmark principle for managing succession and developing leaders is that "top organizational leaders are personally involved and deeply committed." One such leader, GE's former CEO Jack Welch, concurs in his book *Straight from the Gut*: "To make initiatives work, it took a passionate all consuming commitment from the top. … Making initiatives work is all about focus and passionate commitment."

Question: What's going on in this regard in the public and private sectors?

A study by Hewitt Associates titled *How Companies Grow Great Leaders* revealed that 91 percent of the CEOs at the top 20 companies (such as GE, IBM, Microsoft, Home Depot, Dell Computer) review top talent at their companies compared to only 66 percent at other firms. GE for example, conducts its annual Session




**Succession Planning Model**

C, the CEO-led initiative that produces a snapshot of the leadership bench and rising talent. At the Pension Benefit Guaranty Corporation, the senior leaders direct the succession planning initiative. And the SSA has top leaders owning the project of succession planning and solicits their involvement and commitment.

Ray Blunt, leadership coach for the Council for Excellence in Government, wrote in *Organizations Growing Leaders: Best Practices and Principles in the Public Service* that one of the key lessons learned by the Western Area Power Administration (WAPA) was that "initiative by the senior leaders of sub-organizations is important in a large, complex organization." Hence, not only is the commitment and involvement of the senior leadership *necessary*, but also initiative by those same leaders is *imperative*. The CEO needs to work with top executives to mentor, and he or she must attend key training events and meetings.

In our team's analyses of agency documents and our interviews with agency officials, we learned that top management as well as human capital professionals are becoming increasingly involved with human capital management, including succession planning. For the acquisition community, it means that the senior executives and top officials must spearhead, involve themselves in, and commit themselves to developing their workforce.

## The Vision Thing: Planning for Tomorrow

Succession planning needs to be implemented with razor-sharp focus on where the organization is heading. What will the top position look like in the next two, three, and five years? Training and planning for the competencies of the current position are necessary, but more important and essential is the need to project what competencies a position will require in two to five years. Instead of just replicating and reproducing a leader in our own image, we need to add some bionics and focus to produce the leader of the future. Chris Mihm, GAO's director of strategic issues, says that succession planning can help an agency become what it needs to be rather than the continuation of the status quo. "Good succession planning is not just looking at who's next in line for a slot but also looking at people early in their careers and determining what kind of training they need to become leaders," Mihm says.

At Degussa, the world's largest specialty chemical company, the leadership program established a competency model based on the company's vision, mission, and guiding principles. The program asked where the company was going and then what kinds of leaders were needed to reach those strategic goals. The lesson for the public sector from Degussa is to identify critical roles and develop a clear understanding of the capabilities required for effectiveness and high performance in those roles.

## Core Competencies are Key

Rather than developing people for specific current job requirements, the Australian Public Service Commission uses capability templates. The Commission defines capabilities as "that which enables organizations to close the gap between strategic intent and current performance through guiding learning and development strategies, providing the basis for identification of potential and individual development plans, and integration with other processes such as selection and performance assessment."

Our team at GAO found that the General Services Administration (GSA) had assembled a team of experienced human resources staff members to develop new core competencies needed.

Question: What competencies will the acquisition community need in the next two, four, five years? Is the community receiving the necessary training?

## The Value of Competency Models

All organizations studied by Hewitt Associates use competency models as their modus operandi. NAPA's fifth benchmark for managing succession is as follows: "Leadership competencies are identified and regularly reviewed and updated; candidates are assessed and developed against those competencies."

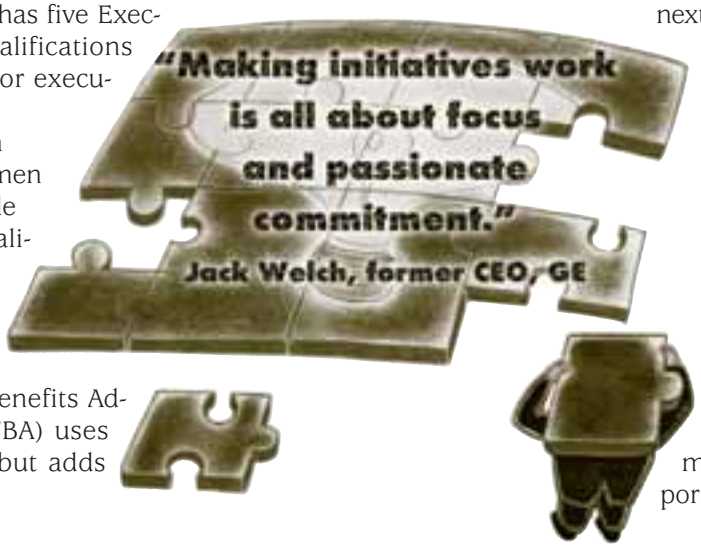
At Degussa, the leadership program established a competency model based on the company's vision, mission, and guiding principles. Eleven competencies, such as persuading others, team leadership, adaptability, are categorized into five major themes:

- Passion for performance
- Making sense of the business world
- Making sense of the people
- Courage and determination

- Delivering change and climate for success.

Similarly, OPM has five Executive Core Qualifications (ECQs) for senior executives:

- Results driven
- Business acumen
- Leading people
- Building coalitions
- Leading change.




The Veterans Benefits Administration (VBA) uses the five ECQs but adds two of its own:

- Professional and personal growth
- Customer service.

USCG has 21 leadership competencies in alignment with its strategic plan. The VBA uses a competency model for the development of leaders at all levels.

### Rotational Assignments: Cogent Integrative Assignments

Organizations with dynamic, successful succession planning programs implement cogent, competency-driven, integrative assignments and not simply heuristic assignments for the sole sake of learning. Peter Drucker advocated "learning by doing" when he wrote, "Don't put people just in learning experiences, put them in doing experiences; achieving enables people to grow." Blunt agrees: "More than anything by a factor of 10, developing leaders was based on challenging job experiences."

The Australian Public Service Commission focuses on challenging experiences or "stretch" assignments. These stretch assignments take the person out of his or her comfort zone and enable development of new skills such as building an effective team, working and adapting to different managerial styles, or leading an organizational change.

Job experience is the first pillar of the SSA's succession plan. The VBA uses shadowing assignments and action learning assignments. In the shadowing assignments the aspiring leader shadows a mentor and a divisional leader for at least one week, which provides the shadower exposure to the challenges and approaches of different leaders. In the action learning assignment, the participant is provided with work experiences to reinforce and strengthen leadership competencies. All of the Naval Sea Systems Command (NAVSEA) acquisition intern programs include rotational assignments to develop the interns.

It's important for agencies to ask: Are the assignments targeting the needed competencies that will be needed next year, two years from now, in five years?

### Individual Assessment and Self Development

"The unexamined life is not worth living." What Plato said 24 centuries ago holds true today. Individuals must examine their own health and take responsibility for it. Another of the best practices found in a study done by Blunt was that a self-development ethos was just as critical as the support of senior leaders.

The assessment should be comprehensive and corroborative. The Australian Public Service Commission's research revealed that relevant information includes biographical data, current performance, observed behavior, adaptability, 360 degree feedback, career preference, behavioral interviews, indicators of a desire to stay with the agency, views of various managers, and psychometric testing. Hewitt Associates revealed in *How Companies Grow Great Leaders* that "top-tier leaders want an environment in which they'll develop quickly, get clear feedback and be recognized for their performance."

What do we see happening at the leading organizations?

Most top organizations use 360 degree assessments. The USCG makes self-development a key part of its leadership development. Self-development is one of the three pillars of SSA's succession planning. Washington State government employees share responsibility for career development. GE compiles a two-page review document for each individual. Pension Benefit Guaranty Corporation (PBGC) places a strong emphasis on the individual's taking responsibility for his or her own development. The individuals at PBGC are teamed up with a senior advisor who works to tailor an individual's plan for development over two years. The individual development plans are based on 360 degree leadership feedback and work to develop components that the Senior Leader Review Board at PBGC found essential to future leadership success. The individual, with the help of the senior advisor, finds opportunities for development through action learning (working on a hot strategic issue), challenging work assignments, and regular interaction with seniors and advisors.

Question: Are we providing the necessary feedback to encourage self-development at the highest levels in the acquisition community?

## Educational and Training Programs

Blunt says that best practice organizations use formal internal or external programs to further expand leadership knowledge and skills. NAPA listed education and training as one of the three pillars for leadership development. All of the succession planning initiatives studied included well-thought-out, progressive, and rigorous educational and leadership programs.

The USCG delivers its entire leadership development program from its Leadership Development Center; it includes a one-week leadership and management school for civilians and leadership development for mid-grade civilians (GS 12 through14). The VBA uses four programs for its leadership development: the Presidential Management Fellows Program, the Leadership Development Program, the Advanced Leadership Program, and the SES Candidate Development Program.

Question: Are our leadership and educational programs readily accessible to the acquisition community?

## Measurability and Accountability to Develop Leaders

Measurability and accountability are the surgical operators that ensure effective succession planning. Our GAO team found that agency leaders established groups, such as human capital councils, accountable for integrating human capital initiatives, such as succession planning, in order to achieve programmatic goals. For instance, GSA created a Human Capital Council to ensure that the agency's human capital strategic plan was integrated within the GSA's strategic plan. WAPA found that assessing progress in its succession leadership programs was impossible without accountability. The Australian Public Service Commission recommends strategies that have clear time frames and periodic evaluation.

GE requires clear accountability for talent development. The CEO and senior executives agree and sign off on developmental actions for each individual.

Performance appraisals for executives will indicate if they failed to develop leadership potential or failed to facilitate the movement of targeted leaders across businesses.

Succession planning should be implemented with the end of measurable outcomes in mind. Accountability should be built into the succession plan to drive the outcomes. In our studies and interviews while on detail at GAO, we learned that agency leaders, line managers, and human capital professionals *are* sharing responsibility and accountability for human capital management.

The SSA, for instance, determines measurable accountability by having the senior leaders select the applicants for its Leadership Development Program (LDP) and its Advanced Leadership Program (ALP) in a competitive process. The senior leaders are actively engaged as mentors, and they monitor the participants' progress. Both participants and supervisors evaluate work assignments.

## Lessons for the Acquisition Community

Top leadership must not only initiate and follow through with developing leaders but must also take responsibility and be accountable for implementation and follow-through. The payoffs for an effectively implemented and managed succession plan are a talent-driven culture, accelerated development of leaders, and a vision for future advancement amongst employees. Presently, at one acquisition community, the leaders have defined the key areas where leadership and technical expertise must be sustained. The leadership has initiated and sustained their follow-through. Competency-driven templates are being put in place to provide the means to develop the leaders and experts. Current assessments will indicate which areas need further emphasis, and leadership will be responsible for providing the infrastructure to develop the highlighted positions.

**Editor's note**: The author welcomes comments and questions. Contact him at tropianomt@navsea.navy.mil.

# The Program Manager's Dilemma

## Trust, Cooperation, and Competition in the Acquisition Community

*Capt. Dan Ward, USAF*

"Your corn is ripe today; mine will be so tomorrow. 'Tis profitable for us both, that I shou'd labour with you to-day, and that you shou'd aid me to-morrow. I have no kindness for you, and know you have as little for me. I will not, therefore, take any pains on your account; and should I labour with you upon my own account, in expectation of a return, I know I shou'd be disappointed, and that I shou'd in vain depend upon your gratitude. Here then I leave you to labour alone: You treat me in the same manner. The seasons change; and both of us lose our harvests for want of mutual confidence and security."

David Hume, *A Treatise of Human Nature, Book II: Of Morals*, 1739

Hume's words aptly describe what game theory calls a *non-zero-sum* game—one in which winning doesn't necessarily come at the complete expense of the other players. The more common term is a win-win situation. The opposite scenario is a *zero-sum* game (like chess or football), commonly called win-lose, in which one participant wins at the expense of all the others. But game theory is, of course, more serious than board games or sports victories.

### The Prisoner's Dilemma

In 1950, Rand Corporation scientists Merill Flood and Melvin Dresher, researching game theory in terms of its possible applicability to global nuclear strategy, came up with a series of non-zero-sum puzzles. From these evolved the most famous: the Prisoner's Dilemma (PD). It can be described thus:

Smith and Jones are arrested on suspicion of a crime. Their attorney tells them the evidence is flimsy, so if they both stay silent, their sentence will likely be a year at most on minor charges. The suspects are put in separate cells and each is visited by the district attorney with the following deal:

- If you cooperate and confess to the crime but your accomplice remains silent, you will go free because you cooperated, and we'll jail your partner for 20 years.
- If you don't confess and your partner does, then he will go free and you will get 20 years.
- If you both confess, you'll both get 10 years.

Figure 1 lays out the options and consequences.

A rational assessment of this situation goes something like this: "If my partner remains silent, I have two options. I can keep quiet too and get off with a year, or I can confess and go free. On the other hand, if he confesses and I remain silent, I'll be inside for 20 years. But if I confess too I'll be out in 10. So no matter what my partner does, confessing gets me a better result than keeping my mouth shut—which could well get me 20 years. No brainer—I'll confess."

If both prisoners use the same logic and decide to confess, they both go to jail for 10 years. Had each remained silent and trusted his partner to do the same, they would both have been out in a year. A strategy of mutual silence results in the best collective outcome, but it requires the partners to trust each other because it places the silent player at risk of being exploited for the other's gain.

### The Program Manager's Dilemma

Let's replace the suspects with program managers (PMs). Specifically, a government PM and a contractor PM. And let's replace "confess or stay silent" with "trust or don't trust." The new options can be expressed like this:

If the government trusts the contractor and pursues an open, cooperative relationship and the contractor responds in kind, the result will be very good for all concerned. However, if the contractor takes advantage of the

FIGURE 1. **The Prisoner's Dilemma**

| | Smith silent | Smith confesses |
|---|---|---|
| **Jones silent** | Both get 1 year | Smith goes free<br>Jones gets 20 years |
| **Jones confesses** | Jones goes free<br>Smith gets 20 years | Both get 10 years |

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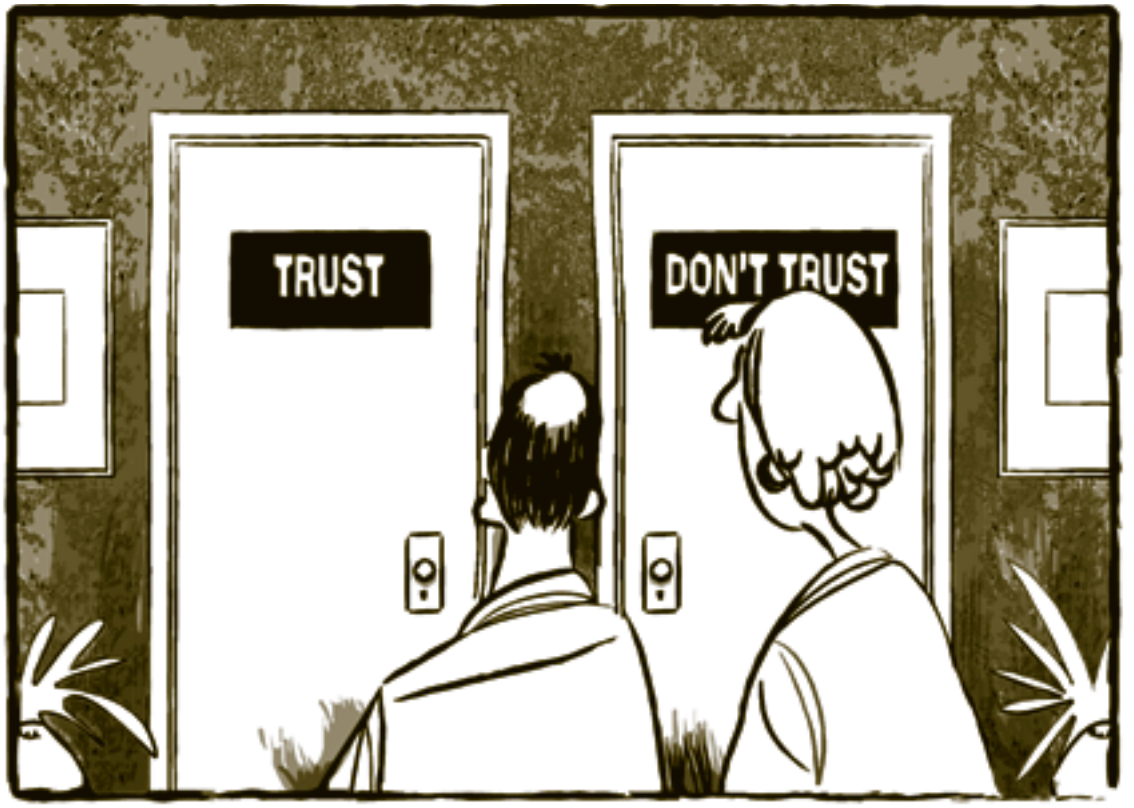



**The most likely outcome of a non-trusting strategy is the minimally satisfactory result—not as bad as it could have been, but not as good either.**

trust, the outcome will be bad for the government. And equally, if the government PM doesn't trust the contractor and acts defensively, the government won't be taken advantage of but also won't have the degree of success it might have otherwise. The contractor PM is in a virtually identical situation. Figure 2 sums up the Program Manager's Dilemma (PMD).

Just as the prisoners appear to gain the maximum benefit by confessing, PMs often appear to get the most benefit by not trusting their counterparts. And indeed, the optimal *individual* solution (for Smith and Jones, no years in prison) can only be reached by not trusting while being trusted.

But the story doesn't end there. If each side pursues an apparently rational strategy of not trusting, each gets the programmatic equivalent of 10 years inside. If both pursue a strategy based on trust, their outcome is improved by an order of magnitude.

## Addressing The Dilemma

Approaches to PD typically address such topics as the social contract or the rule of law, but this does not really get to the root of the issue. If a contract or law is used as the mechanism to ensure cooperation, it may seem to obviate the need for trust, but unless the situation is as simple as the relationship between Hume's two farmers, the contract negotiation itself is subject to the PD tension. What is really needed is collective, unforced cooperation, which is just a fancy way of saying trust, freely bestowed in both directions.

The dilemma actually has no solution. As such, it falls in a category referenced by former Israeli Prime Minister Shimon Peres: "If a problem has no solution, it may not be a problem, but a fact—not to be solved, but to be coped with over time." This means the optimal approach will come from a coping strategy rather than an attempt to solve the dilemma once and for all. The phrase "over time" contains a key to handling the dilemma appropriately. Understanding the time dimension is an important step toward defining a successful strategy for PMD.

## The *Always Trust* Strategy

PMs do not face the dilemma just once, but over and over again. Game theorists refer to this as an *iterative prisoner's dilemma* (IPD). One statistically successful strategy for an IPD scenario is to mirror the decision of the other

FIGURE 2. **The Program Manager's Dilemma**

| | Government PM trusts | Government PM doesn't trust |
|---|---|---|
| **Contractor PM trusts** | Optimal outcome for both | Maximum government benefit<br>Contractor is exploited |
| **Contractor PM doesn't trust** | Maximum contractor benefit<br>Government is exploited | Minimally effective outcome for both |

Illustraion by Jim Elmore

player—that is, to do what he or she did last time. However, the most morally justifiable and programmatically appropriate PMD approach is to take the initiative and simply trust—all the time. You will get burned sometimes, yes. But courageous trust in the face of possible exploitation is the most ethically responsible and organizationally successful approach to the PMD over the long term.

There is not much else to say in terms of defining the *always trust* strategy. It is what it sounds like: an approach that says, "I will explicitly and implicitly trust my government/contractor [pick one] counterpart. I will similarly act in a manner worthy of trust and will expect my counterpart to trust me." A PM who uses this strategy is likely to establish a reputation as both a trustworthy and a trusting person—the kind of person other people want to do business with. It really is that simple, and the results are profound.

## The Wisdom of Trust

In his book *Six Degrees*, Columbia University sociology professor Duncan Watts sheds some light on two essential requirements for generating and sustaining collective unforced cooperation: "First, individuals must care about the future. And second, they must believe their actions affect the decisions of others."

The *always trust* strategy works in real life because our decisions have future consequences and do indeed affect the decisions of others. The more often we exhibit trust, the more likely those around us will respond in kind, a phenomenon observed by Ralph Waldo Emerson, who wrote, "Trust men and they will be true to you." Perhaps this happens because the people we trust have studied game theory and are following a mathematically rational mirroring strategy—or perhaps something is happening on a more human level. In either case, trust is usually self-sustaining and powerfully effective.

Still hesitant to trust? Consider the advice of Camillo Benso conte di Cavour, a 19th century Italian statesman and the first prime minister of the unified Italy, who noted, "The man who trusts men will make fewer mistakes than he who distrusts them." So, while trust may occasionally be betrayed, distrust is even less likely to work in the end. Cavour is considered the primary architect of the unification of Italy under the house of Savoy, an endeavor that must have required a tremendous amount of trust—and an equally magnificent temptation not to trust. We could do worse than trust his judgment about the wisdom of trust.

## Objections to Trust

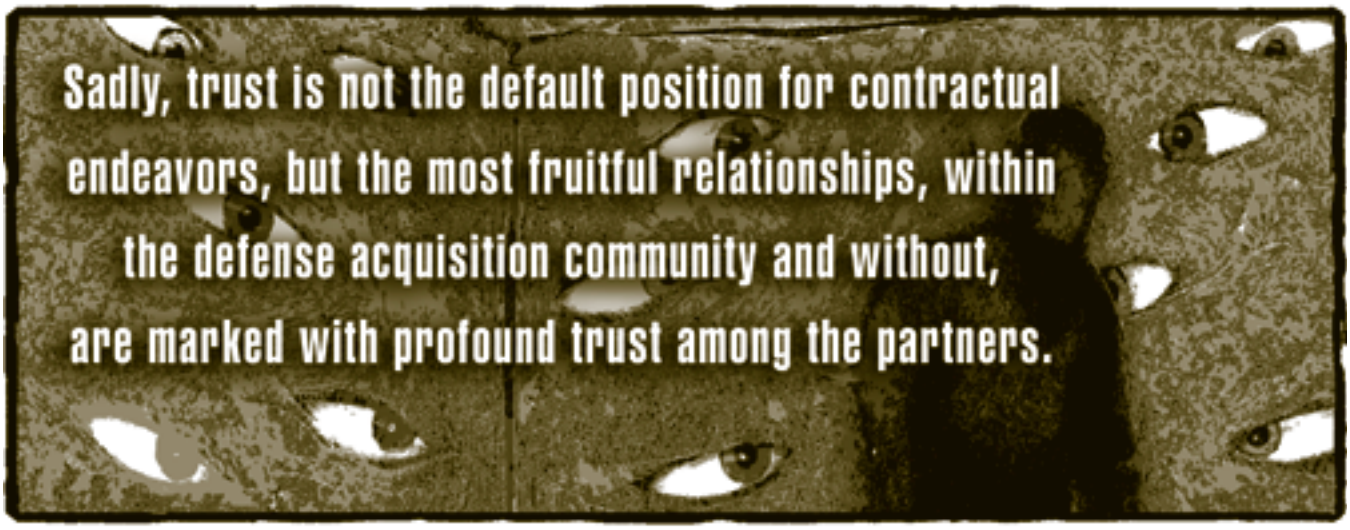
The objections to the *always trust* strategy are easy to imagine, and despite management guru Warren Bennis's observation that "trust is the lubrication that makes it possible for organizations to work," we expect to be deluged with e-mail claiming things like, "You can't build a business relationship on trust!" Perhaps based on past experiences, the objections will likely continue along these lines: "Our side may be trustworthy, but the contractor/government [pick one] is going to sell us up the river at its first opportunity. We need to hold their feet to the fire. Establish strict, legally binding contracts. Watch 'em like a hawk to make sure our interests are protected." And thus both sides spend 10 years in prison, rather than just one. It doesn't have to be this way.

Are these objections valid? How sensible is the always trust strategy in a business context? Is either side actually trustworthy? The answer to the last question is this: it depends, but it doesn't matter. Some PMs, both government and contractor, are more trustworthy than others, and some situations are more conducive to trust. Nonetheless, the most likely outcome of a non-trusting strategy is the minimally satisfactory result—not as bad as it could have been, but not as good either—while the always trust approach is likely to encourage the other player to both trust and be trustworthy in subsequent encounters. It's important to note that the always trust strategy doesn't mean throwing caution to the wind: in the initial stages of a relationship, trust is established in a series of small steps that build on each other. Trust breeds trust, and while it may grow slowly at first, the momentum is what matters most. So trust is a sensible long-term approach, even if the other participant does not appear trustworthy at first glance.

And yet there *is* some merit to the objections. Trust is indeed risky. Trust has no guarantee, and trust is susceptible to manipulation. People who trust can be taken advantage of, and they sometimes are. And yes, the 10-year sentence is much better than 20 years. In that sense, getting 10 years can almost be considered a win—but it is a sad thing to settle for when the one-year outcome is within reach.

Trust is indeed irrational if we are only thinking short term, and in fact the best short-term strategy is to betray someone else's trust (sending them up the river for 20 years while you go free). In the long term we discover that our decisions help shape the future decisions of the other players, which in turn have consequences for us. If we consider the future and understand the impact of our actions on the people around us, we will discover that trust is quite rational, while distrust is both foolish and destructive. Without trust, the inevitable friction of distrust will grind away at all involved, and the negative consequences will be both pervasive and enduring.

It should be noted the always trust strategy does not obviate the need for contracts. Contracts are necessary for many reasons, not least because in addition to providing




legal recourse, they also clearly communicate expectations (requirements, costs, and so on) and minimize confusion. Of course, along with being relevant to the contract execution process, trust—or a lack of it—plays a significant role in writing contracts in the first place.

### We're In This Together

To keep this analysis real, it is vital to recognize we are not talking about trusting the government in general or some undefined, generic contractor. The always trust strategy is relevant only to specific instances involving actual human beings, most of whom are patriots with a variety of motivating factors (profit, promotion, and so on) but a common goal of national defense. Real-world trust always involves people.

Don't trust a machine, however efficient. Don't trust a process, however impartial. When the chips are down and the trust/don't trust option is on the table, it comes down to the flesh-and-blood person who is facing this dilemma with you. We're all in this together, government and contractor alike. Your partner's decision, both now and in the future, will be influenced in large part by your decision today. And that statement applies to both participants.

Unlike the prisoners, most PMs have a third option: walk away. When confronted with a situation where trust is impossible or when trust has been betrayed, each participant can make the decision to quit playing the game. He or she can bring in replacements, transfer to a different project, or generally pursue other opportunities. Transfers and changes are not uncommon for both government and contractor personnel, so this option is well within the realm of possibility.

What then does trust between the government and contractors look like in a practical sense, and how can it be fostered? The mere fact that we must ask this question sheds much light on the situation most PMs face. Sadly, trust is not the default position for contractual endeavors, but the most fruitful relationships, within the defense acquisition community and without, are marked with profound trust among the partners.

At work, as at home, a trusting relationship is marked with honest and open communication. It involves following through on commitments and owning up to mistakes. It involves dependability and a certain degree of interdependence. Each participant in a trusting relationship is at least partly responsible for the other's well being, a situation not at all unfamiliar to government and contractor PMs. Verification is important. Former President Reagan was fond of quoting a Russian saying: "Trust but verify." It is worth noting that trust comes first; the saying is not "Verify then trust."

Most PMs face numerous iterations of the PM's Dilemma on a regular basis, and the best way to approach this reality is the always trust strategy. It doesn't solve the problem because PMD is not a problem to be solved, but it deals with the reality of the dilemma's existence.

While always trust is the optimal approach, trusting your partner doesn't always turn out well. In fact, it can backfire painfully at times. A positive outcome is never guaranteed, regardless of the degree of trust. However, the distrust strategy is much worse and tends to create destructive spirals. The best outcomes—programmatically, professionally, and personally—are only achievable over a sustained period of time when our relationships are marked with trust all the time.

Government and contractor PMs are in this dilemma together, and it's a non-zero-sum game. We win together or lose together, and we can indeed win if our relationships are marked with trust.

**Editor's note:** The author welcomes comments and can be reached at wardd@nga.mil.

# Catch? What Catch?

## The HEMTT Recapitalization Program

*Susan Brown*

HEMTT truck before (left) and after (right) recap.

"You give me an old [truck] carcass, and in 100 days I'll return to you a zero miles/zero hours, like-new vehicle."

*—Army Col. Robert Groller, project manager, tactical vehicles, PEO Combat Support/Combat Service Support (CS/CSS), Warren, Mich.*

"What's the Catch?"

*—Army Brig. Gen. Richard P. Formica, III Corps Artillery, Fort Sill, Okla.*

Fleet recapitalization is a process used by the U.S. Army to overhaul weapon systems and at the same time insert new technology to achieve current configuration. This process supplements new production with remanufactured assets in an effort to modernize the fleet and improve readiness. A critical piece to running a recapitalization program is the requirement for core materiel to produce a recapped item. For trucks, a plan must include identification of core vehicle assets to support a production schedule. What do you do to feed a production line when not enough vehicles are being displaced, excess vehicles appear to be exhausted, and war reserve assets are depleted?

When traditional sources could not generate enough platforms to meet the production goals of the Heavy Expanded Mobility Tactical Truck (HEMTT) recapitalization program, a new source had to be developed. Called "R3," the HEMTT Recap, Repair and Return program is a method of supplying core assets and may become the model for future remanufacturing efforts.

The HEMTT has been the workhorse of the Army's heavy tactical wheeled vehicle fleet for the past 20 years. Manufacturered by the Oshkosh Truck Corporation, the HEMTT is a series of 10-ton, eight-wheel-drive vehicles designed to provide transport capabilities for re-supply of combat vehicles and weapons systems. Basic variants include a tanker, wrecker, cargo, tractor, and the load handling system. At the present time, over 13,000 vehicles are fielded to U.S. forces.

The HEMTT family of vehicles is an aging, heavily used fleet that has made the Army readiness goal of 90 percent only sporadically since 1991. Prior to its deployment during Operation Desert Storm, the HEMTT had always exceeded its readiness goal, but after extensive usage in an extremely harsh environment, it has been unable to meet readiness standards. The vehicles are being used even harder during Operation Iraqi Freedom (OIF), and they are projected to become a more serious readiness issue.

### Breathing New Life into an Aging Fleet

In order to improve readiness by getting modern trucks produced more quickly and cheaply, the vice chief of staff, Army (VCSA) approved the HEMTT Recap program in October 2001, establishing a $1.1 billion program within heavy tactical vehicles. The priority units to receive new and recap vehicles were Stryker brigades, Patriot battalions, counterattack corps, and other high priority units including the Army National Guard and Reserve. In FY03, the HEMTT Recap program was allocated $116 million. Based on a model and mix of vehicle type, production of 621 trucks was awarded on contract. A concentrated effort by the HEMTT team identified only 56 percent of the core required to support FY03 recap production, leaving

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Photographs courtesy of Oshkosh Truck Corporation.

$67 million (351 vehicles) at risk. Innovative thinking was vital to survival of the program. The building of fewer recap models would ultimately result in fielding delays and would primarily affect the high priority units of the counterattack corps consisting of the 1st Cavalry Division (1 CAV), the III Corps Artillery, and the 4th Infantry Division (4ID).

There are two primary sources for obtaining core vehicles: excess and vehicle displacement. Records in the sustainment database indicated a large surplus of HEMTT vehicles; however, a thorough scrub of these records revealed very little excess. Another source of core vehicles is from units receiving new equipment that displaces units' old trucks. Not enough new production HEMTTs were being fielded into units that generated sufficient core in return. Distribution of 41 percent new production was designated to fill unit shortages, and these units did not have vehicles to turn in. The stand-up of the new Stryker brigades generated few to no displaced vehicles. Patriot recap was initiated from new production to start a perpetual turnover process allowing continuous recap of turned-in core vehicles from Patriot battalions. Equipment projected for the Army National Guard and Army Reserve was to fill shortages and, therefore, was not a primary source for displaced vehicles. The counterattack corps would, however, provide displaced vehicles on a one-for-one exchange.

In May 2002, the HEMTT team foresaw a desperate situation ahead for identifying core intake. Requesting units to turn in excess vehicles or even downsizing units were options proposed to Force Development (G-8) and U. S. Army Forces Command (FORSCOM). In November 2002, Oshkosh Truck Corporation met with the HEMTT Recap System acquisition manager to discuss the criticality of needed core to continue the recap teardown process. The program was in jeopardy of shutting down.

Thinking all possibilities had been exhausted, the HEMTT management team met with Army Col. Robert L. Groller, then assigned as project manager (PM), heavy tactical vehicles (HTV) to express the grave situation for the HEMTT recap program. Groller proposed a series of questions to be investigated that would define the way ahead for the program. How quickly could Oshkosh Truck Corporation turn a vehicle around upon receipt from teardown to recap? How would we meet the model mix requirements called out in the contract? How fast could trucks be shipped on each end?

Groller tasked Oshkosh with determining what the minimum turnaround time would be if an Army unit provided a truck for recap, and what the long lead time items were that determined the turn around time. Armed with this information, Groller contacted Army Col. Kenton L. Ashworth, assistant, chief of staff, G4, Fort Hood, Texas, to tell him he had a deal. Ashworth was very interested in the initiative and invited Groller to brief the program to III Corps in December 2002. III Corps could provide a one-for-one exchange if criteria were met.

"You give me an old [truck] carcass," Groller proposed, "and in 100 days I'll return to you a zero miles/zero hours, like-new vehicle."

Army Brig. Gen. Richard P. Formica, III Corps Artillery, attending the briefing asked, "What's the catch?"

### Start to Finish in 100 Days

The HEMTT R3 program was intended to augment the ongoing HEMTT recap to prevent fielding delays and default of government-furnished equipment (GFE) on the HTV family contract. The PM could execute precious procurement dollars, and the counterattack corps would get the latest configuration trucks. The program needed to be worked at Corps level; it would be too difficult on unit readiness to give up the required quantities of trucks by division. Counterattack corps participants would be units at Fort Hood, Fort Sill, Okla. Units at Fort Riley, Kan., and Fort Bliss, Texas, and would indirectly benefit through internal transfer of vehicles. III Corps signed on, getting to pick their worst dogs from across the corps to send in as long as they met the basic requirements for a recap candidate: a core vehicle carcass must have the complete power train (engine, transmission, and transfer case), axles, frame rails, and crane, but it does not need to be operational. Models of trucks inducted into the R3 program consisted of tanker (M978A2R1), wrecker (M984A2R1), and cargoes (M977A2R1, M985A2R1).

Through the execution of the 100-day turnaround (90 days for total teardown, refurbish, and build, and five days on each end for vehicle shipment), Oshkosh proved their

flexible government and commercial production line and their desire to accommodate their customer. The PM-HTV office provided a schedule of HEMTT model mix to III Corps based on contracted models to be produced. The model mix was based on filling counterattack corps units in a priority sequence. Based on a seven-month lead time, we allowed a one-time contract modification to target III Corps' specific unit requirements. Operating the program at corps level meant dispersing the recapped vehicles throughout divisions and corps support units.

## The Recap Process in Action

In a recap process, the trucks are torn down to the frame rail assembly and all the components are inspected and overhauled to required original equipment manufacturer (OEM) standards. The truck is then re-assembled on the same assembly line as a new vehicle. All vehicles are upgraded to the current HEMTT configuration. The old engines are sent to a Detroit Diesel remanufacture facility in Kansas and completely overhauled and upgraded to an electronically controlled engine. The obsolete transmission is replaced with a state-of-the-art five-speed Allison World Transmission. Axles are completely torn down, washed, inspected, and re-assembled in the Oshkosh in-house axle remanufacture operation. All load cranes are remanufactured at Oshkosh. Vehicle wire harnesses, gauges, and electrical components are replaced with new. The cargo bodies are sent to the OEM for complete overhaul. All vehicles leave with a new cab assembly, new paint job, bolt-together wheels, and a new set of Michelin tires. The trucks are zero miles, zero hours with a new truck warranty. Though they are remanufactured, they are considered new—and the cost is 75 percent or less than the cost of procuring a new truck.

The PM-HTV office hosted a weekly teleconference for members of the program management office; logisticians; III Corps representatives at Forts Hood, Sill, and Riley. Also on the line were representatives of Oshkosh and Defense Contracting Management Agency (DCMA) representatives. It took intensive weekly management to track vehicle serial number turn-ins and returns, the new equipment training requirements, shipping instructions, and second destination transportation (SDT) funds (which were paid by PM-HTV.)

Coordination with III Corps and Oshkosh resulted in the turnaround of five to eight vehicles per week. Vehicles were turned in "as-is complete" with basic issue items (BII). BII is sent to Camp Shelby, Miss., for refurbish at approximately one-half the cost of new. Units were to remove and retain all C4ISR equipment, plates, and brackets for reinstallation in the returned vehicles. PM-HTV depended on the Fort Hood-based TACOM materiel fielding team, composed of government personnel and contract support personnel from SAIC and Dimension International to inspect, prep, and ship outgoing vehicles and deprocess and hand off returned trucks at the unit's location. The project was ready for kickoff in January 2003.

If we'd been deliberately looking for bad timing to attempt to execute a program like this, we couldn't have done a better job. In the emergence of OIF, 4ID deployed, taking one-third of the recap candidates with them. So we needed a plan to backfill deploying units to meet this contingency. If a unit was notified of deployment, how would we get them their recapped trucks back prior to deployment? Groller identified a bank of vehicles to return to a participating unit if deployment orders were received. These vehicles were temporarily diverted from scheduled fieldings. Within days of a unit's receiving deployment notification orders, an identical model vehicle would be returned, or if not yet inducted into the recap process, the original vehicle would be returned to the unit. Within a week of beginning the R3 program, III Corps Field Artillery, Fort Sill, received deployment orders. Rapid response returned a like-new vehicle to the unit within three working days.

## The Emergence of a Model Program

R3 provided modernized vehicles to III Corps and prevented fielding delays. Units report a slight increase in readiness as a result of R3. Accurate tracking has been complicated by returning units from OIF, making a true assessment of the effect of this program difficult. But one thing is for certain: R3 provides zero miles/zero hours, like-new trucks to replace aging, high maintenance old configuration trucks. Innovative thinking, coordination, and cooperation made this program work. It's good for the Army and supports the warfighter in the field.

Budget cuts mean a couple lean years ahead for the HEMTT recap program: few production dollars will be available to continue modernization of the counterattack corps until FY06. R3 stopped the loss of the precious dollars allocated today for tactical wheeled vehicles and allowed continued modernization of the Army's heavy tactical truck fleet.

HEMTT R3 has become a model for executing the emerging reconstitution or "RESET" programs for the repair of battle-damaged equipment returning from OIF. With focus on the short timelines imposed on a unit to reconstitute equipment to a C1 level status, this is a proven, effective method to accomplish such a feat. Through a cooperative effort between government and contractor, it merges the ongoing effort to continue modernization of the Army's heavy tactical wheeled vehicle fleet, while successfully achieving readiness status.

The catch? There isn't one, and the success of R3 may become the standard for executing future recap dollars.

**Editor's note**: The author welcomes comments and questions. She can be reached at browns@tacom.army.mil.

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## DEPARTMENT OF DEFENSE NEWS RELEASE (JAN. 23, 2004)

## DOD SELECTS FOREIGN DEFENSE EQUIPMENT FOR TESTING

The Department of Defense announced today that it has selected 29 new start projects and 26 previously approved continuing projects to receive fiscal 2004 funding under the Foreign Comparative Testing (FCT) Program. Authorized by Congress since 1980, the FCT Program is administered by the deputy under secretary of defense (advanced systems and concepts), office of the under secretary of defense (acquisition, technology and logistics).

The FCT Program demonstrates the value of using non-developmental items to reduce development costs and accelerate the acquisition process. The principal objective of the FCT Program is to support the U.S. warfighter by leveraging non-developmental items of allied and other friendly nations to satisfy U.S. defense requirements more quickly and economically. This is to increase U.S. capabilities in the war on terrorism and improve interoperability with our allies.

Given a first-rate foreign non-developmental item, U.S. user interest, a valid operational requirement, and good procurement potential, the FCT Program fields world-class systems and equipment not otherwise available. At the same time, by promoting competition and eliminating unnecessary research, development, test and evaluation expenses, the FCT Program reduces total ownership costs of military systems while enhancing standardization and interoperability, promoting international cooperation, and frequently serving as a catalyst for domestic industry partnering and U.S. industry overseas.

Each year, the military services and Special Operations Command nominate candidate projects to the Office of the Secretary of Defense (Advanced Systems & Concepts) for FCT funding consideration. Each proposed project is screened to ensure the fully mature technology addresses valid requirements, to confirm a thorough market survey was conducted to identify all potential contenders, and to verify the U.S. military sponsor has developed a viable acquisition strategy to procure the foreign item if it tests successfully and offers best value.

Of the 29 new start projects for fiscal 2004, seven are sponsored by the Army, five by the Navy, seven by the Marine Corps, four by the Air Force, and six by the Special Operations Command. Additional FCT Program information is available on the FCT Web site <http://www.acq.osd.mil/fct/> .

**New FCT Projects Selected for FY 2004 Funding**

### Army

- Celluloid mortar increment containers – Austria

GammatTitanium sheets – Austria

- Large scale display system – Japan, Republic of Korea
- Lightweight smoke generator – Poland
- Lithium-ion battery cells – Republic of Korea, United Kingdom
- Mortar propellant – Switzerland
- Regenerative drive system – Australia

### Navy

- Biosensors for explosives detection – Sweden
- Mine countermeasures small unmanned underwater vehicle – Finland
- Mobile acoustic support system – Canada
- Naval active intercept and collision avoidance – Australia
- Pitch adapting composite marine propeller – Germany

### Marine Corps

- 40mm high explosive dual purpose (HEDP) improvement – Germany, Norway,
- Biocular image control unit for M1A1 main battle tank – United Kingdom
- Deployable multi-purpose moving target system – Germany
- Joint Service light-weight integrated suit technology alternative footwear solution – Canada
- Joint Service light-weight integrated suit technology block II glove upgrade – Canada
- Mounted cooperative target identification system (MCTIS) – United Kingdom
- Self-destruct safety fuze for rocket artillery submunitions – Israel

### Air Force

- 20MM replacement round – Germany, Switzerland
- Guidance components for missiles – United Kingdom, Canada, Israel, Sweden, Germany, France
- Micro electro-mechanical system inertial measurement units – United Kingdom
- Radarsat II commercial high resolution SAR – Canada

### U.S. Special Operations Command

- Advanced family of interfaces for chem bio clothing – Japan, Switzerland
- Deployable GSM cellular network – Sweden (joint with Army)

- Low probability of intercept communications intelligence direction finding – Israel
- MK48 (7.62mm LWMG) semi-rigid ammunition container – Belgium
- Special operations forces combat rifle – Belgium, Germany
- Traveling wave tube amplifier – Israel, Germany, France

## U.S. ARMY MEMORANDUM FOR CORRESPONDENTS (FEB. 3, 2004)
## CROWS SYSTEM DISPLAYED AT PENTAGON, PROTOTYPES DEPLOYED IN IRAQ

A prototype of the Common Remotely Operated Weapon Station (CROWS)—currently deployed in Iraq—was on display in the Pentagon Courtyard Feb. 4-5.

"This system significantly increases safety to Soldiers through the ability to remotely operate the weapon from inside the vehicle, thus eliminating the need for a gunner outside of the vehicle," said Col. Michael J. Smith, PM Soldier Weapons. "Our first priority is to equip Soldiers with the best capabilities possible, ensuring a safe return home."

CROWS, which is mounted on a variety of vehicle platforms—including the HMMWV—provides Soldiers with the capability to acquire and engage targets while protected by the vehicle. It supports the MK19 Grenade Machine Gun, 50 Caliber M2 Machine Gun, M249 Semi Automatic Weapon, and M240B Machine Gun. CROWS includes two axis-stabilized mounts, a sensor suite, and fire control software allowing on-the-move target acquisition and first-burst target engagement. The CROWS sensor suite permits target engagements under day and night conditions and includes a daytime video camera, image intensifier, heavy thermal weapon sight, and laser rangefinder.

Four prototypes of the CROWS system were deployed to Iraq in December under an urgent needs request. The Army is using those systems in support of various urban missions in Iraq. Testing of the next design iteration, which incorporates upgraded capabilities, was started simultaneously at Aberdeen Proving Grounds, Md.

PM Soldier Weapons is conducting several demonstrations of the CROWS system over the next few months. With two demonstrations already conducted at the Pentagon and Fort Stewart, Ga., the next demonstration will be May 15-20, at Fort Knox, Ky.

PM Crew Served Weapons is assigned to PM Soldier Weapons, a project office of PEO Soldier (https://PEOSoldier.army.mil) and is responsible for maintaining and improving crew served weapons including, light, medium, and heavy machine guns, automatic grenade launchers, sniper systems, and associated fire control and target acquisition products for U.S. Soldiers. The organization also develops future weapons systems that

Up-armored Humvees offer protection against most small arms fire, shrapnel, and anti-personnel mines. This up-armored Humvee with a Common Remotely Operated Weapon Station (CROWS) was displayed in the Pentagon center courtyard Feb. 4-5.

U.S. Army photo by Joe Burlas

enhance reliability and the weapon's life cycle, such as XM307 Advanced Crew Served Weapon, XM312 Lightweight .50 Caliber Machine Gun and CROWS.

PM Soldier Weapons is based at the Picatinny Arsenal, N.J., and supports Soldiers through the development and production of current and future individual and crew served weapon systems, ammunition development, and associated target acquisition/fire control products that provide Soldiers with decisive overmatch capability by dramatically increasing lethality and range at a lower weight.

CROWS was developed in conjunction with ROI based in Barrington, Ill.

(*For more information contact Cynthia Smith at (703) 697-5344.*)

## U.S. ARMY PRESS RELEASE (FEB. 10, 2004)

### ARMY TEAMS WITH ARIZONA STATE UNIVERSITY TO ESTABLISH CENTER FOR FLEXIBLE DISPLAYS

The Army announced today the award of a cooperative-agreement with the Arizona State University in Tempe, Ariz., to set up the Army's Flexible Display Center (FDC). The Arizona State University will establish the FDC and partner with industry and the government to advance flexible display science and manufacturing technology.

The FDC will provide the Army with core competencies and expertise in flexible display component technology and develop the processes required to integrate this technology into manufacturable flexible displays. The Army's goal is to have rugged, low power flexible displays provide enhanced information and situational awareness for the Soldier and vehicle platforms.

This $43.7 million agreement has a performance period of five years with an option for an additional $50 million over an added five-year period.

"The Army's Flexible Display Center will integrate the best research being done in the government, universities, and industry to rapidly bring to the Soldier the full potential of flexible display technology," said Acting Deputy Assistant Secretary Research and Technology, Dr. Thomas H. Killion. "This paradigm shifting technology will make obsolete printed matter and the printing press."

Display technology is critical to the Army's network centric Future Force. "Flexible display technology has the potential to be implemented in a wide variety of applications from command centers, to vehicle platforms, to individual Soldiers. It will revolutionize the way in which information is disseminated on the battlefield, increasing both the lethality and survivability of the Future Force," said Acting Director U.S. Army Research Laboratory John Miller.

The Army Research Laboratory will have oversight of the FDC through the use of a Cooperative Agreement. The FDC will provide the focal point for integrating the various technologies required to develop and manufacture flexible displays. The center will have the equipment required to do both developmental research and low-rate manufacturing. The cornerstone of these capabilities will be a research line for developing component technology and a pilot line with the capability to manufacture displays in limited quantities.

The FDC will conduct unclassified scientific research and development in four areas of emphasis: (1) backplane electronics, (2) manufacturing and integration, (3) electro-optic materials and devices, and (4) barriers and substrates. The Army seeks to provide the innovative research and development for materials, devices, and manufacturing processes to solve critical challenges in the performance and fabrication of emissive, transmissive, and reflective flexible display technologies. The Army intends to bring these key technology components of flexible displays to a commercially viable level.

"The Army Research Laboratory looks forward to working with the FDC to fully realize the potential of flexible display technology and the mission-critical capabilities it will provide the Army," said Miller.

For media queries, please contact Maj. Gary Tallman of Army Public Affairs at 703-697-4314.

## AIR ARMAMENT CENTER NEWS RELEASE (FEBRUARY 2004)

### PEO REORGANIZATION PUTS EVERYONE "ON ONE TEAM"

*1st Lt Mae-Li Allison*
*Air Armament Center Public Affairs*

During a recent Acquisition Town Hall Meeting at Air Armament Center, Eglin Air Force Base, Fla., Dr. Marvin R. Sambur, the assistant secretary of the Air Force for acquisition, proved that acquisition is anything but boring. Sambur reviewed and discussed

challenges with the Program Executive Office (PEO) realignment announced in late 2003 that will help acquisition and Air Force Materiel Command (AFMC) work as one team towards one goal. He also took the time to discuss some very serious issues pertinent to Air Force Acquisition, describing the purpose of the PEO realignment in one simple acronym, M3A: Making Managers More Accountable.

"We're one Air Force," he said. "If some part of acquisition fails, we all sink. The average acquisition program takes about ten years to finish. Think about what changes occur in the world and technology in ten years. We need to make our cycle time shorter and more predictable. We have to collaborate with each other to promote efficiency."

Sambur said he sees a very exciting future for the acquisition programs here, including making sure munitions with data links are available. "When we data link munitions, we can use the transmission of information to make our weapons more accurate, better measure battle damage assessment, and take the munitions a step up by improving communications with them. I also think another thrust is to get some uniformity in the integration with platforms. Most of the cost with munitions is associated with platform integration; if we have a standardized way of doing this, we can significantly cut down on costs."

Sambur compared the PEO realignment to the Yankees and the Red Sox: "They compete with each other; but if you have them on one team, you have the best talent. Now we have an opportunity to really get people who've spent a lifetime in acquisition on our team; and just because they're from AFMC, they shouldn't be out of the acquisition process. We brought them back in."

Finally, Sambur stressed that acquisition needs to look at the "big picture" when expanding its capabilities in areas such as weapons development. "We need to get away from specifications and look at things in terms of capability to satisfy our customer—our warfighter," he said. "We also need to deliver what we promise when we promise it."

## DEPARTMENT OF DEFENSE PRESS RELEASE (FEB. 11, 2004)

### DOD ANNOUNCES TOP CONTRACTORS FOR FISCAL YEAR 2003

The Department of Defense announced today that the fiscal 2003 report of "100 Companies Receiving the Largest Dollar Volume of Prime Contract Awards (Top 100)" is now available on the World Wide Web. The Web site address for locating this publication and other DoD contract statistics is: <http://www.dior.whs.mil/peidhome/procstat/p01/fy2003/top100.htm> .

According to the new report, the top 10 Defense contractors for fiscal 2003 were:

| | | (in billions) |
|---|---|---|
| 1. | Lockheed Martin Corp. | $21.9 |
| 2. | The Boeing Co. | 17.3 |
| 3. | Northrop Grumman Corp. | 11.1 |
| 4. | General Dynamics Corp. | 8.2 |
| 5. | Raytheon Co. | 7.9 |
| 6. | United Technologies Corp. | 4.5 |
| 7. | Halliburton Co. | 3.9 |
| 8. | General Electric Co. | 2.8 |
| 9. | Science Applications International Corp. | 2.6 |
| 10. | Computer Sciences Corp. | 2.5 |

In fiscal 2003, DoD prime contract awards totaled $209 billion, $28.2 billion more than in fiscal 2002.

## AMERICAN FORCES PRESS SERVICE (FEB. 23, 2004)

### ARMY LEADERS RECOMMEND CANCELING COMANCHE HELICOPTER PROGRAM

*Kathleen T. Rhem*

WASHINGTON—Army leaders have recommended canceling a multibillion-dollar helicopter program, citing an Army study that suggests the funds would be more effective improving other areas of the Service's aviation program.

Acting Army Secretary Les Brownlee today announced that he and the Service's chief of staff, Gen. Peter Schoomaker, recommended canceling the 21-year-old Comanche helicopter program after a comprehensive review of Army aviation technology and structure.

The roughly $14 billion allocated to the program between now and 2011 will go toward other aviation programs, he said.

The study "reflects lessons learned and experiences gained in the recent 2½ years of combat in the global war on terror as well as the operational environments envisioned in the foreseeable future," Brownlee said in a late- afternoon Pentagon press conference.

He said the study shows that the capabilities the Comanche, an armed reconnaissance helicopter, would

After a comprehensive review of Army aviation technology and structure, Army Secretary Les Brownlee announced Feb. 23 that he and the Service's chief of staff, Gen. Peter Schoomaker, have recommended canceling the 21-year-old Comanche helicopter program.
U.S. Army photo

bring to the Service are not consistent with the most vital needs of Army aviation. According to the review, those needs include upgrading, modernizing, and rebuilding the Army's attack, utility, and cargo helicopter fleets as well as replacing aging aircraft in the reserve component, Brownlee said.

"Our revised plans for the next several years, out to fiscal year 2011, include the procurement of almost 800 new aircraft for the active and reserve components, and the enhancement, upgrade, modernization, and recapitalization of over 1,400 aircraft," he said.

Brownlee said he and Schoomaker began briefing Congress on their plans this morning and will submit an amended budget request for fiscal 2005.

Schoomaker also mentioned that Army leaders had assurances from President Bush and Defense Secretary Donald Rumsfeld that the funds previously allocated for the Comanche will stay within the Army aviation program.

Both Army leaders suggested funds already spent on developing the Comanche won't have been wasted, because the Service and the aviation industry have learned a great deal through work on the program.

Brownlee said relevant technologies will be retained in the aviation technological base and will lead to "research and development more applicable to future aviation initiatives." He specifically mentioned the Joint Multirole Helicopter and the Joint Airlift Aircraft programs.

Schoomaker said it's important to not see this as "just about terminating Comanche," but about "fixing Army aviation for the future—for today and for tomorrow."

The Comanche program's cancellation is going hand in hand with a major plan to restructure the Army's aviation brigades, Brownlee said. Officials plan to standardize aviation brigades throughout the Army and "provide the modularity and flexibility we must have to achieve the joint and expeditionary capabilities that are so essential to the Army's role now and in the future," he said.

"It's a big decision," Schoomaker said. "We know it's a big decision, but it's the right decision."

AMERICAN FORCES PRESS SERVICE (FEB. 20, 2004)

## WEB SITE SEEKS 'TRANSFORMATION IN ACTION' STORIES

WASHINGTON—Military people and civilians in the Defense Department have the opportunity to "get in on the ground floor" of transformation, DoD's chief of the Office of Force Transformation said in a recent interview.

"They have the opportunity to not only see change take place in front of their eyes, but to actually make it happen," said retired Navy Vice Adm. Arthur Cebrowski.

"You have a choice," he continued. "You can either create your own future, or you can become the victim of a future that someone else creates for you. By seizing the transformation opportunities, you are seizing the opportunity to create your own future."

To aid in getting the word out about transformation, the Office of the Secretary of Defense launched a Web Site late last year at <http://www.defenselink.mil/transforma tion/>. It contains articles about transformation in the Defense Department as well as major commands and each of the Services.

Additionally, Web Site officials want to hear from the soldiers, sailors, airmen, Marines, Coast Guardsmen, and civilians who have a transformation success story. Stories and photos should be sent to Kathy Vantran, the transformation page manager. Her e-mail address is <kathy.vantran@osd.mil>.

## AIR FORCE PRINT NEWS (FEB. 26, 2004)
## AIR FORCE LEADER DISCUSSES U.S. SPACE PROGRAM

*Staff Sgt. C. Todd Lopez*

WASHINGTON—The executive agent for space testified before the House Armed Services Committee subcommittee on strategic forces Feb. 25 on the status of America's space program.

Undersecretary of the Air Force Peter B. Teets, who is also the director of the National Reconnaissance Office, told committee members that he had five priorities for the national space effort in 2004.

Those efforts, he said, included:

- Achieving mission success in operations and acquisition.
- Developing and maintaining a team of space professionals.
- Integrating space capabilities for national intelligence and warfighting.
- Producing solutions for challenging national security problems.
- Ensuring freedom of action in space.

"These priorities have shaped the fiscal 2005 budget for our space programs and I see substantial improvements in capabilities in every mission area as we re-capitalize our space assets in the years ahead," Teets told committee members. "The funding requested in the president's budget allows us to evolve capabilities…while planned investments in new systems will provide significant increases in performance, supporting the full range of intelligence and military operations to include the global war on terrorism."

The United States is pursuing two major initiatives as part of its space program, Teets told committee members. The first is the transformational communications architecture, which will be made possible by the Transformational Communications Satellite (TSAT).

Teets said that satellite will greatly improve the level of communications experienced by warfighters on the ground.

"The TSAT will be a revolutionary change in satellite communications for the warfighter and for national intelligence users," Teets said. "It allows our fighting forces to have near real-time intelligence, surveillance and reconnaissance at their fingertips and provides unprecedented connectivity with Internet-like capability that extends the global information grid to deployed and mobile users worldwide."

Teets said he expects the first satellite to be launched in 2011.

The second major initiative of the U.S. space program is development of space-based radar (SBR). The SBR program will provide persistent surveillance, on demand. That means the ability to see nearly anywhere on Earth, at any time day or night, through clouds or sand storms, Teets said.

"Since radar has the unique capability of being able to see through clouds, to be able to image or do surface moving target indications at night, you can see the effects that you can achieve by having some persistence in your surveillance activities," Teets said. "That is the big driving factor behind the desire to have an SBR capability."

Also discussed during the testimony was the development and implementation of a new space systems acquisition program, now under Air Force Space Command, and the status of the space-based infrared system (SBIRS). The SBIRS is designed to be a follow on to the defense support program, a series of satellites used to detect strategic missile attacks.

| DEPARTMENT OF DEFENSE BUDGET FOR FY 2005<br>Released February 2004<br>Program Acquisition Costs by Weapon System<br>(Dollars in Millions) | | FY2003 | FY2004 | FY2005 |
|---|---|---|---|---|
| **Aircraft** | | | | |
| Army | | | | |
| AH-64D | Longbow Apache | 943.4 | 764.9 | 554.8 |
| CH-47 | Chinook | 731.3 | 524.3 | 555.6 |
| OH-58D | Kiowa Warrior | 43.1 | 50.9 | 33.8 |
| RAH-66 | Comanche Helicopter* | 873.6 | 1,068.0 | 1,241.7 |
| UH-60 | Blackhawk Helicopter | 402.1 | 411.3 | 192.1 |
| Navy | | | | |
| E-2C | Hawkeye | 393.6 | 570.1 | 845.0 |
| EA-6B | Prowler | 368.1 | 370.2 | 199.7 |
| F/A-18E/F | Hornet | 3,401.1 | 3,217.8 | 3,120.4 |
| H-1 | USMC H-1 Upgrades | 232.2 | 399.5 | 332.2 |
| MH-60R | Helicopter | 207.1 | 461.7 | 487.9 |
| MH-60S | Helicopter | 375.7 | 467.0 | 482.0 |
| T-45TS | Goshawk | 218.2 | 336.7 | 253.6 |
| Air Force | | | | |
| B-2 | Stealth Bomber | 323.8 | 288.2 | 341.0 |
| C-17 | Airlift Aircraft | 4,343.5 | 3,592.7 | 4,039.6 |
| CAP | Civil Air Patrol | 5.2 | 8.5 | 2.3 |
| E-8C | Joint Surveillance Target Attack Radar System (Joint STARS) | 342.8 | 96.7 | 134.5 |
| F-15E | Eagle Multi-Mission Fighter | 344.7 | 322.7 | 296.8 |
| F-16C/D | Falcon Multi-Mission Fighter | 352.5 | 403.4 | 435.9 |
| F-22 | Raptor | 5,370.3 | 5,043.2 | 4,721.5 |
| DoD-Wide/Joint | | | | |
| C-130J | Airlift Aircraft | 867.1 | 856.8 | 1,540.3 |
| JPATS | Joint Primary Aircraft Training System | 232.3 | 297.7 | 309.6 |
| JSF | Joint Strike Fighter | 3,274.3 | 4,251.7 | 4,571.9 |
| UAV | Unmanned Aerial Vehicles | 1,211.4 | 1,340.5 | 1,973.4 |
| V-22 | Osprey | 1,610.5 | 1,708.7 | 1,756.5 |
| **Missiles** | | | | |
| Army | | | | |
| HIMARS | High Mobility Artillery Rocket System | 358.7 | 314.2 | 378.9 |
| JAVELIN | AAWS-M | 222.2 | 140.6 | 118.7 |
| **Munitions** | | | | |
| Navy | | | | |
| ESSM | Evolved Seasparrow Missile | 42.0 | 102.0 | 80.3 |
| RAM | Rolling Airframe Missile | 59.2 | 48.0 | 47.4 |
| STANDARD | Missile (Air Defense) | 175.6 | 228.2 | 249.1 |
| TOMAHAWK | Cruise Missile | 534.4 | 429.1 | 285.0 |
| TRIDENT II | Sub Launched Ballistic Missile | 611.1 | 710.9 | 877.4 |
| Air Force | | | | |
| SFW | Sensor Fuzed Weapon | 124.1 | 117.0 | 117.0 |
| WCMD | Wind Corrected Munitions | 98.0 | 89.4 | 86.7 |
| DoD-Wide/Joint | | | | |
| AIM-9X | Sidewinder | 113.5 | 81.4 | 97.5 |
| AMRAAM | Advanced Medium Range Air-to-Air Missile | 182.4 | 183.1 | 183.7 |
| JASSM | Joint Air-to-Surface Standoff Missile | 118.5 | 147.3 | 221.0 |
| JDAM | Joint Direct Attack Munition | 816.2 | 735.1 | 673.0 |
| JSOW | Joint Standoff Weapon | 188.5 | 202.0 | 148.9 |
| SDB | Small Diameter Bomb | 56.3 | 125.4 | 115.8 |

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| DEPARTMENT OF DEFENSE BUDGET FOR FY 2005<br>Released February 2004<br>Program Acquisition Costs by Weapon System<br>(Dollars in Millions…continued) | | FY2003 | FY2004 | FY2005 |
|---|---|---|---|---|
| **Vessels** | | | | |
| Navy | | | | |
| CVN-77 | Aircraft Carrier | 849.3 | 1,516.1 | 978.9 |
| DD(X) | DD(X) Destroyer | 916.3 | 1,088.9 | 1,450.6 |
| DDG-51 | AEGIS Destroyer | 3,012.4 | 3,406.5 | 3,591.5 |
| LCS | Littoral Combat Ship | 35.3 | 166.2 | 352.1 |
| LPD-17 | San Antonio Class Amphibious Transport Ship | 594.0 | 1,325.5 | 975.6 |
| NSSN | Virginia Class Submarine | 2,335.4 | 2,514.3 | 2,596.3 |
| RCOH | CVN Refueling Complex Overhaul | 217.3 | 221.0 | 333.1 |
| SSGN | SSGN Conversions | 1,183.3 | 1,227.5 | 658.4 |
| T-AKE | Auxiliary Dry Cargo Ship | 386.0 | 722.3 | 768.4 |
| **Combat Vehicles** | | | | |
| Army | | | | |
| FCS | Future Combat System | 370.0 | 1,683.6 | 3,198.1 |
| M1A2 | Abrams Tank Upgrade | 551.1 | 207.9 | 308.3 |
| M2A3 | Bradley Base Sustainment | 437.4 | 344.5 | 71.4 |
| IAV | Interim Armored Vehicle (Stryker) | 930.3 | 1,043.4 | 957.0 |
| **Space Programs** | | | | |
| Army | | | | |
| DSCS | Ground Systems | 104.9 | 111.7 | 109.1 |
| Navy | | | | |
| MUOS | Mobile USER Objective System | 110.5 | 267.7 | 571.1 |
| Air Force | | | | |
| AEHF | Advanced Extremely High Frequency Satellite | 802.6 | 802.3 | 710.6 |
| DSP | Defense Support Program | 107.6 | 112.1 | 116.5 |
| EELV | Evolved Expendable Launch Vehicle | 231.4 | 612.7 | 638.0 |
| MLV | Medium Launch Vehicles | | 89.4 | 102.9 |
| NAVSTAR GPS | NAVSTAR Global Positioning System | 47.8 | 500.0 | 582.9 |
| SBIRS-H | Space Based Infrared Systems–High | 614.3 | 610.2 | 508.4 |
| TITAN | Heavy Launch Vehicle | 775.3 | 45.1 | 74.3 |
| WGS | Wideband Gapfiller Satellite | 254.4 | 58.1 | 113.8 |
| | | 200.5 | | |
| **Other Programs** | | | | |
| Army | | | | |
| FHTV | Family of Heavy Tactical Vehicles | 271.9 | 234.4 | 86.5 |
| FMTV | Family of Medium Tactical Vehicles | 659.0 | 344.7 | 505.7 |
| HMMWV | High Mobility Multipurpose Wheeled Vehicles | 334.9 | 431.4 | 303.7 |
| DoD-Wide/Joint | | | | |
| MD | Missile Defense | 7,581.8 | 9,002.9 | 10,193.0 |

## NEW SUPPORTABILITY GUIDEBOOK

The Office of the Secretary of Defense has prepared a new supportability guidebook titled, *Designing and Assessing Supportability in DoD Weapon Systems: A Guide to Increased Reliability and Reduced Logistics' Footprint*. The guidebook can be found on the AT&L Knowledge Sharing System Web site at <http://acc.dau.mil/simplify/ev.php?ID=15943_201&ID2=DO_TOPIC>.

One fundamental change in DoD policy is the designation of the weapon system Program Manager (PM) as the life cycle manager (Total Life Cycle Systems Management, or TLCSM), responsible not only for effective and timely acquisition of the system, but also for service as the primary manager and single point of accountability for sustainment of a weapon system throughout its life cycle.

This guide provides a template for PMs to use in defining and assessing their program activities to meet DoD policy requirements throughout the weapon system life cycle. Emphasis is placed on designing for increased reliability and reduced logistics footprint and on providing for effective product support through performance-based logistics (PBL) strategies.

The guide uses the Defense Acquisition Management Framework and a systems engineering process to define the appropriate activities and required outputs throughout a weapon system's life cycle to include those related to sustainment of fielded systems. A System Operational Effectiveness framework is included that shows the linkage between overall operational effectiveness and weapon system and product support performance.

This guide provides a reference for PMs and their teams to design in, and then assess the effectiveness of their TLCSM responsibilities in implementing PBL strategies anywhere along the system's life cycle.

(*Lawrence Thurman/SAAL-PA/DSN 664-7021/e-mail: lawrence.hurman@us.army.mil*)

## AIR EDUCATION AND TRAINING COMMAND NEWS (JAN. 12, 2004)
## PROGRAM OPENS DOORS FOR FUTURE CIVILIAN LEADERS

*Todd Usnik*

RANDOLPH AIR FORCE BASE, Texas (AETCNS)—How would you like to go to Harvard next year? The Air Force Civilian Competitive Development Program (CCDP) provides future Air Force civilian leaders with the education and training required to move into positions of higher grade and responsibility.

CCDP is for people committed to the Air Force as a career. Similar to the officer career paths, candidates must be willing to relocate based on the needs of the Air Force. Career broadening assignments outside the primary career field are often a key element of this program.

Each year the Air Force selects about 100 civilians in grades GS-12 through GS-14 for these select leadership and training opportunities.

Programs are broken into three broad categories: Professional Military Education, which includes Air Command and Staff College, Air Force Legislative Fellows Program, Air War College, National War College, Industrial College of the Armed Forces, and RAND Fellows; Academic Programs, such as attending Princeton University, Harvard University, Stanford University, Massachusetts Institute of Technology, Air Force Institute of Technology, and the Sandia Nuclear Weapons Fellowship Program; and Experiential Programs like the Department of Defense Executive Leadership Development Program and the Council for Excellence in Government. Each program is complemented by a follow-on assignment and can be a key stepping-stone to future promotions.

Last year, AETC wings nominated 25 people to the AETC board. Nine applicants were selected to go forward to the Air Force-wide board. Seven of the nine AETC applicants were selected for a training program.

People selected will attend a yearlong program beginning this summer and, upon successful completion, will move to a new assignment tailored to utilize their newly acquired skills. The annual call for applications begins in May each year; however, applications can take several months to coordinate. Academic programs require the submission of GRE or GMAT results and transcripts to AFIT for evaluation.

People interested in any of the academic programs should begin preparing their applications now. Detailed information for all programs is available on the Web at <http://www.afpc.randolph.af.mil/cp/ccdp/> or by contacting the local civilian training office.

*(Usnik is with the Air Education and Training Command, Directorate of Personnel.)*

## DEFENSE ACQUISITION UNIVERSITY MIDWEST REGION OPEN FOR BUSINESS IN NEW KETTERING, OHIO, LOCATION

The Defense Acquisition University (DAU) Midwest Region and the Air Force Institute of Technology (AFIT) unveiled their new Kettering, Ohio, location with an official ribbon cutting ceremony held on Feb. 5. DAU Midwest Region Dean Jerry Emke and Air Force Col. Ken Knapp from the Air Force Institute of Technology served as co-masters of ceremony, while DAU President Frank Anderson Jr., spoke on the goals and achievements of DAU. Over 350 attended the day's events, including DoD and Air Force leaders, Dayton area defense industry representatives, local and state community and civic leaders, congressional representatives, local university presidents, Miami Valley Acquisition Consortium representatives, friends, and family.

The Midwest Region campus is located just south of Wright-Patterson Air Force Base, near Dayton, Ohio, and has a rich history of academic and educational excellence. According to Dean Emke, the faculty and staff focus on teaching, research, and performance support (targeted training, consulting, and partnering with agencies). Their agenda includes working with organizations within the region and staying current on major issues and needs of the Acquisition, Technology and Logistics (AT&L) workforce throughout the Department of Defense, other federal agencies, and beyond.

## MILDEP REVIEW OF ALL COMMAND SELECT LIST (CSL) POSITIONS

The Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology will review all CSL positions, May 10-14, 2004, at Fort Belvoir, Va.

**Points of Contact (POC)**
Please feel free to contact the following Acquisition Support Center POCs with any questions or comments:

**Chief**
Army Lt. Col. Dwayne Green, e-mail: Dwayne.Green@us.army.mil, 703-805-1025 DSN 655-1025

**Functional/Lead**
Heather Kohler, e-mail: heather.kohler@us.army.mil, 703-805-2992 DSN 655-2992

**Acquisition Workbook Analysis & Readiness Evaluation (AWARE) Application Administrator**
Christian Fraley, e-mail: Christian.Fraley@us.army.mil, 703-805-1069 DSN 655-1069

## U.S. MARINE CORPS (USMC) COLLEGE OF CONTINUING EDUCATION (CCE)

The College of Continuing Education (CCE) develops the professional competence of Marine, other Service, international, and civilian students by formulating and implementing professional military education (PME) and training through distance learning. This is accomplished through a worldwide network of satellite campuses and learning resource centers (LRC).

CCE's mission is to design, develop, and deliver distance learning programs by providing high quality e-learning courseware, instructional products, professional military education seminars, technology-enabled learning centers, and educational services to Marine Corps students worldwide in order to increase USMC total force operational readiness.

CCE's programs and courses concentrate on the leadership, warfighting, and staff development skills of the nation's military, and feature the educational standards, learning areas, and learning objectives of the joint professional military education (JPME) program required by the Chairman of the Joint Chiefs of Staff. Through a variety of distance learning delivery systems, CCE's programs are accessible globally, thus preparing graduates to perform more effectively in Service, joint, and multinational environments at the tactical, operational, and strategic levels of war as well as in situations ranging from humanitarian assistance to combat.

### CCE PROGRAMS

**MarineNet:** The Marine Corps online learning network <https://www.marinenet.usmc.mil/portal/> provides Marines with access to both military and civilian education programs. It contains libraries of exciting and challenging online courses accessible from any PC on base or through the Internet with high-speed access. MarineNet offers courses 24 hours a day, seven days a week and allows students to take tests online and receive credit. Information about available courses and learning resource center locations may be found on the CCE MarineNet site. Access to MarineNet courseware is available through the MarineNet Logon link.

**Officer Professional Military Education Distance Education Program:** The CCE offers the Command and Staff College and Expeditionary Warfare School Distance Education Seminar Programs <http://www.tecom.usmc.mil/cce/students/stu_pme.asp>. These evening seminar programs are managed by Regional Coordinators who oversee seven satellite campuses. Information about the various PME programs, program requirements, en-

rollment options, and options for completion may be found in the Students section. Marine Corps leaders seeking information for local PME sessions they are conducting may be interested in the student PME reference materials located in the reference materials section.

**Learning Resource Centers/Deployable Learning Resource Centers (LRCs/DLRCs)**: These technology-enabled learning centers <http://www.tecom.usmc.mil/cce/general/gi_pr_lrc-dlrc.asp> are stationed wherever Marines are training. The LRCs allow Marines who don't have a computer to access MarineNet. A deployable version of the LRC is currently being fielded at the MEF level so Marines can access courseware while aboard ship.

**Video Teletraining (VTT)**: The Marine Corps Satellite Education Network (MCSEN) is a fielded network of VTT systems <http://www.tecom.usmc.mil/cce/general/gi_pr_vtt.asp> that provide Marines with the opportunity and flexibility to obtain training and off-duty education via distance learning.

**Electronic Courseware Development:** Using the latest educational technology, the CCE blends traditional paper-based courseware and standup instruction with electronic interactive multimedia instruction (IMI) <http://www.tecom.usmc.mil/cce/general/gi_pr_courseware_dev.asp>. Educational studies have shown this type of instruction allows students to learn faster and with greater understanding. With the Training and Education Command (TECOM) Selection Board Worksheet, the CCE and its team of instructional system designers can build and blend electronic courseware to meet most current or future education or training needs.

**Hosting:** This term refers to the CCE's ability to distribute electronic training and education materials via MarineNet. Current CCE hosting services <http://www.tecom.usmc.mil/cce/general/gi_pr_hosting.asp> include distribution of online courses, electronic exams, and learning references. The CCE can host most types of electronic information that organizations would like to make available to all Marines worldwide.

For further information on the many different distance learning educational and training opportunities, contact the CCE main campus located at Marine Corps Base Quantico, Va., or call 1-800-992-9210.

Additional information, including student reference material, program documents, design references, computer requirements, and technical information is available on the CCE Reference Material page at <http://www.tecom.usmc.mil/cce/general/gi_references.asp>.

## NDIA TO SPONSOR DEFENSE SYSTEMS ACQUISITION MANAGEMENT COURSE OFFERINGS FOR INDUSTRY MANAGERS

The National Defense Industrial Association will sponsor offerings of DAU's Defense Systems Acquisition Management (DSAM) course to interested industry managers June 14-18, 2004, in San Diego, Calif; and Aug. 16-20, 2004, in Denver, Colo. DSAM uses the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for formal acquisition certification. It is designed to meet the needs of defense industry acquisition managers in today's dynamic environment, providing the latest information related to:

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

For further information, contact Christy O'Hara (703) 247-2586 or e-mail cohara@ndia.org. Prospective government students must first contact Air Force Maj. Jim Ashworth at (703) 805-5809 or e-mail james.ashworth@dau.mil.

## POSITION CATEGORY DESCRIPTIONS & EXPERIENCE, EDUCATION & TRAINING REQUIREMENTS FOR FISCAL YEAR 2004

The Deputy Director, Defense Procurement and Acquisition Policy (Acquisition Workforce and Career Management) has released the fiscal 2004 approved position category descriptions and career field experience, education, and training requirements. The requirements are effective Oct. 1, 2003.

Unless designated as DESIRED, the requirements are MANDATORY for certification. The lists also include training requirements that will change during the fiscal year as new courses are deployed; each new course is listed with a projected deployment date. The career fields with projected changes are: Contracting; Industrial/Contract

Property Management; Purchasing; and Life Cycle Logistics (Sustainment path).

The descriptions and requirements can be downloaded from the Defense Procurement and Acquisition Policy Web site at <http://www.acq.osd.mil/dpap>. Should you have any questions, please contact Karla Merritt at (703) 681-3444 or e-mail karla.merritt@osd.mil.

## OVERVIEW OF USD(AT&L) CONTINUOUS LEARNING POLICY

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

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

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

## FOUR NEW CONTINUOUS LEARNING MODULES ADDED TO DAU WEB SITE

The Defense Acquisition University (DAU) Continuous Learning Center is pleased to announce the availability of four new continuous learning modules:

- Business Management Modernization Program (BMMP)
- Provisional Award Fee Awareness
- Value Engineering (VE)
- Performance-Based Services Acquisition (PBSA)

### BMMP Module

The BMMP module was developed in collaboration with the OSD Comptroller/Business Management Modernization Program Office. The module will introduce you to the Department of Defense (DoD)-wide initiative to transform business processes and standardize and integrate information systems and standards. The BMMP was established to:

- Transform and modernize business practices across the DoD.
- Capitalize on the DoD's strengths.
- Address the challenge of incorporating leading practices into DoD business management operations.
- Ensure that its warfighters have what they need when they need it, and that any resources freed up by improved operations can be re-directed to the core DoD mission.

The BMMP module will take approximately one hour to complete. It provides high-level information to government personnel, both military and civilian, at all grade levels.

### Provisional Award Fee Awareness

The Provisional Award Fee Awareness module provides information and examples for the new DFARS guidance on provisional award fee payments. The final rule was published on Nov. 14, 2003, with an effective date of Jan. 13, 2004. This module explains the new DFARS guidance on the use of provisional award fee payments in cost-plus-award-fee contracts. It does not address when and how to use award-fee incentives in a contract.

Provisional award fee payments can be made only on a cost-plus-award-fee contract.

### Value Engineering (VE)

The Value Engineering (VE) module is recognized as an effective technique for reducing costs, increasing pro-

ductivity, and improving quality-related features of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life cycle cost consistent with required performance. It is DoD policy to use VE to make a significant contribution toward greater economy in developing, acquiring, operating, and supporting the products necessary to fulfill its mission. This is an overview of VE for everyone, including program managers, systems engineers, logistics personnel, functional leaders, and contractors; and specifically for multidisciplinary government, military, and civilian personnel.

**Performance-Based Services Acquisition (PBSA)**

The PBSA module was developed in collaboration with the Office of the Secretary of Defense (OSD), Acquisition, Technology and Logistics (AT&L), and Defense Procurement and Acquisition Policy (DPAP). Implementing PBSA is not just a DoD initiative; various organizations need performance-based services acquisition. Currently, increasing use of performance-based services acquisitions is one of the Administration's top management initiatives, which have been reinforced at several levels throughout the Federal Government, including:

- President's Management Objectives
- Congressional Intent
- Procurement Executive Councils
- Department of Defense
- Defense Components

To access these modules, login to the DAU Continuous Learning Center at <http://clc.dau.mil>, select "Learning Center" and then select the "Course Information & Access" link. To launch the module, select the name from the list. You may also browse DAU CL modules by going directly to the module listing at: <http://clc.dau.mil/kc/no_login/portal.asp?strRedirect=LC_CIA>.

## AT&L KNOWLEDGE SHARING UPDATE

### CONTINGENCY CONTRACTING SPECIAL INTEREST AREA

Imagine you're an Air Force Contingency Contracting Officer (CCO) and you've just hit the ground in Kandahar, Afghanistan, to support Army operations in theater. The good news is you made it there safely. The bad news is the CCO you're replacing just left two days ago, along with his or her knowledge of local processes, contingency contracting support requirements to the unit, and the unique aspects of doing business in and around Kandahar. There is nothing to worry about because you visited the Acquisition Community Connection (ACC) Web site <http://acc.dau.mil> and checked out the Contingency Contracting Special Interest Area (SIA) before you departed. There you reviewed Army Field Manual 100-10-2, *Contracting Support on the Battlefield,* and read the latest after action reports for Kandahar. You are ready to support the warfighter!

That scenario just became a reality with a new Contingency Contracting SIA, sponsored by the Deputy Assistant Secretary of the Air Force for Contracting (SAF/AQC), which was just launched on the Defense Acquisition University (DAU)-sponsored ACC Web site. The vision is for this SIA to become a viable, joint, military virtual community, and a central focal point and exchange medium for contingency contracting knowledge across DoD. The primary purpose is to facilitate communication between CCOs to improve contingency contracting preparation and operations.

The need for a joint community to address contingency contracting challenges became clear as a result of the increased operations tempo and demand for CCOs generated by Operation Enduring Freedom and Operation Iraqi Freedom. ACC provided the collaboration tool to bring the joint community together to facilitate a dialogue on contingency contracting issues.

Several critical business issues will be addressed by the community, including improving pre-deployment and contingency contracting planning, facilitating the development and communication of policy for contingency contracting, and deploying contractors to the battlefield, as well as capturing and sharing lessons learned through after action reports.

This community facilitates DoD's transformation initiatives and enables the joint contingency contracting community to work together to ensure success in meeting combatant commanders' contingency contracting requirements. It also supports the acquisition, technology and logistics vision for fostering organizations that learn, share information and learning, and act on that learning.

The community is still evolving as the military services and defense agencies join and contribute their knowledge to enhance knowledge-enabled support to the warfighter. Check out this new SIA at <http://acc.dau.mil/contingency> and contact one of the editors to find out how you can help build this critical community.

## DATA MANAGEMENT SPECIAL INTEREST AREA

During the summer of 2003, data managers received both exciting news and a challenge. The Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)), announced their interest in developing a resource for data management professionals in both government and private industry; specifically, a Special Interest Area (SIA) for data management professionals. The SIA would allow data managers to share their knowledge and solve business problems in a collaborative environment. OUSD(AT&L) supported development of the community within the Defense Acquisition University's Acquisition Community Connection (ACC) Web site.

The challenge went out to the Naval Inventory Control Point (NAVICP) in Philadelphia, which accepted the tasking and volunteered time and resources to build the new Data Management SIA. Within a few short months, Robert Leibrand and Leslie Reed, both from the NAVICP Engineering and Product Support Directorate, supported by Patrick Montgomery of Science Applications International Corporation (SAIC); and the DAU ACC editors and support staff, had laid the foundation for the community. The Data Management SIA was first established as an ACC workspace in order to facilitate the development, collaboration, and site building required prior to becoming a recognized SIA.

The finalized Data Management SIA is composed of five main areas—Policy and Guidance, Tools, Training Center, Community Connection, and Industry Initiatives. Since the community's launch, many new useful and insightful contributions have been posted, from Department of Defense and Service regulations and instructions, to various links on military specifications and standards as well as news concerning private industry data management initiatives.

Recently, at the invitation of OUSD(AT&L), Reed gave a presentation on the Data Management community at the quarterly conference of the G33 & G47 Committees of the Government and Electronics Information Technology Association (GEIA), which was held Jan. 26-29, 2004, at the Hanalei Hotel in San Diego, Calif. The presentation on the community was enthusiastically received, and a decision was made to use the site as the collaborative tool for the development of the *EIA 859 Standard for Data Management Handbook*. Through increased content, participation and membership, enhanced by the handbook collaboration, Data Management is progressing, and the Defense Acquisition University ACC editors and support staff are striving to ensure its evolution from an SIA to a member Community within the ACC.

## EARNED VALUE MANAGEMENT SPECIAL INTEREST AREA

The establishment of an Earned Value Management (EVM) Special Interest Area (SIA), now hosted by the Acquisition Community Connection (ACC) at <http://acc.dau.mil/evm>, completes the first phase of the transition of the EVM forum, which was formerly hosted by the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)), more than eight years ago. All former discussions at the OUSD(AT&L) site have been migrated and are now open for continued member participation on the new ACC site.

The EVM SIA contains interesting information that falls under several categories, including Events, References, Tools and Forms, Lessons Learned, Processes and Methods, Case Studies, Learning Materials, as well as Related (EVM) Web sites. By using the EVM SIA, users can save time, leverage the expertise and experience of other EVM experts, accelerate problem solving, increase productivity, improve effectiveness, enhance their professional development, and gain access to performance support tools.

The EVM SIA provides improved functionality and security because the EVM site allows general users to review material, with posting permissions restricted to members only. Anyone may become a member by registering with the community at: <http://acc.dau.mil/evm> and requesting membership to the EVM SIA. Then members can formally participate in the site by initiating, posting, and revising contributions to the EVM discussion forum area. Members may also suggest that materials be posted to the other areas of the EVM site, but these items will be subject to editorial approval prior to acceptance and subsequent posting to the site.

The Defense Acquisition University, in conjunction with the update to the Fundamentals of Earned Value Management Course, has posted a number of narrated continuing education EVM tutorials to the Learning Materials section of the EVM SIA. Additional modules are planned and will be added as they are completed.

For additional information, contact the EVM editor, David Bachman, at David.Bachman@dau.mil.

## SPECTRUM COMPLIANCE SPECIAL INTEREST AREA

In December of 2003, a new Special Interest Area (SIA) for the Spectrum Compliance community was launched on the Acquisition Community Connection (ACC) Web site at <http://acc.dau.mil/sc>. The intent of the SIA was to provide a forum where the acquisition community could access information about statutory requirements and guidance on spectrum issues that need to be addressed during the acquisition cycle. The primary focus of the SIA is on early consideration of spectrum in order to preclude cost and schedule impacts during late acquisition phases.

Each day, the military relies on spectrum-dependent technologies to complete its missions. From radars, sensors, and satellites to radios and wireless devices, these technologies make information superiority a reality and are an integral part of military operations; many factors are at play in this dynamic and changing environment. The physics of the radio frequency spectrum mean that certain frequencies are better suited for certain applications and that interference between systems must be considered. In addition to the physics are the legislative, regulatory, and market forces that drive the spectrum topology. The demand for spectrum is high worldwide, and allocations for spectrum vary from country to country. The Department of Defense (DoD) has a process in place to certify systems. On the national level, systems must go through a process that includes not just DoD users, but all of the users of government spectrum; internationally, each country of intended operation must be addressed.

DoD policy requires that developers of spectrum-dependent systems obtain spectrum certification before assumption of contractual obligations for full-scale development, production, or procurement. Early attention to spectrum issues is critical in spectrum-dependent systems, to mitigate risk and to properly address spectrum supportability and electromagnetic compatibility. The failure to plan for spectrum dependency in the research and development stages—and the resulting discovery of spectrum-related problems shortly before deployment—have produced delays, cost overruns, and in some cases, useless (and very expensive) systems that cannot be fixed for combat operations.

The Spectrum SIA is seeking to build its core base of participatory users within the spectrum member community, and to provide detailed guidance aimed at addressing some of the priority issues and needs facing its membership.

## PROGRAM MANAGEMENT COMMUNITY OF PRACTICE

The Program Management Community of Practice (PM CoP) Web site is being revitalized and refocused. The content that was scattered throughout the former PM CoP has been reorganized under a refreshed scheme that reflects the way the content is presented in the Program Manager's Acquisition Management Courses. This means that the content and information important to PMs can now be found in one or more of the internal and external subject areas and sub-categories familiar to PMs. By organizing the content in this way, interested users can approach program management from their own perspective, seeing what guidance, directives, related Web sites, lessons learned, references, and other information can be used. In addition, users can easily determine if they have content that should be added to the PM CoP from their respec-

**Reorganized PM CoP Web Site**

tive views. As content for these topic areas is identified, editors for specific views will be trained to actively seek out additional contextual information. See the growing CoP at <http://acc.dau.mil/pm>.

The Defense Acquisition University (DAU) wants to ensure that the PM CoP really belongs to the PM Community, not just a few editors. In that light, they are actively soliciting PM experts from throughout the DoD PM community to spearhead development in areas of their expertise within the PM community. DAU will provide training for those experts who would like to take on an editorial role in their areas of expertise. If you are interested in being an active participant and editor for any aspect of the PM CoP, please contact any one of the following three points of contact:

- Bill Hechmer, (703) 805-4876, e-mail: william.hechmer@dau.mil
- Air Force Maj. Jim Ashworth, (703) 805-5809, e-mail: james.ashworth@dau.mil
- Tom Johnson, (703) 805-4497, e-mail: thomas.johnson@dau.mil

## AT&L WORKFORCE—LEADERSHIP CHANGES

### DEPARTMENT OF DEFENSE NEWS RELEASE (JAN. 15, 2004)
### FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Vern Clark announced the following flag officer assignment: Navy Rear Adm. (lower half) Christopher C. Ames is being assigned as commander, Amphibious Group Three, San Diego, Calif. Ames is currently serving as director for Strategy, Plans, Policy, and Programs, J5, U.S. Transportation Command, Scott Air Force Base, Ill.

### DEPARTMENT OF DEFENSE NEWS RELEASE (FEB. 4, 2004)
### FLAG OFFICER ASSIGNMENTS (EXCERPT)

Chief of Naval Operations Adm. Vern Clark announced today the following flag officer assignments:

- Navy Rear Adm. (lower half) Timothy L. Heely is being assigned as program executive officer for strike weapons and unmanned aviation, Patuxent River, Md. Heely is currently serving as assistant commander for systems and engineering, Naval Air Systems Command, and commander, Naval Air Warfare Center, Aircraft Division, Patuxent River, Md.
- Navy Rear Adm. (lower half) (selectee) William E. Landay III is being assigned as program executive officer, Littoral and Mine Warfare, Assistant Secretary of the Navy (Research, Development and Acquisition), Washington Navy Yard, D.C. Landay is currently serving as executive assistant, Office of the Assistant Secretary of the Navy (Research, Development and Acquisition), Washington, D.C.
- Navy Rear Adm. (lower half) (selectee) Jeffrey A. Wieringa is being assigned as assistant commander for systems and engineering, Naval Air Systems Command, and commander, Naval Air Warfare Center, Aircraft Division Patuxent River, Md. Wieringa is currently serving as special assistant to the program executive officer for tactical aircraft programs, Patuxent River, Md.
- Navy Rear Adm. (lower half) (selectee) Peter J. Williams is being assigned as assistant commander for aviation depots, Naval Air Systems Command, Patuxent River, Md. Williams is currently serving as program manager for F-14 weapons system, Program Executive Officer for Tactical Aircraft Programs, Patuxent River, Md.

### AIR FORCE SENIOR LEADER MANAGEMENT OFFICE (FEB. 9, 2004)
### GENERAL OFFICER ANNOUNCEMENTS (EXCERPT)

The following brigadier generals have been nominated by the President to the Senate for appointment to the grade of major general, United States Air Force:

- Armor, James B. Jr., Director, Signals Intelligence Systems Acquisition and Operations, National Reconnaissance Office, Chantilly, Va.
- Collings, Michael A., Director, Maintenance and Logistics, Headquarters Air Combat Command, Langley AFB, Va.
- Reno, Loren M., Director, Logistics, A-4, Headquarters Air Mobility Command, Scott AFB, Ill.
- Scott, Darryl A., Commander, Defense Contract Management Agency, Under Secretary of Defense (Acquisition, Technology & Logistics), Alexandria, Va.

# AT&L WORKFORCE—LEADERSHIP CHANGES

## AIR FORCE SENIOR LEADER MANAGEMENT OFFICE (FEB. 17, 2004)
## GENERAL OFFICER ANNOUNCEMENTS (EXCERPT)

The following colonels have been nominated by the President to the Senate for appointment to the grade of brigadier general, United States Air Force:

- Borkowski, Mark S., System Program Director, Space Based Infrared Systems, Space and Missile Systems Center, Air Force Space Command, El Segundo, Calif.
- Carlisle, Herbert J., Chief, Program Integration Division, Deputy Chief of Staff, Plans and Programs, HQ United States Air Force, Pentagon, Washington, D.C.
- Connor, Gary S., Director, Reconnaissance Systems Program Office, Aeronautical Systems Center, Air Force Materiel Command, Wright-Patterson AFB, Ohio.
- McCasland, William N., Director, Space Vehicles, Air Force Research Lab, Air Force Materiel Command, Kirtland AFB, N.M.
- Pawlikowski, Ellen M., System Program Director, Airborne Laser Program, Aeronautical Systems Center, Air Force Materiel Command, Kirtland AFB, N.M.

## SENIOR EXECUTIVE SERVICE (SES) PROMOTION

Tina Ballard was promoted to the SES in an official Pentagon ceremony held on Jan. 12, 2004. The ceremony was officiated by Assistant Secretary of the Army (Acquisition, Logistics and Technology) Claude M. Bolton Jr. Her promotion is to the position of Deputy Assistant Secretary of the Army (Policy and Procurement).

Ballard directly supports the Army Acquisition Executive and the Assistant Secretary of the Army (Acquisition, Logistics and Technology), serving as the Army's principal acquisition and procurement policy authority for all Army acquisition programs.

# POLICY & LEGISLATION

## DFARS CHANGES (JAN. 13, 2004)

The Department of Defense (DoD) made the following changes to the Final Rules affecting Provisional Award Fee Payments (Defense Federal Acquisition Regulation Supplement [DFARS] Case 2001-D013).

**Final Rules (Effective Jan. 13, 2004)**
Provides policy and guidance for using provisional award fees under cost-plus-award-fee contracts. This tool, in appropriate circumstances, may be an effective incentive mechanism. Acquisition teams should carefully evaluate the need for this tool and the potential benefits as part of acquisition strategy planning processes. Proper use of provisional award fees is expected to improve contractor cash flow, foster a healthy contractual relationship between the government and the contractor, and further the benefits of the award fee incentive.

A training module on the use of provisional award fees is available on the Defense Acquisition University Web site at <http://www.dau.mil> under "Continuous Learning"/"Continuous Learning Modules"/"Self-Paced Modules"/"Provisional Award Fee Awareness Module."

These changes were published in the *Federal Register* on Nov. 14, 2003, and in DFARS Change Notice 20031114, with an effective date of Jan. 13, 2004 (affected subparts/sections: 216.4).

## COMMERCIALLY AVAILABLE OFF-THE-SHELF (COTS) ITEMS—FAR PROPOSED RULE 2000-305 (JAN. 15, 2004)

The Defense Department, General Services Administration, and National Aeronautics and Space Administration issued a Jan. 15, 2004, *Federal Register* notice of a proposed rule on the Federal Acquisition Regulation (FAR) for commercially available off-the-shelf items. Section 4203 of the Clinger-Cohen Act of 1996 requires that the FAR list certain provisions of law that are inapplicable to contracts for acquisitions of commercially available off-the-shelf items. The Act excludes Section 15 of the Small Business Act and bid protest procedures from the list. The list of inapplicable statutes cannot include a provision of law that provides for criminal or civil penalties. View the proposed rule on the Director, Defense Procurement and Acquisition Policy Web site at <http://www.acq.osd.mil/dpap/general/newsandevents.htm>.

## MAJOR REVISION TO AR 70-1, ARMY ACQUISITION POLICY (JAN. 30, 2004)

A major revision to Army Regulation (AR) 70-1, *Army Acquisition Policy,* has been published online and is now available for downloading from

the Army Publishing Directorate Web site <http://www.usapa.army.mil/usapa_officialsite.htm>. The revision supersedes AR 70-1, dated Dec, 15, 1997, and rescinds AR 70-35, dated June 17, 1988.

The revised AR 70-l, dated Jan. 30, 2004, implements Department of Defense Directive 5000.1, *The Defense Acquisition System*, and Department of Defense Instruction 5000.2, *Operation of the Defense Acquisition System.* It governs research, development, acquisition, and life-cycle management of Army materiel to satisfy approved Army requirements. It applies to major weapon and command, control, communications, and computers/information technology systems, nonmajor systems, highly sensitive classified acquisition programs, and clothing and individual equipment.

This regulation is first in the order of precedence for managing Army acquisition programs following statutory requirements, the Federal Acquisition Regulation, Defense Federal Acquisition Regulation Supplements, Department of Defense regulatory direction, and Army Federal Acquisition Regulation supplements. If there is any conflicting guidance pertaining to contracting, the Federal Acquisition Regulation and Defense and Army Federal Acquisition Regulation supplements will take precedence over this regulation and Department of Defense guidance.

## USING THE ARMY'S E-LEARNING PROGRAM (JAN. 8, 2004)

Headquarters Department of the Army (HQDA) Letter 350-04-1, *Utilization of the Army's e-Learning Program*, was issued online effective Jan. 8, 2004 <http://www.usapa.army/mil/usapa_officialsite.htm>. The letter prescribes the policy on the utilization of the Army's e-Learning Program for basic and advanced information technology (IT) training. The intention is for all Army organizations and major commands to use the Army's e-Learning Program as the primary method for satisfying their workforce IT training requirements. The program will be centrally funded to ensure there is no cost to the organization or to the individual student. The Army e-Learning Program supports computer/Web-based courseware.

## PACKAGING OF MATERIEL (FEB. 12, 2004)

Army Regulation (AR) 700-15, *Packaging of Materiel,* which establishes joint policies for all Department of Defense (DoD) components in developing uniform requirements for packaging of materiel, was revised and posted online effective Jan. 12, 2004. To view a Summary of Changes, go to the Army Publishing Directorate Web site at <http://www.usapa.army/mil/usapa_officialsite.htm>.

## FEDERAL ACQUISITION CIRCULAR 2001-20, FAR CASE 2003-022 (INTERIM RULE) SPECIAL EMERGENCY PROCUREMENT AUTHORITY

*[Published in the* Federal Register *at 69 FR 8312, Feb. 23, 2004)*

The Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) have agreed on an interim rule amending the Federal Acquisition Regulation (FAR) to implement the special emergency procurement authorities of Section 1443 of the Services Acquisition Reform Act of 2003 (Title XIV of Public Law 108-136). The Councils will publish a final rule upon receipt and evaluation of comments received in response to this interim rule. (See p. 82 for a summary matrix of special emergency procurement authorities.)

Section 1443 increases the amount of the micro-purchase threshold and the simplified acquisition threshold for procurements of supplies or services by or for an executive agency that, as determined by the head of the agency, are to be used in support of a contingency operation or to facilitate the defense against or the recovery from nuclear, biological, chemical, or radiological attack. Also, the head of the contracting activity carrying out a procurement of supplies or services to facilitate defense against or recovery from nuclear, biological, chemical, or radiological attack may treat such supplies or services as a commercial item.

## OASA(ALT) BULLETIN, FEBRUARY 2004 DEFENSE FEDERAL ACQUISITION REGULATION SYSTEM (DFARS) CLARIFICATION ON FOREIGN CONTRACTING

The Foreign Procurement Policy Committee is proposing a revision to DFARS Subpart 225.72, *Reporting Contract Performance Outside the United States.* The purpose is to clarify the requirement to report foreign performance, not only after contract award but also 30 days before award, as part of the contracting process. 10 U.S.C. 2410g, passed in 1992, requires contractors to report to DoD on any intention to perform a DoD contract outside the United States and Canada, when the contract could be performed in the United States or Canada. GAO auditors continue to criticize the DOD for failing to comply with this statutory requirement. This clarification will be available for public comment soon.

(*Steve Linke/SAAL-PA/DSN 664-7006/steve.linke@saalt.army.mil*)

## DEFENSE FAR SUPPLEMENT (DFARS) CHANGE NOTICE 20040223

The Department of Defense published the following final and proposed rules in the *Federal Register* on Feb. 23, 2004:

### Final Rule:

**Memorandum of Understanding – Sweden (DFARS Case 2003-D089)**

Implements a determination of the Deputy Secretary of Defense that it is inconsistent with the public interest to apply the restrictions of the Buy American Act to the acquisition of defense equipment produced or manufactured in Sweden, based on a memorandum of understanding between the United States and Sweden. DFARS 225.872-1 is amended to add Sweden to the list of countries for which DoD has made such public interest determinations, and to remove Sweden from the list of countries for which exemption from the Buy American Act is permitted only on a purchase-by purchase basis.

The *Federal Register* notice for the final rule above and the following 14 proposed rules is available at <http://www.acq.osd.mil/dpap/dfars/changes.htm>.

### Proposed Rules

**DFARS Transformation**

The following 14 proposed rules are a result of DFARS Transformation, which is a major DoD initiative to dramatically change the purpose and content of the DFARS. The transformed DFARS will contain only requirements of law, DoD-wide policies, delegations of FAR authorities, deviations from FAR requirements, and policies/procedures that have a significant effect on the public. The objective is to improve the efficiency and effectiveness of the acquisition process, while allowing the acquisition workforce the flexibility to innovate. Additional information on the DFARS Transformation initiative is available at <http://www.acq.osd.mil/dpap/dfars/transf.htm>.

**Procedures, Guidance, and Information (DFARS Case 2003-D090)**

Establishes the framework for a new DFARS companion resource, *Procedures, Guidance, and Information* (PGI), which will contain mandatory and non-mandatory internal DoD procedures, non-mandatory guidance, and supplemental information. Use of PGI will enable DoD to more rapidly convey internal administrative and procedural information to the acquisition workforce. PGI will not contain policy or procedures that significantly affect the public and, therefore, will not be published in the Federal Register or the Code of Federal Regulations. PGI will be available on the World Wide Web and will be electronically linked to the DFARS. The DFARS and PGI text have been interlinked for the proposed rules in this notice.

**Contractor Qualifications Relating to Contract Placement (DFARS Case 2003-D011)**

Deletes obsolete text pertaining to Intermediate Range Nuclear Forces Treaty inspections; deletes unnecessary first article testing and approval requirements; and relocates procedures for requesting pre-award surveys and obtaining approval for product qualification requirements to PGI.

**Improper Business Practices and Contractor Qualifications Relating to Debarment, Suspension, and Business Ethics (DFARS Case 2003-D012)**

Consolidates text on reporting violations and suspected violations of certain requirements; updates a contract clause pertaining to prohibitions on persons convicted of fraud or other defense-contract-related felonies; and relocates internal review and referral procedures to PGI.

**Publicizing Contract Actions (DFARS Case 2003-D016)**

Deletes unnecessary text pertaining to cooperative agreement holders, paid advertisements, and synopsis requirements; and relocates a synopsis format to PGI.

**Competition Requirements (DFARS Case 2003-D017)**

Deletes text that is obsolete or duplicative of FAR policy; and relocates procedures for documenting reasons for use of other than full and open competition to PGI.

**Laws Inapplicable to Commercial Subcontracts (DFARS Case 2003-D018)**

Removes the Trade Agreements Act and the Buy American Act from the list of laws inapplicable to subcontracts for the acquisition of commercial items. Inclusion of these laws on the list is unnecessary, because the government does not apply the restrictions of the Trade Agreements Act or the Buy American Act at the subcontract level. The prime contractor is responsible for providing an end product that meets the requirements of the Acts.

**Major Systems Acquisition (DFARS Case 2003-D030)**

Deletes unnecessary definitions; updates references to the DoD 5000 series documents; clarifies earned value management system and cost/schedule status reporting requirements; and relocates internal review procedures to PGI.

### Cost Principles and Procedures (DFARS Case 2003-D036)

Deletes obsolete and duplicative text pertaining to contract cost principles; and relocates procedural text on government responsibilities relating to contractor restructuring costs to PGI.

### Insurance (DFARS Case 2003-D037)

Relocates procedural text on risk-pooling insurance arrangements and requests for waiver of overseas workers' compensation requirements to PGI.

### Protection of Privacy and Freedom of Information (DFARS Case 2003-D038)

Deletes text pertaining to protection of individual privacy and the Freedom of Information Act. This subject is adequately addressed in other DoD publications, which are referenced in the DFARS.

### Contractor Use of Government Supply Sources (DFARS Case 2003-D045)

Clarifies contractor requirements for payment of invoices from government supply sources; and relocates procedures for authorizing contractor use of government supply sources to PGI.

### Removal of Obsolete Research and Development Contracting Procedures (DFARS Case 2003-D058)

Deletes a standard format previously used for research and development solicitations and contracts. The format has become obsolete due to advances in technology and use of the World Wide Web.

### Research and Development Contracting (DFARS Case 2003-D067)

Deletes unnecessary text on solicitation and contract content; updates statutory references; updates a clause pertaining to contractor submission of scientific and technical reports; and relocates procedures for maintenance of scientific and technical reports to PGI.

### Sealed Bidding (DFARS Case 2003-D076)

Deletes unnecessary text on structuring of contracts, providing copies of documents, and preparation of solicitations; and updates the list of officials authorized to permit correction of mistakes in bid.

## DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 1, 2004)

## DOD TO ESTABLISH PROGRAM TO ATTRACT HIGHLY QUALIFIED EXPERTS

The Department of Defense today unveiled a new policy to attract experts with state-of-the-art knowledge in fields of importance to the department's mission. This new policy provides DoD with the ability to attract and retain talented men and women with the expertise and corporate knowledge to fill critical positions. This is a stand-alone provision under the National Defense Authorization Act for fiscal 2004.

The new policy allows DoD to employ as many as 2,500 employees with a compensation package more competitive with the private sector than might otherwise be feasible. They can be employed for five years with the potential for an extension for an additional year.

This new tool requires special handling by defense managers. The policy states that it can only be used for "an individual possessing uncommon, special knowledges or skills in a particular occupational field beyond the usual range of expertise, who is regarded by others as an authority or practitioner of unusual competence and skill." This flexibility cannot be used to perform continuing DoD functions, to bypass or undermine personnel ceilings or pay limitations, to give former federal employees preferential treatment, to do work performed by regular employees, or to fill in during staff shortages.

"This policy represents good news that is long overdue," said Dr. William Winkerwerder, assistant secretary of defense for health affairs.

"DoD will now benefit from the experience, expertise, and wisdom of people who have practical experience in the private sector," he added, "that can help the department transform business processes."

## Federal Acquisition Circular (FAC) 2001-20 Quick Reference Tool
## Special Emergency Procurement Authorities—Summary Matrix

| | Current | Temporary Emergency Procurement Authority | Homeland Security Act | Special Emergency Procurement Authority |
|---|---|---|---|---|
| **Effective Date** | | 12/28/2002—9/30/2003 | 1/24/2003—11/24/2003 | February 23, 2004 |
| **Applicability** | | Funds Obligated by DoD | Solicitations Issued by Federal Agencies | Acquisitions of supplies or services that, as determined by the head of the agency, are to be used to support a contingency operation or to facilitate the defense against or the recovery from nuclear, biological, chemical, or radiological attack.* |
| **Micro-purchase Threshold (Construction)** | $2,500 ($2,000) | $15,000 ($2,000) | $7,500 ($2,000) | $15,000 ($2,000) |
| **Simplified Acquisition Threshold** | ($100,000) | For "contingency" inside U.S. = $250,000 | For "contingency opns" inside U.S. = $200,000 | For procurements* in U.S. = $250,000 |
| **Purchase Outside U.S. for Contingency or Peacekeeping/Humanitarian Opns** | ($200,000) | To support defense against terrorism or chemical/biological attack in "contingency" outside U.S. = $500,000 | To support defense against, recovery from terrorism or chem/bio/nuclear/radiological attack in "contingency opns" outside U.S. = $300,000 | Outside U.S. = $500,000 |
| **Commercial Item Rules** | Use Part 12 for Commercial Items | Treat buys for biotechnology & biotechnology services as Commercial Items | Treat buys to support defense against, recovery from terrorism or chem/bio/nuclear/radiological attack as Commercial Items. | –Applicable supplies & services* may be treated as commercial items.<br>–Sole Source contracts over $15M for such items are not exempted from CAS or cost/pricing data requirements. |
| | Use FAR 13.5 SAP for Commercial Items to $5M | Not Applicable | Use FAR 13.5 SAP with UNLIMITED $ | Use FAR 13.5 SAP up to $10M |
| **Small Business Set-Aside (FAR 19.502)** | $2,500—$100,000 | $15,000—$100,000 | $7,500—$100,000<br>For "contingency opns" inside U.S. = $7,500-$200,000 | $15,000—$250,000 |
| **Very Small Business Pilot Program (FAR 19.903)** | $2,500—$50,000 | $15,000—$50,000 | $7,500—$50,000 | Not Applicable |
| **Dollar Limit on Sole Source 8(a) (FAR 19.805)** | $5M with (NAICS) Mfg & $3M all others | Not Applicable | Eliminated dollar limitations on Sole Source 8(a) acquisitions and HUBZone Sole Source for buys to support defense against, recovery from terrorism or chem/bio/ nuclear/radiological attack. | Not Applicable |
| **HUBZone** | $5M (NAICS) Mfg, $3M other (NAICS) | Not Applicable | | Not Applicable |
| **Buy-American Act Clause (FAR 52.225-1)** | Apply to solicitations & contracts over $2,500 | Apply to solicitations & contracts over $15,000 | Apply to solicitations & contracts over $7,500 | Apply to solicitations & contracts over $15,000 |

**This summary matrix is intended as a quick reference tool. The FAR is the authoritative source for the use of these authorities.*

**THE DEPUTY SECRETARY OF DEFENSE**
**WASHINGTON, D.C. 20301**

14 JAN 2004

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
COMBATANT COMMANDERS
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
ADMINISTRATOR, COALITION PROVISIONAL AUTHORITY
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Assignment of Responsibility for Acquisition and Program Management Support for the Coalition Provisional Authority (CPA)

Pursuant to Section 113 of Title 10, United States Code, the Secretary of the Army is hereby assigned the authority and responsibility for the provision of acquisition and program management support to the CPA (Iraq and Washington, DC) and any successor entity. The Secretary of Defense shall determine and prioritize the requirements to be supported pursuant to this assignment of responsibility, as necessary.

For purposes of this memorandum, acquisition support is intended to include the award, administration and oversight of all contracts, grants, and other acquisition actions in direct support of the CPA and any successor entity. Program management support comprises all aspects of project oversight, including planning, scheduling and execution, as may be required by the scope of work, directed timelines, and applicable financial management regulations.

All addressees shall provide support to the Secretary of the Army, as the Secretary of the Army considers necessary, to carry out this assignment of responsibility. Services and supplies provided to the CPA in furtherance of this memorandum shall be made available in accordance with DoD Instruction 4000.19 and applicable financial management regulations. My memoranda of May 21, 2003, designating the Secretary of the Army as Executive Agent for the Office of Reconstruction and Humanitarian Assistance, and June 16, 2003, providing for the exercise of that responsibility in support of the CPA, are modified accordingly.

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

FEB 20, 2004

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Policy for Systems Engineering in DoD

Application of rigorous systems engineering discipline is paramount to the Department's ability to meet the challenge of developing and maintaining needed warfighting capability. This is especially true as we strive to integrate increasingly complex systems in a family-of-systems, system-of-systems, net-centric warfare context. Systems engineering provides the integrating technical processes to define and balance system performance, cost, schedule, and risk. It must be embedded in program planning and performed across the entire acquisition life cycle.

Toward that end, I am establishing the following policy, effective immediately and to be included in the next revision of the DoD 5000 series acquisition documents:

**Systems Engineering (SE)**. All programs responding to a capabilities or requirements document, regardless of acquisition category, shall apply a robust SE approach that balances total system performance and total ownership costs within the family-of-systems, system-of-systems context. Programs shall develop a Systems Engineering Plan (SEP) for Milestone Decision Authority (MDA) approval in conjunction with each Milestone review, and integrated with the Acquisition Strategy. This plan shall describe the program's overall technical approach, including processes, resources, metrics, and applicable performance incentives. It shall also dewtail the timing, conduct, and success criteria of technical reviews.

In support of the above policy, the Director, Defense Systems shall:

a. Identify the requirement for a SEP in DoDI 5000.2, and provide specific content guidance tailorable by the MDA in the Defense Acquisition Guidebook.

b. Assess the adequacy of current Department-level SE-related policies, processes, practices, guidance, tools, and education and training and recommend to me necessary changes.

c. Establish a senior-level SE forum with participation from the Military Departments, and appropriate defense agencies, as a means to collaborate and leverage activities within the components and to provide a forum to institutionalize SE discipline across the Department. A goal of this forum will be extending the SE process to address family-of-systems, system-of-systems capability-based acquisition.

d. For programs where I am the MDA, review each program's SEP as part of the preparation for Defense Acquisition Board Milestone Reviews (DAB) and other acquisition reviews, and provide me with a recommendation on the program's readiness to proceed during the DAB. Together with other members of the OSD staff, lead program support assessments to identify and help resolve issues to ensure program success.

To assist in these efforts, each Component Acquisition Executive and defense agency with acquisition responsibilities will, within 90 days, provide the Director, Defense Systems its approach and recommendations on how we can ensure that application of sound systems engineering discipline is an integral part of overall program planning, management, and execution within both DoD and defense industry. Further, I direct each Component Acquisition Executive and those defense agencies with acquisition responsibilities to provide, within 30 days, a flag officer or Senior Executive Service-level representative to participate in the Director, Defense Systems-led systems engineering forum. The first such forum will be held within 60 days.

I need your assistance to ensure we drive good systems engineering processes and practices back into the way we do business. We can accomplish this goal by establishing clear policies, reinvigorating our training, developing effective tools, and using and institutionalizing best practices, applying performance incentives, and making systems engineering an important consideration during source selections and throughout contract execution. Collectively these actions will reinvigorate our acquisition community—including our industry partners—thus assuring affordable, supportable, and above all, capable solutions for the warfighter.

Michael W. Wynne
Acting

DISTRIBUTION:
SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
ASSISTANT SECRETARY OF DEFENSE (NETWORKS AND INFORMATION INTEGRATION/CHIEF INFORMATION OFFICER)
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
COMMANDER, SPECIAL OPERATIONS COMMAND
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTOR, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
DIRECTOR, DEFENSE CONTRACT MANAGEMENT AGENCY
DIRECTOR, DEFENSE INTELLIGENCE AGENCY
DIRECTOR, DEFENSE LOGISTICS AGENCY
DIRECTOR, DEFENSE THREAT REDUCTION AGENCY
DIRECTOR, MISSILE DEFENSE AGENCY
DIRECTOR, NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
DIRECTOR, NATIONAL SECURITY AGENCY
DIRECTOR, OPERATIONAL TEST AND EVALUATION

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

FEB 21, 2004

MEMORANDUM FOR MEMBERS OF THE DEFENSE LOGISTICS BOARD
OFFICE OF FORCE TRANSFORMATION

SUBJECT: Logistics Transformation Roadmap

Focused Logistics is the Department's Joint Functional Concept for comprehensive, integrated logistics capabilities necessary to support future warfighting capabilities and Joint Operational Concepts. The Concept includes sufficient capacity in the deployment and sustainment pipeline, appropriate control over the pipeline from end to end, and a high degree of certainty to the supported joint force commander that forces, equipment, sustainment, and support will arrive where needed and on time. Additionally, this covers redeployment and reconstitution of units and material. Successful implementation of this broad concept requires a number of specific enabling strategies.

One of those strategies must be a coherent approach to implement a distributed and adaptive logistics capability. This strategy will be referred to as the Logistics Transformation Roadmap, in support of Focused Logistics.

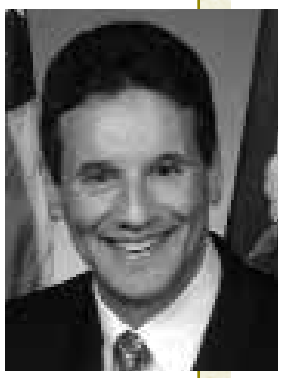
The Deputy Under Secretary of Defense (Logistics and Materiel Readiness) will convene a Flag Officer/General Officer group of key stakeholders, including representatives from the requirements, logistics, materiel, and warfighter communities. The roadmap will provide a coherent way forward, including milestones and resources, that encompasses the Force-Centric Logistics Enterprise, ongoing Distribution Process Owner efforts, Sense and Respond Logistics, and Joint Theater Logistics Management. The product of this group will be a Transformation Roadmap for integrating logistics from point-of-effect to source of supply/services, across Services and Defense Agencies. A draft approach should be available in early June 2004.

I will review the draft approach in coordination with CJCS, Commander USJFCOM, Commander USTRANSCOM, and the Office of Force Transformation.

To assist with this critical undertaking, I ask for your active participation and support. My point of contact for this effort is Mr. Lou Kratz, ADUSD (Logistics Plans & Programs); available by phone at 703-614-6082 or via e-mail at Louis.Kratz@osd.mil.

Michael W. Wynne
Defense Logistics Executive
Acting

**DEPARTMENT OF THE AIR FORCE**
**WASHINGTON, D.C. 20330-1060**



FEB 24, 2004

**OFFICE OF THE ASSISTANT SECRETARY**

MEMORANDUM FOR SEE DISTRIBUTION

FROM: SAF/AQ
1060 AF Pentagon
Washington DC 20330-1060

SUBJECT: Interim Policy Memo on Expectation Management in Acquisition (Policy Memo 03A-006, 29 April 2003)

Last April I issued a memo outlining the need for expectation management in acquisition programs and directed a joint team develop a policy for documenting it in the Program Management Directive. In November HOI 63-1, ***Headquarters Air Force Guidance for Preparing Program Management Directives (PMD)***, was released and provides the procedure for attaching the Expectation Management Agreement (EMA) to the PMD. This memo will provide guidance for preparing the EMA until AFI 63-101, ***Operation of the Capabilities Based Acquisition System,*** is revised.

Providing the operator the capabilities needed when they are required, at the most affordable cost, is the cornerstone to building credibility. Expectation management, through effective two-way communication, can provide real-time updates and supports building credibility between the acquirer and the operator. Once mutually agreed-to realistic expectations are set, changes that impact those expectations, no matter what their source, must be identified and communicated to leadership. These changes, with General Officer/Senior Executive Service (SES) civilian concurrence, will drive a new agreement on expectations. Program Managers are responsible for ensuring their programs have a process for continuously managing the program cost, schedule, and performance and addressing the expectations of the operator. The Program Manager will be responsible for documenting the process and communicating the EMA roles and responsibilities to everyone involved. This process will encompass, at a minimum, an annual review between the acquisition program office and operator to assess how well the program meets their expectations. The review should address (but is not limited to) the following:

- Status of program execution against the Acquisition Program Baseline (APB)
- Status of program execution against all requirements identified in the Capabilities Document
- Other programmatic expectations identified and agreed to as significant but not found in approved program documentation
- Status of cost expectations vs. existing program cost estimates
- Status of funding expectations for successful program execution
- Any mutually agreed-to changes in expectations relating to cost, schedule, and performance
- Any expectation concerns or areas of disagreement by the acquisition program office or the operator (if none, so state)

The output of the review will be an Expectation Management Agreement that documents those agreements relating to cost, schedule, performance, and funding that are not reflected in other program documentation such as the APB. The EMA does not supersede a validated requirements document or other required program documentation and does not replace the need or process for updating those documents. Any format may be used to document the agreements (e.g., meeting minutes, briefing slides, formal memo, etc.). However, General Officers or civilian equivalents representing the acquisition and operator community will sign this agreement. Signature authority may not be delegated below a General Officer or Senior Executive Service civilian. The Program Manager will work with their PEO and operator to determine who will co-sign the Expectation Management Agreements. USAF/XOR will be notified by the operator representative of any agreements that will result in, or have the potential to cause the program to result in below threshold performance on non key performance parameters. The most recent signed Expectation Management Agreement will be included as an attachment to the PMD, or appropriate appendix, at least annually and whenever there are significant changes.

If you have any further questions, please contact SAF/AQXA, Policy Branch at (703) 588-7100.

MARVIN R. SAMBUR
Assistant Secretary of the Air Force
(Acquisition)

**Editor's note**: To view the distribution of this memorandum, go to the U.S. Air Force Acquisition Center of Excellence (ACE) Web site at http://www.safaq.hq.af.mil/ACE/.

**OFFICE OF THE UNDER SECRETARY OF DEFENSE**

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

January 23, 2004

DPAP/DAR

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

SUBJECT: Suspension of the Price Evaluation Adjustment for Small Disadvantaged Businesses

Effective 30 days after the date of this memorandum, all Department of Defense (DoD) contracting activities shall continue to suspend the use of the price evaluation adjustment for small disadvantaged businesses (SDBs) in DoD procurements, as prescribed in the Federal Acquisition Regulation (FAR) Subpart 19.11, and Defense Federal Acquisition Regulation Supplement (DFARS) Subpart 219.11.

Subsection 2323(e) of title 10, United States Code (U.S.C.), as amended by section 801 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 and section 816 of the Bob Stump National Defense Authorization Act for Fiscal Year 2003, requires DoD to suspend the regulation implementing the authority to enter into a contract for a price exceeding fair market cost if the Secretary determines at the beginning of the fiscal year that DoD achieved the 5 percent goal established by subsection 2323(a) in the most recent fiscal year for which data are available. Based on the most recent data for Fiscal Year 2003, the determination was made that DoD exceeded the 5 percent goal established in 10 U.S.C. 2323(a) for contract awards to SDBs. Accordingly, use of the price evaluation adjustment prescribed in FAR 19.11 and DFARS 219.11 is suspended for DoD.

This suspension applies to all solicitations issued from February 24, 2004, to February 23, 2005.

Deidre A. Lee
Director, Defense Procurement
and Acquisition Policy

cc:
DSMC, Ft. Belvoir

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

February 17, 2004

DPAP/P

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

SUBJECT: Contracting with Employers of Persons with Disabilities

The purpose of this memorandum is to bring to your attention a recently enacted statutory provision that makes the Randolph-Sheppard Act (20 U.S.C. 107 ***et seq.***) (RSA) inapplicable to certain existing contracts awarded in compliance with the Javits-Wagner-O'Day Act (41 U.S.C. 48) (JWOD Act).

The RSA requires that a priority be given to blind persons licensed by a State agency for the operation of vending facilities on Federal property. The JWOD Act requires Government agencies to purchase selected products and services from nonprofit agencies employing people who are blind or otherwise severely disabled.

Section 852 of the National Defense Authorization Act for Fiscal Year 2004 (Pub.L. No. 108-136) applies to any contract entered into before November 24, 2003, and in effect on that date, with a nonprofit agency for the blind or an agency for other severely handicapped in compliance with section 3 of the JWOD Act, for the operation of a military mess hall, troop dining facility, or any similar dining facility operated for the purpose of providing meals to members of the Armed Forces. As provided for in section 852, no such contract shall be subject to the RSA so long as the contract is in effect, including any period for which the contract is extended pursuant to an option provided in the contract.

If you have any questions regarding the Department's policies or procedures for doing business in accordance with the RSA and the JWOD Act, please contact Ms. Susan Schneider at (703) 614-4840.

Deidre A. Lee
Director, Defense Procurement
and Acquisition Policy

**OFFICE OF THE UNDER SECRETARY OF DEFENSE**

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

26 NOV 2003

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Elective Requirements to Obtain Certification in FY 04

This memorandum is to provide clarification regarding the elective requirements for three Acquisition, Technology and Logistics (AT&L) workforce career fields, specifically, Contracting, Industrial and/or Contract Property Management, and Purchasing. These new requirements were identified in a memorandum dated August 1, 2003, Subject: "Position Category Descriptions and Experience, Education and Training Requirements for Fiscal Year 2004," Release #04-01. However, since publication, it has become increasingly evident that supervisors are requesting more information pertaining to how electives are defined. Accordingly, it is imperative that addressees give this memorandum the widest possible dissemination within your component.

The Contracting, Industrial and/or Contract Property Management, and Purchasing career fields have an elective requirement for all three levels of certification. An explanation of an elective is as follows:

> "As agreed to by the supervisor, the elective may be any training opportunity related to the employee's job, or necessary for career development, or for cross training. The elective may include no-cost distance learning or other training opportunity; assignment-specific courses funded by DAU/DACM; other training opportunity funded by the student's organization."

To simplify, the elective can be any training opportunity that meets the approval of the employee's supervisor. Neither the subject matter nor the length of the training opportunity are delineated in the description of the elective training event; this was an intentional notion designed to allow greater managerial flexibility and provide a wider range of possible (supervisory approved) elective training events for the employee.

As these elective events may be DAU courses, functionality protocols have been incorporated into the Acquisition Training Application System (ACQTAS), the registration system for civilian AT&L workforce members assigned to the DoD Agencies outside the Military Departments. DAU training events that are determined to be electives will be identified using the ACQTAS registration protocols. During the ACQTAS registration process, employees will have the opportunity to identify the course as a DAU course that is being taken as an elective training event, and supervisors and quota managers will be required to validate the event as an elective training event. We also plan to incorporate elective tracking for non-DAU training events in the ACQTAS for Continuous Learning (ACQTAS for CL) module that is currently being developed.

Should you have any questions regarding this memorandum or the elective training requirement, please contact Mr. Jay Boller at (703) 681-3442, or e-mail address jayboller@doddacm.com, or the undersigned at (703) 681-3443, ctaylor@doddacm.com.

Cynthia P. Taylor
Deputy Director, Acquisition
Career Management

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

**DEPARTMENT OF THE ARMY**

**OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY**
**ACQUISITION, LOGISTICS AND TECHNOLOGY**
**103 ARMY PENTAGON**
**WASHINGTON, D.C. 20310-0103**

SAAL-PA

21 JAN 2004

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Program Executive Officers' Collaboration during the Base Realignment and Closure (BRAC) Process

The Secretary of the Army and the Secretary of Defense have identified the BRAC process as an integral part of the department's strategy to transform the Department of Defense (Enclosures 1 and 2). It is extremely important that Program Executive Officers (PEOs) participate in this process.

There are four BRAC groups assessing the infrastructure, which is dependent on programs you manage. These four groups and your point of contact (POC) in each group are:

a. Total Army Basing Study (TABS) Group in the Office of the Deputy Assistant Secretary of the Army (Installations Analysis). The POC for arsenals, depots, and plants is LTC Ronald Pulignani, (703) 588-0568. The POC for laboratories is Dr. Chien Huo, (703) 696-9773.

b. Industrial Joint Cross Service Group. The POC is MG Wade H. McManus, Jr., Commander, U.S. Army Field Support Command and Army representative on this group, (309) 782-5111.

c. Technical Joint Cross-Service Group (laboratory). The POC is Dr. Robert Rohde, SAAL-TR, (703) 601-1515.

d. U.S. Army Materiel Command Stationing Office. The POC is Daryl Powell, USAMCSO, (703) 617-9186.

The Army BRAC 2005 Internal Control Plan (ICP) provides a consistent set of management controls designed to provide an "unbroken chain" of accountability for each sub-element of information and analysis used in the Army BRAC 2005 process. The network to engage Department of Army organizations is accomplished with "trusted agents." The trusted agents will only be granted access to information based on their needs. Mr. Joseph Pieper, SAAL-PA, (703) 604-7003, or e-mail: joseph.pieper@us.army.mil, is the BRAC "Trusted Agent" for the Assistant Secretary of the Army (Acquisition, Logistics and Technology). I want to expand the trusted agent network by including a POC from each PEO. Please submit a BRAC point of contact to Mr. Pieper within the next week. The trusted agent should be a Department of Army Civilian (DAC) at a grade of at least GS-13.

Mr. Pieper will organize a meeting later this month among representatives from the four BRAC groups identified above and your PEO trusted agents. This meeting will provide the necessary training that explains the BRAC process and how your trusted agents fit into that process.

I expect you to be a pro-active resource for these BRAC groups. Your expertise and input is essential to ensure:

a. Issues and ideas are surfaced that should be pursued in the BRAC process.

b. Military value attributes for your assigned materiel/system are appropriately assessed.

c. Private sector capabilities are considered consistent with Army policy.

d. Provide insight to your acquisition strategies as they affect depots, arsenals, ammunition plants, and laboratories.

JOSEPH L. YAKOVAC
Lieutenant General, GS
Military Deputy to the Assistant Secretary of the
Army (Acquisition, Logistics and Technology)

Enclosures

DISTRIBUTION:
PROGRAM EXECUTIVE OFFICERS:
Air and Missile Defense, ATTN: SFAE-AMD, P.O. Box 1500,
Huntsville, AL 35807-3801

**Editor's note**: To view the enclosures, visit the Department of the Army BRAC Web site at <http://www.defenselink.mil/brac/army.htm>.

## PERFORMANCE BASED LOGISTICS ROADSHOW A HIT IN SAN DIEGO (JAN. 29, 2004)

Deputy Under Secretary of Defense (Logistics Plans and Programs) Lou Kratz, and Defense Acquisition University (DAU) professors Randy Fowler and Jerry Cothran successfully delivered the rescheduled Performance Based Logistics (PBL) Roadshow at San Diego on Jan. 29. Navy Cmdr. Steve Dollase from the Office of the Assistant Secretary of the Navy (Research, Development, and Acquisition) and Jeff Klein, the Navy's Installations and Logistics Director (04) at Space and Naval Warfare Systems Command (SPAWAR), also spoke at the Roadshow and participated in the question-and-answer session at the end of the presentations. Daniel Solan, logistics manager at SPAWAR, his boss John Graham, and professors Dr. Hank DeVries and Tom Edison were instrumental in planning for the Roadshow.

About 80 attendees were present to hear this high-level presentation of the benefits and need for PBL, especially for the Navy. A few comments from the attendees highlight the quality of the information that was presented:

> "*Very good, timely, and provided much needed information. It gave me a better understanding of what PBL is and how it may be applied to my systems/projects.*"
>
> *"The speakers (source of information) made the presentations more credible."*
>
> *"I think the conference was great. It's rare to have access to the outstanding group of panelists to ask questions and learn this stuff in depth. I plan to take both the LOG-235 courses.*"

Feedback from the panel was typical of the following:

> "*All the speakers were very pleased with how things went, including attendance and active participation by the audience. They were also impressed with SPAWAR's openness and desire to get on with PBL. Specifically… Lou Kratz was very pleased with the outcome of the roadshow. Again, well done.*"

## DAU SOUTH REGION'S 2ND ANNUAL CONFERENCE AND EXPO

*Keisha Vanleer*

On Feb. 18-19, 2004, over 200 government, military, and industry contract management professionals met at the Huntsville Marriott to participate in the DAU South's 2nd Annual Conference and Expo. "Contracting: Smart Business for Mission Support" was the theme selected by DAU South Region's Contract Management Department, who spearheaded this year's event.

The combined efforts of co-chairs Ron Fontenot, department chair, and Phyllis Roberts, professor of contracting, resulted in an agenda that included top leaders in the field of contract management and that served as "Rapid Deployment Training" for participants.

Jim McCullough, dean of DAU South Region, kicked off the conference. Linda Neilson, executive director, acquisition workforce and career management, gave an informative lunchtime presentation on AT&L Workforce Initiatives. General session and workshop topics included: Contingency Contracting; Contractors on the Battlefield; Revision of OMB Circular A-76–Acquisition Update; and DFARS Transformation. Guest speakers included Ron Poussard, deputy director, defense acquisition regulations system, Office of the Director, Defense Procurement and Acquisition Policy (DPAP); and Mark Lumer, contracting executive, U.S. Army Space and Missile Command.

To underscore the timeliness of the conference, a memorandum from Deidre Lee, director, DPAP, entitled "Contract Period for Task and Delivery Order Contracts," was issued on Feb. 18. Conference attendees received the memorandum hot off the press.

The complete list of speakers and their topics may be found on the DAU South Region Web site at <http://www.dau.mil/regions/South/conference2004.asp>.

## GLOBAL INFOSEC PARTNERSHIP CONFERENCE (GIPC) (MAY 4-6, 2004)

Mark your calendars! The annual Global Information Security (INFOSEC) Partnership Conference (GIPC), hosted by the U.S. Army Communications Electronics Command (CECOM) Communications Security Logistics Activity (CSLA) at Fort Huachuca, Ariz., will be held May 4-6, 2004.

GIPC, a training conference designed for the professional exchange of INFOSEC and Communications Security (COMSEC) knowledge between COMSEC Custodians, Signal Officers, Warrant Officers, Senior NCOs, COMSEC Maintenance Officers, Accountable Officers, Serialization Officers, INFOSEC Program Managers, Department of the Army/Major Command Staff Officers,

and others working in the INFOSEC field, is centered around an annual INFOSEC/COMSEC theme. As in times past, GIPC 2004 will cover a wide range of topics addressing, among many others, both current and future INFOSEC Acquisitions, COMSEC Auditing, Policy and Procedures, Security, Threat, and Protective Technologies.

For the first time, the GIPC Web site at <http://www.gipccsla.com> has remained up and running throughout the year so that our customers can access the Web site to read about GIPC at their leisure. The interactive features of the GIPC Web site will be activated in early 2004 to facilitate such processes as registration, workshop selection, and payment options for the upcoming conference. So keep checking the Web site for the latest information, and we look forward to seeing you at GIPC 2004!

## 2004 BUSINESS MANAGERS' CONFERENCE (MAY 12-13, 2004)

The 2004 Annual Business Managers' Conference will be held May 12-13, 2004, at the Defense Acquisition University, Fort Belvoir, Va. As in past years, the 2004 conference will bring together members of the business, cost estimating, and financial management (BCEFM) workforce as well as members of the OSD comptroller/DoD financial management community. Also encouraged to attend are senior DoD acquisition and comptroller executives and Program Executive Officer/Program Manager/Systems Command (PEO/PM/SYSCOM) business managers/program control chiefs, and Service headquarters business staff for wide-ranging discussions of acquisition and financial topics. Several key acquisition leaders have accepted an invitation to speak at this year's conference:

- Michael Wynne, Acting Under Secretary of Defense (Acquisition, Technology & Logistics)
- Deidre Lee, Director, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology & Logistics) (OUSD(AT&L))
- Nancy Spruill, Director, Acquisition Resources and Analysis, OUSD(AT&L)
- Dr. David Chu, Under Secretary of Defense (Personnel & Readiness)
- Dave Muzio, Procurement Policy Analyst, Office of e-Government, Office of Management and Budget
- Navy Rear Adm. Stan Szemborski, Deputy Director, Program Analysis and Evaluation, Office of the Secretary of Defense
- Richard K. Sylvester, Deputy Director, Property and Equipment Policy, Office of the Director, Acquisition Resources and Analysis, OUSD(AT&L)
- LeAntha Sumpter, Special Assistant to the Director, Defense Procurement and Acquisition Policy, OUSD(AT&L)

To encourage broader discussions, this year's invitations will be extended to a limited number of industry managers and members from other acquisition functional career fields such as contracting and program management who wish to attend. Conference attendees will receive information on the latest acquisition, financial management, personnel, and legislative initiatives. Registration opens April 1, 2004. For additional information, go to the following Web site: <http://www.businessmanagersconference.com>.

## DEPARTMENT OF THE NAVY 2004 LOGISTICS CONFERENCE (MAY 17-20, 2004)

The Department of the Navy 2004 Logistics Conference will be held May 17-20, 2004, in Reston, Va. This year's event brings top-level Department of the Navy/Marine Corps leadership and industry leadership together to discuss future logistics policy and initiatives as pertinent to and implemented by the Naval Forces. Its focus shifts from "Future Requirements" to "Acquisition" to "Warfighting," respectively, over the course of the three days. To register or learn more about the conference, go to the National Defense Industrial Association (NDIA) Web site at <http://register.ndia.org/interview/register.ndia?#May2004>.

## 5TH JOINT SERVICE CHEMICAL AND BIOLOGICAL DECONTAMINATION CONFERENCE (DECON) (MAY 17-20, 2004)

The Joint Program Manager for Decontamination and the Defense Threat Reduction Agency are hosting the 5th Joint Service Chemical and Biological Decontamination Conference (DECON 2004) May 17-20, 2004, at the Westin Innisbrook Golf Resort, Palm Harbor, Fla. The conference provides a forum for dialogue between civil and federal government, industry, academia, foreign representatives and first responders on critical decontamination issues on the battlefield, at fixed sites, and in our communities.

Conference attendance is open to all members of the scientific and industrial decontamination community. Attendees can register online at <https://www.enstg.com/Signup>. Enter the Conference Code: 5TH23624.

For more information on DECON 2004, contact the conference coordinator by phone at (410) 612-8247 or by e-mail at bilotto_deborah@bah.com.

## 40TH GIDEP WORKSHOP AND INFORMATION SHARING CONFERENCE (MAY 18-20, 2004)

The Government-Industry Data Exchange Program (GIDEP) in conjunction with the GIDEP Industry Advisory Group (IAG) is pleased to announce its 40th Workshop and Information Sharing Conference to be held at the Sheraton Society Hill in Philadelphia, Pa., May 18-20, 2004. The theme for the conference is "Networking for Solutions."

The Workshop provides an excellent opportunity for learning what GIDEP has to offer, how to derive benefits from using the program, and networking with members of the GIDEP community. Tuesday and Wednesday mornings will focus on government and industry "scenario-based" presentations respectively. During Tuesday and Wednesday afternoons, a mini version of the GIDEP annual Clinic will be offered. Thursday the 20th will be dedicated to diminishing manufacturing sources and material shortages (DMSMS) topics.

Speakers include: Dr. Michael A. Greenfield, associate deputy administrator for technical programs, NASA Headquarters; Dr. Michael Stamatelatos, director, safety and assurance requirements division, Office of Safety and Mission Assurance, NASA Headquarters; Rick L. Malone, vice president, mission success, Lockheed Martin Space Systems Company Space and Strategic Systems; John Becker, staff specialist, assistant deputy under secretary of defense for supply chain integration.

For complete information and online registration visit the GIDEP Web site at <http://www.gidep.org>. To contact the GIDEP operations center call 909-273-4677.

## DEFENSE PROCUREMENT CONFERENCE

The Defense Procurement Conference, sponsored by the Office of the Director, Defense Procurement and Acquisition Policy, will be held May 25-28, 2004, in Orlando, Fla. Attendance is by invitation only. More information will be posted as it becomes available at <http://www.acq.osd.mil/dpap/Conferences/index.htm>.

## FEDERAL ACQUISITION CONFERENCE & EXPO (FACE) 2004

The Federal Acquisition Conference & Expo (FACE) 2004, sponsored by the Federal Acquisition Council and General Services Administration, is a forum for acquisition professionals and policy makers to share their insights and experiences. This year's event will be held in Washington, D.C., on June 2-3, and Dayton, Ohio, on June 22-23. FACE provides a full range of training on the latest acquisition issues and an opportunity to review exhibitors' products and services. Attendees receive Continuous Learning Points. The 2004 winners of two prestigious acquisition awards will also be announced: Procurement Round Table Elmer Staats Award and the Ida Ustad Award. For more information on the conference, please visit <http://www.fai.gov/face> or call toll-free 866-235-7400.

## 4TH ANNUAL INTELLIGENT VEHICLE SYSTEMS SYMPOSIUM & EXHIBITION

The 4th Annual Intelligent Vehicle Systems Symposium and Exhibition will be held June 22-24, 2004, in Traverse City (Acme), Mich. This year's event is jointly sponsored by the Vetronics Technology Area and National Automotive Center, and the Intelligent Vehicle Technologies Committee of the National Defense Industrial Association.

The objective of the annual Intelligent Vehicle Systems Symposium is to provide researchers, developers, and program managers (from government, academia, and industry) a forum for exchange of information on current work related to the advancement of technologies and applications of intelligent systems to Army and commercial vehicles. It also provides an opportunity to view the latest vendor technologies.

For more event information contact retired Navy Capt. Bruce Roulstone, (703) 247-2574, e-mail <broulstone@ndia.org> or Angie De Kleine, (703) 247-2599, e-mail <adekleine@ndia.org>.

## AMC'S ANNUAL NATIONAL INFORMATION ASSURANCE (IA) CONFERENCE & EXPOSITION (JULY 7-8, 2004)

The Army Materiel Command (AMC), in conjunction with Technology Forums, Inc., will hold its Annual National Information Assurance (IA) Conference and Exposition July 7-8, 2004, at Rock Island, Ill. Conference planners are developing an IA conference targeted toward the needs of AMC, including panel discussions and presentations on communications, information security, and wireless technology. For further information on the conference, watch the conference Web site at <https://www.technology forums.com/upcoming_events/>. Information will be posted as it becomes available.

## 2004 AIR FORCE ACQUISITION TRAINING MANAGERS CONFERENCE

The date and location of the annual Air Force Acquisition Training Managers' Conference has changed. Instead of conducting the conference

in March at the Southbridge Conference Center, Mass., the conference will now be conducted in San Antonio, Texas, during the summer. Tentative dates are 29 June – July 1, 2004. TDY costs, including lodging, must be incurred by each conferee's agency.

This conference is a chance for all Air Force acquisition training managers in the field to learn first-hand—and receive hands-on computer training—on all of the acquisition tools available to Air Force acquisition training managers and to the acquisition workforce. This year's conference will focus on Continuous Learning and will include training on how to use the newly released *ACQ Now CL* for the Continuous Learning system as well as *ACQ Now* for the Defense Acquisition University (DAU) Registration system, and *ACMS* for the Acquisition Career Management System.

Please continue to check the conference Web site for updates and registration: <http://www.safaq.hq.af.mil/acq_workf/training/conference/index.htm>.

(*Anita J. Huddleston, SAF/AQXD, Chief, Air Force Acquisition Training Office*)



## 2002 GREATEST INVENTIONS PROGRAM
## ARMY MATERIEL COMMAND (AMC) RECOGNIZES SOLDIER SYSTEMS CENTER FOR INNOVATION, CREATIVITY

Three of eight Natick Research, Development, and Engineering Center nominations were selected by AMC in the 10 Greatest Inventions Program of 2002. These programs showcased Natick's best technology solutions for warfighters. A ceremony at the Soldier Systems Center on Dec. 11, 2003, honored all the nominees along with the three winning products. The nominees and their winning products were also recognized at a separate ceremony on Nov. 10, 2003, at Fort Belvoir, Va. Certificates of appreciation were presented to all nominated employees.

The three Natick selections receiving top honors were Interceptor Body Armor; the Modular Integrated Communication Helmet (MICH)/Advanced Combat Helmet; and Micro Climate Cooling Body Garment, all from the Individual Protection Directorate (IPD), and were on display at the ceremony.

"It's tough to calculate the number of lives saved with the Interceptor Body Armor," said Robert Kinney, Director, IPD, who estimated that dozens of lives have been saved. Kinney said the MICH also is responsible for saving lives and has more than a 90 percent approval rating by soldiers. It is a good example, he added, of a product that started as a Special Operations Forces item and transitioned to the Army. The cooling garment, according to Kinney, is one of the major significant results of a microclimate cooling research program in the last 20 years. Worn in conjunction with the microclimate cooling system as a part of the Air Warrior program, Kinney said that helicopter pilots now can fly for prolonged periods of time in full chemical/ biological protective clothing, which has never been done. "It's significant in that it puts microclimate cooling on the map," Kinney said. "Those who selected these products were part of the operational community…It's no wonder that those programs that are making a big impact today are those that were awarded this honor," he concluded.

Other nominations from Natick included the Dynamic Moisture Permeation Cell from the Science & Technology Directorate. This is a patented device that provides the ability to test clothing breathability and is now used within the government and throughout the protective clothing and sporting goods industries to quantify clothing performance. From the Airdrop Directorate, nominations were the Rough Terrain Cargo Parachute; Micro Rappel System; Screamer System; and Ripcord Grip Insert for the Modified Improved Reserve Parachute System.

The rough terrain parachute enables military and civilian firefighters to affordably and effectively drop equipment and supplies at low altitudes through trees and other obstacles, while the Micro Rappel System offers a very compact rappelling and safety tool for soldiers and safety personnel (e.g. mountain rescue). The Screamer is a low-cost, high-altitude deployable autonomous airdrop system used for accurate positioning of critical re-supply and sustainment payloads. The Grip Insert provides added protection against possible inadvertent activation of the reserve parachute during inflight door check procedures by an airborne jumpmaster, following a number of jumpmaster extraction incidents over the past two years. Since fielding the grip inserts, no further extractions have been reported.

The complete list of Natick Soldier Center nominees are:

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

ACQUISITION, TECHNOLOGY AND LOGISTICS

DEC 1 1 2003

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: David Packard Excellence in Acquisition Award Nominations

As in previous years, I am soliciting your nominations for the annual David Packard Excellence in Acquisition Award. This award recognizes organizations, groups, and teams that have demonstrated exemplary innovation and best acquisition practices. Each Military Department and the Defense Logistics Agency may submit nominations for up to five teams and all other Components and OUSD(AT&L) principals may nominate two teams. Specific guidelines on the eligibility, nomi-nation, and selection criteria are contained in the attachment and will be followed in the review process.

This year the ceremony for the presentation of the David Packard awards will be held in the fall of 2004. This will ensure sufficient time for nominees to evaluate and determine their exemplary performance for the calendar year 2003. Please submit nominations no later than July 1, 2004, to:

Office of the Under Secretary of Defense (AT&L)
ATTN: Director, Defense Procurement and Acquisition Policy
3060 Defense Pentagon, Room 3E1044
Washington, DC 20301-3060

My point of contact is Ms. Leslie Blackmon at (703) 681-3497 or via e-mail at leslie.blackmon@osd.mil.

Michael W. Wynne
Acting

Attachment:
As stated

**Editor's note:** To view distribution of this memorandum or download a copy of the attachment, visit the Director, Defense Procurement and Acquisition Policy Web site at <http://www.acq.osd.mil/dpap>.

**Modular Integrated Communications Helmet (MICH), Advanced Combat Helmet (ACH) (TC-2000 Ballistic Helmet)** – Rick Elder, Mike Rowan, Scott Bennet, George Schultheiss, Norm Fanning, Army Sgt. Maj. (Ret.) Brad Halling, Army Command Sgt. Maj. Joseph Nacy, MSA

**Cooling/Heating Body Garment and Method of Manufacturing** – Steven Szczesuil, Roger Masadi, Matthew Correa, Brad Laprise, Walter Teal, Lynne Hennessey

**Interceptor Multiple Threat Body Armor** – James Mackiewicz, Deirdre Townes, Gary Proulx, Victor Palumbo, James Zheng

**Clothing Breathability Tester** – Phillip Gibson, Cyrus Kendrick, Donald Rivin

**Ripcord Grip Insert (RGI) for the Modified Improved Reserve Parachute System** – Gary Thibault, Arthur Phelps, Junior Christmas, Edward Spaulding, Andrew Simpson, Randall Natches

**Dual Use Military Mobility System** – James Sadeck

**Screamer System** –Joe McGrath (USARIEM), Justin Barber, Richard Benney, Ted Strong, Bruce Markell

**Selectively Permeable Membrane Based Chemical/Biological Protective Field Duty Uniform** – Quoc Truong, Eugene Wilusz

*(Diane Nyren/AMSSB-RSC-P(N)/DSN 256-4899/e-mail: diane.nyren@us.army.mil)*

## HEADQUARTERS MARINE CORPS (HQMC) (JAN. 7, 2004)
## IMPROVING MARINE CORPS, NAVY, AND DOD BUSINESS PROCESSES

The Marine Corps is seeking ideas for improving its business processes, those activities by which it buys goods and services for, or otherwise provides support to, the combat forces. These need not be limited to the Marine Corps but may also have application for the Department of the Navy (DoN) and/or the Department of Defense (DoD). While this is an ongoing search, it has been given renewed emphasis by a September 2003 memorandum from the Acting Secretary of the Navy soliciting new business improvement initiatives, particularly those that are of broader Departmental or strategic effect.

The Marine Corps Business Enterprise (MCBE) office is the Headquarters Marine Corps (HQMC) executive agent for the Marine Corps Business Reform/Improvement Program. It is responsible for advocating new ideas, advancing those that have promise, and promulgating those that work.

Suggestions for business process improvements, including those that could apply to the DoN or the DoD, should be submitted to the MCBE office. A submission form and instructions have been posted on the MCBE Web site <http:lrhome.hqmc.usmc.mil/busplan1.nsf/main?openframeset> under the "Business Initiative Council" category. Initiatives may be submitted via the chain of command at any time with a copy via e-mail to the MCBE. The MCBE office will evaluate suggestions and forward them to the DoN and/or DoD as appropriate.

To promote promising ideas, a "Marine Corps Productivity Investment Account" (MCPIA) has been established to provide modest amounts of execution year funds for immediate funding. The submission form contains a field to request use of this funding source. The Web site also contains a description of this account.

Some examples of successful business process improvements that have been introduced or championed by the Marine Corps are:

- Web-based receipting and invoicing that permits faster payments to vendors and reduces the $40+ million the DoD currently pays annually in interest penalties;
- A Marine Corps initiative to make it easier to introduce brand new technologies during program execution thereby fielding more up-to-date equipment.
- Streamlining air traffic control system responsibilities.

These initiatives, together with other internal Marine Corps activities such as the increased use of cost and performance management data, have collectively contributed significantly to improvements in Marine Corps business processes.

Each command and HQMC staff element has been requested to submit at least one new initiative that would likely improve business performance to the MCBE Office on a quarterly basis.

The point of contact for business performance initiatives and the MCPIA fund is Dr. Eric E. West, HQMC(LR), at DSN 224-5804, or e-mail westee@hqmc.usmc.mil.

## NEW AF-LEVEL ACQUISITION TRANSFORMATION AND LEADERSHIP AWARDS

The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) is proud to announce new individual and team awards designed to recognize

top performers in the leadership of defense acquisition programs. The introduction of these new awards gives the Air Force several new ways to recognize noteworthy achievements to promote agile acquisition and delivery of capability to the warfighter. For the first time, several individual awards are targeted specifically at members of the acquisition management career field (military 63AX and civilian 1101). The new Air Force Instruction (AFI) 36-2835, *Annual Acquisition Awards Programs,* dated Oct. 30, 2003, reflects these changes. Specifically:

- Chapter 1 now contains Acquisition Transformation Awards, including the David Packard Excellence in Acquisition Award and The Agile Acquisition Transformation Leadership Award.
- Chapter 2 contains the Acquisition Leadership Awards, including the John J. Welch Jr., Award and the Daedalian Weapons System Award.
- Chapter 3 contains Contracting Awards. Changes include a reduction in the number of award categories; modification of the award evaluation criteria; and revision of internal tables and figures.
- There are no changes in Chapter 4.
- Chapter 5 has been added to include the nomination process for the Science and Engineer Awards Program. This chapter establishes three new Air Force-level awards: Air Force Outstanding Scientist Award; Air Force Outstanding Engineer Award; and Air Force Outstanding Science and Engineering Educator Award.

Questions may be addressed to Lisa Hughes, SAF/AQXD, POC for these awards, at DSN 425-7133 or commercial 703-588-7133.

## OASA(ALT) BULLETIN (FEBRUARY 2004)
## ACQUISITION SOURCE SELECTION INTERACTIVE SUPPORT TOOL SOURCE SELECTION EVALUATIONS

The Acquisition Source Selection Interactive Support Tool (ASSIST) is an automated source selection application that is used to manage and evaluate information in the context of a competitive acquisition. The tool is highly sophisticated and can be used for formal or informal source selection evaluations of any dollar value. The ASSIST tool is seamlessly integrated with the Army Single Face to Industry, formerly known as the Interactive Business Opportunities Page.

For Source Selection Evaluation Board (SSEB) members, the ASSIST tool provides easy online access to the proposal and solicitation (including cross-references), as well as online generation of evaluation reports and items for negotiation. It also incorporates an evaluation rollup capability, online negotiations, workflow tracking throughout the processes, and a standardized format with which to correspond with offerors and other evaluators on or off site. In addition, for Source Selection Advisory Councils (SSACs) it provides "management views" for full insight into all aspects of the evaluation process and the status of the overall evaluation process. The ASSIST tool utilizes commercial Web application, as opposed to the current source selection process, which is dependent upon a consecutive series of reviews, assessments, and communication exchanges amongst and between SSEB and SSAC members. As the ASSIST tool is collaborative and interactive, sequential actions may be conducted in parallel potentially resulting in significant time and dollar savings.

While this tool has now been institutionalized for use, it is the product of an initiative developed by the U.S. Army Communications Electronics Command (CECOM) Acquisition Center and the Office of Command Counsel for use by the Wholesale Logistics Modernization Program in 1999. The tool implements a large number of acquisition reform concepts devised in recent years. It also embodies those fundamental changes occasioned by the Federal Acquisition Regulation 15 rewrite and source selection practices perfected at CECOM.

The ASSIST tool was used by Program Executive Officer Command, Control, Communications Tactical for the Joint Tactical Radio System (JTRS) Cluster five-source selection evaluation board. ASSIST will also be used by the Program Executive Officer Intelligence-Electronic Warfare and Sensors for the pending Aerial Common Sensors source selection evaluation. There is also potential for the some of the Iraq reconstruction source selections to be conducted using the tool.

(*JoAnn Moller/AMSEL-AC-CS/DSN 992-3974/joann.moller@mail1.monmouth.army.mil*)

**ASSIST Points of Contact**

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Kimberly Kolb, Contract Specialist CECOM Acquisition Center, DSN 992-6771, Kimberly.Kolb@Mail1.monmouth.army.mil

Colleen Sweeney, Contract Specialist CECOM Acquisition Center, DSN: 992-1530, Colleen.P.Sweeney@Mail1.monmouth.army.mil

OASA(ALT) BULLETIN (FEBRUARY 2004)

## NATICK EMPLOYEES GRADUATE FROM NAVAL POSTGRADUATE PROGRAM

Thirty members of Natick's acquisition and technology workforce graduated from the Naval Postgraduate School's Advanced Acquisition program (AAP) on Dec. 19, 2003. The one-year program was designed for both acquisition workforce and other professionals working the DoD acquisition and program management process. The AAP provides a flexible, on-site alternative for education and for meeting Program Management (PM) Level III acquisition training and certification requirements. The three-phased program was designed to accommodate professionals unable to travel away from the office for weeks of education. Natick hosted the program via a combination of video teleconference sessions and on-site classroom instructions. The program ran from Jan. 8 to Dec. 19, 2003. Attendees received certificates for completion of the equivalent of ACQ 101, ACQ 201, PMT 250, and PMT 352. Those attending the program are currently in the PM acquisition career field, or in other acquisition career fields that directly support a PM office. This will allow them to fulfill the experience requirements for attaining Level III certification in the PM acquisition career field. Because of the AAP, this year Natick will see on-site program management Level III certifications go from the previous three to 33.

(*Diane Nyren/AMSSB-RSC-P(N)/DSN 256-4899/diane.nyren@us.army.mil*)

## DEFENSE LOGISTICS AGENCY BUSINESS ALLIANCE AWARDS (JAN. 20, 2004)

*Jack Hooper*

The Defense Logistics Agency (DLA) at Fort Belvoir, Va., honored 17 industry partners, customers, and individuals at its Business Alliance Awards Ceremony, on Jan. 20.The award recognizes those who have demonstrated outstanding efforts to partner with DLA to complete the Agency's mission to provide supplies and services to America's war fighters. The Defense Logistics Agency's director, Vice Admiral Keith W. Lippert, Supply Corps, U.S. Navy, presented the annual awards during a luncheon at the Hyatt Fair Lakes in Fairfax, Va.

Industry representatives and DLA customers were recognized in seven categories:

### Vendor Excellence

- Procurenet, Inc., 2 Madison Road, Fairfield, N.J. 07004 (small business)
- Propper International, Inc., 1040 Calle, WF Brennan, Mayaguez, Puerto Rico 00680 (large business)
- Benchmade Knife Company, 300 Beavercreek Road, Oregon City, Ore. 97045 (small disadvantaged business)

### Innovative Business Performer of the Year

- King Nutronics Corporation, 6421 Independence Avenue, Woodland Hills, Calif. 91367 (small business)
- Air British Petroleum, 28100 Torch Parkway, Warrenville, Ill. 60555 (large business)
- GTA Containers, Inc., 4201 Linden Avenue, South Bend, Ind. 46619 (small disadvantaged business)
- Camel Manufacturing Company, 176 Luther Seiber Lane, Pioneer, Tenn. 37847 (women-owned small business)

### New Contractor of the Year

- Dixie Chemical Company, Inc., 300 Jackson Hill St., Houston, Texas 77007 (small business)

### Outstanding Readiness Support

- WATEC, Inc., 1570 Muzzys Road, Urbana, Ohio 43078 (small business)
- Raytheon Integrated Defense Systems, 528 Boston Post Road, Sudbury, Mass. 01776 (large business)
- Aspen Systems, Inc., 184 Cedar Hill St., Marlborough, Mass. 01752 (small disadvantaged business)
- Magnaco Industries, Inc., 322 Lake Ave., Hartville, Ohio (women-owned small business)

### Outstanding Javits-Wagner-O'Day Program Vendor

- Human Technologies, 2260 Dwyar Ave., Utica, N.Y. 13501 (NISH)
- North Central Sight Services, 901 Memorial Ave., Williamsport, Pa. 17701 (NIB)

### Customer of the Year

- Department of Defense Customer-TRICARE Southwest and Central Tri-Service Business Office, 7800 IH-10 West, Suite 315, San Antonio, Texas 78230
- Non-Department of Defense Customer-Lockheed Martin Corporation, 6801 Rockledge Drive, Bethesda, Md. 20817

### Commander's Choice Award

- Lt. Col. Van L. Poindexter, Jr., Weapon Systems Support Flight Commander, Pacific Air Forces Regional Supply Squadron, Hickam Air Force Base, Hawaii

*The Defense Logistics Agency provides supply support, and technical and logistics services to the military services and to several civilian agencies. Headquartered at Fort Belvoir, Va., DLA is the one source for nearly every consumable item, whether for combat readiness, emergency preparedness, or day-to-day operations.*

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Many of DAU's *Defense Acquisition Review* journal and *Defense AT&L* magazine authors have enjoyed the benefits of publishing articles. Even if your agency does not require you to publish, consider these career-enhancing possibilities:

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- Change the way DoD does business.
- Help others avoid pitfalls with "lessons learned" from your project or program.
- Teach others with a step-by-step tutorial on a process or approach.
- Investigate a hot acquisition topic through research or surveys.
- Interview a prominent person within the DoD AT&L community.
- Condense your graduate project into something useful to the acquisition community.

These rewards are now being enjoyed by some of our authors. You too may:

- Earn continuous learning points.
- Get promoted or rewarded.
- Become part of a focus group sharing similar interests.
- Become a nationally recognized expert in your field or specialty.
- Be asked to speak at a conference or symposium.

If you are interested, please contact the *Defense AT&L* Managing Editor (judith.greig@dau.mil) or the *Defense AR* Managing Editor (norene.fagan-blanch@dau.mil) or visit the guidelines for authors at http://www.dau.mil/pubs/pm/articles.asp or http://www.dau.mil/pubs/arq/arqart.asp.

**If you are an expert on one or more topics and are willing to referee articles for the Defense Acquisition Review, e-mail norene.fagan-blanch@dau.mil.**

# Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

### Department of Defense

**Under Secretary of Defense (Acquisition, Technology and Logistics) (USD[AT&L])**
**http://www.acq.osd.mil/**
A library of USD(AT&L) documents, streaming videos, and links to many other valuable sites.

**USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)**
**http://akss.dau.mil**
Automated acquisition reference tool covering mandatory and discretionary practices.

**Director, Defense Procurement and Acquisition Policy (DPAP)**
**http://www.acq.osd.mil/dpap**
Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy and guidance.

**DoD Inspector General**
**http://www.dodig.osd.mil/pubs/index.html**
Audit and evaluation reports, IG testimony, and planned and ongoing audit projects of interest to the acquisition community.

**DoD Enterprise Software Initiative (ESI)**
**http://www.don-imit.navy.mil/esi**
Joint project to implement true software enterprise management process within DoD.

**Deputy Director, Systems Engineering, USD(AT&L/IO/SE)**
**http://www.acq.osd.mil/io/se/index.htm**
Systems engineering mission; Defense Acquisition Workforce Improvement Act information, training, and related sites; information on key areas of systems engineering responsibility.

**Defense Acquisition University (DAU)**
**http://www.dau.mil**
DAU Course Catalog, *Defense AT&L* magazine and *Acquisition Review Quarterly* journal; course schedule; policy documents; guidebooks; and training and education news for the Defense Acquisition Workforce.

**Defense Acquisition University Distance Learning Courses**
**http://www.dau.mil/registrar/apply.asp**
Take DAU courses online at your desk, at home, at your convenience!

**Army Acquisition Support Center**
**http://asc.army.mil**
News; policy; *Army AL&T Magazine*; programs; career information; events; training opportunities.

**Assistant Secretary of the Army (Acquisition, Logistics & Technology)**
**https://webportal.saalt.army.mil/**
ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; quick links to other Army acquisition sites.

**Navy Acquisition Reform**
**http://www.acq-ref.navy.mil**
Acquisition policy and guidance; World-class Practices; Acquisition Center of Excellence; training opportunities.

**Navy Acquisition, Research and Development Information Center**
**http://www.onr.navy.mil/sci_tech/industrial/nardic/**
News and announcements; acronyms; publications and regulations; technical reports; "How to Do Business with the Navy."

**Naval Sea Systems Command**
**http://www.navsea.navy.mil**
Total Ownership Cost (TOC); documentation and policy; Reduction Plan; Implementation Timeline; TOC reporting templates; FAQs.

**Navy Acquisition and Business Management**
**http://www.abm.rda.hq.navy.mil**
Policy documents; training opportunities; guides on areas such as risk management, acquisition environmental issues, past performance, and more; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

**Navy Best Manufacturing Practices Center of Excellence**
**http://www.bmpcoe.org**
National resource to identify and share best manufacturing and business practices in use throughout industry, government, academia.

**Naval Air Systems Command (NAVAIR)**
**http://www.navair.navy.mil**
Provides advanced warfare technology through the efforts of seamless, integrated, worldwide network of aviation technology experts.

**Space and Naval Warfare Systems Command (SPAWAR)**
**https://e-commerce.spawar.navy.mil**
Your source for SPAWAR business opportunities, acquisition news, solicitations, and small business information.

**Joint Interoperability Test Command (JITC)**
**http://jitc.fhu.disa.mil**
Policies and procedures for interoperability certification; lessons learned; link for requesting support.

**Air Force (Acquisition)**
**http://www.safaq.hq.af.mil/**
Policy; career development and training opportunities; reducing TOC; library; links.

**Air Force Materiel Command (AFMC) Contracting Laboratory's FAR Site**
**http://farsite.hill.af.mil/**
FAR search tool; *Commerce Business Daily* Announcements (CBDNet); *Federal Register*; Electronic Forms Library.

**Defense Systems Management College (DSMC)**
**http://www.dau.mil**
DSMC educational products and services; course schedules; job opportunities.

**Defense Advanced Research Projects Agency (DARPA)**
**http://www.darpa.mil**
News releases; current solicitations; "Doing Business with DARPA."

**Defense Information Systems Agency (DISA)**
**http://www.disa.mil**
Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System; much more!

**National Geospatial-Intelligence Agency**
**http://www.nima.mil**
Imagery; maps and geodata; Freedom of Information Act resources; publications.

**Defense Modeling and Simulation Office (DMSO)**
**http://www.dmso.mil**
DoD Modeling and Simulation Master Plan; document library; events; services.

**Defense Technical Information Center (DTIC)**
**http://www.dtic.mil/**
Technical reports; products and services; registration with DTIC; special programs; acronyms; DTIC FAQs.

**Defense Electronic Business Program Office (DEBPO)**
**http://www.acq.osd.mil/dpap/ebiz**
Policy; newsletters; Central Contractor Registration; Assistance Centers; DoD EC Partners.

**Open Systems Joint Task Force**
**http://www.acq.osd.mil/osjtf**
Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

**Government-Industry Data Exchange Program (GIDEP)**
**http://www.gidep.org/**
Federally funded co-op of government-industry participants, providing an electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

# Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

### Federal Civilian Agencies

**Acquisition Reform Network (AcqNet)**
**http://www.arnet.gov/**
Virtual library; federal acquisition and procurement opportunities; best practices; electronic forums; business opportunities; acquisition training; Excluded Parties List.

**Committee for Purchase from People Who are Blind or Severely Disabled**
**http://www.jwod.gov**
Provides information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

**Federal Acquisition Institute (FAI)**
**http://www.faionline.com**
Virtual campus for learning opportunities as well as information access and performance support.

**Federal Acquisition Jump Station**
**http://prod.nais.nasa.gov/pub/fedproc/home.html**
Procurement and acquisition servers by contracting activity; CBDNet; Reference Library.

**Federal Aviation Administration (FAA)**
**http://www.asu.faa.gov**
Online policy and guidance for all aspects of the acquisition process.

**General Accounting Office (GAO)**
**http://www.gao.gov**
Access to GAO reports, policy and guidance, and FAQs.

**General Services Administration (GSA)**
**http://www.gsa.gov**
Online shopping for commercial items to support government interests.

**Library of Congress**
**http://www.loc.gov**
Research services; Congress at Work; Copyright Office; FAQs.

**National Technical Information Service (NTIS)**
**http://www.ntis.gov/**
Online service for purchasing technical reports, computer products, videotapes, audiocassettes, and more!

**Small Business Administration (SBA)**
**http://www.sbaonline.sba.gov**
Communications network for small businesses.

**U.S. Coast Guard**
**http://www.uscg.mil**
News and current events; services; points of contact; FAQs.

**U.S. Department of Transportation MARITIME Administration**
**http://www.marad.dot.gov/**
Provides information and guidance on the requirements for shipping cargo on U.S. flag vessels.

### Topical Listings

**Acquisition Community Connection (ACC)**
**http://acc.dau.mil**
Includes risk management, contracting, system engineering, total ownership cost (TOC) policies, procedures, tools, references, publications, Web links, and lessons learned.

**Aging Systems Sustainment and Enabling Technologies (ASSET)**
**http://catt.bus.okstate.edu/asset/index.html**
A government-academic-industry partnership. The technologies and processes developed in the ASSET program increase the DoD supply base, reduce the timeand cost associated with parts procurement, and enhance military readiness.

**Commerce Business Daily**
**http://cbdnet.gpo.gov**
Access to current and back issues with search capabilities; business opportunities; interactive yellow pages.

**DoD Defense Standardization Program**
**http://www.dsp.dla.mil**
All about DoD standardization; key Points of Contact; FAQs; Military Specifications and Standards Reform; newsletters; training; nongovernment standards; links to related sites.

**Earned Value Management**
**http://www.acq.osd.mil/pm**
Implementation of Earned Value Management; latest policy changes; standards; international developments; active noteboard.

**Fedworld Information**
**http://www.fedworld.gov**
Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

**MANPRINT (Manpower and Personnel Integration)**
**http://www.manprint.army.mil**
Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; as well as briefings on the MANPRINT program.

**Office of Force Transformation**
**http://www.oft.osd.mil**
Site is devoted to news on transformation policies, programs, and projects throughout the DoD and the Services.

**Project Management Institute**
**http://www.pmi.org**
Program management publications, information resources, professional practices, and career certification.

**Software Program Managers Network**
**http://www.spmn.com**
Site supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

### Industry and Professional Organizations

**Association of Old Crows (AOC)**
**http://www.crows.org**
Association news; conventions, conferences and courses; *Journal of Electronic Defense* magazine.

**DAU Alumni Association**
**http://www.dauaa.org**
Acquisition tools and resources; government and related links; career opportunities; member forums.

**Electronic Industries Alliance (EIA)**
**http://www.eia.org**
Government Relations Department; includes links to issue councils; market research assistance.

**Integrated Dual-Use Commercial Companies (IDCC)**
**http://www.idcc.org**
Information for technology-rich commercial companies on doing business with the federal government.

**International Society of Logistics**
**http://www.sole.org/**
Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

**National Contract Management Association (NCMA)**
**http://www.ncmahq.org**
"What's New in Contracting?"; educational products catalog; career center.

**National Defense Industrial Association (NDIA)**
**http://www.ndia.org**
Association news; events; government policy; *National Defense* magazine.

**To add a non-commercial defense acquisition/acquisition and logistics excellence-related Web site to this list, please fax your request to Judith Greig, (703) 805-2917. DAU encourages the reciprocal linking of its Home Page to other interested agencies. Contact: webmaster@dau.mil.**

# *Defense AT&L* Writer's Guidelines in Brief

### Purpose
The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

### Subject Matter
**We do print** feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

*Defense AT&L* reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

### Length
Articles should be 2,000 - 3,000 words or about 10 double-spaced pages, each page having a 1-inch border on all sides. For articles that are significantly longer, please query first by sending an abstract.

Include a short biographical sketch of the author(s)—about 25 words—including current position and educational background.

### Style
Good writing sounds like comfortable conversation. Write naturally and avoid stiltedness. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters. Be sure to define all acronyms. Consult "Tips for Authors" at <http://www.dau.mil/pubs/pm/articles.asp>.

### Presentation
Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

### Graphics
We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable. Include brief, numbered captions keyed to the figures and photographs. Include the source of the photograph. We publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. Each figure or chart must be saved as a separate file in the original software format in which it was created and must meet the following publication standards: color and greyscale (if possible); JPEG or TIF files sized to print no smaller than 3 x 5 inches at a minimum resolution of 300 pixels per inch; PowerPoint slides; EPS files generated from Illustrator (preferred) or Corel Draw. For other formats, provide program format as well as EPS file).
Questions on graphics? Call (703) 805-4287, DSN 655-4287 or e-mail vaworkorders@dau.mil. Subject line: Defense AT&L graphics.

### Clearance and Copyright Release
All articles written by authors employed by or on contract with the U.S. Government must be cleared by the author's public affairs or security office prior to submission.

Authors must certify that the article is a "Work of the U.S. Government." Go to <http://www.dau.mil/pubs/pm/articles.asp>. Scroll to the bottom of the screen and click on "Copyright Forms." Print, fill out in full, sign, and date the form. Submit the form with your article or fax it to (703) 805-2917, ATTN: Rosemary Kendricks. Your article will not be reviewed until we receive the copyright form. Articles printed in *Defense AT&L* are in the public domain and posted to the DAU Web site. In keeping with DAU's policy of widest dissemination of its published products, no copyrighted articles are accepted.

### Submission Dates

| Issue | Author's Deadline |
|---|---|
| January-February | 1 October |
| March-April | 1 December |
| May-June | 1 February |
| July-August | 1 April |
| September-October | 1 June |
| November-December | 1 August |

*If the magazine fills before the author deadline, submissions are considered for the following issue.*

### Submission Procedures
Submit articles by e-mail to judith.greig@dau.mil or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.

**http://www.dau.mil/pubs/pm/articles.asp**

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