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Driving Contracting To Serve the Warfighter

Defense AT&L interviews

Shay Assad

*Director, Defense Procurement and
Acquisition Policy*

Also

Incentive Contracts:
Driving Favorable Outcomes

DoD's Information Assurance
Certification & Accreditation
Process

CAD/PAD Requirements
Determination in the Air Force

Death by Bullets

Strategic Sourcing



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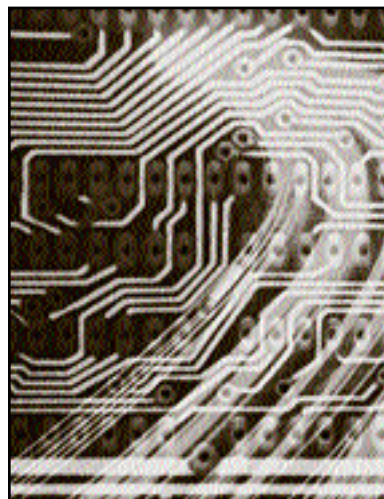
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Driving Contracting To Serve the Warfighter

Shay Assad, Director of Defense Procurement and Acquisition Policy

Shay Assad assumed his position as director of defense procurement and acquisition policy (DPAP) on April 3, 2006. He is responsible for all acquisition and procurement policy matters in the Department of Defense. Assad talked with *Defense AT&L* during the summer about his role as the principal advisor to senior leadership on acquisition strategies for major weapon systems programs, automated information systems programs, and services acquisitions; how 9/11 has changed the face of contracting; and the creation of a contracting competency model to define the competencies required for contracting professionals to perform their jobs.

Q *It has been just over a year since you were sworn in as the director of defense procurement and acquisition policy. Can you tell us the major duties and responsibilities of your position?*

A As the director of DPAP, I am responsible for all acquisition and procurement policy matters in the Department of Defense. I serve the role as advisor to the under secretary of defense for acquisition, technology and logistics, the deputy under secretary of defense for acquisition and technology, as well as the Defense Acquisition Board on acquisition and procurement strategies for all major weapon systems programs, major automated information systems programs, and services acquisitions.

I also advise senior DoD leaders on competition, source selection, multiyear contracting, warranties, leasing, and all international contracting matters.

As I told the Senate Committee on Armed Services last January, our acquisition team oversees the Department's purchases of items and services worth an average of \$300 billion annually, a volume of business unmatched by any other procurement organization in the world.

I am confident that the competency-based human capital strategy we are executing will enable us to right-shape an agile contracting workforce for the future.



The contracting functions that we perform are not trivial. Our contracting professionals require unique and significant skill and expertise to do their jobs. We continue to work every day to improve the service we provide to our men and women in uniform protecting our freedom around the world.

Q

From the unique perspective of the principal advisor to the under secretary of defense as you've just described, how has the current pace of operations and the need for ongoing, rapid deployment affected contracting strategies? Can the continued "surge" mentality be supported? How is your department working to manage the increased pace?

A

We have created the Joint Rapid Acquisition Cell to process urgent warfighter needs for acquisition. We endeavor to get product into the hands of our warfighters as quickly as possible with a team that's dedicated to shepherding the requirements throughout the process. We established the Joint Improvised Explosive Devices Office to work the IED issue. We amended the Defense Federal Acquisition Regulation Supplement at Part 218 to concentrate all the capabilities a contracting officer can use in an emergency. We're providing training for people involved in contingency contracting.

Q

You've said that our industry partners provide essential support to the deployed military forces that enables our forces to focus on their core mission. Industry has been providing support in many areas, including operating as private security firms in deployed regions. Has the global war on terror changed the relationship between the DoD and industry? What's being done to ensure that relationship remains strong?

A

The relationship hasn't changed. It is strong. I meet regularly with the different associations to hear what their issues are and what I can do to help. Open communication is the key to a strong partnership, and we work hard to keep those lines open and working.

Q

Contingency contracting is an area that has changed dramatically since 2001, largely in response to reconstruction efforts in Iraq and domestic natural disasters such as Hurricane Katrina. Can you talk about what new programs and initiatives are being developed in this area?

A

Emergency contracting has risen to the forefront in both interest and importance in the United States since September 11, 2001. Lessons learned on emergency con-

tracting operations supporting Operation Iraqi Freedom and Hurricane Katrina relief have emphasized the need for expanded contingency contracting policy. The Defense Department recognizes that its contracting practices are being performed under very trying circumstances. Despite the barriers and criticisms, the needs of the warfighter are being met—as are the needs of those who help during emergency relief operations—in the most expeditious and cost-effective manner possible.

My staff and I are working on many fronts to ensure that contingency contracting needs across the world are being met. As such, I have two main goals: the first is to provide timely, streamlined policy and regulations along with standard training; the second is to ensure lessons learned and best practices are built into new policy.

I recently returned from a trip to Iraq, where I met with the courageous men and women who are positively impacting the lives of many people and are ultimately helping to rebuild a nation. One young man, Commander Phil Murphy-Sweet, proudly showed me the work he had been doing with the Iraqi Security Forces and told me how he had extended his tour so he could finish what he had started. Sadly, shortly after my return, I watched while our honor guard laid him to rest in Arlington Cemetery. He lost his life after an IED exploded inside the convoy in which he was traveling. Events like these strengthen my resolve to get these heroes the tools they need to do their jobs, so we can bring them home safely to their families.

Q

You spoke recently about a new competence modeling tool that will help gauge the capabilities of the acquisition workforce and determine what areas need strengthening or realignment. The model will be used to assess individuals' capabilities and training, and for a high-level view of Service and departmental procurement capabilities. Can you tell our readers more about how this model will operate? When might we expect to learn results and feedback? How might it benefit the individual acquisition professional?

A

We just completed a five-month effort to define the integrated behaviors and underlying knowledge, skills, and abilities that define superior job performance for our contracting workforce. The result of this joint effort with the military departments, defense agencies, and the Defense Acquisition University is a contracting competency model that defines the competencies required for our contracting professionals to perform their jobs.

We are now working to deploy this model across the entire DoD contracting workforce over the next year. It's a major undertaking and will be the first time the Depart-

Shay Assad

Director of Defense Procurement and Acquisition Policy

Shay Assad assumed his position as director of defense procurement and acquisition policy (DPAP) on April 3, 2006. As the director of DPAP, he is responsible for all acquisition and procurement policy matters in the Department of Defense. He serves as the principal advisor to the under secretary of defense for acquisition, technology and logistics, deputy under secretary of defense for acquisition and technology, and the Defense Acquisition Board on acquisition/procurement strategies for all major weapon systems programs, major automated information systems programs, and services acquisitions. Assad also serves as the department's primary change agent for the implementation of strategic sourcing for goods and services. He is responsible for procurement/sourcing functional business process requirements in the Department's Business Enterprise Architecture, Enterprise Transition Plan. Assad is DoD's advisor for competition, source selection, multiyear contracting, warranties, leasing, and all international contracting matters.



Before assuming this position, Assad was the assistant deputy commandant, installations and logistics (contracts), Headquarters Marine Corps, Washington, D.C. He had held the position as the Marine Corps' senior civilian contracting official since June 2004.

Upon graduating with distinction from the U.S. Naval Academy in 1972, Assad served two tours of duty aboard U.S. Navy destroyers and won recognition as Outstanding Junior Officer, Fifth Naval District. He then served as a naval procurement officer at the Naval Sea Systems Command, where he was responsible for the negotiation and administration of the Aegis Weapons Systems engineering and production contracts.

In 1978, Assad began working for the Raytheon Company. Between 1978 and 1994 he served in several increasingly responsible contract management positions in Raytheon's largest Electronics and Missile divisions, gaining extensive experience in defense, commercial, and international contracting. In 1998 he was promoted to executive vice president and served as the chief operating officer and subsequently, as the chairman and chief executive officer of Raytheon's Engineering and Construction business. Assad retired from the Raytheon Company in 2001 and established a small business primarily providing consulting and retail services.

ment has attempted to assess its entire 26,000-strong contracting community. The competency assessment will allow the Department to assess the workforce in terms of size, capability, and skill mix, and to develop a comprehensive recruiting, training, and deployment plan to meet the identified capability gaps at both the organizational and individual employee level.

Q

There is continued concern about the aging workforce, and escalating fears of a loss of corporate knowledge. How do you feel these models might help with the recruiting and retention of the AT&L workforce? What else is being done to manage the workforce?

A

Our contracting competency model will enable us to identify and address capability gaps in the contracting workforce both today and in the future. We can then target those gaps through education, training, professional development, improved contracting tools, and the addition of resources, where needed, through recruitment and retention.

Education and training will be refreshed to improve skills and abilities of the workforce. We have modernized training for the contracting workforce in all aspects: certification training, continuous learning, and performance support and knowledge management. We are expanding the use of knowledge management and Web-based performance support resources so the workforce can always be engaged in learning and quickly apply best practices as they perform in the workplace.

Our contracting competency model and the consistent definitions of competencies and work that it provides across all DoD components will serve as the common language to facilitate these practices. I am confident that the competency-based human capital strategy we are executing will enable us to right-shape an agile contracting workforce for the future.

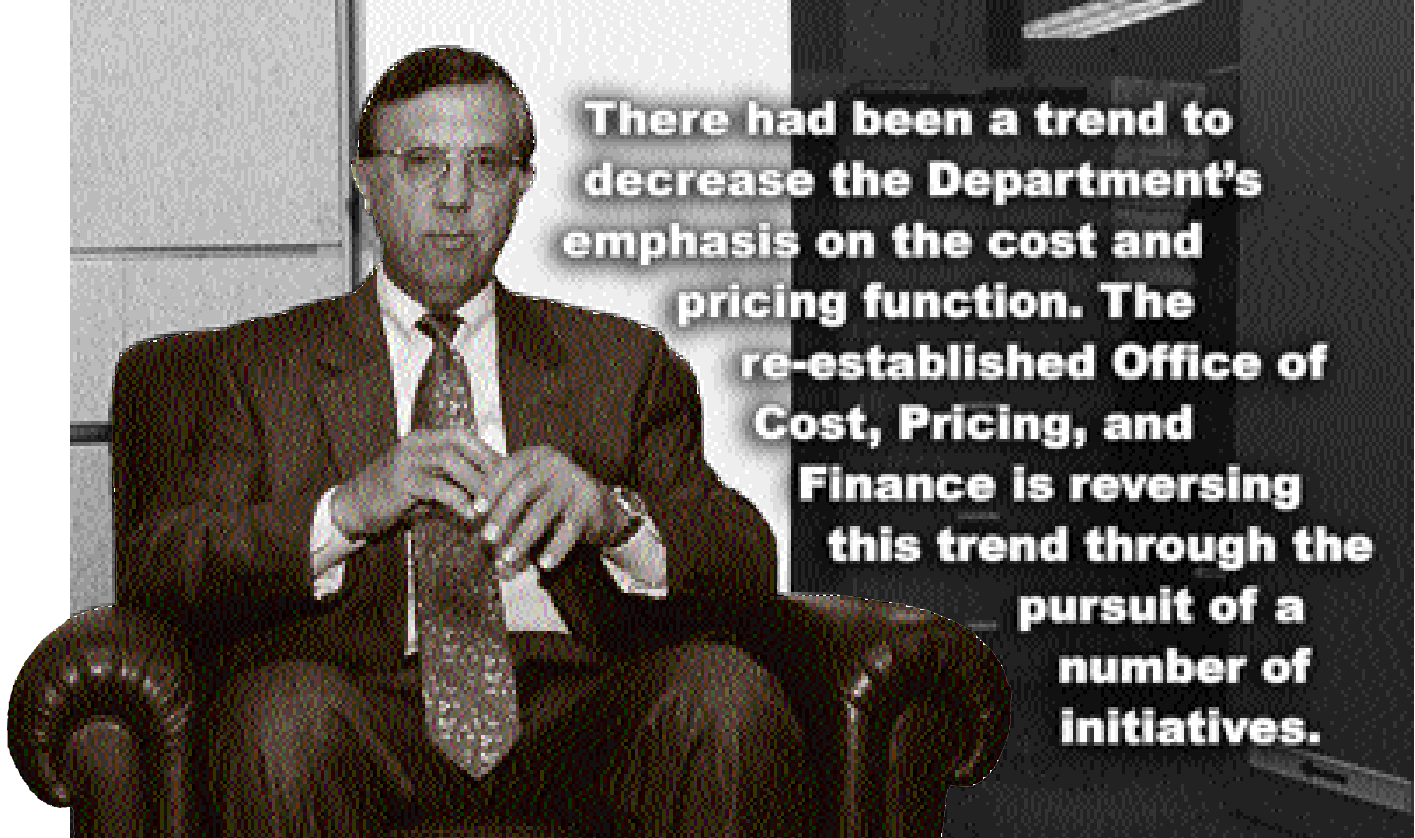
Q

In October, 2006, the Office of Cost, Pricing, and Finance was re-established within your office. What was the impetus behind recreating this office? How is it influencing defense procurement?

A

The impetus for recreating this office was a concern that the Department was not maximizing its abilities when negotiating contract prices. Over the previous five years, there had been a trend to decrease the Department's emphasis on the cost and pricing function.

The re-established Office of Cost, Pricing, and Finance is reversing this trend through the pursuit of a number of



There had been a trend to decrease the Department's emphasis on the cost and pricing function. The re-established Office of Cost, Pricing, and Finance is reversing this trend through the pursuit of a number of initiatives.

initiatives, including reinvigorating the cost and pricing skills within DoD; ensuring the appropriate use of award/incentive fees; and ensuring efficiency in the structuring of payment provisions.

In January of this year, the CPF office hosted a workshop for price analysts to re-invigorate the pricing function within DoD. The event was so well-received that in July, CPF will be hosting a workshop of approximately 300 price analysts to discuss best practices and address the key issues facing the working-level pricer.

With CPF leading the way, we are confident that the Department will maximize its cost and pricing skills to assure the negotiation of fair and reasonable contract prices.

Q
Ethics continue to be a priority in the defense acquisition and contracting worlds. What kinds of programs and training are in place to ensure that ethical conduct is an integral part of the system?

A
We want to instill ethical behavior as a core value of our workforce. So when senior officials within the Department have an opportunity to address the workforce, they frequently take that opportunity to emphasize not only their own personal commitment to ethical conduct but also their expectation that an ethical culture will permeate our organization.

The military departments and defense agencies, the Defense Acquisition University, and the Standards of Con-

duct Office offer a variety of ethics training programs, and their materials are updated annually. Our ethics training programs are largely compliance-based, emphasizing right behavior from wrong according to laws, regulations, and policies. We are working to translate this knowledge into valued-based behavior, where our acquisition workforce shares a personal commitment to ethical conduct in their work.

For example, the under secretary for acquisition, technology and logistics [at the time of the interview, Ken Krieg] is leading the way with his fiscal year 2007 AT&L Implementation Plan. The first of seven goals in this plan is a high-performing, agile, and ethical workforce. One way to achieve this is to make ethical performance standards part of the objectives of our performance plans.

At the direction of Congress, the Department established a Panel on Contracting Integrity earlier this year to take a holistic view of the areas of vulnerability in the defense contracting system that allow fraud, waste, and abuse to occur. The panel is led by Dr. James I. Finley [*deputy under secretary of defense for acquisition and technology*] and consists of 22 senior executives in procurement and acquisition from across the Department.

The panel will submit their first report to the secretary of defense and the congressional defense committees at the end of this year. The report will contain a summary of the panel findings and recommendations for any changes needed to the system of administrative safeguards and disciplinary actions to ensure accountability for any



From Our Readers

PBL Lessons Learned

I very much liked the article “Top Ten PBL Lessons Learned” by Ron Klein, Tim Stone, and Mike Murphy in the May-June 2007 issue of *Defense AT&L*. It was particularly helpful to me in a current task I have of assessing the logistical aspects of the software sustainment on the Joint Strike Fighter. I trust the authors are aware that JSF is planning to rely heavily on PBL.

I particularly liked the authors’ point about understanding the difference between cost and logistics, and finding the optimal solution. I also really liked lesson 10, and the summary of how hard change is, especially in the government.

Thanks to the authors for a great article and sharing their expertise with *Defense AT&L* readers!

Al Kaniss

Naval Air Systems Command

Risk Identification

I enjoyed reading Douglas J. Bragdon’s excellent article on the importance of risk identification in the risk management process in the May-June issue. Mr. Bragdon’s point that the identification process is not a one-shot effort is well taken; identification has to be a continuous process as technical risks continue to surface throughout the acquisition process. I’m recommending to the DAU risk management knowledge project officer that the article be included as part of the risk management community of practice in the DAU Acquisition Community Connection (ACC).

Bill Bahnmaier

President, DAU Alumni Association

violations of appropriate standards of behavior in contracting.

Q

Strategic Sourcing has been defined as the “collaborative and structured process of analyzing an organization’s expenditures and using the information to make business decisions about acquiring commodities and services more effectively and efficiently.” The data generated through strategic sourcing are expected to provide more transparency and accountability, and allow for the development of organizational efficiencies. How is this initiative operating today?

A

The Department of Defense, as the largest purchasing organization in the world, spent approximately \$300 billion to purchase goods and services in fiscal year 2006. We treat sourcing as a strategic function because it is vital to the success of our efforts to provide reliable, responsive, and cost-effective capability and support to the warfighter.

Strategic sourcing provides the department the ability to leverage regional and DoD-wide spend opportunities; optimize productivity and improve force development opportunities, and strategically acquire and manage services. Through strategic sourcing, the DoD ensures the most efficient and effective manner of buying products and services that are necessary to support the warfighter.

Q

How has the increasing emphasis on joint logistics and programs changed the way your Department operates?

A

I believe the most important thing we are doing is providing cradle-to-grave policy emphasis to logistics planning and long-term sustainment.

Our policies are being revised to ensure that logistics planning is a vital, early consideration in the development of joint program requirements and the identification of alternatives to satisfy those requirements. In that context, we are increasing our emphasis on policy not only to the acquisition of capability, but also to the long-term cost of ownership. To that end, Mr. Krieg initiated a pilot program in April to develop the most efficient business practices to incorporate the fully burdened cost of energy into acquisition decisions. We will be required to consider, at the earliest stages of development, the cost of energy for all tactical systems as a key component of the cost associated with operating and owning a given capability.

Q

Mr. Assad, thank you for your time.

Incentive Contracts: Driving Favorable Outcomes

Robert L. Tremaine

In the past several years, major weapon system development programs have drawn significant attention. The reasons are varied. In some cases, costs have skyrocketed; schedules have experienced significant delays; and performance levels have failed to meet government expectations, despite the employment of management tools designed to control costs, preserve schedule, and influence performance outcomes. Some of these management tools—including contractual measures, as originally conceived and specified by the Federal Acquisition Regulation (FAR)—can give tremendous flexibility to the implementation of government contracts. However, the Government Accountability Office recently identified an apparent disconnect between the use of certain measures—like incentives—and expected outcomes in weapon system acquisitions. In short, it appeared that incentives were not driving performance outcomes as originally envisioned.

The GAO looked closely at the use of incentives in the Department of Defense. They conducted structured interviews with contracting and program officials representing 92 contracts from a study population of 597 DoD incentive-type contracts active between 1999 and 2003. In a December 2006 report (GAO-06-66), GAO asserted that “DoD has paid billions in Award and Incentive Fees without favorably influencing performance.” In essence, the GAO found few results that could be directly traced to the award of incentives. Not surprisingly, their findings set off a few alarms and raised questions about the efficacy of incentives in general.

Were these incentive strategies ill-conceived? Were they poorly applied? Did they work as advertised? Have they

Incentives can be extremely useful ... when vigilantly and carefully applied in accordance with FAR16.401.

outlived their usefulness? What went wrong? These and many other questions immediately surfaced in the acquisition, technology, and logistics community. Consequently, the Defense Acquisition University assembled a small team of subject matter experts from its combined regional workforce to research the issues. Rather than search for even more examples of the failure of incentives, however, the research would focus on where incentives succeeded. More specifically, where have incentives actually worked, why were they effective, and what could be done to restore confidence in incentive contracts? Invariably, that confidence (which has frequently been challenged in the past) would have to be restored in order to garner continued support and calm the critics; otherwise, the usefulness of incentive strategies would be irrevocably damaged, and their days could be numbered.

Incentives Defined

Contract incentives are various, and understanding and appropriately applying them is crucial. In its basic form, an incentive is really an extraordinary tool for certain applications. All incentives are designed to drive some kind of desired outcome through the use of monetary awards or the withholding of them. Incentives can be extremely useful, and when vigilantly and carefully applied in accordance with FAR16.401, they can drive specific acquisition objectives by establishing reasonable and attainable targets that are clearly communicated to the contractor, including appropriate incentive arrangements designed to motivate contractor efforts that might not otherwise be emphasized. They also discourage contractor inefficiency and waste.

By design, incentives are also tightly integrated into overall acquisition strategies for very specific purposes in DoD contracts. They can help reduce risk; they can help combat uncertainty; and they can also help drive favorable

Tremaine is an associate dean at DAU's West Region Campus in San Diego, Calif. He has over 25 years of experience in air, missile, and space system acquisitions.

behavior throughout a program's life cycle. By their nature, "incentives should result in expected outcomes," as Shay Assad, [director, defense procurement and acquisition policy, Office of the Deputy Under Secretary of Defense for Acquisition, Technology and Logistics] reinforced in November 2006 at the PEO/SYSCOM Conference held at Fort Belvoir, Va. Of course, understanding when and how to apply incentives is just as important, and that may be the tallest hurdle. Even though the concept of incentive-type contracts sounds straightforward, it is far from simple to execute, especially in an environment like DoD, where funding instability, technology barriers, leadership changes, and even cultural barriers frequently stand in the way. Each element alone can potentially handicap a program, as PMs would attest; the presence of all four factors can be truly threatening. Nonetheless, each type of incentive contract offers promise. If they are properly planned and integrated into an overall acquisition strategy and well executed, incentives create strong correlations to expected outcomes. They should be designed to meet specific goals from the outset.

The Research Approach

DAU interviewed 25 representative weapon system acquisition programs (listed in the sidebar on page 11). Ideally, data collected from these first 25 would also serve as the starting point for best practices. Programs were selected in various phases of the acquisition life cycle to confirm what particular award and/or incentive techniques (if any) indeed created strong correlations to performance outcomes. The interviewees included agency directors, program executive officers, PMs, principal contracting officers, and systems engineers in government program offices.

The Findings

Strongly Communicated Expectations and Feedback

Frequent and unambiguous communication/feedback made a noticeable difference for incentive contracts. Even though incentive contracts entail some additional administrative burden, the outcome justified the increased workload of feedback for most programs. Continuous and open dialogue at both junior and senior levels led to early discovery and timely reconciliation of many known issues and helped keep a program on track. The introduction of specialized response teams enabled issues uncovered by monthly reports to be routinely tackled. The use of emphasis letters during award periods stressed the importance of certain outcomes or "events." Some organizations even used barometer reports during interim reviews to ensure that information from monitors was readily available to management at critical junctures. Informal monthly feedback sessions surfaced known issues or raised potential concerns early in the process. Government and contractor Friday meetings kept the lines of communication wide open. Small issues sometimes sur-

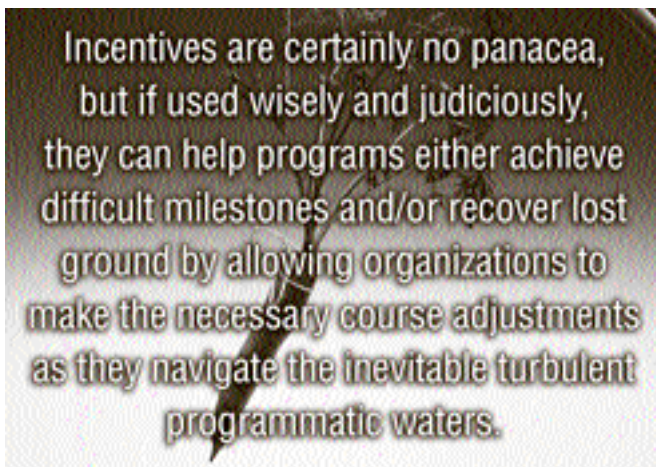
Learning About Incentive Contracting

What near- and far-term adjustments should be made to DAU curricula as a result of the research team's findings? And how can DAU make both lessons learned and best practices widely available?

First, it seems reasonable that every functional area should contain an introductory lesson on incentive contracting that incorporates lessons learned and best business practices. But in the meantime, before the curriculum development teams make specific determinations, there are a number of learning assets already available for immediate review and possible revision. Aside from a couple of specialized incentive contract lessons embedded in a few DAWIA contracting and budgeting courses, DAU offers two 24/7 online Continuous Learning Modules (CLMs) that can help guide organizations with their incentive selection and subsequent development pathway. The first, Contractual Incentives (CLC018), focuses on understanding the balance between government and industry goals and objectives in crafting an effective incentive strategy. The second, Provisional Award Fees (CLC034), addresses the 2003 rule that permits award fee payments to be made anytime prior to the interim or final evaluation.

Both CLMs are useful but do not address the execution essentials. An Incentive Contracts CLM that is more comprehensive and readily available to the acquisition community would be indispensable and provide much more assistance on the mechanics and implementation of incentive contracts. Additionally, the exploitation of an increasingly popular collaborative medium called Communities of Practice on the DAU Acquisition Community Connection (ACC) at <https://acc.dau.mil/communitybrowser.aspx> can offer access to a wide array of current experiences and lessons learned regarding incentives ranging from the general to the specific.

DAU has already established a rich information site on the ACC: Award and Incentive Fee Contracts at <https://acc.dau.mil/communitybrowser.aspx?id=105550>. Access to these and other collaborative training aids is critical because once an incentive strategy is in place, its maximum value truly depends on its ability to implement techniques that drive favorable outcomes. There's no better source of experts to consult than those who face contract incentive challenges every day—the acquisition workforce members who are charged with appropriately implementing the techniques that drive outcomes.



faced and could be reconciled almost immediately. Glossary tools improved communication during evaluation briefings when there were team member changes—as was frequently the case. Strongly prepared and focused review boards and upper management support provided consistent evaluations. Expectations known by all and a disciplined award fee board structure along with refined mechanics strengthened the viability of incentives.

Metrics

The selection of key and enduring measures within an evaluation period, and measures that could be connected to subsequent evaluation periods, made a noticeable difference for incentive contracts. Key measures validated whether or not a program achieved certain necessary intermediate milestones along its critical glide path. They confirmed program momentum. They served as an early warning system—a bellwether—and answered the age-old question, “Are we on track?” They also filled a huge role as performance benchmarks. Key measures helped many programs better navigate their pathway, despite the unavoidable programmatic turbulence. Selecting between the most suitable measure types, objective and/or subjective, presented the biggest challenge.

The ability to hardwire them to achievable outcomes made objective measures like technical performance measures, cost performance indices, and schedule performance indices, invaluable gauges. They served as tremendous forecasting devices when they were carefully connected to outcomes. Objective measures were ideally suited for: (1) key performance events such as “ground contractor satellite operations facilities established, spacecraft available for space vehicle integration and test, and thermal vacuum test complete”; and (2) mission success criteria such as “capability and system delivered.” They were just as practical for cost controls (especially if the contractor could share in the savings) and delivery of critical subcomponents, since they were vital to the aggregate system. Subjective criteria—the more elastic of the two measure types and just as important—depended on certain factors such as judgment, beliefs, and the propensity to yield specific

outcomes, like highly effective and comprehensive systems engineering processes, management responsiveness and effective communication, resourcefulness, and timely solutions to known and unknown obstacles. Ironically, there has been an increased use of objective measures in award fee-type contracts in the form of more tangible measures. In fact, objective measures used as criterion variables in award fee contracts seem to fill an air gap by demonstrating the attainment of certain intermediate milestones and irrefutable performance outcomes. Subjective measures were still important, especially since they verified qualitative characteristics; but the combination of objective and subjective measures tended to create some of the strongest correlations to expected outcomes.

Incorporation of Base Fee in Award Fee Contracts

The incorporation of base fee in award fee contracts made a noticeable difference. Many award fee contracts use some form of base fee on cost-plus award fee contracts. Numerous organizations employ cost-plus award fee value-base fees as a leverage tool. Even though the Defense Federal Acquisition Regulation Supplement (DFARS) 216.405-2(c)(iii) allows up to 3 percent of the estimated cost of the contract exclusive of fee, a contractor could provide “best efforts” for the award fee term and still, however, receive no award. As a result, there has been some pressure on the government to provide a portion of the award fee for best efforts. Some programs found themselves in such a predicament, since they originally planned to pay an award fee only for “excellence.” Some contractors expected consideration of a base fee if they met discrete contractual terms and conditions. Many program offices agreed and implemented up to a 3 percent base fee, giving the government ample flexibility to award the remaining balance for excellence. Base fees can be invaluable, since they provide certain intangibles, such as responsiveness and timeliness; they also separate excellence from best efforts.

Trained and Experienced Personnel

Nothing seems to have a more dramatic impact in DoD than training and experience. Training draws its roots from practical experience, and practical experience, in turn, helps build better training programs. Organizations that had formalized instruction and/or had coached their personnel on the use of incentives indicated they more favorably influenced outcomes. Specifically, those organizations reviewed all assessments generated by performance monitors for accuracy and completeness prior to each Award Fee Review Board; encouraged all performance monitors to sit through the review of all other assessments to ensure consistency in terms of quality, format, scope, etc.; and provided lessons learned to others, resulting in faster, more comprehensive assessments and more effective review processes in current and succeeding periods.

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Industry Reinforcement

Even though the research team did not meet individually with industry representatives, contractor perspectives were considered an important element of this research. The team found an expedient method to collect industry input on incentive contracts. During mid-summer 2006 and before the interview process started with government program offices, DAU hosted an Industry Day at Ft. Belvoir. With nonattribution safeguards in place, 18 senior-level defense industry representatives participated and spoke freely about their experiences with incentive contracts. Their views were enlightening. In many cases, industry confirmed the data the research team found through field interviews.

The Verdict on Incentives

So what about incentives? Are they, in spite of the recent criticism and doubt, still a good tool to drive performance behaviors? Have organizations found a way to effectively apply incentives and demonstrate their usefulness? The answer to these questions is “yes.” There is no one-size-fits-all, but the incentive attributes that seemed to matter the most in influencing performance outcomes for the 25 programs examined in the context of this study generally afforded strong correlations between incentives and desired performance.

Ideally, an optimal incentive strategy features these and perhaps other attributes in the context of cost, schedule, and performance factors forged together as a unified accord. In practice, cost, schedule, and performance are interdependent and tend to interfere with each other's outcome. Influencing all three, and not at the expense of one another, becomes a delicate balancing act.

As he indicated in his response before the Subcommittee on Defense, Committee on Appropriations, House of Representatives (Dec. 21, 2006), David M. Walker, comptroller general of the United States, emphasized that we should not discontinue the use of award and incentive fees. Instead, he recommended that we look more closely at incentives in general and ask whether we have adequately defined and established appropriate criteria that enable us to measure outcomes, and how we will apply those criteria in determining the level of fee that can be justified.

Unlike simple commercial development efforts, DoD builds and sustains many one-of-a-kind systems that count on cutting-edge technologies and operate in unforgiving or threatening conditions, often under enemy fire. Considered a prevailing element that distinguishes DoD and other U.S. government agencies from general industry, motivational contracting tools like incentives can help organizations overcome numerous obstacles and reach very definitive outcomes. Incentives provide tremendous flexibility for the implementation of certain government con-

Organizations Interviewed For the Study

Advanced Extremely High Frequency Satellite Communications System
Air Force Satellite Control Network
Air Mobility Command Contractor Tactical Terminal Operations
AV-8 (Harrier)
B-2 Aircraft-Radar Modernization Program -Frequency Change
Biological Detection System
C-17 Aircraft-Sustainment
E2D (Major upgrade to E2C)
F-15 Aircraft-Suite 6 Software Upgrade for A-D & E Models
F-16 aircraft-Operational Flight Program Development
Future Combat Systems
Global Hawk Unmanned Aerial Vehicle
Global Positioning System
Global Transportation Network
Marine Expeditionary Fighting Vehicle
MH-60 Black Hawk Helicopter
Missile Defense C2BMC
Missile Defense Kinetic Weapons
Missile Defense Sensors
Missile Defense Targets & Countermeasures
Multi-Mission Maritime Aircraft (MMA)
Rapid Attack Identification Detection and Reporting System
Space Based Infra-red System – High
Space Tracking and Surveillance System
Total Integrated Engine Revitalization Program

tracts. They are certainly no panacea, but if used wisely and judiciously, they can help programs either achieve difficult milestones and/or recover lost ground by allowing organizations to make the necessary course adjustments as they navigate the inevitable turbulent programmatic waters.

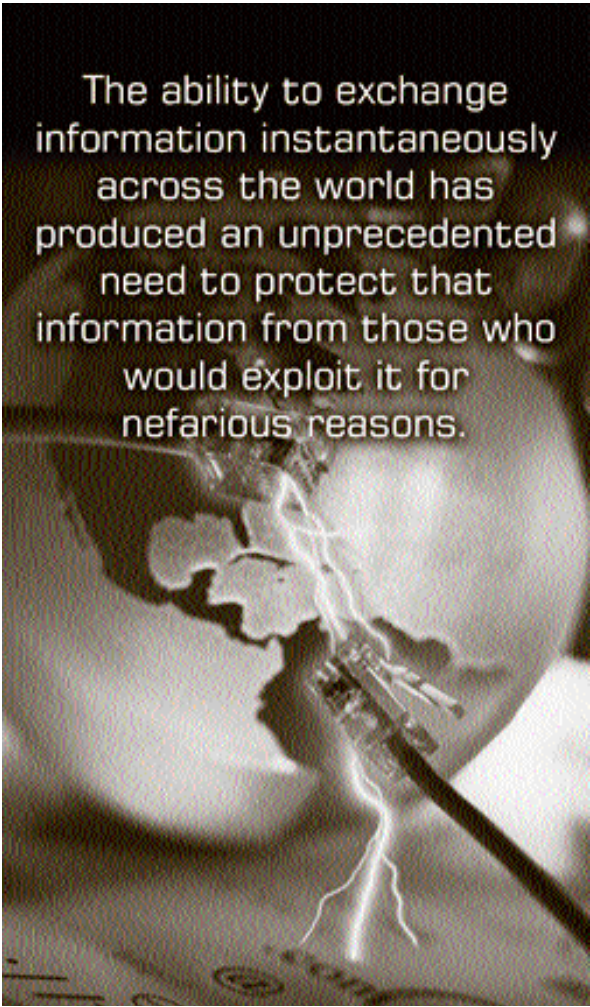
The author welcomes comments and questions and can be contacted at robert.tremaine@dau.mil. He wishes to thank DAU's research team (Karen Byrd, Michael Canales, Leslie Denecault, Alan Gilbreth, Sylvester Hubbard, Leonardo Manning, and Ralph Mitchell). Without their dedicated and outstanding professional support, this research would not have been possible.

DoD's Information Assurance Certification & Accreditation Process

Peter Williams ■ Tiffani Steward

Global connectivity, real-time collaboration, and rapid and continuous information exchange have become a reality, and this reality is called net-centricity. In a net-centric environment, enterprise applications exchange data, share tasks, and automate processes over interconnected networks and the Internet. Connections between Services are dynamic and ad hoc, which implies a paradigm shift from the past. Users and applications have greater accessibility to data and can utilize data without lag time. This ability to exchange information instantaneously across the world has produced an unprecedented need to protect that information from those who would exploit it for nefarious reasons. The protection of data on information systems by ensuring the information's availability, integrity, authentication, confidentiality, and non-repudiation is called Information Assurance (IA) and the process for managing and maintaining the system's IA posture is called Certification and Accreditation (C&A).

When communicating between different information systems, it is the responsibility of both parties to ensure the security of that communication. This is done through the



The ability to exchange information instantaneously across the world has produced an unprecedented need to protect that information from those who would exploit it for nefarious reasons.

inclusion of IA security requirements in the development of the information system or the application of those requirements later in its life cycle.

An IA C&A process represents a standard approach for identifying information security requirements, providing security solutions, and managing the security of information systems. It describes a set of requirements and capabilities and provides evidence of compliance through documentation and test results. It is the mechanism for communicating acceptance and trust between information systems.

The C&A process is designed to certify that an information system meets documented security requirements and will continue to maintain the accredited security posture throughout its life cycle. Security accreditation is the official management decision given by a senior official of an organization to authorize the operation of the system and to explicitly accept the risk to operations and assets of the organization based upon implementation of an agreed-upon set of security controls. Accreditation provides a form of quality control and challenges managers and technical staffs to implement the most effective IA security controls possible, given the technical, operational, cost, and schedule constraints.

Williams has been an associate with Booz Allen Hamilton since 2002, focusing on information assurance and certification and accreditation policy issues for the DoD, the Committee for National Security Systems (CNSS), and other Federal agencies. **Steward** joined Booz Allen Hamilton in 2006 and currently supports the Naval Observatory. She has also worked as system administrator and security specialist and a security engineer for the Army and federal agencies.

The Transition to a New C&A Process

The DoD Information Assurance Certification and Accreditation Process (DIACAP) was developed by DoD to address the paradigm shift in IA security from an individual information system-level approach to a DoD-wide enterprise approach of securing information systems in a net-centric environment and for supporting the implementation of IA security during a system's life cycle. The DIACAP was necessary to respond to changes in information technology, the way DoD acquires IT, and the way DoD operates IT; and to comply with emerging federal requirements and guidelines, such as the Federal Information Security Management Act of 2002, which requires federal departments and agencies to develop, document, and implement an organization-wide program to provide IA. Also, DoD wanted to develop a new C&A process that was less time-consuming, easier to implement, less resource-intensive, presented clear accountability, was paperless, used standardized security, had a security reporting status capability, and incorporated an enterprise perspective. The DIACAP meets those requirements.

The DIACAP is a dynamic IA C&A process that supports and complements the net-centric Global Information Grid environment. In general terms, the DIACAP establishes a standard, required process for identifying, implementing, and validating standardized IA controls; authorizes the operation of DoD information systems; manages the IA posture of an information system throughout its life cycle; and provides the DoD with an enterprise-level methodology for administering and monitoring C&A across the Department. The DIACAP process has replaced the previous information system-specific C&A process, the DoD Information Technology Security Certification and Accreditation Process (DITSCAP).

The DIACAP program, consisting of the DIACAP Policy, DIACAP Knowledge Service (KS), and Enterprise Mission Assurance Support Service (eMASS), was developed to meet DoD's current and future C&A requirements. All three elements of the DIACAP were developed concurrently by DoD in order to provide the DoD C&A community with the policy and specific tools designed to support and enhance the implementation of the DIACAP. The DIACAP program includes the elements described below.

DODI 8510.bb Instruction—This provides a new policy and enterprise governance structure that establishes a C&A process to provide management of the implementation of IA and visibility of accreditation decisions authorizing the operation of DoD information systems, to include core enterprise services and Web services-based software systems and applications.

DIACAP KS—DIACAP implementation support is provided through the DoD-owned, Web-based resource, the DIACAP KS. The KS is DoD's official site for DIACAP policy

and guidance and may be accessed at <<https://diacap.iaportal.navy.mil>>. The KS provides:

- A library of tools, diagrams, process maps, artifacts, etc., to support the execution of the DIACAP
- Guidance for identifying which IA controls sets are needed for a given information system, while providing the required validation tests and their expected results
- A collaboration workspace for the DIACAP user community to develop, share, and post lessons learned and best practices.

Enterprise Mission Assurance Support Service (eMASS)

eMASS is a DoD-owned, automated, Web-based suite of integrated services for the management of key activities in the DIACAP process workflow that facilitates the implementation of the DIACAP. eMASS automatically generates the C&A process workflow once a system is registered and personnel are selected for the DIACAP process functions. It also creates the C&A package for the information system. eMASS allows the user to:

- Enter IA system information
- Track the progress of IA activities of systems
- Track current C&A status of systems.

Integration of IA into the Acquisition Process

The DIACAP directly supports the DoD Instruction 8580.1, Information Assurance in the Defense Acquisition System; DoD Directive 5000.1, Defense Acquisition System; and DoD Instruction 5000.2, Operation of the Defense Acquisition System, by providing the capability to introduce IA into any stage of the system life cycle, with an emphasis on building in IA capabilities during the concept refinement and technical development phases and synchronizing the DIACAP activities with the entire life cycle. Early planning and the integration of IA result in lower program risk and support milestone decisions. There is also a significant cost benefit to building in IA during the development phase, as opposed to bolting on IA capabilities after an information system is operational.

Current Status of the Policy

The Interim DoD Information Assurance Certification and Accreditation Process Guidance, as well as the Knowledge Service and eMASS, were released on July 6, 2006, to provide the DoD user community early access to the new process and guidelines for transitioning to the DIACAP. The DITSCAP instruction and manual were replaced at that time by the DIACAP as the only DoD IA C&A process. The final version of the DIACAP is under coordination at the time of writing, and it is anticipated to be signed out during the late summer or early fall of 2007.

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CAD/PAD Requirements Determination in the Air Force

A Joint Logistics Success Story

David Williams ■ Anthony Taylor ■ Vern Blair

Cartridge Actuated Devices (CADs) and Propellant Actuated Devices (PADs) are explosive items used in aircraft ejection, life support, weapons release, and fire-suppression systems. The Department of Defense uses about 3,100 different configurations. Most are man-rated, requiring a very high level of reliability. All have defined service lives and must be replaced periodically. Some CAD/PAD are expended in normal operations, such as those used for weapons release; others are used only in emergencies. CAD/PAD that are needed for safety of flight can cause the grounding of aircraft if they are defective or over-age.

CAD/PAD are normally developed as a component of a weapon, egress system, or life-support system. For example the 112 CAD/PAD in the B-2 and the 129 CAD/PAD in the F/A-18 were designed and developed along with the other systems in those aircraft. In keeping with the cradle-to-grave concept, overall responsibility for sustainment activities remains with the program manager when a system is fielded. However, day-to-day responsibility for sustainment activities has been delegated within each Service to a central entity to benefit from economies of scale.

In 1998, the Air Force and Navy agreed to form a joint program office (JPO) to manage the sustainment of CAD/PAD for both Services. A major business improvement initiative of the CAD/PAD Joint Program has been adoption of an automated system for determining Air Force CAD/PAD requirements, using as a basis, the existing Navy system, the Material Planning Study (MPS). The Air Force version is called the Requirements Determination Module (RDM) and is believed to be the first joint use of a sustainment system.

Genesis: The Navy's Material Planning Study

CAD/PAD are different from other aircraft components because they are perishable. The requirement for replacement is based on time (service life) rather than variables commonly used in the Navy-wide logistics system,



A successful F-16 Thunderbird pilot ejection at a Mountain Home AFB air show in 2003 illustrates the importance of reliable CAD/PAD.

U.S. Air Force photograph by SSgt Bennie J. Davis III

such as flight hours or takeoff and landing cycles. Furthermore, there is a long lead time (typically 18 months) associated with buying replacement inventory.

To deal with these factors, the Navy has long relied on centralized planning, using the MPS to predict the quantities of CAD/PAD needed each year to replace over-age and expended items. Initially, the Navy system was manual, requiring many hours of labor-intensive calculations. Usage was calculated on predicted average replacements

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without regard to the impact of aircraft maintenance and deployment schedules. The MPS also suffered from the lack of detail needed to predict precisely the effect of proposed budget cuts on operational aircraft.

As computer technology evolved, the Navy recognized the opportunity to apply technology to improve procurement and inventory planning. The result was automation of MPS and inclusion of several features that improved just-in-time procurement based on actual fleet needs, while making the budget highly defensible. The improved model scheduled change-out of each part in each aircraft based on individual service life and maintenance-scheduling criteria. With the automated MPS, program managers have a powerful tool to respond successfully to budget what-ifs. They have been able, for example, to predict accurately which CAD/PAD would go over age and consequently, which aircraft (by tail number) would be grounded if the budget were cut by a specific amount. The model also provided them with the ability to determine the impact of service life changes on operational aircraft and to document the fleet impact of late deliveries.

MPS works with a key supporting system known as Virtual Fleet Support (VFS) CADPAD (formerly TRACE), which was developed because Navy-wide logistics systems did not track the expiration dates and related aircraft installation schedules for these critical components. VFS CAD-PAD tracks each item installed in the fleet. It also works with a procurement tracking system that accounts for “due-ins” and a core data system that provides key technical and logistics information, such as service life and how many items are in each aircraft. Together, these systems have given the Navy the ability to know precisely how many CAD/PAD to buy each year.

Cost, Schedule, and Performance Benefits

The projection of requirements produced by MPS was significantly more accurate, basing need on real requirements, including aircraft maintenance data, rather than on perception. Smarter buying enabled an overall 30 percent reduction in inventory, which, in turn, meant reduced inspection and storage costs. It also made possible the elimination of waste in the form of items in local stockpiles that went over age on the shelf.

Having replaced a just-in-case acquisition system with just-in-time, it became necessary to adjust the sustainment end of the process to make it just-in-time as well. The result was a toll-free 800 system (later a Web-based feature of VFS) for filling orders from the fleet for replacement CAD/PAD. These systems achieved dramatic savings, reducing the time from order to delivery in the United States to about eight days from what had taken as much as four months previously (an accomplishment that was recognized by the Packard Award in 2001).

Performance in a sustainment program is measured largely by cost-efficiency. The alignment of acquisition and sustainment, inventory reductions, and precise procurements have all contributed to this measure.

The Air Force Gets Interested

Formation of the Joint Program led to interest among Air Force CAD/PAD managers in improving the Air Force requirements-determination process. Until that time, the Air Force had relied heavily on decentralized planning—forecasts of projected needs assembled by field organizations. These estimates suffered from some of the same limitations as the early MPS. The estimates were often inflated because of a concern with having enough to support the mission. The forecasting process was labor-intensive, with hundreds of using organizations, thousands of aircraft, and multiple items on each aircraft. The data developed were difficult to verify because reports included only the total number of items needed by each organization. In many cases, it was discovered that some requirements were duplicated; in others, the forecast from a unit could be missing entirely.

Adaptation Challenges

There were multiple challenges in adapting the basic concepts in the Navy’s MPS to Air Force use. Some were data- and programming-related; others were institutional. First, there was a need to obtain data on installed items (similar to the function performed by the Navy’s VFS CAD-PAD system). Air Force field organizations use a variety of different systems to gather and record maintenance data. Most of these feed the Reliability and Maintainability Information System (REMIS). In many cases, the data needed by RDM for projecting future sustainment requirements could be obtained from online data queries to REMIS; however, in other instances, that was not possible, and specific RDM workarounds had to be devised.

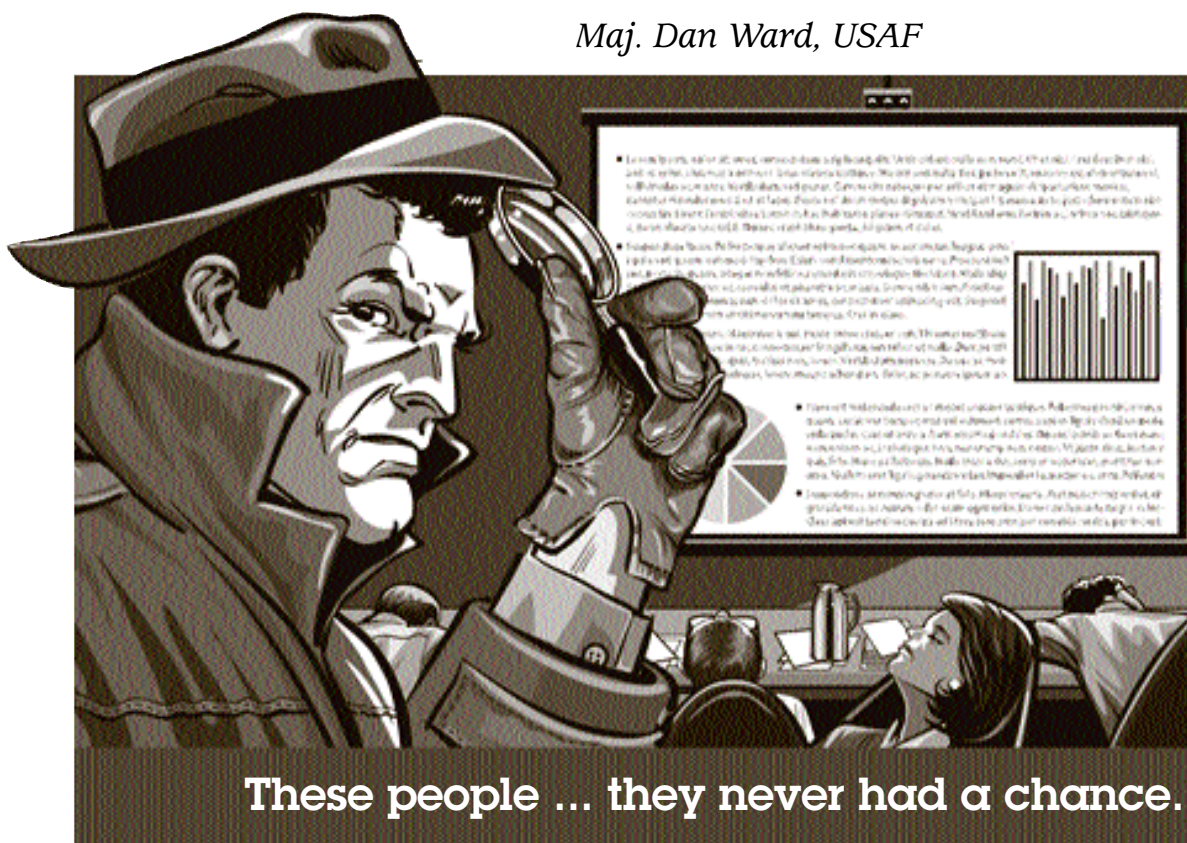
Initially, another issue was data accuracy. When data are rolled up to REMIS, they are edited, sometimes causing a record to be rejected. Duplicate and expired records were also a problem. Software routines written during the development of RDM have largely eliminated such problems.

Another problem was a lack of visibility into data generated by the Air Mobility Command (AMC), which employs a system for gathering and recording maintenance data that differs from that used by most other commands. As a result, the query method noted above did not provide data needed by RDM. Initially, workarounds were created in RDM to compute requirements based on service life of the items and total number of installed assets. More recently, an agreement was reached in which AMC is pro-

CAD/PAD Requirements continued on page 17.

Death by Bullets

Maj. Dan Ward, USAF



These people ... they never had a chance.

The crime scene was nothing new. When you've done what I've done for as long as I've done it, you see this stuff a lot. I'd seen it 294 times before, in more places than I care to count.

The room was full of bodies, some slumped over in chairs, some slumped forward on tables. Most of 'em looked asleep, if I used my imagination. I tried never to use my imagination.

The place was hot and small, like a cup of coffee from an overpriced bistro on the Rue Noir in Paris, and just as bitter. No amount of artificial sweetener could possibly help. I removed my obligatory fedora and stepped past one stiff. He looked like a hefty bag of vegetable soup someone had thrown out of a 13th story window, and missed. Days like this made me wish I'd listened to my mother and become a geologist. I would have had to deal with less dirt.

"Jeepers, sir! How many bullets do you ..."

"Shut up, kid. I'm thinking," I growled.

I wasn't really thinking. I just hate it when the new guy says things like "jeepers" or asks stupid questions. Who cares how many bullets? Ten, 20, it's all the same. It's too much, always too much, and there's no point to it all.

There's never a point.

"These people ... they never had a chance, kid. Of course, what did they expect, coming to a place like this?" I paused dramatically and imagined taking a long draw from a cigarette I didn't have. Then I remembered that cigarettes can kill ya, and decided it was time to start smoking.

"But still," I continued, "nobody deserves to be treated this way, even if 90 percent of the people in these chairs would have done the exact same thing if the situation had been reversed. But they don't know anything different, see. They don't know any other kind of life. They just get sucked in by the promises of power, of easy money—and then end up like this. Then again, they didn't have to go along with it, did they? It didn't have to go down like this."

I can always see both sides of a situation. It's my most charming quality.

The kid pointed to a wall at the front of the room, and squeaked like a little girl. I looked, then instantly regretted it, but it was too late, as usual. The image burned my retinas the way melted mozzarella on your first bite of a

Ward is a student at the Air Force Institute of Technology, studying systems engineering and moonlighting as a private detective.

hot pizza sticks to the roof of your mouth and spoils the whole evening. Yeah, just like that.

“Looks like he used a nine...”

“Shut up, kid.”

I hate it when the kid finishes a sentence, mostly because he always starts a new one right after.

“It coulda been a 22 and the result woulda been the same,” I snarled. “These animals use whatever they can get their hands on, and the result—well, you can see the result for yourself.” I turned away, and a wave of nausea swept over me. I’ve gotta stop slamming my knee against the corners of tables.

The forensics team was combing the scene, taking measurements and counting whatever it is they count. The lead forensics guy ambled over to me, looking like a fish on roller skates, minus the funny part.

“It’s just like the other ones, sir,” he told me. I wasn’t surprised.

“It’s a 9-point font, more than 27 bullets per chart, and every diagram is completely incomprehensible. We’ve counted 3,721 charts so far, but there are probably more somewhere around here. They must have been in here all day.”

“I found the agenda!” Patrolperson Sally Suite-Hart called from across the room. “There’s not a single break in it. Not a single one!” Her bottom lip trembled, like the lower lip of a beautiful woman who found something that made her sad.

I put my hat back on and headed for the door. Suddenly everything went black. I really should get a hat that fits. I pushed the hat back out of my eyes and left that conference room behind me. I didn’t look back. The last time I looked back, I ended up walking off a curb and twisting my ankle, so I don’t do that any more.

Besides, there was a little gin joint down the street, calling my name, and my feet knew how to take me there, even if my hat kept falling over my eyes. I knew I’d have plenty more chances to see senseless acts of PowerPoint violence again tomorrow. Tonight, I had a date with a little glass and a big bottle.

I’d seen enough bullets for one day.

The author welcomes comments and questions, and presentation murder cases to solve. He can be contacted at daniel.ward@us.af.mil.

CAD/PAD Requirements continued from page 15.

viding maintenance data directly to the JPO, enabling RDM to compute accurate forecasts.

Perhaps even more significant was a range of institutional challenges, such as the need to build the trust necessary to adopt a not-invented-here system. In general, the Air Force and Navy have many differences in their business practices. Fortunately, the JPO has operated successfully for several years, implementing a number of joint process improvements. This initiative was widely supported by Air Force managers as just another step forward along this continuum.

Another challenge arose because of the nature of CAD/PAD, which are both an aircraft spare and a munitions item. Accordingly, they tend to fall into a no-mans-land between these two worlds. As a result, the separate systems designed to manage aircraft spares and munitions do not handle CAD/PAD well. This is true of the legacy systems in both Services. Even a prospective Air Force system for managing aircraft spares will have many of the old shortcomings. For this reason, the cost-effective solution was deemed to be to adapt the Navy principles and concepts to Air Force use.

Results and Future Opportunities

RDM was used successfully to determine Air Force requirements starting in fiscal year 2006, after a test run in fiscal 2005 in which RDM was run in parallel with the legacy method. Despite a lingering need to require field forecasts for a few part numbers (primarily life-support and survival-equipment items), JPO estimates a reduction in field workload of about 80 percent. The accuracy of out-year budget requirements has been significantly improved. And most important, RDM has greatly increased confidence that the right items are at the right places at the right time to support the warfighter.

As the Air Force gains experience with RDM, it expects to further streamline its acquisition and sustainment processes. Administrative workload will be reduced because of the improvement in the accuracy of requirements, the alignment of Navy and Air Force buying cycles, and the consolidation of procurements for similar items. On the sustainment side, the Air Force will begin to use VFS as a tool for ordering replacement CAD/PAD for its T-6 aircraft, a first step that may lead to much wider use for other aircraft in the future.

The authors welcome comments and questions and can be contacted at david.d.williams2@navy.mil, anthtaylor@aol.com, and vern.blair@hill.af.mil.

Strategic Sourcing

Is it a Variant of Lean Six Sigma?

Lee E. Simon



As commonly practiced, both strategic sourcing and LSS are data-driven and focused on rapid, cost-effective continuous improvement.

Strategic sourcing (as defined in the May 25, 2005 memorandum issued by the Office of Management and Budget) is “the collaborative and structured process of critically analyzing an organization’s spending and using this information to make business decisions about acquiring commodities and services more effectively and efficiently.” Matching the voice of the customer and the voice of the market is a subtle but important part of strategic sourcing.

Lean Six Sigma

Lean Six Sigma (LSS) is an organized collection of techniques that focus on increasing speed (“Lean”) and improving quality (“Six Sigma”). Matching to the voice of the customer and the voice of the process is critically important in LSS.

As commonly practiced, both strategic sourcing and LSS are data-driven and focused on rapid, cost-effective continuous improvement. Strategic sourcing could easily be viewed as a special type of transactional LSS project.

Transactional LSS projects range between two extremes. The first extreme mimics manufacturing LSS, where simply improving efficiency brings improved effectiveness as a byproduct. A transactional example of this could be a pizza order call center where quickly walking the customer through a limited set of standard choices and accurately documenting the result are the hallmarks of efficiency. The efficiency metrics might be calls taken per staff-hour and errors per hundred calls.

The second extreme is distinctly different from manufacturing LSS and focuses on improving effectiveness (with efficiency as a secondary benefit of effectiveness). An example would be a suicide-prevention call center where keeping the client alive is the overarching effectiveness goal. The metrics might be dropped (missed) calls, percentage of clients talked out of suicide, and clients who were successfully referred to a clinician.

A key effectiveness concept in Strategic Sourcing is an end-to-end look at the acquisition process. With this, we look at reducing the “noise” that obscures the true voice of the customer from the supplier as well as the noise that makes it difficult for the customer to recognize what needlessly drives up supplier cost. Typically, efficiency-focused LSS project opportunities are often discovered as a Strategic Sourcing project team gathers information on and understanding of the requirement and the market.

The Strategic Sourcing project team is called a commodity team (CT) or sometimes a commodity council. Generically, Strategic Sourcing starts with an opportunity assessment that identifies a target for study. Strategic Sourcing is an improvement process during which the CT develops a profound understanding of the requirement and the market that supplies it. With this understanding (analysis) in hand, the CT develops an improvement strategy. The team then implements the strategy and manages (controls) resulting contract performance.

Some of the key concepts underlying Lean Six Sigma are:

- Lean
 - Focus is eliminating non-value-added (from customer perspective) waste in a process or service

Simon, a retired captain, Medical Service Corps, USNR, served as consequence management officer, I Marine Expeditionary Force, prior to joining the Marine Corps Business Enterprise Office of Headquarters Marine Corps, where he has been active in the startup of Lean Six Sigma and Strategic Sourcing.

- Result is reducing service cycle times, improving on-time delivery of products and services, and reducing cost
- Six Sigma
 - Term originally comes from statistics
 - Focus is reducing variation in a process
 - Result is achieving improvements in service, quality, and cost
- Theory of Constraints
 - Emphasizes throughput
 - Convoy is only as fast as the slowest ship.

Generically, a Lean Six Sigma improvement project follows the DMAIC process—Define, Measure, Analyze, Improve, Control.

Strategic Sourcing as a Lean Six Sigma Project

The opportunity assessment that is the first step of Strategic Sourcing includes a review of existing data called a spend analysis. This uses some traditional “analyze” phase DMAIC techniques to identify potential CTs.

Like other LSS teams, the CT essentially uses a Plan-Do-Check-Act cycle. Like other LSS projects, a CT project normally starts with a charter. Strategic Sourcing usually deals with a transactional process that does not mimic manufacturing. CT projects are based on common characteristic combinations of the requirement (product and/or service) and of the market that provides that product and/or service. Like a Black Belt LSS project that may be approached as a series of Green Belt projects addressing specific steps in the process, a Strategic Sourcing project may be approached by the CT as a series of smaller included slices. Strategic Sourcing slices tend to be horizontal (end-to-end but covering only a subset of the commodity) while LSS project slices tend to be vertical (necking down into a subprocess).

Like other LSS projects, the CT project looks for waste, but the emphasis in the CT waste search is on requirement-market (customer-supplier) mismatches. This focus is an outward look from the purchasing subprocess of the larger acquisition process rather than an inward look at purchasing or some other subprocess. Traditional LSS looks at waste in the “white space” between steps in a

process, or waste within steps of the process. The Strategic Sourcing approach has more emphasis on the high-level Lean portion of LSS. The key Strategic Sourcing emphasis is to avoid inadvertently asking the supplier to provide the real customer with waste. An example might be asking the supplier to paint the yellow rescue kit green only to find that the rescue team repaints the green rescue kit back to standard rescue yellow.

The DMAIC Model

LSS uses the DMAIC model, which is discussed below and related to Strategic Sourcing steps.

Define

The typical LSS tollgate for the Define phase is a charter with objective, scope, team, goals, tollgates, and schedule.

In traditional LSS, the purpose of the Define phase is to select an appropriate project and then clearly define the problem in terms of “voice of the customer” or CTQs (Critical To Quality; e.g., a translation of customer needs into quantifiable requirements for the product/service). Traditional substeps of Define are (1) qualifying the project and defining its boundaries; (2) determining the project approach; (3) defining expected outcomes; (4) identifying stakeholders; (5) selecting the team; (6) kicking off the project; and (7) creating the project plan.

In Strategic Sourcing, the opportunity assessment identifies potential projects based on an initial spend analysis and on organizational priorities. It assures that there is an ongoing demand for the commodity to be addressed, and assures that there are sufficient potential savings in order to justify the effort (usually potential cost-avoidance, but sometimes the saving is simply better fulfillment of customer requirements). Strategic Sourcing and traditional LSS projects emphasize, from inception, the need for a good return on investment.

The outputs and deliverables of the opportunity assessment are a prioritized list of potential commodities to be strategically sourced (i.e., a list of opportunities) and a draft charter for the next project to be addressed by a CT.

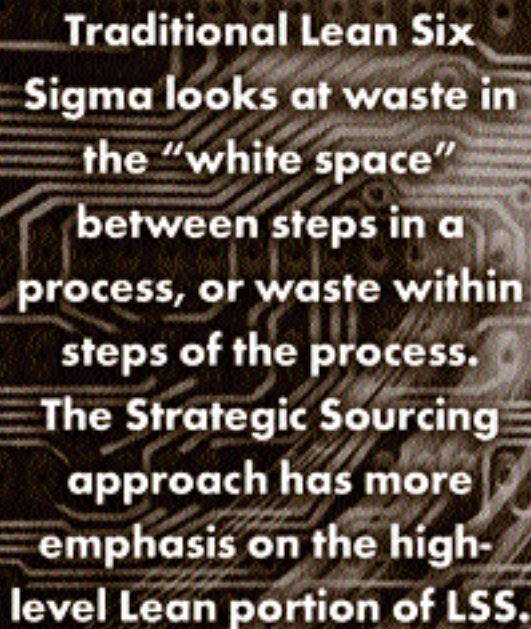
Strategic Sourcing as a Variant of Lean Six Sigma

Characteristic	Lean Six Sigma	Strategic Sourcing
Data Driven	Yes	Yes
Voice of customer	What customer wants	Customer requirements with transparency on cost drivers
Waste elimination focus	Internal process	Redundant transactions and externalized costs
One time only?	No—continuous	No—cyclic and continuous

Measure

The typical LSS tollgate for the Measure phase includes data and information summary, and current-state value stream.

The LSS team maps the current process and documents customer requirements. The existing process is documented at a relatively high level. Data are collected and the LSS team verifies that the process is stable or in statistical control.



Traditional Lean Six Sigma looks at waste in the “white space” between steps in a process, or waste within steps of the process. The Strategic Sourcing approach has more emphasis on the high-level Lean portion of LSS.

The Measure phase is typically addressed in two steps of a Strategic Sourcing project. The first is the “profile commodity” step, where a thorough analysis of the existing and future requirements, as well as what drives those requirements, is undertaken. Profile commodity is sometimes called requirements analysis. The second is the “profile market” step, where a thorough analysis is undertaken of how the market sees itself and what drives supplier cost. Ideally, this step yields market data including cost, profit, cost drivers, industry forecasts, and other information.

As noted, the CT develops a profound understanding of the requirement (voice of customer) and the market that supplies it. Data are collected on the current requirement and the projected requirement as currently understood. Exploratory data are collected on what drives the customer to have the requirement. Data are concurrently collected on the market that supplies the current requirement and what drives costs within that market. Ideally, the CT recognizes—to make a basic analogy—when their eggs are expensive simply because they are buying them in cartons of 10 rather than cartons of 12 like the rest of the market. If the data show that the customer doesn’t really care about the carton size, then no one would really want to pay for unneeded custom cartons.

In Strategic Sourcing, measurement is focused on developing a deep understanding of the real-world market. Un-

like a process that must be “stable” in order to be ready for LSS improvement, the market is not necessarily stable (i.e., in statistical control). Therefore, unlike traditional LSS, the CT should place little emphasis on confirming process stability during the Measure phase. Instead, they should emphasize the identification of ongoing cost drivers in the market. However, there is an environmental scan for special-cause cost drivers—perhaps the possibility of avian influenza (bird flu) killing chickens and temporarily distorting egg prices.

The outputs and deliverables of this measure phase (the profile commodity and the market analysis steps) for a strategic sourcing project are a commodity profile (data and briefing) and a market profile (data and briefing).

Analyze

The typical LSS tollgate milestones for the Analyze phase are identification of non-value-added efforts, bottlenecks, and wastes, along with their root causes.

The Analyze phase of traditional LSS concentrates on Six Sigma to reduce variation and reduce defects. LSS also concentrates on identifying the eight forms of waste (overproduction; waiting; transport; extra processing; excess inventory; motion; defects; and underutilization) in order to become Lean.

The Analyze phase for Strategic Sourcing concentrates on identifying mismatches among voice-of-customer requirements as stated in the contract, and cost drivers in the market. Within the acquisition process, customers may be modifying their true requirement in order to accommodate perceived constraints imposed by purchasing or imposed by what is seen as a good value in the existing market. Hopefully, the outputs from the Measure phase identify these mismatches which can be the root cause of waste.

The Analyze phase looks at the transaction costs within the purchasing process. This involves reducing costs that fragmented transactions impose on the government and/or the supplier (which, in turn, are reflected in the price that the government ultimately pays).

The Analyze phase also looks at the drivers of the total cost of ownership. A low initial price with a high operating cost or a high disposal cost could make that initial low price offering a bad choice when total cost of ownership is considered.


And finally, the Analyze phase looks at legal requirements and socio-economic goals when developing a suite of

Strategic Sourcing Requirements continued on page 23.

So You're a Program Manager

Now What?

Alexander R. Slate



A PM needs to know enough about the processes used by all the different functional specialists to be able to question all the assumptions and plans.

To date, my articles have mostly dealt with aspects of program management that many would consider to be a part of the contracting function. This article, however, is addressed to program managers, particularly young PMs or those considering a career in the field. Program manager and project manager are synonymous in terms of this article.

Why Do We Have Program Managers?

The role of the various specialties or functionalities is fairly obvious. Engineers are responsible for systems design and the performance that results. Contracting is responsible for the official interaction with the companies that provide systems and services to the government. And so on. But what about the role (or roles) of the program manager? The nominal answer is that the PM is responsible for a program's execution of cost, schedule, and performance.

That sounds as if the PM is someone plonked on top of a program execution organization to oversee the program. If that's all, couldn't one of the specialists double-hat in that role and avoid the expense of a PM? Well if it were that simple, I would say yes. In fact, I have seen projects led by one of the functional specialists, most typically the systems engineer. For certain situations that may indeed be quite satisfactory (typically when a project is relatively small and simple). Most projects, however, are not simple.

Three Basic Roles

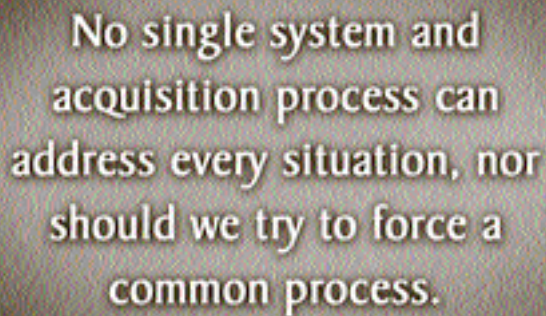
As I see it, a PM has three basic roles. The first one, while important, is conceptually simpler than the others because it is a definitive role; it's the one likely to be described in a program management handbook. The others are more subtle roles, but are, in my mind, equally important as, or even more important than, the first. This is so because they are the basis for the success or failure of the first role.

First, and likely most obviously, the PM keeps track of progress and expenditures and ensures that the leadership and the customer are kept informed of progress and problems. It is the PM's responsibility to keep the program on course by meeting the standards established in the Acquisition Program Baseline. Now we move on to the roles that I feel provide the backbone of the program management function.

The PM is responsible for supplying the environment that allows the functional specialists to do their job (which includes providing the necessary tools). That means many things. The PM determines the level of formality—or informality—of team meetings. Does the team use set or informal agendas? Do communications flow from one specialist through the PM to other specialists, or do the specialists communicate directly with each other? Irrespective of the answers to these questions, the PM needs to ensure a proper audit trail.

Controlling group dynamics is the key to controlling the environment. Members of a team do not necessarily all have to like each other (though it may be helpful), but

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No single system and
acquisition process can
address every situation, nor
should we try to force a
common process.

they do have to work towards a common end. How the communication flows is a tool to controlling group dynamics. Judging when and how much interpersonal tension to allow is an interesting balancing act. Some tension is necessary; it sparks creative thinking. Yet tension cannot be allowed to escalate to antipathy. One of the toughest things a PM ever has to do is to fire someone (or more properly, within the context of DoD programs, have someone reassigned and get a replacement).

This role is the essence of what program management really is: understanding the delicate balancing act of what is truly an art and not a science.

Between the first and second drafts of this article I was reminded by a friend and colleague, Patricia Tiner, of an interesting point. Controlling the group dynamics is made even more challenging when the PM is not the supervisor of the team members—or at least, of not all the team members. The best tools in this type of situation are good collegial relationships with the supervisors of the team members and an understanding on the part of those supervisors of what a PM needs to accomplish.

The other role that the PM plays is that of devil's advocate. A PM needs to know enough about the processes used by all the different functional specialists to be able to question all the assumptions and plans. It is the ability to embrace this role that helps to differentiate good PMs from outstanding PMs. In order to understand why this is a fundamental role for a PM, it is necessary to understand one of the biggest pitfalls that programs face.

Our Biggest Trap

All too often, teams fall into a process or checklist mentality. We try to cookie-cutter our way through programs. What worked on the last program will work for this program as well. There is nothing inherently wrong with processes and checklists. They are a good way to ensure that certain necessary requirements (such as compliance with laws such as the Clinger-Cohen Act) are met. But while process and checklists make great guides, they make

lousy masters. Organizations (and the Department of Defense is no exception) fall in love with systems and attempt to address all situations with a single system.

I've worked for the government for about 25 years, 10 of them as an 1101 acquisitions manager. The great bulk of the projects and programs I've been involved with have been Acquisition Category (ACAT) III. The side-effect of this is that I've been involved with an awful lot of different efforts, many of them from concept through fielding. Almost every one of these efforts has been different in some way from every other. Some of the differences have been small and some have been huge. I've been involved in at least five different types of source selections. The point is that no single system and acquisition process can address every situation, nor should we try to force a common process. Many of our policies and regulations address this, but many others choose to ignore it. Even the Federal Acquisition Regulation (which most people take to be a very inflexible document) states in Section 1.102 (Role of the Acquisition Team) "The FAR outlines procurement policies and procedures that are used by members of the Acquisition Team. If a policy or procedure, or a particular strategy or practice, is in the best interest of the Government and is not specifically addressed in the FAR, nor prohibited by law (statute or case law), executive order or other regulation, government members of the Team should not assume it is prohibited. Rather, absence of direction should be interpreted as permitting the team to innovate and use sound business judgment that is otherwise consistent with law and within the limits of their authority."

Avoiding the Trap

Avoiding the trap calls for creative thinking. Almost every time we attempt to determine a program strategy, we should address all elements of the strategy with the following questions: Why are we doing that? What are the risks, and what are the benefits? What are the alternatives, and what are the pros and cons of doing business that way? What are the assumptions we've made that are leading us to the course of actions, and how sure are we of them? And then we must document, document, document; including all of these analyses of alternatives.

Too often, I've seen teams go into acquisition strategy panels or murder boards and present a strategy. Then one of the gray-heads will ask, "Have you considered such and so?" The team members look around at each other (either not having considered the suggested alternative or not remembering having considered it); someone gets defensive, which quite often puts everyone's noses out of joint, and the team is frequently directed to go away and consider the alternative.

If instead, the team can say, "Yes we have, and here's why we chose not to go that way," or "We have, and

though we can't remember the problems off the top of our heads, we can send you our reasons for rejecting it in a day or two," the team usually ends up gaining acceptance for the plan. If someone can point out a flaw in your logic (including the basic assumptions) rather than your specific plans, then you had better go back and reconsider your plan.

Understanding Your Functional Specialists

There's another benefit to understanding what your functional specialists do. Many teams are staffed one-deep in the specialties. If one person gets sick, goes on vacation, or—even worse—gets reassigned before the replacement shows up, progress can come to a grinding halt. If you can at least take care of some of the missing person's responsibilities, then progress can continue forward, even if not at full speed. (In fact this additional benefit of cross-coverage is a good idea not just for PMs, but for all acquisition workers.)

The obvious question is "How do I prepare for that?" The simple answer is training and education in all of its forms. Take classes in the various specialties, not just those required for DAWIA certification in program management. Look at the training required for the various functionals and start taking those classes. It won't be easy to get into a lot of those classes, but keep pressing the point. Organizations also need to realize the benefit to this and be willing to expend budget on cross-training.

Don't forget informal education. Sit down with different functionals and find out what they do, how they do it, and why. And if you're reading this article, then you are already familiar with *Defense AT&L* magazine. Keep reading articles, even those that might not appear to hold interest at first. You never know where the next great nugget of information is going to come from.

Looking Beyond Program Management

Some day you'll probably move on. This may or may not be when the particular program or programs you are working on are complete, or even at a logical transition point. One last functional PM might consider is training someone on the team to take over when that time comes. Sharing information and building up good team relationships will make for a smooth transition. If you can find one or more people, then develop and mentor them so that the program will carry on as well as (or maybe even better than) when you were in charge. Do that and you've not only distinguished yourself as a program manager, you have made yourself a leader!

strategies from which the improvement strategy will be selected.

The outputs and deliverables of this phase are a proposed strategy tailored to the specific commodity, a simple business case, estimated savings, and a decision brief.

Improve

The typical LSS tollgate milestones for the Improve phase are countermeasures to address root causes of waste and a future-state process map with performance targets.

The Improve phase of a Strategic Sourcing process converts an acquisition strategy into agreements; contracts; and tangible, streamlined procedures. Typical procedures use best practices to increase transparency between suppliers and end users, increase competition and/or partnering, and reduce transactions costs.

The outputs and deliverables of the Improve phase are new or revised contracts, data-capture improvements, forecast-sharing improvements, and updated procedures.

Control

The typical LSS tollgate milestones for the Control phase are planning for sustainable improvement, standardizing work for the improvement, establishing key process output measures and a measurement plan, and recording the results of any pilot studies.

The Strategic Sourcing Control phase is usually referred to as "managing performance" and includes monitoring best practices that were implemented to see if they are performing as expected. Continued communication and partnering with suppliers and customers insure that transparency is actually facilitating the avoidance of inadvertently driven-up costs. Spend analysis is used to monitor competition (in order to assure that prices do not creep up) and adverse impacts on transaction volume with its associated cost.

Improves Effectiveness

Traditional Lean Six Sigma is patterned on manufacturing where improved efficiency typically brings improved effectiveness as a by-product. The Strategic Sourcing variant of Lean Six Sigma shares characteristics with some other transactional processes. Strategic Sourcing improves effectiveness and, as is seen in many other transactional processes, generates efficiency as a by-product of effectiveness.

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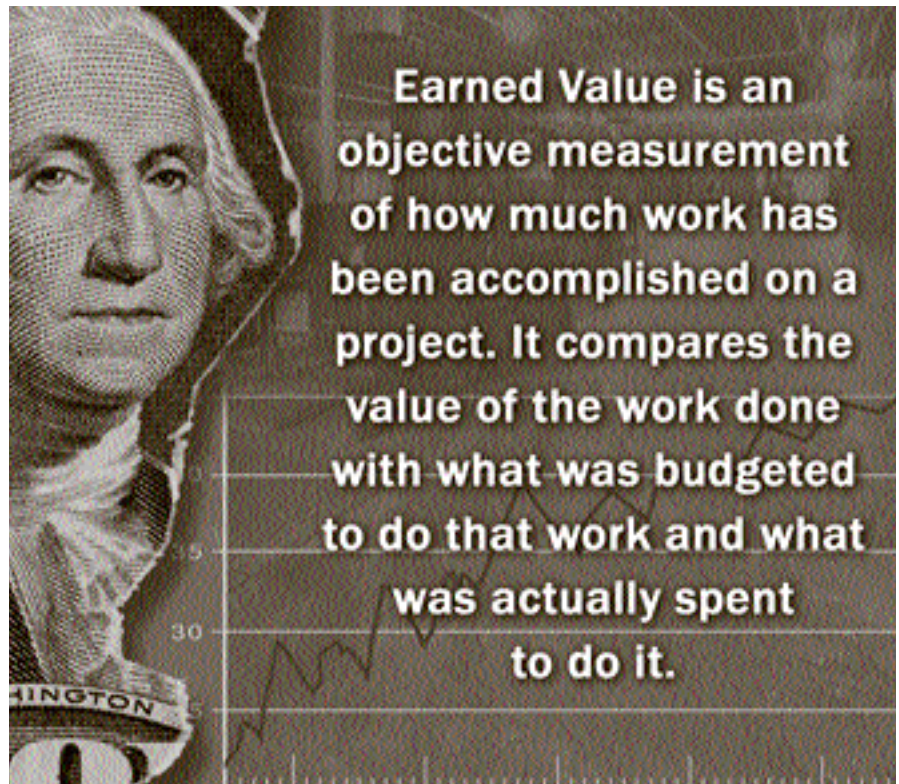
The author welcomes comments and questions and can be contacted at lee.e.simon.ctr@usmc.mil.

EVMS for Dummies

Wayne Turk

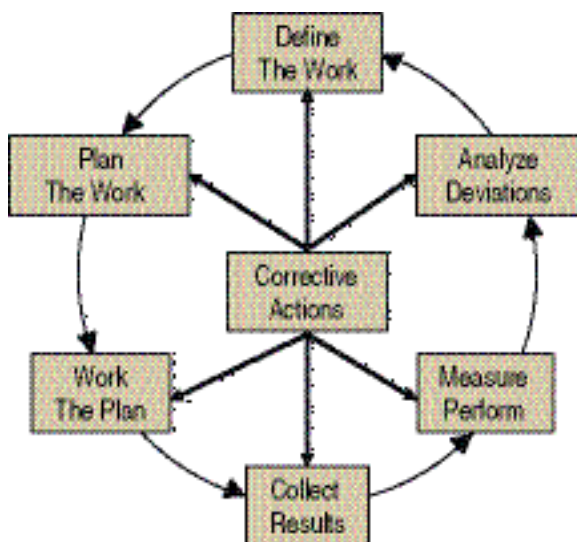
Many writers stress the importance of Earned Value (EV) to program managers to help them know where they stand. This article will provide a high-level look at Earned Value, since many books and articles get into the minutiae. Like so many of my articles for *Defense AT&L*, this is intended simply to give you a taste and whet your appetite. Then you can look into the details if you are interested. (I certainly don't think my readers are dummies, by the way, in spite of the title!)

Earned Value can be a powerful tool and can be a great help to the PM. So what *is* Earned Value? It is an objective measurement of how much work has been accomplished on a project. It compares the value of the work done with what was budgeted to do that work and what was actually spent to do it. It shows you where you're going rather than where you've been. Course corrections are easier to make when you have time to make small



adjustments. It's too late to turn the ship when you're close to the iceberg—and it's the same with projects.

FIGURE 1. Basic Project Management and EVMS Process



To measure progress on a project, there must be a standard against which to compare the forward movement. The Earned Value Management System (EVMS) establishes that baseline to measure progress. It lets you know where the project is in regard to cost, schedule, and work accomplished—knowledge that is critical to the PM and to the success of the project. Companies doing business with the government should note that the government is requiring it more and more often. And even when it is *not* required, EV is worthwhile.

One way to look at the process is depicted in Figure 1.

Every project should have a performance measurement baseline that looks at the budget spread over time to accomplish the scope of work, against which progress can be measured. EV is a key concept here. How much progress did the project make against the original plan? The result can be expressed in dollars or time. Figure 2

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gives a sample representation of a project using EV. It's a project that has a problem somewhere.

Here's a simple way to determine where your project is using EV, and it works for cost, schedule, and even technical progress. Subtract the planned from the actual to get the variance. A positive result means that the project is ahead of schedule or under budget (depending on which is being measured at the time). A negative result means that the project is behind schedule or over budget. You can do it the opposite way (subtract actual from planned), but that, of course, reverses the meaning—negative is good. An example follows to clear up any confusion.

The Wrong Side of the Tracks

Here is a sample problem that highlights what has been said. The project is to lay four miles of railroad track. The schedule says it will be done in four months and the cost will be \$4 million. If, after two months, only \$2 million has been spent, how is the project doing? There is no way to tell. You need one more piece of data—how much work is complete. We'll say that one mile of track is complete. Here's how you calculate.

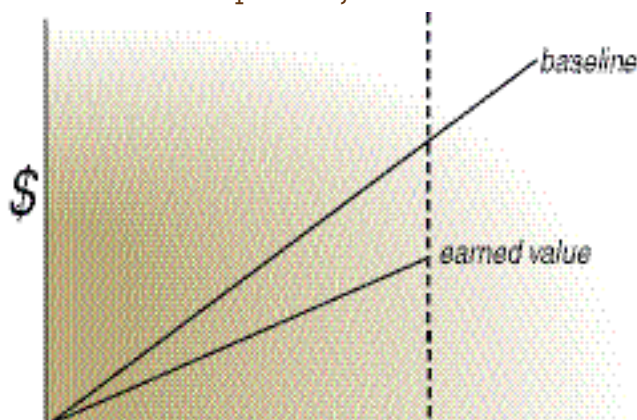
- *With the givens of the project (4 miles, 4 months and \$4 million), the EV is 1 mile of track = \$1 million.*
- *Planned work remaining: \$3 million (3 miles of track)*
- *Schedule variance: \$1 million (1 mile of track complete) minus \$3 million (work remaining) = \$2 million (variance)*
- *The project is 66 % behind schedule.*

- *Cost of the work remaining = \$2 million*
- *Cost variance: \$1 million (work completed) minus \$2 million (money spent so far) = \$1 million (variance)*
- *100 % overrun*
- *Your estimate at completion: \$8 million and 4 months late.*

In other words, this project is in deep trouble. Like too many projects, it is over budget and behind schedule.

Think Small: Work Packages

FIGURE 2. Sample Project Status



For EV, you need to break the project down into smaller work packages. If you try to measure the whole project at once, it can be very hard to calculate, or the results can be misleading.

For EV, you need to break the project down into smaller work packages. If you try to measure the whole project at once, it can be very hard to calculate, or the results can be misleading. By using small work packages, it is much easier to calculate, and you can catch problems earlier, giving you more time to react.

A work package is a small, well-defined, and measurable task. In this case, the smaller the work package, the better (within the limits of common sense, of course). A good guide is to use a single work breakdown structure element. The task must be clearly defined and of short duration. And finally, it must have a defined output that is measurable in some way.

There are four ways to measure progress on work packages. Three are commonly used and one is used only rarely. The three common measures are percentage, milestones, and level of effort. The fourth is apportioned effort, but since it is so rarely used, I will not discuss it here.

The **percentage method** can employ either a fixed percentage or variable percentage (which is not as complicated as it sounds). If it is fixed, there's a given percentage used when a task is started; certain fixed percentages when minor points or milestones are reached; and 100 percent when the task is complete. Some projects do not include the minor milestones, and then it is X percent when the task is started (and that can be zero) and 100 percent when completed. This simplifies calculations but may not necessarily give a true picture. For the variable percentages method, various percentages are assigned for each minor milestone or deliverable. For example, if the work package is the purchase and installation of a piece of equipment, it might be 20 percent when the newly purchased equipment is delivered onsite; 80 percent when installed; and 100 percent when testing is complete and the equipment is operational.

The **milestone method** is similar to the fixed percentage method. It is used with larger tasks or work packages. A

EVMS continued on page 29.

An Assessment of the Systems Engineering Continuum

Lt. Col. John M. Colombi, USAF ■ David R. Jacques ■ Mark K. Wilson ■ John M. Griffin

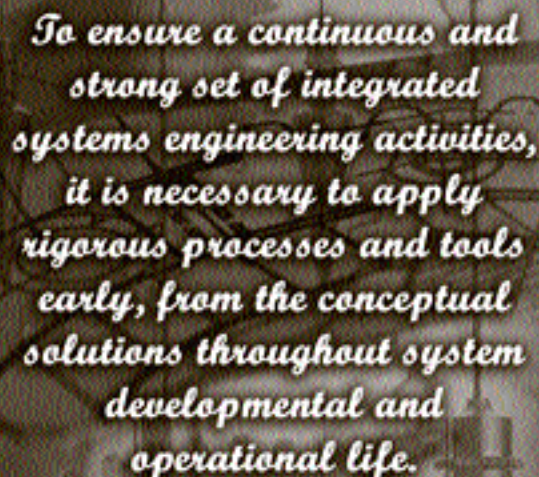
The Department of Defense continues to place great significance on systems engineering activities, believing these activities are critical to the success of acquisition programs. However, this greater significance must be well-placed throughout the life cycle. Prior to program initiation at Milestone B, appropriate levels of engineering activities must be performed and managed. One such activity, concept strategy formulation, can be accomplished and managed only by a “capability planning” organization with appropriate staffing and cross-domain expertise.

Disconnects at the Seams

Recently, a series of historical systems engineering case studies have been produced by the Air Force Center for Systems Engineering at the Air Force Institute of Technology, Wright-Patterson AFB, Ohio. They were written on a number of programs including the Hubble Space Telescope, Theater Battle Management Core Systems, the C-5 Galaxy, the F-111, the B-2 Spirit, and the Joint Air-to-Surface Standoff Missile. Others studies under way are the A-10 Thunderbolt II, the Global Positioning System, and Peacekeeper Missile Systems <www.afit.edu/cse>. Many important learning principles can be drawn from the studies; one that transcends this body of work is that systems engineering and analysis exist as a continuum across the life cycle. Mission and systems analyses start well before a Milestone B program initiation and must be part of the entire systems engineering continuum. To ensure a continuous and strong set of integrated systems engineering activities, it is necessary to apply rigorous processes and tools early, from the conceptual solutions throughout system developmental and operational life. The cases point out how this thread can break at many points for many different reasons, and show that there are no shortcuts. In particular, the case studies often highlight disconnects at the seams in the continuum, as roles and responsibilities transition between requirements (user), acquisition (product center), and developer (contractor) communities.

Another conclusion drawn from the case studies is that the needs of the program vary and, therefore, different

tools, organizations, and skills are required. It will be necessary to continually develop the needed skills and expertise and to educate, train, and retain the people associated with implementing the systems engineering and analysis processes.



To ensure a continuous and strong set of integrated systems engineering activities, it is necessary to apply rigorous processes and tools early, from the conceptual solutions throughout system developmental and operational life.

Office of the Secretary of Defense and Air Force goals should ensure that early capability planning and analysis are as comprehensive as possible to guarantee that cost-effective solutions are being pursued; early cost estimates for the concepts and systems are reasonably accurate; technical and projected programmatic risks are identified; schedules for concept implementation are realizable; and the concepts will actually deliver the right operational capabilities.

The systems engineering and analysis processes have generally been proved to be effective to meet these goals in the post-Milestone B life cycle phases—during systems design and development, during production and deployment, and during operations and support to sustain and modernize systems. However, the systems engineering processes and tools should also be used during the preconcept and concept refinement phases prior to program initiation.

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Pre-Milestone B Systems Engineering Activities

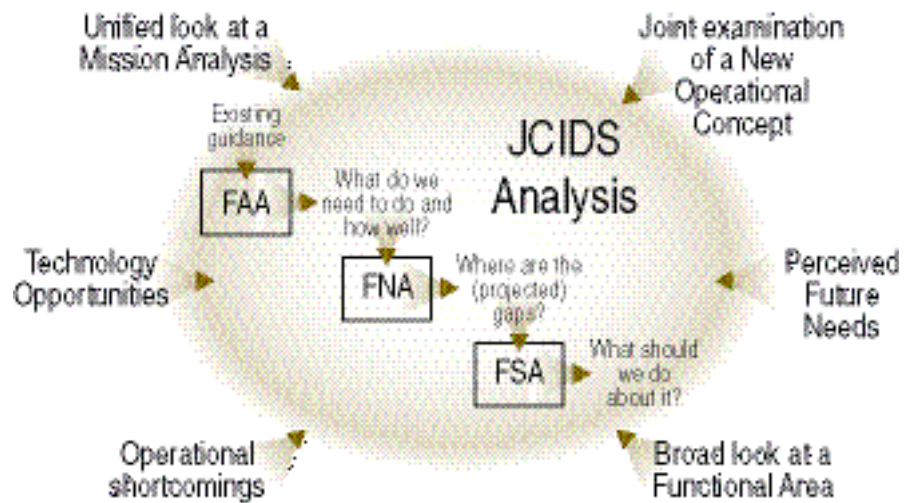
The current DoD Acquisition Management System, described in DoDI 5000.2, is fed by early operational utility analysis, called out in the Joint Capabilities Integration and Development Systems (JCIDS), CJCSI/M 3170. There are numerous events that trigger the start of the JCIDS process. Examples, shown in Figure 1, are a unified look at a mission analysis, a joint examination of a new operational concept, operational shortcomings, technology opportunities, and a broad look at a functional area. The SE-relevant activities prior to concept decision are the Functional Area Analysis (FAA), Functional Needs Analysis (FNA), and Functional Solutions Analysis (FSA). These analyses are documented in the Joint Capability Document (JCD) and Initial Capability Document (ICD).

The pre-Milestone A activities to address these triggers are as follows:

- Understand problems in joint terms and in terms of attributes and measures of effectiveness.
- Identify and prioritize capability gaps using a joint perspective. Establish basis for concept strategy.
- Identify candidate solutions (not candidate systems) using a joint perspective looking across doctrine, organization, training, materiel, leadership and education, and personnel and facilities (DOTMLPF).
- Evaluate candidates against attributes, measures of effectiveness, and early cost estimates.
- Perform trade analysis on top candidate concepts. Identify candidate measures of performance and key performance parameters, and conduct formal cost/risk assessments.
- Decide on concept(s) and develop a concept strategy. Select preferred system(s).
- For each system, establish user key performance parameters (including determining operational requirements) and define the acquisition strategy (including defining system requirements and performing risk reduction and mitigation).
- Manage the set of possible concepts throughout their life cycles.

These activities are supported by a vast systems engineering toolset including requirements analysis, and model-driven design and development and its formal inclusion in enterprise- and system-level architecture. Also applicable are numerous decision-analysis methodologies incorporating risk inclination, operational scenario modeling and simulation, utility theory, and parametric and analogy-based cost estimation techniques. Lastly,

FIGURE 1. Six Triggers Initiate Early JCIDS Analysis



early optimization within competing concepts may be employed. But who will accomplish these pre-Milestones A and B activities?

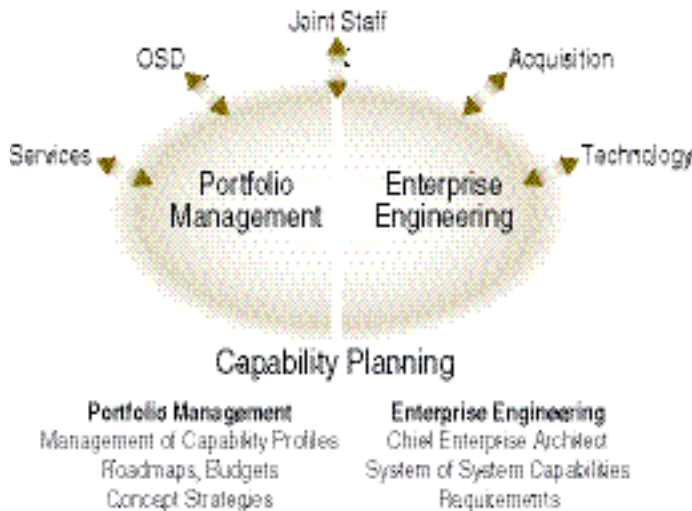
A broad variety of different organizations is currently responsible for conducting, supporting, and documenting the analyses for each pre-Milestone B activity. This list, which changes throughout the eight previously listed activities, includes organizations such as the Joint Staff; functional capability boards; combatant commanders and their staffs; “user/sponsor” requirements and planning sub-organizations; the acquisition community (product centers and logistics centers); Service acquisition staff offices; laboratories; analysis organizations (Organization for Aerospace Studies); the U.S. Joint Forces Command’s director for joint capability development (J8); the under secretary of defense for acquisition, technology and logistics; Office of the Secretary of Defense director of program analysis and evaluation; and even industry.

Concept Strategy

Examination of this end-to-end systems engineering thread uncovered issues regarding the activities leading up to, and surrounding, the concept decision. For example, the ability to achieve improved precision strike capabilities could be accomplished by current manned aircraft with new munitions, new aircraft with either existing or new weapons, new targeting sensors, ballistic missiles, or modifications to artillery. How one makes this early conceptual decision and how one tracks and manages progress of these decisions is critically important.

Most systems engineers are taught that these early decisions have huge ramifications on cost and schedule. Smart decisions can directly determine the majority of life-cycle costs, so the importance of this decision point cannot be overemphasized. The majority of the trade space is given up once the concept decision has been made. Currently, the concept decision is not a major milestone; it precedes

FIGURE 2. Missing Structure to Manage Capabilities Across the Life Cycle

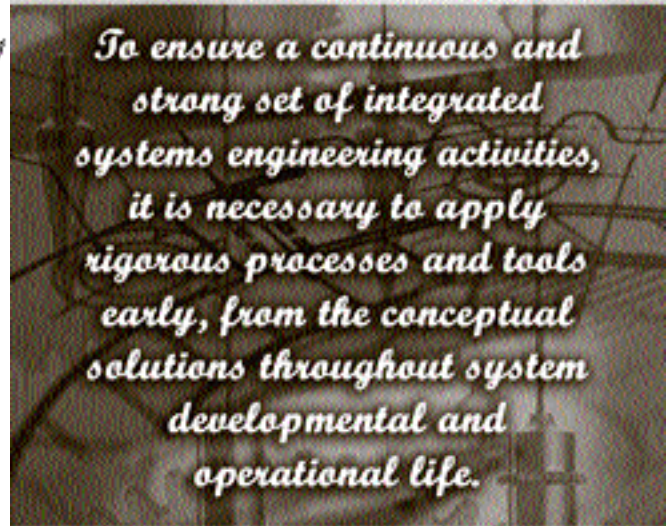


concept refinement and analysis of alternatives, which then lead to a Milestone A decision. Often, the concept decision is made with relatively little analysis of the full solution space and even less cost analysis of candidate concepts and systems.

Applying improved systems engineering and analysis to pre-Milestone A activities needs to be a managed process (across the life cycle) in concert with a concept strategy. This idea is consistent with a recent Government Accountability Office best practice for portfolio management (GAO-07-388). Necessary concept strategies would initially precede and then continue to parallel acquisition strategies. A concept strategy would start during pre-Milestone A, carry into technology development, and be updated throughout the entire life cycle. This would also be a time of risk reduction with technology forecasting inputs and analysis of multiple concepts and solutions.

What could be included in a concept strategy? Extending our previous example of precision strike, let's suppose a decision is made to pursue both new stealthy unmanned aircraft in addition to modified artillery systems. This strategy would reference maturing technologies from the Service laboratories, and it would drive system acquisition. It might address integration of various systems that make up the concept. For example, perhaps some Web services or a networked information system are also required to more effectively push information targeting to both the new unmanned air vehicle and modified artillery. This system might be either a new system unto itself or a modification of existing systems. The strategy should begin to document how requirements flow down from this system of systems into the respective systems. It might also capture the interfaces, information flows, organizations, and operational activities in enterprise or broad mission-area architecture. By managing this early operational analysis, combinations of solutions with high risk/high

payoff and/or low risk/lower payoff can be brought forward. Concepts have different technical and programmatic risks and may include both materiel and non-materiel (DOTMLPF) aspects. In our example of precision strike, perhaps various acquisitions regard-



ing the unmanned air system, the artillery, and the network service are part of the mid-term or long-term solution. Perhaps there are immediate non-materiel, short-term solutions. All of these characteristics become the elements of a concept strategy. But who will manage this strategy of integrated capability improvements?

Implementing the idea of concept strategies creates a new approach that is a structured activity for government and industry. It will require collaboration and mutual understanding, resulting in some changes to the overall process. These include moving the concept decision to the Milestone A timeframe so that all the necessary work is completed to define the concepts and refine the concept strategies. The concepts to be pursued are still decided at Milestone A. We suggest an additional part of the solution lies in expanding the role of capability planning and creating an approach and organization to manage the concept strategies.

The Capability Planning Organization

Development planning (today often called "capability planning" or "capability-based assessment") existed in robust forms in the past when the DoD was primarily system- and platform-centric. The development planning mission in the past would seem narrowly defined today and is certainly not adequate for solutions that demand system-of-systems concepts. Further, organizations performing this function were usually adequately funded.

Today, the capability planning function is still vital, but none of those former organizations exists. The analyses must span multiple domains and Services. Operational users have the responsibilities in today's process but nei-

ther the time nor the requisite skills. There are some efforts under way to reconstitute some of these capability planning groups within the Air Force. But those that have been reconstituted have no clear role in the process, are excessively domain-specific, and are at too low an organizational level. Lastly, these efforts are struggling to find adequate and consistent funding for their activities. This missing organizational role needs to include the management of concept strategies, in addition to a broad architecting and engineering responsibility, as depicted in Figure 2 on the previous page.

Concept strategies must be managed; this makes it important to discuss who would be the program manager and chief engineer equivalents at the concept level. In many ways, the role of managing the integration across several systems and conceptual solutions is that of a portfolio manager. The concept strategy often dictates a system-of-systems perspective. So the chief enterprise architect (or capability architect) who supports the portfolio manager will need to engineer in this system-of-systems context. The chief architect's main products will be enterprise-level or mission-level architectures, program and capability roadmaps, levels of performance, and coordinated user requirements/capabilities documents.

A top-tier organization should be created at the DoD level, reporting directly to the Joint Staff at the senior level. Note that this places the concept strategy, managed by a portfolio manager and supported by a chief enterprise architect, as reporting within the user as opposed to the acquisition community. Creation of sub-tier organizations should follow at the Service and product center levels, also reporting to their senior staffs. This construct will not work effectively without the creation and maintenance of stable sources of funding for the organizations.

The concept formulation and decision process needs a strategy and a robust management organization to support it. We recommend that capability planning organizations be created, funded, and empowered to manage the enduring joint warfighting capabilities. These capabilities would then be realized through numerous creations, modifications, and disposals of component weapon systems. Adoption of these recommendations by the DoD and the Services would enable the delivery of effective capabilities that come from a sound application of systems engineering and robust analysis.

The authors welcome comments and questions. Contact them at john.colombi@afit.edu, david.jacques@afit.edu, markkwilson@earthlink.net, and griffinj@ameritech.net.

EVMS continued from page 25.

fixed percentage is assigned to each major milestone. When that milestone is achieved, the task is considered that percentage complete.

The **level-of-effort method** is generally used for service-type tasks. In this methodology, the percentages are spread uniformly across the time required for the task. On a one-year contract, after one quarter, it would be 25 percent complete, two quarters, 50 percent complete, and so on. As you can see, EV is extremely simple and so not necessarily useful for service-type tasks. It doesn't tell you anything except how much of the contract time has passed—and you already know that from the calendar.

How EVMS Goes Wrong

Like any tool, EV is not perfect—but it is one of the best around. The problems come when people or projects make one or more of the following mistakes:

- Tasks are made too large.
- Tasks are ill-defined.
- There is too much level of effort rather than defined products.
- There are too many changes.
- EVMS is made too complicated.
- Managers either don't believe or ignore the results.

Look Forward Rather Than Backwards

"The really nice thing about not planning is that failure comes as a complete surprise and is not preceded by long periods of worry and depression!" according to that well-known subject matter expert, Anonymous.

EV shows where the project *really* is at any given point and whether the PM can be relatively assured that the project is (or isn't) on track. It is a good way to measure performance on a project and is a tool that should be used. The alternative is simply to estimate how much has been done, and that is not very accurate. The really good thing about EV is that it is forward-looking rather than backwards-looking, and it focuses management attention at an early stage when something is going wrong. What is great is that it looks at and compares *everything* (work completed, money spent, and time elapsed) to the pre-established baseline. So you really do have good data on where the project is.

For further and more detailed information on EVMS in DoD, see the *Defense Acquisition Guidebook* and the *EVM Implementation Guide*, which, with other EVMS-related documents, are available at <www.acq.osd.mil/pm/>.

The author welcomes comments and questions and can be contacted at wayne.turk@sussconsulting.com or rwtturk@aol.com.

McCain INTRODUCES THE DEFENSE ACQUISITION REFORM ACT OF 2007

Washington, D.C. (May 22, 2007)—U.S. Senator John McCain (R-Ariz.) today submitted the following statement for the Congressional Record regarding the Defense Acquisition Reform Act of 2007:

“Mr. President, I am introducing this omnibus defense acquisition reform bill today to highlight the scope and urgent need for meaningful reform in how the Pentagon procures its biggest and most expensive weapons systems.

“Defense acquisition policy has been a major issue ever since President Eisenhower first warned the Nation, in 1961, about the military-industrial complex. As Operation Ill Wind in the 1980s and the Boeing Tanker Lease scandal just a few years ago have taught us, Eisenhower’s comments apply with equal force today.

“Despite the lessons of the past, the acquisition process continues to be dysfunctional. In the 110th Congress, major acquisition policy issues have arisen in some of the biggest defense programs, including the Navy transformational program, Littoral Combat Systems (“LCS”) and the Air Force’s second largest acquisition program, Combat Search and Rescue Vehicle Replacement Program (“CSAR-X”).

“We can do much to ensure that taxpayers’ dollars are spent wisely in developing, testing and acquiring major defense systems. By increasing transparency and accountability and maximizing competition, meaningful acquisition reform can provide the taxpayer with the best value; minimize waste, fraud, and abuse; and, perhaps most importantly, help guarantee that the US maintains the strongest, most capable fighting force in the world. That is what this legislative proposal is all about.

“Our colleagues in the House Armed Services Committee have already taken considerable steps in this area, which I applaud. It is my intention to offer this acquisition package to the defense authorization bill this week. The defense bill which we will be considering this week in the Committee on Armed Services totals more than \$650 billion. That’s serious money.

“As stewards of the taxpayers’ dollars, we must assure the public that we are buying the best programs for our servicemen and women at the best price for the



Senator John McCain (R-Ariz.)

taxpayer. I have already highlighted critical weapon systems with key acquisition problems. If we continue to buy weapon systems in an ineffective and inefficient manner so that costs continue to go up or the deployment of the system is delayed, it will only hurt the soldier, sailor, airman, or Marine in the field.

“The reason for this is quite simple. First, it does not take an economics degree to understand that the higher that costs of a weapon system unexpectedly go up, the fewer of them we can buy. A prime example is the F-22 Raptor. The original requirement was for 781 jet fighters, now we can only afford 183. In addition, without fundamental reforms such as I have proposed in this bill, we will continue to buy weapon systems in an ineffective manner, which usually results in long delays and unexpected cost growth, as requirements, acquisition policy and resources never get in synch.

“Mr. President, one aspect of how the Pentagon buys the biggest weapons systems that my proposal ad-

dresses head-on is the “requirements process,” that is, the process by which the Pentagon defines the weapon system it wants to procure. All too often, costly requirements, many of which are unrelated to what the unified commands say they need, are piled on to these programs irresponsibly—without regard to the bottom-line. Just as egregious is the tendency to drop requirements that the warfighter has said they need—which sometimes justified the system in the first instance.

“There is an emerging consensus that one way of addressing these, and related, problems is by integrating processes, that is, aligning the acquisition, resources, and requirements spheres of the procurement process in a way that provides the necessary accountability and agility for the Pentagon to make sound judgments on its defense investments. Historically, each sphere has been stove-piped and allowed to operate independently in a way that has produced poor cost-, scheduling-, and performance-outcomes—to the detriment of both the taxpayer and the warfighter.

“Elements of this legislative proposal that provide for “integrated processes” include (1) having the Service Chiefs help oversee acquisition management decisions; (2) standing-up a “tri-chair committee” (so-called because it will be headed by the primary players in the acquisition, resources, and requirements communities) that can help make enterprise-wide investment decisions more powerfully and with greater agility than any other procurement-related organization currently within the Pentagon; (3) increasing the membership of the Pentagon’s main requirements-setting body to include leadership from all three spheres; and (4) setting out guidelines that, when coupled with certain provisions currently under law, can help the Pentagon better manage unexpected cost growth.

“Other elements of this proposal address particular structural problems in major weapons procurement that Congress has observed over the last few years. One such provision restricts the Services from entering into multiyear contracts irresponsibly when buying weapons. Buying weapons under a multiyear contract restricts Congress’ ability to exercise appropriate oversight. If Congress bought these items under a series of annual contracts, there would be a meaningful opportunity for it to annually review the programs’ progress. For this reason, using multiyear contracts should be limited to only the best performing and most stable programs. The approach provided for under this legislative proposal would help to ensure that.

“Other elements of this proposal would help rein in abuses in how the government pays award fees and require defense contractors to maintain a robust internal ethics compliance program that can help maintain effective oversight of defense programs.

“In developing this reform package, I have pulled the “best of the best,” that is, the best, most powerful ideas which enjoy the broadest consensus among some of the most respected experts, whose ideas have been ventilated in public hearings and reports over the last three years, including the Defense Acquisition Performance Assessment Report (a.k.a. the DAPA or the Kadish Report); the Center for Strategic International Studies’ (CSIS) Beyond Goldwater-Nichols Report; the Section 804 Report from the Under Secretary of Defense for Acquisition, Technology and Logistics; a number of reports and analyses from the Government Accountability Office and the Congressional Research Service; and others. Some of the elements of this package also institutionalize good ideas that the Pentagon has informally put in place recently.

“Mr. President, acquisition reform of a bureaucracy as large as the Pentagon does not happen overnight. That is why we need to act now. Our defense spending has doubled in the last decade, from \$350 billion to \$650 billion. Every American I talk to as I cross the country understands that we need to spend as much as necessary for national defense. However, how much is enough? Taxpayers also expect that we spend his or her hard-earned tax dollars in a sound and cost-effective manner. We have not been fulfilling that expectation. We need to. This proposed legislation sets us on that course.

“Chairman Levin and I have discussed the need for greater oversight in the Senate Armed Services Committee and the common goal of producing concrete results on acquisition reform this year. I look forward to working with Chairman Levin to fully adopt this acquisition package this week and also working with his capable staff in taking comprehensive steps, similar to what our House colleagues have done, to assure that we buy weapon systems at the best price and field them as soon as practicable.

“Mr. President, I ask unanimous consent that the complete text of the bill be printed at the conclusion of my statement. Thank you. I yield the floor.”



In the News

OFFICE OF FEDERAL PROCUREMENT POLICY (MAY 31, 2007)

Paul A. Denett, administrator for the Office of Federal Procurement Policy, has released the *Emergency Acquisitions Guide* <http://caoc.gov/documents/Emergency_Acquisitions_Guide.pdf>, designed to help agencies prepare the acquisition workforce for emergencies. The guide describes strategies for effective response planning and provides a list of acquisition reminders when contracting during emergencies. It also discusses flexibilities that acquisition personnel deployed to an emergency situation may use to facilitate timely procurements.

This document has been developed jointly by the Office of Federal Procurement Policy (OFPP) and the Chief Acquisition Officers Council's working group on emergency contracting. It includes a number of management and operational best practices that agencies developed in response to Hurricane Katrina and other emergency situations. These practices should be considered in planning related to contingency operations, anti-terrorism activities, and national emergencies. For additional information, agencies may refer to the Emergency Response and Recovery Contracting Community of Practice Web site, accessible at <<https://acc.dau.mil/emergencyresponse>>.

This guide is intended to supplement, not supplant, agency-specific guidance, and should be read in conjunction with Part 18 of the Federal Acquisition Regulation on emergency acquisitions. The guide will be maintained electronically and updated, as needed, on the OFPP Web site <<http://www.whitehouse.gov/omb/procurement/>>. This document supersedes OFPP's *Emergency Procurement Flexibilities* guide, issued in May 2003.

AIR FORCE PRINT NEWS (MAY 30, 2007) BACKSCATTER TECHNOLOGY LEAVES BAD GUYS NO PLACE TO HIDE

Tech. Sgt. Parker Gyokeres, USAF

MOODY AIR FORCE BASE, Ga.—Members of the 820th Security Forces Group are set to employ a new high-technology search system in the war on terrorism that will help increase base security that also can deter acts of aggression against coalition forces.

Known as the Z backscatter van, the \$1.2 million, 13,000-pound, lead-lined delivery truck uses low-power X-rays

to detect the presence of radiological or low-density organic materials like explosives or drugs hidden inside metal structures, said Air Force Staff Sgt. Jonathan Hobbs, an 820th SFG sensors technician.

The group currently owns two of the vehicles. One van is configured for stateside use with mandatory "X-ray on" and "scanning" marked strobe lights. The other van does not have any beacons installed for more covert use at deployed locations.

"There is also a personnel scanning mode that can be used to instantly detect the presence of weapons or small amounts of explosives that might not be located during a pat-down search," Sergeant Hobbs said.

At this time, the personnel scanning mode is not authorized for use in the United States, pending the results of a Federal Aviation Administration study.

As it drives past a target at a continuous speed, the ZBV uses a rotating pencil-shaped beam of low-level X-ray radiation and a large array of backscatter detectors to create its images, Hobbs said.

"As we drive past a target or it drives or walks past us, the computer knows exactly where the beam is at any given point and is able to assemble a series of slices into a detailed picture we can view from the sensor display in the truck's cab," he said.

If organic material is inside the vehicle, such as a detonation cord or a cache of drugs tucked inside a wheel well or door panel, it will appear as an anomaly on the scanner, and the security team will target that vehicle for further inspection, said Air Force Tech. Sgt. John DeLaCerde, the 820th SFG sensors and advanced technologies noncommissioned officer in charge.

The ZBV has a number of advantages over more traditional search methods, DeLaCerde said. Since the system is installed in an unmarked common European van chassis, it can be used to covertly inspect a suspect vehicle without the occupants ever being aware of a search.

"We can intercept a suspect vehicle that has been flagged by security and inspect it before it becomes a threat," he said. "After its initial warm up, the vehicle is ready to respond and instantly put itself into a position that provides base defenders with the most critical intelligence."

It is also safer for the search team, DeLaCerde said. The van's sensors can be operated hundreds of meters away via a fiber-optic link. This way, sensor operators can now scan the same suspect vehicle for improvised explosive devices without having to sit right beside it.



Air Force Staff Sgt. Jonathan Hobbs (forefront) uses a Z backscatter van to scan a suspect vehicle during a training exercise April 23 at Moody Air Force Base, Ga. The 820th Security Forces Group owns two of the \$1.2 million vehicles, which interpret reflected X-rays to create highly detailed images of low-density materials such as explosives or drugs. Hobbs is an 820th SFG sensor technician.

U.S. Air Force photograph by Tech. Sgt. Parker Gyokeres, USAF

In addition to being safer for the operators, the technology is much less harmful than traditional X-ray methods for people and objects being scanned. The power levels used in the ZBV system are significantly lower than common X-ray technology, Sergeant Hobbs said.

"A traditional X-ray needs to have enough power to punch through an object and expose media on the far side," he said. "That can often be a huge amount of energy in order to penetrate the thick steel walls of a vehicle or a cargo shipping container."

A backscatter system uses much lower levels of energy, and uses a single pencil-sized X-ray beam moving at very

high speeds. It only needs to shine the beam onto an object for an instant, the sergeant said.

"It's called a backscatter system because the sensors listen for variations in reflected energy off of an object, and that tells the computer not only how dense the materials are, but also what compounds it is made of," he said.

A typical medical diagnostic X-ray will expose a person to between five and 100 millirems of radiation. A person scanned by the ZBV would receive only about .010 millirems of radiation, Hobbs said.

Recently, one of the 820th SFG's two ZBV vans deployed to search vehicles for explosives and contraband during



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the airshow at Eglin Air Force Base, Fla. This mission highlighted a common role the system will perform in future deployments, DeLaCerde said.

"In a single pass, one sensor operator and one driver were able to examine a row of cars that was 250-feet long," DeLaCerde said. "The vehicle performed flawlessly and is clearly a force multiplier for the Air Force and the 820th SFG. We are now able to inspect vehicles and people faster, safer, and more effectively than ever before."

Gyokeres is with 23rd Wing Public Affairs.

AMERICAN FORCES PRESS SERVICE (MAY 2, 2007)

NEW CONCEPT GETS LATEST TECHNOLOGIES TO WARFIGHTERS QUICKLY

Donna Miles

EDWARDS AIR FORCE BASE, Calif.—The F-22 Raptor and Global Hawk unmanned aerial vehicle had barely finished their maiden flights and begun serving in the war on terrorism when engineers, developers, and testers were already at work to improve on the capabilities of those aircraft.

That concept, referred to as "incremental development," is moving the latest technology to the field in support of warfighters as soon as it's ready while next-generation evolutions are being developed.

"Our goal is to create the very, very best weapons systems we can and, once we ensure that they are safe and reliable, to get them to operators as quickly as we can," said Air Force Col. Chris Cook, the commander of the 412th Operations Group.

Cook said the incremental development concept reminds him of a famous Army Gen. George S. Patton quote: "A good plan, violently executed now, is better than a perfect plan next week."

"It puts capability into the warfighter hands as quickly as possible," Cook said. "It may not put the final solution in their hands, but it puts capability."

Two of the Air Force Flight Test Center's highest-visibility programs exemplify this effort.

When the F-22, a fifth-generation fighter jet, left Langley Air Force Base, Va., in February for its first real-world deployment to the Middle East, Lt. Col. Dan Daetz, the

operations officer for the 411th Flight Test Squadron, said he was wowed by its power, maneuverability, and stealth.

"This is a revolutionary airplane. It's a big leap from anything that we've ever had before," Daetz said. "But we're not finished with this airplane yet."

A chart in Daetz' office spells out four major incremental changes planned for the F-22 through 2014 that will make it more lethal and more precise in its targeting. Other advances on the avionics front will give crews unprecedented situational awareness.

"This plane is really in its infancy," Daetz said. "It will be around for decades and to be honest, we probably haven't even thought yet about some of the capabilities it will eventually have."

Likewise for the Global Hawk, the unmanned aerial system provides wartime commanders unprecedented high-resolution, near-real-time intelligence, surveillance, and reconnaissance imagery.

"It's like an electronic vacuum cleaner," Cook said.

The next-generation Global Hawk, already being tested at Edwards, will feature a bigger payload, larger wing span, and new generator able to provide more electrical output, said Air Force Lt. Col. Andy Thurling, the commander of the 452nd Flight Test Squadron. Among other improvements planned past 2010 for the Global Hawk are an enhanced sensor package and signal intelligence capability and improved communications and data links.

While development testing continues, both the F-22 and Global Hawk are earning their stripes in the combat theater. Global Hawk has flown more than 2,200 combat hours and more than 100 missions in support of the war on terrorism.

By developing the new aircraft incrementally, developers said they're able to get the best new technologies to the field quickly to support the war on terrorism as they continue to improve them. Equally important, Cook said, is that it doesn't lock developers into systems that will be obsolete before they ever reach the field.

"It lets us take advantage of maturing technologies and emerging technologies as we develop the system," he said.



Two F-22 Raptors from Tyndall Air Force Base, Fla., fly in formation. Its combination of stealth, supercruise, maneuverability, and integrated avionics, coupled with improved supportability, represents an exponential leap in warfighting capabilities. The F-22 performs both air-to-air and air-to-ground missions allowing full realization of operational concepts vital to the 21st century Air Force.

U.S. Air Force photograph by Senior Master Sgt. Thomas Meneguín, USA

"If we have critical design review today and said, 'OK, that's it. The design is locked, and we are going to build it,' it's going to be outdated when it's fielded," he said. "If, for example, it takes 15 years to build [the system], the computers and displays in that system are going to be what's on your desk right now," he said. "And what you have on your desk right now is not going to be acceptable to you 15 years from now."

Developing systems incrementally also ensures they can be adapted as they are built to fit current and sometimes-changing warfighter requirements, he said.

"And so incremental development allows us to take advantage of those emerging technologies and the developing and evolving technologies as the timeline moves

to the right," he said. "That way, we're able to fold and meld those capabilities into the system."

AIR FORCE PRINT NEWS (MAY 2, 2007) **AIR FORCE STANDS UP FIRST UNMANNED AIRCRAFT SYSTEMS WING**

Airman 1st Class Ryan Whitney, USAF

NELLIS AIR FORCE BASE, Nev.—The Air Force's first unmanned aircraft systems wing stood up May 1 at Creech Air Force Base, Nev.

As Air Force Col. Christopher Chambliss assumed command of the 432nd, a piece of history was revived and a course for the way ahead continued.

"This is a monumental day for the Air Force," said Chambliss. "Having a wing dedicated to unmanned aircraft



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The MQ-9 Reaper taxis into Creech Air Force Base, Nev., home to the newly reactivated 432nd Wing. The 432nd Wing consists of six operations squadrons and a maintenance squadron for the Air Force fleet of 60 MQ-1 Predator and six MQ-9 Reaper unmanned aerial vehicles.

U.S. Air Force photograph by Senior Airman Larry E. Reid Jr.

systems is a logical and important step in continuing the Air Force's role in being the world's greatest air and space power, and is equally critical to the Air Force's most important customers, the American warfighters."

The people of this wing have already proven themselves as key players in the war on terrorism, said the colonel who came to Creech AFB from Mountain Home AFB, Idaho, where he was the 366th Fighter Wing vice commander. "It is a great honor to assume command of such a fine group of airmen as a new chapter in the 432nd is opened," he said.

The reactivation of this wing is a historic event, but it shouldn't be considered a starting point, the colonel said.

Forming an unmanned aircraft systems wing has been in the works for about four years, according to Chambliss.

"The new wing is an evolution in the Air Force's UAS program and provides the next step forward in medium- and high-altitude unmanned air systems," he said.

The Air Force's UASs have been a critical asset to the U.S. military since Operation Iraqi Freedom began. UASs have been "an unblinking eye that can pack a punch when necessary," said Chambliss, referring to the MQ-1 Predator's intelligence, surveillance, and reconnaissance capabilities coupled with its abilities to fire Hellfire missiles.

The MQ-9 Reaper is primarily a strike aerial, which has the surveillance capabilities of a Predator, but can fly faster, at a higher altitude, and can carry almost 4,000 pounds of munitions. The Predator is a medium-altitude UAS that can fly up to 25,000 feet. The Reaper is able to fly up to 50,000 feet.

Both of these aircraft have the capability to find, track, and, if necessary, eliminate an enemy threat. "Coupled with the skill and experience of pilots from the world's most feared and respected Air Force, these aircraft are two of the most sought after aerial systems in combat," said Brig. Gen. William Rew, the 57th Wing commander.

"Although this standup is a landmark achievement for the Air Force and demonstrates our dedication to aiding



the fight in the war on terrorism, for those who use the Air Force's UAS assets on a day-to-day basis—the soldiers, Marines, sailors, and airmen on the ground, and even the pilots flying the MQ-1's and MQ-9's—this transition of authority will seem transparent,” said Lt. Gen. Norman Seip, 12th Air Force commander.

“If yesterday we had flown 12 combat air patrols, then today the same people would be flying in support of the deployed forces throughout the world, the only difference being the patch on the pilot's shoulder,” said Seip.

The 432nd wing has six operational squadrons, one maintenance squadron, with six Reapers and 60 Predators. These squadrons are projected to fly 75,000 hours this year, 85 percent being combat operations, said Air Force Col. Eric Mathewson, who assumed command of the 432nd Operations Group. The Predator is currently being used in Operations Enduring and Iraqi Freedom for intelligence surveillance reconnaissance and tactical missions, flown by pilots and sensor operators in the United States.

Originally, the 432nd Observation Group was established to train cadre for new groups and wings. In 1954, it began training in tactical reconnaissance and in 1958 was redesignated as a wing. In 1966, the wing was assigned to Udorn, Thailand, where it flew both reconnaissance and tactical fighter missions over Southeast Asia.

In 1984, the 432nd was activated at Misawa Air Base, Japan. It remained there until deactivation in October 1994.

Whitney writes for 99th Air Base Wing Public Affairs.

ARMY NEWS SERVICE (MAY 10, 2007) **NEW MEDICAL RECORDING SYSTEM TRACKS INPATIENT CARE**

FORT DETRICK, Md.—The U.S. Expeditionary Medical Facility Kuwait will become the first deployed hospital to gain total visibility of inpatient medical procedures completed on the battlefield this month.

Deployed medical providers will gain the ability to send inpatient healthcare information to a central data repository in the United States, where it can be viewed from anywhere in the world.

The Army's Medical Communications for Combat Casualty Care (MC4) program will field the system, then

train EMF Kuwait commanders and medical providers on how to use the software, called TC2, or Theater Medical Information Program Composite Health Care System.

“I'm excited it's coming,” said Capt. Daniel Hansen, EMF Kuwait chief of professional services. “This upgrade will give hospitals in theater greater visibility. We'll be able to learn what procedures have taken place at each facility servicemembers visit without the hassle of trying to track down paper records. Servicemembers will know that their doctors have accurate, digital access to records of care and they won't have to reiterate what was done.”

To date, users only had worldwide access to outpatient medical information recorded on the battlefield.

“I believe that having this type of visibility will mean better care,” Hansen said. “A servicemember recently arrived at our facility after being operated on twice in Iraq due to an improvised explosive device wound. With TC2, his orthopedist will know exactly what was done, potentially saving the servicemember from a redundant operation.”

Decision-makers using MC4 systems for medical situational awareness will benefit from the upgrade, as well.

“Commanders will be able to keep track of human resources allocated to inpatient procedures and know that good communication exists between their medical staff and the medical staff at other deployed military treatment facilities,” Hansen said.

Upgrades throughout operations Iraqi and Enduring Freedom are scheduled to be complete by the end of 2007.

“We've seen the value this system has to servicemembers as they return home and seek care at the VA facilities,” said Army Lt. Col. Edward Clayson, MC4's commander and product manager. “Now they can rest assured their complete medical history—inpatient and outpatient—is on hand, and they will receive the benefits and continued care they deserve.”

Headquartered at Fort Detrick, Md., MC4 is overseen by the Army Program Executive Office, Enterprise Information Systems at Fort Belvoir, Va.

For more information, visit <www.mc4.army.mil>.



In the News

AMERICAN FORCES PRESS SERVICE (MAY 15, 2007) **PROPOSED CUTS ENDANGER ARMY'S FUTURE COMBAT SYSTEM**

Jim Garamone

WASHINGTON—Proposed cuts to the Army's Future Combat System endangers a program that would improve military capabilities today and in the future, said Army Lt. Gen. Stephen M. Speakes, the Service's director of force development and deputy chief of staff.

News reports say Congress proposes \$876 million worth of cuts for the Future Combat System in the fiscal 2008 budget request. The total Future Combat System request for fiscal 2008 is \$3.7 billion. "The cost in modernizing is first of all a cost in dollars, but failing to modernize is a cost that is sometimes registered in lives," Speakes said today during a roundtable with Pentagon reporters.

"The program is on track," he said. "We have met our performance standards and we are on the eve of some really great developments that are going to start hitting the Army literally overnight."

In the past, the Service designed and bought systems in isolation—one set of designers built a tank, another a fighting vehicle, still another a medical evacuation capability, he said. Yet another group would work on making them all communicate with each other.

The Future Combat System is working to eliminate this, Speakes said. Combat vehicles, for example, must have a common hull and 80 percent common parts. Savings from this would manifest themselves in fewer spare parts and training one set of mechanics for all vehicles rather than specialists for a mix.



Another concept that would be eliminated under proposed cuts to the Future Combat System is called the Mule. The Mule is a small wheeled vehicle that follows soldiers carrying supplies, spare parts, ammunition, and water. It is currently on the cusp of testing and would have to stop if the cuts in the system are made, according to Army Lt. Gen. Stephen M. Speakes, director of force development and deputy chief of staff.

U.S. Army photograph

"If you were going to build a house, I doubt you would go out and hire a plumber, an electrician, a carpenter. You would go and hire a general contractor," he said.

The role of general contractor, in this case, he continued, is filled by the system engineers who put it all together. The engineers are charged with ensuring commonality, they are charged with setting and enforcing standards. And they are already delivering results. One portion is a small unmanned aerial vehicle that operates like a helicopter.

"It can hover and perch and stare," Speakes said. "You can imagine this capability when you are talking about operating in an urban setting in Baghdad. This 'perch and stare' capability is remarkable, and the 25th Infantry Division is using it today."

The Future Combat System also is fielding robots that can save lives. If robots make mistakes in defusing improvised explosive devices and the devices explode, no one dies, Speakes said. The robots are in use with units in Afghanistan and Iraq.

The proposed cuts to the program would effectively prevent the development of Future Combat System manned ground vehicles. This means soldiers would operate Abrams tanks and Bradley fighting vehicles "indefinitely," he said.

The Abrams tank gets about three gallons to the mile. "Just think of the inefficiency of that on top of \$3 to the gallon gas," Speakes said. "We can't afford to operate these legacy systems into the future without the promise that American soldiers will operate something better. It's like you are going to operate your 1970s-era car for the next couple of decades."

The Future Combat System would bring together new technologies, new concepts, and take steps in fuel efficiency, interoperability, and force protection. The cuts would eliminate that, Speakes said.

Another concept that would be eliminated is called the Mule. This is a small wheeled vehicle that follows soldiers carrying supplies, spare parts, ammunition, and water. This is on the cusp of testing and would have to stop if the cuts in the system are made, he said. Another unmanned aerial vehicle would also be canceled.



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Soldiers would be very negatively affected by these cuts, Speakes concluded. "We will be doomed to spend the next 20 to 30 years with the existing combat platforms we have today," he said. "It's a betrayal of our trust to Americans when we don't invest in them."

Garamone writes for American Forces Press Service.

U.S. JOINT FORCES COMMAND (MAY 15, 2007) **UNMANNED VEHICLE MANAGEMENT SYSTEM CAPABILITY UNDER EVALUA- TION**

Robert Pursell

SUFFOLK, Va.—A U.S. Joint Forces Command (USJFCOM) Advanced Concept Technology Demonstration (ACTD), designed to create a set of common joint standards and architecture for unmanned vehicles, continues to make progress towards its goal to provide support to the joint warfighter.

The Joint Unmanned System Common Control (JUSCC) ACTD is currently involved in its second of three Joint Military Utility Assessments (JMUA) to look at its overall joint effectiveness and ensure its ability to support the joint warfighter. USJFCOM acts as the lead combatant command for the ACTD, while the Navy's Fleet Forces Command takes on the role of operational manager.

Gregg Koumbis, a contractor who supports USJFCOM as ACTD/JCTD science and technology manager, said the goal of the JUSCC ACTD is to come away with a capability that manages the battlefield use of air, land, sea, and undersea unmanned vehicles and allow them to be interoperable with one another.

"The idea was to develop a common control, one that can command and communicate with any unmanned vehicle whether it's ground, surface, sub-surface, or air," he said.



The Joint Unmanned System Common Control Advanced Concept Technology Demonstration can help control unmanned technology like this PacBot controlled by a 184th Explosive Ordnance Disposal technician in Baghdad, Iraq.

Photograph by Spc. Jonathan Montgomery, USA



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The JUSCC will bring together select technologies, legacy unmanned systems, and emergent joint standards to enhance the joint force commander's ability to conduct effective joint and coalition operations.

Navy Capt. Ronald Raymer, Fleet Forces Command branch head for transformational concepts and experimentation, said benefits of common control for unmanned vehicles will be seen in all mission areas.

"There are the obvious practical aspects of not having to pack around four or five different control devices when you head into the field, but a greater advantage is the reduction in training requirements and maintainability when all systems use a common control architecture," he said. "Operationally, common control will allow unmanned systems to communicate with one another."

Koumbis said the original issue that brought forth this idea was that the U.S. Navy required a common control capability for unmanned vehicles to support the Littoral Combat Ship (LCS) program. LCS needed an integrated and interoperable solution to the problem of operating and controlling many unmanned vehicles from a single platform.

He said USJFCOM approached the Services about using this ACTD to promote and expand upon existing standards for unmanned vehicles. The ACTD team, which also included the deputy under secretary of defense for advanced systems and concepts, determined the best way to execute the program would be to identify or promote command and control standards for unmanned vehicles.

"Rather than build another parochial capability, it was decided to select best of breed C2 [command and control] standards, get the Services to agree to their use, and build to that benchmark," Koumbis said.

"It's a challenge because of the many legacy systems that already exist, and those legacy systems have their own command and control architectures associated with them. There is no real standard that has been universally accepted for any future systems.

Koumbis said another important issue was funding and training. "If you need a unique command and control capability for each unmanned vehicle, you're creating an interoperability problem and you're creating a prob-

lem with cost in having to sustain, maintain, operate, and train all of those different [systems]," he said.

One of the possible solutions to this problem is the JUSCC ACTD. "The JUSCC ACTD, at its conclusion, will have built software patches to select legacy or current unmanned platforms to permit various levels of control, and will develop a capability keyed to a standard for all future systems to build to," said Koumbis.

This will enable a commander to communicate and control present and future unmanned vehicles from a single controller and alleviate the need for different proprietary and parochial C2 systems.

Raymer summed up how fielding this capability will greatly benefit the warfighter.

"The advantage to the warfighter is that eventually they will be able to deploy to the battlefield with a single common control device for all the unmanned systems they employ, and it will allow for interoperability between these systems," he said.

This is the second JMUA for JUSCC and the third and final assessment is scheduled for fall of this year. Once a final report on all of the assessments is complete, the ACTD will wrap up and the transition phase to get it into theater could possibly begin.

Pursell writes for USJFCOM Public Affairs.

AIR FORCE MATERIEL COMMAND (MAY 16, 2007) GLOBAL LOGISTICS SUPPORT CENTER (PROVISIONAL) STANDS UP

Ron Scharven

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Air Force Materiel Command's newest unit designed to consolidate logistics aid officially stood up during a May 7 ceremony.

The Global Logistics Support Center (Provisional) is tasked with standing up the GLSC, which will become the Air Force supply chain management process owner, providing enterprise planning, global command and control and a single focal point, all in support of the full range of military operations.

While the provisional headquarters for GLSC currently is at Wright-Patterson AFB, officials have yet to determine



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a permanent location. The command and control cell will be at Scott AFB, Ill., while the planning cell may be located at one of AFMC's three air logistics centers.

According to Air Force Col. Brent Baker, commander of the provisional unit, "We have a core team from Headquarters Air Force and Headquarters AFMC's Logistics Directorate. The team also consists of subject matter experts from the air logistics centers and other Air Force agencies. We'll also use contractor support to stand up the GLSC."

Maj. Gen. Gary McCoy, the Air Force logistics readiness director and former director of logistics and sustainment at Headquarters AFMC, said that material management has become increasingly complex because the Air Force is maintaining systems that have exceeded their expected lifetime, in harsh environmental conditions, and at extraordinary operational rates.

McCoy indicated that the Air Force plans to build on a 34 percent improvement in supply rates through the *eLog21* campaign and other recent improvements in logistics support. GLSC is considered to be one of the key elements in the Air Force logistics transformation. The

main objectives of *eLog21* are to increase the equipment availability rate by 20 percent and decrease operations and support costs by 10 percent by fiscal 2011.

The GLSC has three primary functions:

- The enterprise-wide planning of the Air Force supply chain including planning for material, maintenance, and distribution.
- The GLSC will exercise command and control as a single point of contact for customers to resolve immediate logistics issues at the point of execution.
- The GLSC will be the single point of entry and authority for enterprise supply chain information management. This will include the management of business rules, policies and procedures, providing functional requirements for supply chain systems and measuring, assessing, and taking action to improve supply chain performance through enterprise metrics and analysis capability.

According to Baker, successful implementation of the GLSC requires the application of world-class best practices no matter where they come from, be it DoD or private industry.



During his remarks for the Global Logistics Support Center (Provisional) stand up ceremony, Maj. Gen. Gary McCoy said "the GLSC is critical to the Air Force and the Nation. We are not here today just to cut a ribbon but to make history."

Air Force photograph by Al Bright



"Effective implementation includes a GLSC vision defined by core processes, a detailed Concept of Operations, organization structure, a comprehensive implementation strategy that includes a change management and risk mitigation plan, implementation metrics, and an integrated master schedule," the colonel said. "We'll accomplish this through AFISO21 events and an effective facilitation of a streamlined GLSC governance process."

According to Trixie Brewer, the provisional organization's deputy director, between 4,000 and 5,000 people will be assigned to the GLSC when it is fully operational.

"However, these people won't all be at one location," said Brewer. "They'll still be in place where they are, just part of a different organization."

Officials say they expect the GLSC to achieve initial capability in 2008. The first phase will network current locations, skill sets, and capabilities into a single supply chain organization, using lean processes and enhanced information technology systems.

The second phase will revolve around the Expeditionary Combat Support System, newly skilled supply chain managers and lean, agile logistics processes by fiscal 2012.

"While the GLSC will be the hub for supply chain management activities occurring at multiple locations, the implementation of the organization will involve substantial organizational change that will dictate development of new command relationships, organizational responsibilities, training programs, unit manning documents and processes," said Baker. "But these changes will be anchored in our efforts to map, lean, and properly align overall Air Force supply chain processes."

Scharven writes for Air Force Materiel Command Public Affairs.

AMERICAN FORCES PRESS SERVICE (MAY 17, 2007) **IRAQ INDUSTRIAL REVITALIZATION CONTINUES**

Sgt. Sara Wood, USA

WASHINGTON—A Defense Department task force is in Baghdad again this month working with the Iraqi government to revitalize Iraq's industry and restore normalcy to the economy.

Paul Brinkley, deputy under secretary of defense for business transformation, briefed reporters in Baghdad, highlighting the group's latest efforts, including bringing international business leaders to Iraq and giving loans to Iraqi businesses.

"Our process is to engage these industrial operations, to get them restarted, to help restore intra-Iraqi demand and the ties of commerce that existed before," Brinkley said. "We are working in partnership with the government of Iraq to reestablish between different areas of the country, but also to provide access for the global community, the global economic community, to these industrial operations."

The team, which has been visiting Iraq since May 2006, has spent four-and-a-half weeks in Iraq on this visit, Brinkley said. During that time, the Defense Department brought a group of 15 business executives from the Western and international communities to Iraq to engage with Iraqi business leaders and develop economic partnerships.

Brinkley also announced that the Defense Department, in partnership with the Iraqi Ministry of Industry, is offering low-interest loans to Iraqi businesses. These fixed-term loans, totaling \$20 million, will go to boost revitalization at about 24 businesses, he said.

"This is part of our effort to partner with the government of Iraq, to restore industrial operations, to reemploy sizeable numbers of people in Iraq, and to restore normalcy to areas of the country where stability exists," Brinkley said.

Army Gen. David H. Petraeus, the commander of Multi-national Force Iraq, visited a large textile factory in Najaf where 1,800 Iraqis have returned to work, Brinkley said. The clothing made in that factory is being reviewed by Western retail outlets and probably will appear in Western retail outlets by this fall, he said.

"We continue to work on contract negotiations with Western retailers as well as heavier industrial operations in the West who are negotiating with the minister of industry and directly with plant managers here in Iraq to move work here to acquire goods made in Iraq, and we continue to see progress on this front, and that's a very exciting development," Brinkley said.

Fawzi Hariri, the Iraqi minister of industry and minerals, also spoke at the news conference, highlighting the importance of the task force's work to the Iraqi people.



Deputy Under Secretary of Defense for Business Transformation, Acquisition, Technology, and Logistics Paul Brinkley briefs Pentagon reporters on industrial revitalization in Iraq on March 28, 2007. Brinkley has spent a significant amount of time in Iraq and said there are a surprising number of state-of-the-art factories needing only a relatively small amount of outside help to resume production. The effects of this modest assistance could be significant in terms of providing jobs for Iraqi citizens and normalizing trade. DoD photograph by R. D. Ward

The ministry of industry is working to open Iraqi business to investments from the Arab world, Hariri said, and is working with the U.S. to bridge the gap in technology that has developed in recent years.

“The team from the Department of Defense and the job they’re doing by supplying us and providing us with support, this is the thing that we welcome, and it is so tangible by us, and it’s one of the basic things that we’ve witnessed,” Hariri said through a translator.

Wood writes for American Forces Press Service.

HEADQUARTERS MARINE CORPS NEWS (MAY 29, 2007)

ISSUED BODY ARMOR IS BEST AVAILABLE FOR COMBAT

HHEADQUARTERS MARINE CORPS—The Marine Corps wants its Marines and sailors to know that the body armor it issues is the best available for combat despite recent inquiries concerning replacement gear.

The armor the Marine Corps issues has met government test standards, and in many cases, the standards exceed civilian testing, said Maj. Bradford W. Tippet, infantry advocate for Headquarters Marine Corps in a recent interview with reporter Lance Cpl. David Rodgers.



The Modular Tactical Vest comes with several components that Marines have to carefully configure and maintain. The MTV, which doubles as body armor and load-bearing vest, features many improvements over the Outer Tactical Vest currently fielded to most Marine units. A quick-release mechanism allows Marines to get out of the vest hastily in emergency situations and allows for immediate medical access. The vest provides more protection from shrapnel in the lower back and kidney area and protects the side torso area from bullets thanks to the integration of side armor plate carriers. The integrated cummerbund provides the improved load carriage and weight distribution.

DoD photograph



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Recent media attention has painted commercial body armor with the notion of being an alternative to the gear already being issued, but such armor is not required to meet government test standards and, therefore, does not necessarily provide the same level of protection to the Marine, said Tippet. "Don't believe everything you see on TV or the Internet," said Tippet. "We have a great group of Marines and civilians whose only job is to ensure that we have the right requirements for our armor that truly meet the standards we require."

The Corps' department for plans, policy and operation published in April the policy on wear and purchase of personal protective equipment. It states that Marines and sailors may not replace issued armor with commercial protective equipment; however, commanders may authorize the use of commercial armor if it doesn't interfere with the functionality of the issued gear. Commanders are also not authorized to use unit funds to purchase commercial items that do not meet government test standards. Marines can buy their own equipment, but they will not be reimbursed.

However, more armor could be a hindrance on, for instance, a foot patrol with a full battle load and temperatures reaching up to 115 degrees in some operational zones.

ARMY NEWS SERVICE (JUNE 15, 2007) **ARMY CONTINUES WORKING TO IMPROVE WARFIGHTERS' GEAR, EQUIPMENT**

Donna Miles

WASHINGTON—Today's soldiers have the best equipment available, and the Army keeps striving to improve it, the general who oversees the equipping effort said.

"In the history of warfare, there has never been a ground soldier as well equipped and capable as the U.S. Army is today," Brig. Gen. R. Mark Brown told Pentagon reporters during a roundtable briefing yesterday.

The weapons, clothing, and other gear used by warfighters today make them "more capable, more survivable, more lethal, and with better communications than any time in history," Brown said.

"Even though that's the case, we never rest on our laurels," he said. "We're always looking for something bet-

ter. ... We get the state-of-the-art, and then we immediately start going on to the next thing."

As commander of the Army's Program Executive Office Soldier program, Brown oversees the production of everything soldiers wear or carry. That ranges from uniform items, protective gear and weapons, to optical equipment and communications systems.

With a \$1 billion annual budget for research and development and \$4.4 billion for procurement, PEO Soldier's 400 programs all work toward a common goal. "The eternal challenge in PEO Soldier is to balance size, weight, and power consumption with soldier capabilities," Brown said.

That means giving troops the highest-quality, most dependable, lowest-maintenance gear possible, but with the lowest weight and least bulk. It's a constant balancing act between lightening equipment without losing capability, while adding new systems as they come on line, he said.

Brown's goal is to limit the maximum fighting load to one-third of a soldier's body weight. That's a huge challenge, he acknowledged, when some missions currently require as much as 100 pounds of equipment.

Even the latest Interceptor body armor and outer tactical vest now being fielded weigh about 27.8 pounds. This figure varies slightly depending on size and doesn't include the added weight for throat and groin attachments or deltoid protection.

Brown said he's impressed with the speed in which new equipment is reaching the force. The Army has introduced nine body armor improvements in the last five years and four helmet improvements in the last three.

"What we try to do is develop these things as rapidly as we can and do the research and development, the test, the acquisition as simultaneously as we can," he said. "A lot is being done and being delivered to the soldier at the right place and right time."

Brown visibly bristles when asked about news reports that more capable gear is intentionally being kept from the troops. That's flat-out wrong, he said, and shakes the confidence of soldiers in harm's way.

"I want to assure the American public, the soldiers and their families that they have the best equipment when



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and where they need it,” he said. “If there were something better, we would buy it, and we’re always looking for something better.”

Miles writes for the American Forces Press Service.

AMERICAN FORCES PRESS SERVICE (JUNE 20, 2007)

GEREN: ARMY PUSHING TO ACCELERATE NEW ARMORED VEHICLES TO THEATER

Donna Miles

WASHINGTON—The Army is working with its sister services to ramp up production of the Mine Resistant Ambush Protected vehicle and speed up the timetable for getting it to deployed troops, Pete Geren, the Army secretary nominee, said yesterday.

Speaking to the Senate Armed Services Committee during his confirmation hearing, Geren, currently the acting secretary, said he shares the Army’s commitment to getting MRAPs to Iraq and Afghanistan “as quickly as we possibly can.”

Geren noted that Army Lt. Gen. Ray Odierno, commander of Multinational Corps Iraq, has requested more than 17,000 of the new armored vehicles to replace Humvees. Army leaders are evaluating which Humvees need to be replaced, based on the missions they are used to conduct, and to set priorities for getting MRAPs fielded, he said.

“We’re working with the Navy and the Marines to ramp up the production capacity so that we can get these to the theaters as fast as possible,” he said.

The Marines have had good success with the MRAPs, which have raised, V-shaped underbellies that deflect the force of improvised explosive devices and other blasts from below.

Sixty-five MRAPs in use in Iraq are saving Marines’ lives, Lt. Gen. Emerson Garner, the Marine Corps’ deputy commandant for programs and resources, told a congressional committee earlier this year. “Our experience is that Marines in these vehicles have been four or five times safer than a Marine in an armored Humvee,” Gar-

ner told members of the House and Senate Sea Power and Expeditionary Forces subcommittees. “Based on this experience, we recently decided to replace our armored Humvees in theater on a one-for-one basis with MRAPs.”

The Marines’ success caught Defense Secretary Robert M. Gates’ attention, and he’s pushing to speed up the timetable for getting more MRAPs to troops in Iraq.

Up-armored Humvees offered the best protection available when they were fielded, but Gates told Pentagon reporters in May that MRAPs provide even more. “Now we have something better, and we’re going to get that to the field as best we can,” he said.

Navy Adm. Edmund Giambastiani, vice chairman of the Joint Chiefs of Staff and head of the Joint Requirements Oversight Council, recently visited Aberdeen Proving Ground, Md., with other defense leaders to see the various versions of the MRAP being considered. “MRAP vehicles have saved lives in Iraq and will continue to save lives,” the admiral said. “It is the best vehicle protection we have to date.”



A 6x6 EOD variant of the MRAP JERRV undergoes the first shot of a four-shot series of test explosions at the Aberdeen Test Center (ATC) in Maryland. All MRAP vehicles are tested at the ATC, and this vehicle met the threshold.

Photograph courtesy Aberdeen Test Center



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BRAC 2005 AIDS STRATEGIC SOURCING AND ACQUISITION PROFESSIONAL DEVELOPMENT

Claudia "Scottie" Knott

A portion of the Base Realignment and Closure 2005 decision will advance a long-standing DoD strategic objective—strategic sourcing—by transferring procurement of depot-level reparableables (commonly known as DLRs), as well as the management of remaining consumable items to the Defense Logistics Agency. This establishes a single defense agency, acting in a joint capacity for the military services, as the direct interface with the logistics industrial base, able to leverage DoD's purchasing power with its suppliers.

The move takes DoD one step closer to focusing its abundant spending power on achieving long-term joint savings for the military consumer, and gives defense suppliers a "single-face" point of contact. Contracts by individual DoD organizations can now be replaced with DoD enterprise-wide contracts, allowing industry to streamline its government contract processes and deal with a single DoD buyer.

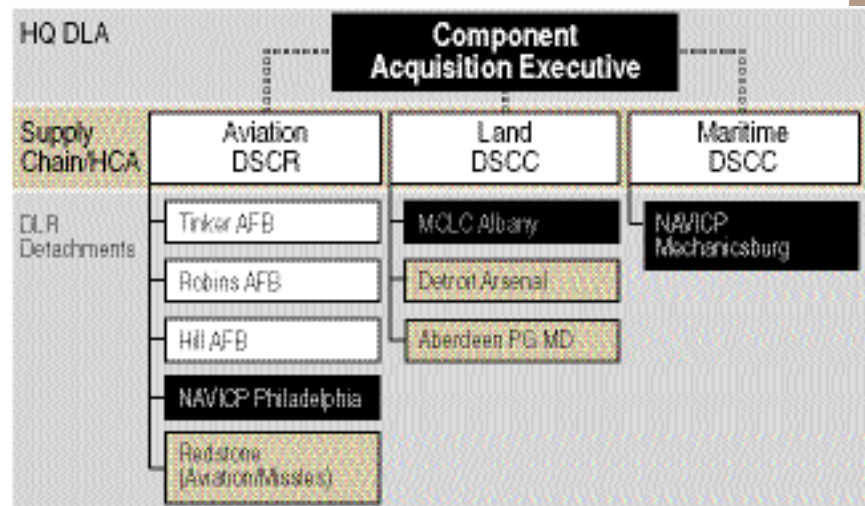
BRAC requires the transfer of procurement management functions for DLRs from specific military service locations to DLA inventory control points based on supply chain affiliation, (i.e., land, maritime, aviation). For the Army, these locations are Tank and Automotive Command (to include procurement management of items relocating from Rock Island Arsenal, Ill.); Aviation and Missile Command; and Aberdeen Proving Ground, Md. (to include procurement management of items relocating from Fort Huachuca, Ariz., and Fort Monmouth, N.J.). For the Navy and Marine Corps, the locations are Naval Support Activity, Philadelphia, Pa., and

Marine Corps Base, Albany, Ga. For the Air Force, the locations are Robins Air Force Base, Robins, Ga., Tinker Air Force Base, Tinker, Okla., and Hill Air Force Base, Ogden, Utah.

The figure shows the alignment of these military locations to the current DLA supply chains managed at its inventory control points, the Defense Supply Centers Columbus, Philadelphia, and Richmond. Additionally, Consumable Item Transfer items are also being moved to DLA for inventory management and procurement purposes. This transfer increases DLA's annual purchases of sustainment logistics items for aviation, land, and maritime by approximately \$4 billion annually. The realignments will result in a net present value savings of \$1.8 billion over the next 20 years.

Consolidating procurement management of both consumable and reparable weapon system spares under DLA allows buyers to use uniform policies, acquisition processes, solicitation provisions, and contract clauses through a single automated system. A preliminary review of pro-

Depot-level Reparables Organization Structure



visions and clauses show that there are currently more than 4,000 unique military service and DLA clauses impacting sustainment logistics vendors. This number can easily be reduced by 40 to 60 percent by eliminating duplicative and



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redundant coverage and consolidating necessary contract language.

A recent review of the top weapon system supply chain contractors with whom DLA has established strategic supplier alliances, compared to contractors from whom the military services buy DLRs, demonstrates the effectiveness of this decision. Over 61 percent of the dollars spent showed at least one overlapping military service; 50 percent showed at least two overlapping military services; 18 percent had at least three, and 4 percent overlapped all four Services.

DLA also plans on using SAP's commercial-off-the-shelf government procurement product designed to specifically integrate with the MySAP material management and financial management modules. This product was developed in collaboration with DLA and will be implemented in all DLA supply chains in the 2008-2010 timeframe. The use of this standard, automated procurement system for sustainment logistics at the DoD inventory control points aligns to another strategic objective—consolidating automated systems based on common business functions.

The BRAC DLR decision was briefed in March to the DLA Strategic Supplier Alliance conference co-hosted by DLA and National Defense Industrial Association in the Washington, D.C., area. The strategic sourcing message was positively received by both industry and government attendees. Their expectation is that through a single point of collaboration, using the existing DLA Strategic Supplier Alliance framework and DoD-approved vendor scorecard metrics, they will be able to integrate their procurement and logistics processes more readily with the entire department. Many of the vendors attending indicated that the implementation of the BRAC decision could also act as a forcing function within their own organizations, streamlining their multiple entry points for government work. This will facilitate increased use of electronic commerce, sharing of technical data, and other process improvements that heretofore required coordination across multiple organizations and military services.

Along with the consolidations of purchases and systems, the BRAC decision has also strengthened the move to establish a single acquisition workforce through the creation of a joint defense agency cadre of acquisition professionals supporting military service logistics. As part of the change management effort associated with the BRAC changes, the human resources community is ensuring there is open access to all acquisition vacancies and training at colocated sites. Barriers to job movement between activities are also being removed as part of this effort. These personnel-related changes improves the ability of the DoD acquisition work force to move seamlessly within the department and focuses DoD's training efforts on creating the ubiquitous acquisition professional needed at all levels for continuing efficiency and effectiveness.

While there are still many details to work out with the implementation of this BRAC decision, the goal and benefits of strategic sourcing for sustainment logistics are attainable through this procurement management consolidation. The clear winners are the taxpayers, the logistics community, and the warfighters in the field. Transformation at this level would not have been possible without the forcing function that is BRAC. The promise of this transformational decision can be realized through support and collaboration between America's logistics industry and the Department of Defense.

For further information, contact marcia.klein@dlc.mil.

Knott is director, Acquisition Management Directorate, Defense Logistics Agency; she is responsible for the development, application, and oversight of all DLA acquisition policy, plans, programs, functional systems, and operations.



Spotlight on DAU Learning Resources

DAU FACULTY JUDGE INTERCOLLEGIATE ETHICS COMPETITION

For the second year, Defense Acquisition University West Region faculty members Jim McNulty, Maj. George Bock, and Maj. Shelli Brunswick served as judges with other business and academic professionals during the 9th Annual National Intercollegiate Business Ethics Competition on 19-21 April. The competition was sponsored by the Center for Ethics and Business, Loyola Marymount University, Los Angeles, Calif.

Teams from 26 colleges and universities from around the country competed at the undergraduate level, and nine teams participated at the graduate level. This year's competition was an international event with teams competing from the Middle East Technical University, Ankara, Turkey, and from McGill University, Montreal, Quebec,

Canada. The U.S. Naval Academy and the U.S. Military Academy at West Point both participated in the competition at the undergraduate level.

Each competing team selected a topic from any area of business ethics and described both the problem and the solution to a panel of judges. The presenting team roleplayed as either a business unit in the organization or as consultants to the organization. The judges were directed by the teams for a specific role during the presentation, acting as either senior organization officials or as the board of directors. The undergraduate team from the Tuck School of Business, Dartmouth College, was the first place winner, receiving the Emmons Prize and a \$2,000 cash award. The U.S. Naval Academy was awarded the Harriet Taylor Ethics Essay Prize and a \$500 cash award.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 5, 2007)

DoD Announces “Wearable Power” Prize Competition

The Director, Defense Research and Engineering, John Young today announced a public prize competition to develop a wearable electric power system for warfighters. The competition will take place in the fall of 2008 and the prizes are \$1 million for first place, \$500,000 for second place, and \$250,000 for third place.

The essential electronic equipment that dismounted warfighters carry today—radios, night vision devices, global positioning system—run on batteries. This competition will gather and test the good ideas for reducing the weight of the batteries that servicemembers carry. The prize objective is a wearable, prototype system that can power a standard warfighter's equipment for 96 hours but weighs less than half that of the current batteries carried. All components, including the power generator, electrical storage, control electronics, connectors, and fuel must weigh four kilograms or less, including any attachments.

Prizes will be awarded to the top three teams in a final competitive demonstration planned for the fall of 2008. At this “wear-off,” individuals or teams will demonstrate their prototype systems under realistic conditions. The top three competitors that demonstrate a complete, wearable system that produces 20 watts average power for 96 hours but weighs less than 4 kilograms (8.8 lbs.) will win the prizes.

A public information forum will be held in September in the Washington, D.C. area to brief potential competitors on the technical details, the competition rules, and qualification requirements. Competitors must register to participate in the prize program by Nov. 30, 2007. The competition is open for international participation; however, the individual or team leader must provide proof of U.S. citizenship. Details on the forum as well as contest registration and rules are posted on the Defense Research and Engineering Prize Web site <www.dod.mil/ddre/prize>.



Spotlight on DAU Learning Resources

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

DAU and the National Defense Industrial Association will sponsor offerings of the Defense Systems Acquisition Management (DSAM) course for interested industry managers at the following locations Sept. 10-14, 2007, Radisson Plaza Hotel, Minneapolis, Minn.

DSAM presents the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for acquisition certification training. 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 DoD 5000 series (directive and instruction) and the CJCS 3170 series (instruction and manual)
- Defense transformation initiatives related to systems acquisition
- Defense acquisition procedures and processes
- The planning, programming, budgeting, and execution process and the congressional budget process
- The relationship between the determination of military capability needs, resource allocation, science and technology activities, and acquisition programs.

For further information see "Courses Offered" under "Meetings and Events" at <http://www.ndia.org>. Industry students contact Phyllis Edmonson at 703-247-2577 or e-mail pedmonson@ndia.org. A limited number of experienced government students may be selected to attend each offering. Government students must first contact Bruce Moler at 703-805-5257, or e-mail bruce.moler@dau.mil prior to registering with NDIA.

DAU OFFERS E3 AWARENESS RESOURCES

As electronic systems have evolved, they have become more complex, and electromagnetic environmental effects and spectrum supportability and certification requirements have become critical factors in the ability to employ military systems and platforms effectively. Failure to consider E3 and/or spectrum early could result in program delays, additional cost or less than full operational capability. The solution starts

with the availability of relevant educational materials. The Joint Spectrum Center has developed a wide variety of up-to-date E3 and Spectrum Supportability (SS) educational materials that are available to the entire DoD.

One tool is the Spectrum and EM Compliance Special Interest Area (SIA) within the DAU's Acquisition Community Connection (ACC) Web site at <https://acc.dau.mil/communitybrowser.aspx?id=18002>. The site is broken into several areas of related subject matter as follows:

- Spectrum and Electromagnetics 101 (background and basic educational information)
- Spectrum Supportability and DoD Policy and Guidance
- E3 and Spectrum Acquisition Requirements and Verification
- Spectrum Supportability Determination Processes
- Electromagnetic Environmental Effects
- Service E3 and Spectrum Management Organizations (links to Service-specific resources, Web sites, etc.)
- Tools (designed to facilitate the sharing of E3 and SS training resources)
- Community Connection.

Another tool is an online training module, CLE 018 "Electromagnetic Environmental Effects (E3) and Spectrum Supportability (SS) for Acquisition Professionals," available through the DAU's Continuous Learning Center: <https://learn.dau.mil/html/clc/Cle.jsp>. The course gives an appreciation of how electromagnetic environmental effects and spectrum certification concerns impact systems acquisition, and provides an understanding of the tasks that must be undertaken during the acquisition process to ensure compatibility.

DEFENSE ACQUISITION UNIVERSITY 2007 CATALOG

The Defense Acquisition University 2007 Catalog has been posted online at <http://www.dau.mil/catalog/default.aspx>. You may request a hard copy from the DAU Student Services Office at student.services@dau.mil. Information in the hard copy catalog is current as of Oct. 1, 2006. However, the online catalog is updated periodically throughout the training year, and new CDs are produced with each update. Currency of information contained in hard copies and CDs should always be confirmed on the catalog Web site shown above.



Career Development

FEDERAL ACQUISITION INSTITUTE PROGRAM AND PROJECT MANAGE- MENT CERTIFICATION PROGRAM

The Office of Federal Procurement Policy (OFPP) policy memorandum < <http://www.fai.gov/pdfs/FAC-PPM%20memo.pdf> > dated April 25, 2007, announced the establishment of a structured development program for program and project managers identified as the Federal Acquisition Certification for Program and Project Managers (FAC-P/PM).

The purpose of this certification program is to establish the competencies, training, and experience requirements for program and project managers in civilian agencies. The FAC-P/PM focuses on essential competencies needed for program and project managers; the program does not include functional or technical competencies, such as those for information technology, or agency-specific competencies. The certification requirements shall be accepted by, at minimum, all civilian agencies as evidence that an employee meets the core competencies, training, and experience requirements.

For additional information, contact your Acquisition Career Manager. View the certification recommendations: < <http://www.fai.gov/pdfs/FAI%20Working%20Group%20Report%20FAC-PPM%20certification.pdf> > .

ARMY MATERIEL COMMAND (APRIL 27, 2007) **AMC FELLOWS PROGRAM: CREATING THE WORKFORCE OF TOMORROW**

Beth E. Clemons

Many organizations offer internship and fellowship opportunities. But few offer the training, education, and benefits of the U.S. Army Materiel Command Fellows Program.

"This program is unique because it develops an individual into a future civilian leader who is mobile and multi-functional," said Dr. Ron Higgins, director of the AMC Logistics Leadership Center. "This is important for the Army in an era of downsizing and rightsizing, where leaders must possess a variety of skills and be adaptable. The program couples the opportunity for rapid advancement and a graduate degree to attract the best possible candidates."

Established in 2000, the AMC Fellows Program was designed to build a multi-functional, mobile cadre of qualified personnel. Candidates are recruited into the five-year program at college job fairs and through the AMC Career Web site. Approximately 400 candidates have entered the program since October 2001. Currently, 322 fellows are assigned throughout AMC, including 55 at Headquarters AMC.

When recruiting potential fellows, program coordinators are seeking college seniors or graduates with at least a 2.95 grade point average, specific undergraduate majors, and those willing to relocate.

"I heard about the fellows program when I went to a college career fair in Huntsville, Ala. After that initial event, I met a couple other fellows that told me about the program," said Andrea Poole, a fellow in the AMC Deputy Chief of Staff for Personnel Office, G-1.

Camie Stinson learned about the program through the Army Civilian Personnel Online and USAJobs Web sites. She later contacted Headquarters AMC to find out more.

"I became involved by providing my resume, college transcripts, and other requested documents," said Stinson, a fellow in the AMC Inspector General's Office.

Poole and Stinson were among a dozen fellows who joined Headquarters AMC in 2006 after completing 13 months at the AMC Logistics Leadership Center (ALLC) and Texas A&M University-Texarkana, Texas, in August. The formal, graduate-level education is paid entirely by the fellows program and provides participants with a master's degree in business upon completion.

While in school, candidates are considered federal employees and are compensated at General Schedule 7. In the five-year training period, fellows can expect to advance from GS-7 to GS-13. Other benefits include potential recruitment bonus of 25 percent of basic pay for new federal employees, health and life insurance, retirement benefits, accrual of vacation and leave time, regular weekly schedule, and extensive travel opportunities.



Career Development

Once participants have completed their graduate degree they begin a series of rotational, on-the-job training assignments over the next 47 months. The hands-on experience is designed to continue developing multi-functional expertise. In addition, each fellow is assigned a primary and secondary career path, depending on AMC requirements and input from the fellow. Upon completion of the five-year program, the fellows are placed in a journeyman position, making use of the skills they have gained in the program, said Dr. Mark Oestmann, deputy director of the ALLC.

"It [fellows program] offered me the opportunity to attend graduate school and get started in a career. I was also interested in working for DoD or the Army. The fellows program offered all of these things. The promotional fast track was very attractive as well," said Scott D. Hobbs, a fellow in the AMC IG, Inspections Division.

"The experience has been very positive. In addition to earning a master's degree you enter the field with a wide support network," said Sarah Haggerty, a fellow in the Deputy Chief of Staff for Strategy and Concepts, G-5.

According to program leaders, the fellows program also offers a diversified workforce for AMC. Out of the last five fellow classes, 44 percent were minorities, 49 percent were female, and the average age of participants was 27.

The AMC Fellows program conducts ongoing recruiting at universities and campuses across the country. For more information about the program, contact Roland Volk, AMC lead recruiter at roland@amccareers.com or call 800-223-7280.

"I would definitely encourage anyone interesting in participating in this program to do so. As the Army continues to transform, my advice to anyone who is interested in participating is that they must be flexible, willing to learn, and mobile," said Javeyeta Collier, a fellow in AMC G-1.

AIR FORCE PRINT NEWS (MAY 9, 2007) **AIR FORCE TO TEST CONSOLIDATED PERSONNEL SERVICES**

WASHINGTON—The Air Force Personnel Center and the Air Force Materiel Command are embarking on a test that will allow the Air Force to closely study and review consolidated civilian

personnel support services to a large civilian employee population.

For a one-year period, AFPC will provide staffing referral services to Tinker Air Force Base, Okla. and fill its competitive internal and external job vacancies, as part of a larger consolidation of transactional personnel work.

Once the one-year test is complete, the results analyzed against key performance factors, appropriate constituents consulted, and any post-test adjustments made, the Air Force intends to implement the new model at other large civilian centers—unless test results do not match efficiency and productivity expectations.

"These large civilian centers are incredibly important to our Air Force, and we need to get this right," said Gen. T. Michael Moseley, Air Force chief of staff. "That's why we are testing the concept first, consulting the appropriate delegations, and making relevant post-test adjustments before finalizing and implementing it at the other depots."

The Air Force Civilian Personnel Services Delivery model calls for the retention of crucial professional on-site personnel advisory and consultant services to employees, supervisors, and commanders as well as the consolidation of transactional work to a central site, accessible around the clock via the World Wide Web and through robust call center technology.

Consolidating the transactional work and leveraging modern technology represents the state-of-the-art way of doing business that replaces many industrial age labor-intensive processes. The goal is to provide better customer service with 24 hour-a-day, 7 day-a-week accessibility for civilian airmen. The Air Force has successfully transitioned 91 Air Force bases using this approach.

"Air Force people are at the heart of operational readiness, and our civilian workforce has never been a greater factor in meeting the national security strategy," explained Lt. Gen. Roger Brady, deputy chief of staff for personnel. "Each servicemember and employee must be assured that leadership is concerned not only about the mission, but also about the welfare of its most important asset—the people who make the United States Air Force the finest air and space force in the world."



AIR FORCE MATERIEL COMMAND (MAY 9, 2007)

AFMC UNIT HELPS WORKFORCE MANAGE CHANGE

Carol Purath

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Successful organizational change can be quite difficult to accomplish—it can be like trying to change a person's habits.

Most of Air Force Materiel Command's workforce has been involved with initiatives that generate change. An ongoing example is continuous process improvement—an effort to enhance the way AFMC performs core functions to better support the warfighter.

Continuous improvement also implies continuous change, which can be disruptive to an organization. To survive in such an environment, leaders of improvement initiatives must engage proactively in managing the impacts to the workforce.

Fortunately, there is an organization in the Headquarters Air Force Materiel Command Strategic Plans and Programs Directorate that can minimize the trauma often associated with the impact of these disruptions, while increasing the pace of the process or system improvement.

Strategic Organizational Development, or SOD, engages with and empowers AFMC organizations in change management, knowledge management, and organizational learning.

"Our job is to provide tools and expertise to enable a culture of continuous improvement," said Sandy Speake, SOD division chief.

The SOD developed a transformation lexicon—a list of terms used in a particular subject or profession—to provide standard definitions for change management and knowledge management. The transformation lexicon defines change management as a planned and systematic process of continuously aligning and improving an organization's people, structure, and culture to meet organizational strategy. The lexicon is located at <<https://afkm.wpafb.af.mil/DocView.asp?DocID=1143456>>.

Change Management

Change events can vary in size, scope, and leadership priority. However, workers in SOD agree that every change management effort should include the following:

- Mobilizing and aligning leadership
- Assessing and managing readiness and risk
- Preparing and equipping the workforce for change
- Institutionalizing the infrastructure by establishing a governance process.

Depending on the size and scope of a unit's process or system improvement, change management tools and techniques can be tailored to meet the specific needs of each initiative. One such tool recently implemented by the SOD office is termed the AFMC Change Management Process Automated Tool. The tool walks the change management novice through the process listed above and provides templates for ease in producing documentation.

The tool will be kept current with continuous updates. It is ready for use and can be found at <<https://afkm.wpafb.af.mil/Procmgmt/Entry.aspx?Filter=OO-XP-MC-52&ProcessID=1>>. Feedback is welcome. The point of contact is Wayne Witherell, in Headquarters AFMC/A8C. He can be reached at DSN 787-2668, or commercially at 937-257-2668.

Knowledge Management

This is a new operational paradigm concerned with the management of intellectual capital for establishing competitive advantage through high-performance environments.

"If the knowledge in your organization exists primarily in the minds of individuals, it is hidden in forgotten reports, or walking out the door when employees retire or change jobs, then knowledge management can help," said Speake. "Knowledge management is more than document organization or information technology systems. Knowledge management is a way of operating—not a software package."

The ability to respond to customers more quickly and with greater insight, the ability to accelerate learning and skills development of the workforce, and the ability of managers at every level to electronically plan and track actions are some of the benefits of a knowledge management program. In addition, knowledge managers in SOD are studying the best methods for knowledge retention as AFMC's workforce ages and retires. They're also investigating the best way to identify and use the social networks people work within.



Organizational Learning

This is a process through which a group acquires new knowledge or technology that it then uses to make better strategic decisions and improve its ability to develop and apply specific tactics. It also increases the group's chance of operational success. When knowledge is organizational, a group has captured new or expanded capabilities in such a way that it does not depend on particular individuals to exploit them.

In a survey conducted by CSC Index of Fortune 500 executives, 52 percent identified inadequate change management and communication as the greatest barriers to successful implementation of change initiatives. This emphasizes how important change management, knowledge management, and organizational learning are to success in today's ever-changing environment.

Purath is with Air Force Materiel Command Strategic Plans and Programs Directorate.

ARMY NEWS SERVICE (MAY 14, 2007) TOP ARMY OFFICER ADDRESSES BONUSES, STABILITY OPERATIONS

Jim Garamone

WASHINGTON— Army officials will continue to monitor manning and may offer bonuses to mid-level officers and noncommissioned officers if needed, the Army chief of staff said.

Gen. George W. Casey Jr. told reporters that the Service needs to come up with incentives for mid-range officers and NCOs to ensure the leadership is in place for the force of the future. He also spoke about changes to the Army as a result of experiences in the war on terror.

Casey said active-duty and reserve-component personnel are meeting retention objectives. In recruiting, the active force and the National Guard are making their goals. The Army Reserve is missing its goal but is expected to make it for the year.

"We will still monitor the situation," Gen. Casey said. While incentives will be partially monetary, other aspects—such as funding graduate school—will be considered.

Casey said the 1990s outlook in the military against "nation building" has changed. He said soldiers accept the move toward stability operations and reconstruction because of what they see in Iraq and Afghanistan.

"They recognize it is an integral part of counterinsurgency strategy," Casey said. "It's not just the military [that wins counterinsurgency efforts], but it's political and economic and information." The next step is whether the Army should organize units solely for stability operations and reconstruction. "I'm not sure yet," Casey said.

He said these really are not part of the core competencies of the Army, which is still configured to fight and win the nation's wars. He said these competencies normally lie in other federal agencies.

"The question really is can we change the culture in the other departments so their folks can participate in areas like Iraq," or whether that's simply too hard and the mission should fall to the military, he said.

Garamone writes for the American Forces Press Service.

AIR FORCE MATERIEL COMMAND (JUNE 15, 2007) AFMC SEEKS TO EXPAND MENTORING PROGRAM FOR AIR FORCE CADETS

Nicole Singer

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— The Air Force Cadet Officer Mentor Action Program has been hard at work mentoring young Air Force officers and cadets for nearly two decades.

The program, also known as AFCOMAP, is a non-profit, nationally chartered, Air Force-sponsored organization. Its purpose can be summed up by the motto, "Strengthening Future Air Force Leaders through Mentorship."

Currently, there are 12 active chapters. Two are located at Air Force Materiel Command bases: Hanscom AFB, Mass., and Robins AFB, Ga. Officials at Headquarters AFMC here say they would like to see more AFMC bases initiate chapters.

"AFCOMAP can be another important tool that can shape current cadets into future Air Force leaders," said Col. James Playford, AFMC deputy director of manpower and personnel.

"Developing, mentoring and instructing our future leaders are everyone's responsibility. AFCOMAP offers one avenue to fulfill that responsibility. It's a win-win situation for cadets and the mentors," said Playford.



Career Development

AFCOMAP currently has three main goals: to help all Air Force officers and cadets develop professionally; to support the professionalism and retention issue of minority officers; and to assist newly commissioned officers with the transition from cadet life to the life of an active-duty Air Force officer.

“We mentor cadets about what it’s going to take not only to become successful officers, but also successful professionals,” said AFCOMAP National President Brig. Gen. Ronnie Hawkins. “Once they go on active duty, the focus shifts to the company-grade officers and what it’s going to take for them to become field-grade officers or career airmen officers.”

Each chapter works to promote the image of the Air Force in their local communities and try to gain the interest of young people in their work. They also reach out specifically to the Air Force Reserve Officer Training Corps programs close to their base.

The Robins AFB chapter reaches out to ROTC detachments at local universities. They’ve held career days for the cadets to ask questions and have invited them to tour the base.

“We even took them through what in processing would be like,” said 1st Lt. Roniece Vandyke, vice president of operations for the Robins chapter.

Vandyke has been involved in AFCOMAP for three years and was introduced to the program through a friend.

“Mentoring is the main focus,” she said, “We try to mentor the cadets so they’ll be prepared and know what to look for.”

Cadets receive one-on-one attention. Each protégé is specifically paired with a mentor in their related career field. This allows them the opportunity to learn about the military and their field of study. Chapters also sponsor professional speakers and hold fellowship luncheons.

AFCOMAP was born from an Army program entitled ROCKS, which was an organization formed for current officers to visit Army ROTC detachments at historically black colleges. Col. Paul Patton saw a similar need for it in the Air Force, joined the group, and began to tailor it for use in the Air Force.

The Air Force officially recognized AFCOMAP in June 1989. It originally focused on minority officers and cadets only and did not become officially chartered as a separate program for use in the Air Force until 1994. In doing so, its mission was expanded to include recruitment and retention of all cadets and junior officers.

Membership consists mainly of Air Force active duty and retired officers and officer candidates. However, civilians, enlisted personnel, and officers from other Services are all welcome.

AFCOMAP’s operations manual and complete instructions on how to establish a new chapter can be found online at: < www.afcomapnational.org >.

Singer writes for Air Force Materiel Command Public Affairs.

HUMAN CAPITAL STRATEGIC PLAN: THE BIG PICTURE

The Department of Defense (DoD) Acquisition, Technology and Logistics (AT&L) community supports and safeguards our nation’s warfighters. It is essential that AT&L continues to champion a knowledge-based workforce capable of delivering equipment and services to warfighters in need.

To achieve this, AT&L has developed an overarching Human Capital Strategic Plan (HCSP) to right-shape the current workforce and retain top-quality personnel for the future. The plan provides Components and Functional Advisors with the necessary strategies for strengthening the DoD communities. To learn more, read the AT&L Human Capital Strategic Plan at < www.dau.mil/workforce >.





Conferences, Workshops & Symposia

DEFENSE FINANCE 2007

Defense Finance 2007 will be held Sept. 17–20, 2007, at the Hilton Alexandria Mark Center in Alexandria, Va. The theme of this year's event will be "Transforming Financial Operations in Support of the Warfighter." To register, call 888-482-6012 or 973-812-5153, e-mail defensefinance@wbresearch.com, or visit www.defensefinanceusa.com.

UNIQUE IDENTIFICATION (UID) FORUM

All DoD serially managed assets must be registered in the Item Unique Identification Registry by September 2007. If you are a DoD contractor or are a military program manager, you are affected by this mandatory policy. This policy impacts all levels of supply, including small- to mid-sized businesses and all acquisition programs. The Department of Defense is sponsoring a UID Forum, Sept. 12–13, in Atlanta, Ga. This forum is designed to provide practical guidance to help military program managers and DoD contractors—particularly small- to mid-sized contractors—and all acquisition program managers achieve successful UID implementation as required by DoD policy memoranda and the issuance of the final UID Defense Acquisition Regulation Supplement rule dated April 22, 2005. UID Forum participants will learn how to achieve successful implementation through sessions conducted by Department policy makers on:

- Military Standard 130 (MILSTD 130)
- Wide Area Work Flow (WAWF)
- Semantics and Syntax of Data
- Unique Item Identifiers (UII)
- Marking Guidelines
- Defense Federal Acquisition Regulation Supplement (DFARS)

Register for the UID Forum at <http://www.uidforum.com>.

INSENSITIVE MUNITIONS/ENERGETIC MATERIAL SYMPOSIUM

The 2007 Insensitive Munitions/Energetic Material Symposium will be held Oct. 15–18, 2007, at the Doral Golf Resort & Spa in Miami, Fla. Conference information will be posted online as it becomes available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Veronica Allen at vallen@ndia.org or phone 703-247-9478.

2007 COMBAT VEHICLES CONFERENCE

The 2007 Combat Vehicles Conference will be held Oct. 22–24, 2007, at the Hyatt Regency Dearborn, in Dearborn, Mich. The conference will be an opportunity to hear from and interact with distinguished combat leaders as they recount their most recent battle experiences and receive an update from both the Army and the Marine Corps current/future combat vehicle subject matter experts. As always, the conference will provide an opportunity for key combat vehicle issues to be dealt with head-on by means of the Q&A sessions and ample networking time.

Conference information will be posted online as it becomes available at <http://www.ndia.org>; click on "Schedule of Events." The point of contact for the conference is Kimberly Williams at kwilliams@ndia.org or 703-247-2578.

10TH ANNUAL SYSTEMS ENGINEERING CONFERENCE

The 10th Annual Systems Engineering Conference will be held Oct. 22–25, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The primary objective of the conference is to provide insight, information, and lessons learned into how DoD can improve the overall performance of defense programs through a better, more focused application of systems engineering that will lead to more capable, interoperable, and supportable weapon systems for the warfighter, with reduced total ownership costs.

The agenda and conference information will be posted online as they become available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Britt Bommelje at bbommelje@ndia.org or call 703-247-2587.

PRECISION STRIKE ASSOCIATION 17TH ANNUAL PRECISION STRIKE TECHNOLOGY SYMPOSIUM

The Precision Strike Association will sponsor the 17th Annual Precision Strike Technology Symposium Oct. 23–25, 2007, at Johns Hopkins University Applied Physics Laboratory-Kossiakoff Conference Center in Laurel, Md. The 2007 theme is "Precision Strike Capabilities and Technologies for the Long War."



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Effective precision strike demands a timely and effective kill chain to some of the most important targets, which are, in the words of Dr. Paul Wolfowitz, "the ones that move around, staying put for only short periods." This year's event continues to provide a forum for exchanging insights, experiences, and ideas on Joint and Coalition Precision Strike Technologies to improve the kill chain. It also uniquely offers participants the opportunity to present to peers the latest and cutting-edge research and thinking in areas of strike weapons, desired weapons effects, targeting, and required C4ISR. Surveys from past symposia reflect that updates on current and kill chain technologies, concepts, capabilities, and processes for both near and future planning and operations are exactly what symposium participants desire.

Monitor the Precision Strike Association Web site <www.precisionstrike.org/events.htm> for future updates and registration information.

2007 TACOM LIFE CYCLE MANAGEMENT COMMAND ADVANCED PLANNING BRIEFING FOR INDUSTRY

The 2007 Tank-automotive and Armaments Command Life Cycle Management Command Advanced Planning Briefing for Industry (TACOM LCMC APBI) will be held Oct. 24--26, 2007, at the Hyatt Regency Dearborn, in Dearborn, Mich. The 2007 event will provide broad-based business planning information to industry relating to future TACOM LCMC plans, programs, and acquisition opportunities. TACOM, the Program Executive Officers, and other appropriate TACOM APBI Life Cycle Management Command organizations will present market opportunities and plans including research and development efforts, procurement of major end items, secondary items, maintenance, and other system support business.

Conference information will be posted online as it becomes available at <www.ndia.org>; click on "Schedule of Events." The point of contact for the conference is Kimberly Williams at kwilliams@ndia.org or 703-247-2578.

45TH ANNUAL TARGETS, UAVS & RANGE OPERATIONS SYMPOSIUM & EXHIBITION

The 45th Annual Targets, UAVs & Range Operations Symposium & Exhibition will be held Oct. 29--31, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The agenda and conference information will be posted online as they become available at <www.ndia.org>; click on "Schedule of Events." For more information, contact Simone Baldwin at sbaldwin@ndia.org or call 703-247-2596.

2007 COMBATANT COMMANDERS WORKSHOP

The 2007 Combatant Commanders Workshop will be hosted October 29--30 in Suffolk, Va., by John J. Young, Jr., director of defense research and engineering, and R. Paul Ryan, director of the DoD's Defense Technical Information Center. The theme of this year's workshop is Rapid Technical Support for the Warfighter.

The event, for military officers (O-5 and above) and civilians (GS-14 and above), will focus on how DTIC's products benefit combatant commanders by delivering superior technical information to our warfighters.

For more information and to register, visit <<https://www.enstg.com/Invitation>>. To log in, use con-



Conferences, Workshops & Symposia

ference code 20069924. There is no workshop registration fee. Space is limited.

DARPA ANNOUNCES THIRD GRAND CHALLENGE

The Defense Advanced Research Projects Agency (DARPA) has announced plans to hold its third Grand Challenge competition on Nov. 3, 2007. The DARPA Urban Challenge will feature autonomous ground vehicles executing simulated military supply missions safely and effectively in a mock urban area. Safe operation in traffic is essential to U.S. military plans to use autonomous ground vehicles to conduct important missions. DARPA will award prizes for the top three autonomous ground vehicles that compete in a final event where they must safely complete a 60-mile urban area course in fewer than six hours. The DARPA Grand Challenge Web site <www.darpa.mil/grandchallenge> is the primary resource for information about the Urban Challenge event.

19TH ANNUAL INTERNATIONAL INTEGRATED PROGRAM MANAGEMENT CONFERENCE

The 19th Annual International Integrated Program Management Conference will be held Nov. 5–7, 2007, at the Hilton Alexandria Mark Center, in Alexandria, Va. This year's event is cosponsored by the National Defense Industrial Association, the Project Management Institute-College of Performance Management, and the Society of Cost Estimating and Analysis.

Conference highlights will include special guest speakers, professional education training seminars, practice symposia, topical workshops, tools track, as well as networking opportunities. Participants will earn 15 Professional Development Units (PDU).

If you would like to present at the conference, contact one of the following coordinators:

- Practice Symposia: Ray Stratton, raystratton@mgmt-technologies.com
- Training: Frank Anbari, anbarif@aol.com
- Tools Track: Efrain Pacheco, efrain.pacheco@techsigmapm.com
- Workshops: Joe Houser at jrhouser@kmsystems-group.com or Kevin Martin at klmartin@kmsystems-group.com

The IPM program manager is Susan Wood, PMI-CPM Vice President for Conferences and Events, at VPConf&Events@pmi-cpm.org.

11TH ANNUAL SMALL BUSINESS CONFERENCE

The 11th Annual Small Business Conference will be held Nov. 7–8, 2007, at the Hilton McLean Hotel at Tysons Corner, McLean, Va. Conference information will be posted online as it becomes available at <www.ndia.org>; click on "Schedule of Events." The point of contact for this year's conference is Britt Bommelje at bbommelje@ndia.org or 703-247-2587.

SYSTEMS ENGINEERING ANNUAL STRATEGIC PLANNING AND DIVISION MEETING

A Systems Engineering Annual Strategic Planning and Division Meeting will be held Dec. 5–6, 2007, at the Hyatt at Fisherman's Wharf in San Francisco, Calif. Conference information will be posted online as it becomes available at <www.ndia.org>; click on "Schedule of Events." The point of contact for this annual meeting is Britt Bommelje at bbommelje@ndia.org or 703-247-2587.



Acquisition & Logistics Excellence

NATIONAL INDUSTRIES FOR THE SEVERELY HANDICAPPED RECOGNIZES PEO SOLDIER FOR CREATING JOBS FOR SEVERELY DISABLED

Program Executive Office (PEO) Soldier received the National Industries for the Severely Handicapped (NISH) 2006 Government Award for Products at the National Training and Achievement Conference May 1, 2007, in Grapevine, Texas. They were recognized for providing hundreds of jobs to people with severe disabilities who work for non-profits that produce clothing and gear for soldiers. PEO Soldier's Clothing and Individual Equipment program acquired more than four million items from these non-profits for the Rapid Fielding Initiative and the Generation III Extreme Cold Weather Clothing System, resulting in more than \$94 million in sales.

The NISH award recognizes the Department of Defense and other federal agencies that provide outstanding support to a non-profit organization employing disabled workers under the Javits-Wagner-O'Day (JWOD) program. This program coordinates with non-profits across the country to give jobs to severely disabled persons and to provide goods and services to the federal government at a fair price.

"PEO Soldier has gone the extra mile in supporting opportunities for persons with disabilities. PEO Soldier has not only educated its staff about people with severe disabilities, they 'walked the talk' and demonstrated their commitment by placing their trust in the JWOD program," said Karen Jury of Peckham Inc. who nominated PEO Soldier for the award. "This trust can be seen by using JWOD producers for the critical Rapid Fielding Initiative and designating JWOD as a mandatory source for the new Generation III program. Their efforts have resulted in adding over 200 new jobs for persons with severe disabilities at Peckham alone," she added.

"We are all extremely proud of NISH's recognition of our organization's support of JWOD," said Army Col. John J. McGuiness, the project manager of PEO Soldier's soldier equipment program. "We see ourselves as partners with JWOD. It is a mutually beneficial partnership that is key to our continued ability to provide the world's best equipment to the world's best soldiers."

"Trust is critical when our products reach every soldier, everywhere, every day," said Army Lt. Col. John Lemonides, the PEO Soldier clothing and individual equipment (CIE) product manager. "The non-profits manufacturing products under the JWOD program are an integral part of the global war on terrorism. With their support, PEO Soldier provides quality products on time, and at a fair price. We would like to thank those non-profits and the persons with disabilities whom they employ for their tireless efforts on our behalf."

For additional information on PEO Soldier visit www.peosoldier.army.mil.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 16, 2007)

DEPARTMENT OF DEFENSE VALUE ENGINEERING ACHIEVEMENT AWARDS

Deputy Under Secretary of Defense for Acquisition and Technology James Finley presented the annual Department of Defense Value Engineering Achievement awards during a May 16 ceremony at the Pentagon.

During fiscal 2006, 3,473 in-house value engineering proposals and contractor-initiated value engineering change proposals were accepted with projected savings/cost avoidance in excess of \$1.6 billion.

Value Engineering identifies actions that reduce cost, increase quality, and improve mission capabilities across the entire spectrum of DoD systems, processes, and organizations. The program continues to be an incentive for government and industry counterparts to improve the joint value proposition by promoting innovation and creativity. These innovative proposals seek best value solutions as part of a successful business relationship.

The Value Engineering Awards Program is an acknowledgment of exemplary achievement and encourages additional projects to improve in-house and contractor productivity. Award winners from each DoD component were eligible for selection in the following five categories: program/project, individual, team, organization, and contractor. Additional special awards recognized innovative applications or approaches that expanded the traditional scope of value engineering use.



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The list of award recipients can be found at <www.defenselink.mil/news/May2007/2006ValueEngineeringawardrecipients.pdf>.

U.S. JOINT FORCES COMMAND
(MAY 8, 2007)

U.S. JOINT FORCES COMMAND MODELING AND SIMULATION DIVISION WINS AWARD

Robert Pursell

HAMPTON, Va.--The Department of Defense (DoD) recognized the modeling and simulation division of the U.S. Joint Forces Command's (USJFCOM) Joint Innovation and Experimentation Directorate (J9) with an award May 8.

The division was honored as the "best experimentation community" during the closing moments of a ceremony held at the DoD's Modeling and Simulation Conference at the Hampton Roads Convention Center.

The conference, held in Hampton Roads for the first time, provides a forum for discussing and coordinating future plans, goals, and programs within the department's modeling and simulation (M&S) community.

According to the letter sent out announcing the award winners, the team received the award for the development of a synthetic environment that allows political, economic, social, informational, and infrastructure modeling.



U.S. Joint Forces Command's Glenn Goodman (right), a program manager at the Joint Innovation and Experimentation Directorate accepts the Modeling and Simulation Award for "best DoD experimentation community" on behalf of Modeling and Simulation Division. The awards were given at the DoD's Modeling and Simulation Conference at the Hampton Roads Convention Center, Va.

Photograph by Staff Sgt. Joe Laws, USAF



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Used during Urban Resolve 2015 (UR 2015) over the last year, the tool allowed the various aspects of a national power to be modeled as actions and perceived effects in an environment similar to situations the military and U.S. inter-agency communities face around the globe.

Jim Blank, J9 modeling and simulation division chief, explained the experimenting with the synthetic environment during UR 2015.

“The experiment itself was the focus of the award. There were a lot of things that came out of that particular experiment, a lot of potential solutions, architecture pieces, and the thought that went into building the infrastructure we thought would make a difference and apparently it did.”

He said the group is happy about winning the award, but said there is still work to be done. Among other efforts, the division will continue its efforts to support the Noble

Resolve homeland defense campaign USJFCOM is currently working with U.S. Northern Command. Overall, there were nine other winners of different categories. A total of 99 organizations from across the DoD were nominated for the awards.

Pursell writes for USJFCOM Public Affairs.

AIR FORCE PRINT NEWS (MAY 18, 2007) **THINKING LEAN, A MUST FOR STRONGER, SMALLER AIR FORCE**

1st Lt. Rose Richeson

INCIRLIK AIR BASE, Turkey--The U.S. Air Forces in Europe vice commander, Maj. Gen. Marc Rogers, spent time with senior leaders at Incirlik Air Base to discuss the importance of Air Force Smart Operations for the 21st Century, or AFSO21.

Rogers began with a big picture explanation of the Air Force's strong focus on the Lean process--the endless



Senior leaders sit in on a brief given by Maj. Gen. Marc Rogers, U.S. Air Forces in Europe vice commander, May 11 at Incirlik Air Base, Turkey. Rogers discussed the importance of Air Force Smart Operations for the 21st Century, more commonly referred to as AFSO21.

U.S. Air Force photograph by 1st Lt. Rose Richeson, USAF



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pursuit of identification and elimination of waste, adapting to change, and continuous process improvement.

"We need to transform our Air Force," he said. "Think about what our Air Force was in '47, '52, '69, and look at what we do today. We are the smallest we have been in history; but we are the most powerful."

Leaders are being asked to alter the way they do business in order to keep up with the information age—a huge driving factor behind this transformation. Rogers concentrated his message on the leaders of the Incirlik community because they are charged with leading and sustaining the force.

"You [senior leaders] have got to have a strategy ... but at the same time, when changes happen you've got to be able to accommodate these changing things," he said.

The key behind leaning processes is to achieve a transformation outcome that will save cost, time, and effort. An AFSO 21 outcome can stem from one of the following three approaches: taking current processes and changing them, combining current platforms and executing them in new ways with reengineered processes, or using something completely different and out of the box by exploring new solutions.

Rogers stressed that the focus of Lean should be on enabling the Air Force's people, for they are the key component of all processes.

"At the tactical level you can pretty well do your jobs," he said. "The things that make it tougher for you to do your job is all the rest of the bureaucracy. We can really lean out this Air Force—there is a lot of work to be done."

One of the hardest things this transformation will ask for is a culture change, the general said. Without training and the right tools, the unit's existing character and mentality will be too powerful to overcome.

"If you can create across your command, across your unit, a mindset of out-of-the-box Lean thinking, you will automatically become more adaptable," Rogers said.

"Lean is a great leadership development tool that should be used to mentor your people and develop them," the general said.

Richeson is with 39th Air Base Wing Public Affairs.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 23, 2007)

DOD AWARDS GRANTS TO MINORITY INSTITUTIONS

The Department of Defense announced plans to award \$8.6 million to 32 minority institutions as part of the fiscal 2007 DoD Historically Black Colleges and Universities and Minority Institutions Infrastructure Support Program.

The grants will enhance education programs and research capabilities at the recipient institutions in scientific disciplines critical to national security and the DoD.

This announcement is the result of competition for infrastructure support funding conducted for the Office of Defense Research and Engineering by the Army Research Office and the Air Force Office of Scientific Research. The fiscal 2007 program solicitation received 78 proposals in response to a broad agency announcement issued in October 2006.

Equipment grants, which range from \$75,000 to \$500,000 and will have a performance period of 12 months, will be made by the Army Research Office.

All awards are subject to the successful completion of negotiations between DoD and the academic institutions.

The list of recipients for fiscal 2007 funding can be found at www.defenselink.mil/news/May2007/d20070523grants.pdf > .

AIR FORCE PRINT NEWS (MAY 31, 2007) **SMALL BUSINESS AWARD WINNERS CHOSEN**

WASHINGTON—The 2006 Secretary of the Air Force Small Business Awards were presented by the under secretary of the Air Force in a ceremony in Washington, D.C.

"It is a pleasure to recognize these Air Force members and teams who have excelled in this important area," said Dr. Ronald M. Sega.

"Their efforts play a valuable role in the Air Force's ability to perform its mission and ultimately result in our being able to successfully operate in air, space, and cyberspace," he said.

The 2006 Small Business Award winners are:



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- Secretary of the Air Force Special Achievement Award at the Activity level is Oklahoma City Air Logistics Center at Tinker Air Force Base, Okla.; and the 2nd Contracting Squadron at Barksdale AFB, La.
- Secretary of the Air Force Special Achievement Award at the Individual level is Joan Fulkerson of the Air Force Research Laboratory at Kirtland AFB, N.M.; and Dwight Slotto of the 5th Contracting Squadron at Minot AFB, N.D.
- Outstanding Contribution to the Small Business Program by a Contracting Team is the Medical Support Team of the 82nd Contracting Squadron at Sheppard AFB, Texas.
- Outstanding contribution to the Small Business Program by a Contracting Individual is Jeffrey Jacob of the 88th Contracting Squadron at Wright-Patterson AFB, Ohio.
- Small Business Champion is Capt. Kellie Turner of the Space and Missile Center, 1st Operationally Responsive Space Squadron at Kirtland AFB, N.M.

The broad scope of the Air Force mission is embodied by the award winners and their organizations, said Ronald A. Poussard, the director of Air Force Small Business Programs.

"These individuals and units represent the full spectrum of Air Force operations that help us fly and fight in air, space, and cyberspace," he said. "The awards include recognition for air logistics support for our aircraft, medical professionals to take care of our airmen, and far-reaching space technology to help us win the war on terror. These small business and contracting professionals have raised the bar beyond just awarding contracts to delivering critical capability to the warfighter."

Courtesy of the Secretary of the Air Force Public Affairs.

AIR FORCE PRINT NEWS (MAY 31, 2007) **ENGINEERS GARNER DOD ENVIRONMENTAL RESTORATION AWARD**

Tech. Sgt. Kevin Wallace, USAF

DOVER AIR FORCE BASE, Del.—Dover Air Force Base was recently named the winner of the 2006 Secretary of Defense Environmental Restoration Award.

Members of the 436th Civil Engineer Squadron garnered the recognition for managing the best environmental restoration program in the Department of Defense.

Earlier this year, Dover AFB won the Air Force Gen. Thomas D. White Environmental Restoration Award, placing it in the Secretary of Defense Environmental Awards competition against the winners from the other DoD components.

In the end, the flight was judged to be the "best of the best," within the DOD, said Jo Ann Deramo, the 436th CES Environmental Flight manager.

The purpose of the DoD Environmental Restoration Program is to clean up contamination that was released into the environment from historical waste-handling practices and industrial processes.

"Today's waste-handling practices and processes are environmentally friendly," Deramo said. "In the past, industrial wastes were disposed of in open pits, unlined landfills, and other ways that caused chemicals to contaminate soil and groundwater."

The objective of the ERP is to support the warfighting mission by restoring contaminated sites for base use as quickly and cost effectively as possible, while protecting human health and the environment.

Dover AFB is listed on the Environmental Protection Agency's National Priorities List, also known as the "Superfund," due to the presence of contamination from 59 historical contaminant release sites located on the base. In 2006, Dover AFB's restoration team completed cleanup remedies at all 59 sites, making the base one of only six Air Force NPL facilities to achieve this milestone.

Deramo did not complete the task alone. Her technical team included Robert Wikso, an environmental specialist also with the flight, and scientists and technical experts from several other state- and national-level environmental agencies.

Dover AFB representatives traveled to Washington, D.C., June 7 to be presented with the award during a ceremony at the Pentagon.

Wallace is with 436th Airlift Wing Public Affairs.

ARMY NEWS SERVICE (JUNE 4, 2007) **LEAN SIX SIGMA EFFORTS NEAR \$2 BILLION IN SAVINGS**

J.D. Leipold



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WASHINGTON—Lean Six Sigma techniques implemented throughout the Army continue to prove successful, and leaders anticipate reaching a \$2 billion savings mark this year.

One of the latest LSS successes took place at West Point, N.Y., home of the U.S. Military Academy. Five officers-in-training who had completed green belt training applied a lean process called value stream analysis to figure out more efficient meal scheduling, which would result in a reduction in the amount of discarded meals in the mess hall.

The cadets were able to predict how many of their brethren dined on certain optional meal days and in the end were able to show how the school could save precious resources by cutting costs and more efficiently allocating resources.

Lt. Col. Donna Korycinski, the cadets' advisor, teacher, mentor, and project director, said her students understand the LSS process, were able to pull the techniques together, and in the process they're leaving a "long-lasting legacy at West Point."

"All the cadets follow the same LSS framework, the same training taught at other green and black belt courses across the Army," said Ronald E. Rezek, assistant to the deputy under secretary of the Army for business transformation. "The cadets are comfortable with this important responsibility, and they are happy and enthusiastic."

Inside Army headquarters, value stream analysis led to a large number of recommendations to streamline the communication process across the chain of command through lieutenant generals.

Director of the Army Staff Lt. Gen. James Campbell has been using LSS techniques to improve the way "taskers" are processed in Washington. He commissioned a study, and while he found some efficiencies were already in place, there were many steps that could be eliminated through an automated system. Reducing waste and speeding up the information management process was made a top priority because in the end, he said, moving information efficiently to and from senior leaders is the key to success for an effective staff.

"Building on early success for in-house improvements pointed us toward several actions now being imple-

mented to improve the quality of Army headquarters staff work," Campbell said.

Other LSS successes since the program's inception include the "Just Do It" Army recruiting process. Before LSS implementation, 32 steps were required to process recruits. Today, that number is down to 11.

At Fort Bragg, N.C.'s Central Issue Facility, a one-stop equipment and clothing outlet for base soldiers was able to reduce issue and turn-in times by 50 percent and its inventory by more than 65 percent. Installation officials expect a 20-percent cost savings by October.

Employees at Red River Army Depot, Texas, focused on projects involving the Bradley fighting vehicle to earn almost \$600,000 in savings. Fuel-recycling initiatives there also saved more than 37,000 gallons of fuel, with a value of roughly \$85,000 in just one year.

For more information on the Army Business Transformation Strategic Framework go to <www.army.mil/armybtkc>.

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 6, 2007)

DOD ANNOUNCES WINNERS OF THE SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS

The Department of Defense announced today the winners of the Secretary of Defense Environmental Awards for fiscal 2006. A panel representing federal and state agencies and public members has selected the following installations, teams, and individuals as the winners of this year's awards:

- Arnold Air Force Base, Tenn.
Natural Resources Conservation – Large Installation
- Fort Drum, N.Y.
Cultural Resources Management – Installation
- Gary M. O'Donnell, Hickam Air Force Base, Hawaii
Cultural Resources Management – Individual/Team
- Tinker Air Force Base, Okla.
Environmental Quality – Industrial Installation
- Marine Corps Base, Camp Smedley D. Butler, Japan
Environmental Quality – Overseas Installation
- Marine Corps Base, Hawaii
Pollution Prevention – Non-Industrial Installation
- Pollution Prevention Afloat Team, Naval Sea Systems Command, Washington, D.C.
Pollution Prevention – Individual/Team



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- Dover Air Force Base, Del.
Environmental Restoration – Installation

Each year since 1962, the secretary of defense has recognized outstanding achievement in environmental management by military and civilian personnel, at both domestic and overseas bases, to sustain military readiness, training, and operational capabilities.

For more information on the Secretary of Defense Environmental Awards Program and highlights of this year's winners and honorable mentions, visit: <<https://www.denix.osd.mil/denix/Public/Library/Awards/awards.html>>

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH (JUNE 15, 2007) **ENGINEERS SELECT AIR FORCE BASIC RESEARCH PROGRAM MANAGER FOR FELLOWSHIP**

Maria Callier

ARLINGTON, Va.—A June announcement from the Air Force Office of Scientific Research indicates that the Institute of Electrical and Electronics Engineers Inc., Board of Directors has named an AFOSR program manager as a Fellow for its class of 2007.

The board selected Dr. Harold Weinstock, AFOSR's quantum electronic solids research program manager, on factors that included leadership and research in the field of superconducting magnetometry, a tool for analyzing metallic structural integrity.

"I was one of the originators of using superconducting magnetometry for non-destructive evaluation, which I first did during a sabbatical when I was a professor of physics at Illinois Institute of Technology in Chicago," said Weinstock. "I also did it while on sabbatical at the Naval Research Laboratory."

Weinstock said being selected for the fellowship was a pleasant surprise.

"I had been an IEEE member for only five years, the minimum time required to be eligible," he said. "I was somewhat overwhelmed by the number of people from around the world who took the trouble to congratulate me on receiving this honor."

The IEEE Grade of Fellow is conferred by the board of directors upon a person with an extraordinary record of accomplishments. IEEE is the world's largest technical

professional society with 365,000 members in 150 countries. The society is a leading authority on a wide variety of areas ranging from aerospace systems, computers and telecommunications, to biomedical engineering, electric power, and consumer electronics.

Weinstock, who joined AFOSR in 1986, currently manages a portfolio that focuses on materials that exhibit cooperative quantum electronic behavior, with the primary emphasis on superconductors. He also focuses on any conducting materials with surfaces that can be modified and observed through the use of scanning tunneling and related atomic-force microscopic techniques, the ultimate goal being the creation of new nano-devices and structures.

He continues to conduct his own research in electronics and electronic materials that relate to superconductivity, magnetism, and nanostructures. Originally, he began his work in superconducting magnetometry because he found it an "intriguing and important phenomenon."

Callier writes for Air Force Office of Scientific Research Public Affairs.

ARMY NEWS SERVICE (JUNE 15, 2007) **ARMY RECOGNIZES GREATEST INVENTIONS FOR 2006**

J.D. Leipold

WASHINGTON—Researchers behind the Army's top 10 greatest inventions for 2006 were recognized at a ceremony in Arlington, Va.

Now in its fifth year, the program awards new technologies that increase soldier safety and improve mission effectiveness. Three of this year's top inventions are geared toward defeating Improvised Explosive Devices, and most inventions have already been fielded to soldiers fighting the war on terror.

The top picks were chosen by soldiers from Active Army divisions and the U.S. Army Training and Doctrine Command according to three criteria: impact on Army capabilities, potential benefits outside the Army, and inventiveness.

Vice Chief of Staff of the Army Richard A. Cody praised the winners for listening to requests from soldiers in the field and acting quickly in research and development to provide solutions to problems they face in Iraq and Afghanistan.



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The Humvee Crew Extraction D-ring pictured here is one of the Army's Top 10 greatest inventions for 2006. It was created by U.S. Army Aviation and Missile Research, Development and Engineering Center, Redstone Arsenal, Ala.

U.S. Army photograph

"As long as this community continues to listen to the American soldier and gives you feedback ... we'll stay ahead of this enemy and we'll be successful," he said.

Gen. Benjamin S. Griffin, commanding general, Army Materiel Command, also thanked awardees for helping save the lives of soldiers.

"I thank you all for being responsive to soldiers who identified a need that you moved out on," Griffin said. "I challenge you now to be back here next year with something that again meets the needs of our people who are deployed around the world."

The Army's Greatest Inventions for 2006 are:

Blow Torch Counter Improvised Explosive Device System, U.S. Army Research Laboratory, Aberdeen Proving Ground, Md. This vehicle-mounted system detonates IEDs at safe stand-off distances, minimizing vehicle damage and soldier injuries. "It's fairly easy to operate, and it gives a sense of security to the soldiers when they're on convoy duty," said Maj. Brian Hackenberg, who helped develop the system.

Integrated Robotic Explosive Detection System, U.S. Army Aviation and Missile Research, Development and Engineering Center, Redstone Arsenal, Ala. Capable of crossing rugged terrain, this remotely operated system incorporates an explosive trace detector onto a robotic platform.

Plastic Shaped Charge Assembly for Remote Destruction of Buried IEDs, U.S. Army Armament Research, Development and Engineering Center, Picatinny Arsenal, N.J. Remotely emplaced, the PSCA destroys known or suspected unexploded ordnance with higher accuracy than similar devices currently in use. Its low-fragmentation plastic housing eliminates collateral damage.

Humvee Crew Extraction D-ring, U.S. Army Aviation and Missile Research, Development and Engineering Center, Redstone Arsenal, Ala. Combat locks on the up-armored Humvee provide security for soldiers but often get so damaged that the doors can't be opened. The D-ring provides solid anchor points for the hooks of a tow strap, chain, or cable to pull open damaged doors. "There was an issue of soldiers getting trapped inside Humvees that had been damaged for whatever reason ... enemy fire or being flipped. Soldiers had problems getting the doors off these up-armored Humvees, so we took their advice and created the D-ring," said Wesley D. Patterson, who is part of a Fast Assistance in Sciences Team that deploys to help soldiers solve problems that can be resolved within six months.

M1114 Humvee Interim Fragment Kit 5, U.S. Army Research Laboratory, Aberdeen Proving Ground, Md. This kit was fielded as a ballistic improvement for the M1114 Humvee in April 2006. A prototype door solution with fabrication and mounting instructions was provided within one week with automotive testing and safety certification.

Remote Urban Monitoring System, U.S. Army Communications-Electronics Research, Development and Engineering Center, Fort Belvoir, Va. RUMS hardware combines emerging technologies in Wireless Local Area Network technology, night-vision cameras, and unattended ground sensors to eliminate false alarms. Tripped sensors transmit an alarm signal to the camera module and operator after video and audio from multiple camera modules confirm the unattended ground sensor's alarm signal.



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Constant Hawk, U.S. Army Research Laboratory, Aberdeen Proving Ground, Md. Constant Hawk is a surveillance capability that uses an electro-optic payload to collect intelligence and identify areas that require increased surveillance by other assets.

OmniSense Unattended Ground Sensor System, U.S. Army Research Laboratory, Aberdeen Proving Ground, Md. OmniSense is an unattended ground sensor system used to detect and classify personnel and vehicles in perimeter defense.

EM113A2 Rapid Entry Vehicle, U.S. Army Armament Research, Development and Engineering Center, Picatinny, N.J. The REV provides rapid entry, nonlethal crowd control and rescue-squad insertion capabilities into areas requiring non-lethal intervention. The vehicle increases soldier survivability through improved situational awareness and the ability to move and fire from within an armored vehicle.

BuckEye System, U.S. Army Engineer Research and Development Center, Vicksburg, Miss. BuckEye uses a digital camera to produce geospatial information for intelligence, surveillance, and reconnaissance. It also produces high-resolution 3D urban mapping. Chief Warrant Officer 4 Michael Harper said the BuckEye System has been instrumental in allowing a maneuver commander to rapidly map battlespace through high-resolution imagery and to collect elevation data to give a 3D view. "What it gives to soldiers is added situational awareness they need to fight in an urban terrain," he said. "Buck-

Eye has essentially mapped almost every major city in Iraq thus far."

AIR FORCE PRINT NEWS (JUNE 11, 2007) **F-22 RAPTOR TEAM GARNERS COLLIER TROPHY**

WASHINGTON—The National Aeronautic Association presented its Robert J. Collier Trophy to the Lockheed Martin Corporation for their role in the development of the Air Force's F-22 Raptor.

The Air Force was part of the team awarded the honor, one of the nation's most prestigious prizes for aeronautical and space development.

"The F-22 has been a success story for the warfighter and industry from its inception," said Secretary of the Air Force Michael W. Wynne. "The Raptor has pushed limits in terms of performance, safety, readiness, and most importantly, its warfighting prowess. Just by having this weapons system in our inventory we provide the nation sovereign options."

The award submission focused heavily on the F-22's performance during the 2006 Northern Edge exercise where Raptors flew 97 percent of their assigned training sorties, F-22 pilots scored an "unheard of" 80-to-1 kill ratio against their opponents, scored direct hits with 100 percent of their 1,000-pound GBU-32 joint direct attack munition air-to-ground weapons, and increased overall sit-

F-22A Raptors taxi down the runway at Langley Air Force Base, Va. The National Aeronautic Association presented its Robert J. Collier Trophy to the Lockheed Martin Corporation for their role in the development of the Air Force's F-22A Raptor.

U.S. Air Force photograph by Tech. Sgt. Ben Bloker, USAF





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uational awareness for their entire team through the F-22's integrated avionics package.

"The Collier award is not only a tremendous honor for the entire F-22 team, but also a wonderful tribute to the visionaries who conceived the Raptor and the warfighters who fly and support this revolutionary aircraft every day," said Larry Lawson, executive vice president and F-22 program general manager. "What airmen did in Alaska last year is only a sign of great things to come in 2007 and beyond."

Other honored members of the Raptor team included Boeing, Pratt & Whitney, Northrop Grumman, Raytheon, BAE Systems, and some 1,000 suppliers in 42 states.

The NAA is the oldest national aviation organization in the United States dedicated to the advancement of the art, sport, and science of aviation in the U.S. The Collier Trophy was established in 1911 and is granted each year "for the greatest achievement in aeronautics or astronautics in America ... during the preceding year."

The F-22 team joins past winners of the trophy including Orville Wright, Howard Hughes, Chuck Yeager, Scott Crossfield, the crew of Apollo 11, and SpaceShipOne.

ARMY NEWS SERVICE (JUNE 13, 2007) **ARMY ENVIRONMENTAL PROGRAMS AWARDED FOR MAKING A DIFFERENCE**

Kristin Miller

WASHINGTON—Fort Hood, Texas; Fort Rucker, Ala.; and Department of the Army were awarded for contributions to the environment at yesterday's 2007 White House Closing the Circle Awards ceremony.

"Acceptance of these prestigious awards confirms that Army sustainability is on the move and gaining momentum. We're building green, buying green, and going green," said Tad Davis, deputy assistant secretary of the Army for Environmental, Safety and Occupational Health. "I'm confident this recognition will spark others to action."

Department of the Army received the "Sowing the Seeds" award for its leadership in setting a future vision with the Army's "Strategy for the Environment." The strategy outlines the Army's vision for the next 20 years and how its goals will impact the Army's mission, the environment, and local communities. It transitions the Army's compliance-based environmental program to a mission-

oriented approach based on the principles of sustainability.

Fort Hood's Solid Waste and Recycle Team received a pollution-prevention award for its "Every Waste a Reuse Opportunity" program. Environmental experts there trained more than 11,000 community members on recycling and environmental awareness. Fort Hood also developed partnerships with local, state, federal, and private organizations to aid their environmental mission.

The post saved more than \$2.5 million in 2006 through its Qualified Recycling Program, compost recycle program, inert material management, deconstruction management, special waste management, and the electronics waste recycling program.

"This award represents the hard work and dedication by Fort Hood's environmental team to supporting the mission, serving the soldier, and protecting the environment," said Col. Tori Bruzese, Fort Hood garrison commander. "This installation award reflects the passion that Fort Hood employees have in keeping Fort Hood 'The Great Place.'"

Fort Rucker's Aviation Center Logistics Command received an honorable mention for recycling. The command created a pilot program with local industrial laundry to recycle absorbents used to wipe aircraft engines. The absorbents were previously discarded as hazardous waste after one use due to the presence of a toxic metal called cadmium.

The program successfully eliminated hazardous waste while also reducing aircraft cleaning costs. The absorbent material can now be reused as many as 10 times before being discarded, creating an estimated cost savings of about \$500,000 a year.

"This new process truly allowed greening of the current government practices through waste prevention," said Robert Hill, deputy commander, Aviation and Missile Command, ACLC.

The White House Closing the Circle Award program is an annual award program sponsored by the Office of the Federal Environmental Executive. In its 13th year, the program focuses on the practices of sustainable building, waste prevention and recycling, green purchasing, and electronics stewardship.

Miller writes for the U.S. Army Environmental Command.



AT&L Workforce— Key Leadership Changes

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 6, 2007)

STATEMENT BY KENNETH J. KRIEG

Under Secretary of Defense for Acquisition, Technology and Logistics Kenneth J. Krieg today announced his resignation. Krieg's resignation becomes effective July 20, 2007, or upon the confirmation of his successor, whichever comes first. He thanked the president for "...giving me the opportunity to serve the best customers I will ever have—the men and women who volunteer to serve our nation in uniform." He leaves the Department to concentrate on his family.

FIRST WOMAN RESERVE OFFICER TO BE GENERAL (MAY 1, 2007)

MARINE FORCES RESERVE, New Orleans—The Marine Corps promoted the first woman reserve officer to the rank of general during a ceremony in Arlington, Va., May 4.

Deputy Commandant for Installations and Logistics Lt. Gen. Richard S. Kramlich will promote Col. Tracy L. Garrett to brigadier general in the auditorium aboard Headquarters Battalion, Henderson Hall.

Garrett has held many billets throughout her 29 years of service. She has been the Headquarters and Service company commander, battalion executive officer, and the commanding officer for 4th Landing Support Battalion. Garrett has also mobilized with the 1st Force Service Support Group out of Camp Pendleton, Calif., on several occasions in support of the Global War on Terror.

At the present time, she is the acting commanding general for 4th Marine Logistics Group, Marine Forces Reserve.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 2, 2007)

FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignment: Rear Adm. (lower half)(selectee) Michael A. Giorgione is being assigned as commander, Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawaii.

Giorgione is currently serving as commanding officer, Naval Facilities Southwest, San Diego, Calif.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 2, 2007)

FLAG OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Navy Rear Adm. (lower half) Charles H. Goddard has been nominated for appointment to the grade of rear admiral. Goddard is currently serving as program executive officer for ships, Naval Sea Systems Command, Washington, D.C.

Navy Rear Adm. (lower half) Kevin M. McCoy, has been nominated for appointment to the grade of rear admiral. McCoy is currently serving as deputy commander for ship design, integration and engineering, SEA-05, Naval Sea Systems Command, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 2, 2007)

FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignment: Rear Adm. (lower half) John J. Prendergast III is being assigned as vice director for logistics, J4, Joint Staff, Washington, D.C. Prendergast is currently serving as deputy chief of staff for logistics, fleet supply and ordnance, N4, U.S. Pacific Fleet, Pearl Harbor, Hawaii.

75TH AIR BASE WING PUBLIC AFFAIRS (MAY 9, 2007)

PRESIDENT SELECTS GENERAL SULLIVAN FOR PROMOTION, ASSIGNMENT

HILL AIR FORCE BASE, Utah—Secretary of Defense Robert M. Gates announced May 8 that the president has nominated Maj. Gen. Kevin J. Sullivan, commander of the Ogden Air Logistics Center for promotion to the rank of lieutenant general with an assignment to become the Deputy Chief of Staff, Installations, Logistics, and Mission Support, at Headquarters U.S. Air Force, Pentagon, Washington, D.C.

Sullivan will require U.S. Senate confirmation for the promotion. Once confirmed, he will succeed retiring Lt. Gen. Donald J. General Wetekam. No date has been set for



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the promotion or new reporting date to the Pentagon.

Sullivan has been commander of the Ogden ALC since July 2003. The ALC is located on Hill AFB, the largest single site employer in Utah with more than 23,000 people and local economic impact amounting to more than \$3 billion annually. The ALC's mission includes depot maintenance, purchasing and supply chain management, weapons system management, and readiness.

As deputy chief of staff for installations, logistics and mission support, Sullivan will be responsible to the Air Force chief of staff for leadership, management, and integration of Air Force installation support and all the logistics elements associated with aircraft and missile supply and maintenance activities, as well as setting policy and preparing budget estimates that reflect enhancements to productivity, combat readiness, and quality of life for Air Force people.

75TH AIR BASE WING PUBLIC AFFAIRS (MAY 17, 2007)

BRIG. GEN. CLOSE TO COMMAND OGDEN AIR LOGISTICS CENTER

Marilu Trainor

HILL AIR FORCE BASE, Utah—Brig. Gen. Kathleen D. Close has been selected to become the next commander of the Ogden Air Logistics Center.

Close is currently the director of Maintenance within the Deputy Chief of Staff for Logistics, Installations and Mission Support, Headquarters Air Force, Washington, D.C.

She will succeed Maj. Gen. Kevin J. Sullivan, who was nominated May 8 for promotion to the rank of lieutenant general and to become the deputy chief of staff, Installations, Logistics, and Mission Support, at Headquarters Air Force.



Maj. Gen. Kevin J. Sullivan,
USAF
U.S. Air Force photograph

In her current position, Close is responsible for training, organizing and equipping a work force of more than 150,000 technicians and managers maintaining the \$260 billion global engagement aerospace weapons system inventory. The Headquarters Air Force Maintenance Directorate develops aircraft maintenance and munitions policy to ensure the readiness of the single largest element of manpower supporting Air Force combat forces worldwide and advocates an annual budget of more than \$20 billion.

As the Ogden ALC commander, Close will oversee an organization that provides worldwide logistics management, engineering, supply, contracting, and depot maintenance for a wide variety of aircraft and munitions related platforms.

Close was commissioned in December 1978 through the ROTC program following graduation from Colorado State University. She has directed three aircraft maintenance units, served as squadron maintenance supervisor in two units, and held a variety of staff positions at the major command, Air Staff, and Secretariat levels. The general has commanded a combat logistics support squadron, a logistics group, and an air base wing.

One of her early career assignments was at Hill AFB. From December 1982 to August 1985, she served as a maintenance supervisor in the 388th Fighter Wing's Component Repair Squadron and later, as the officer in charge, 16th Aircraft Maintenance Unit, 388th Aircraft Generation Squadron.

Her previous responsibilities have covered aircraft and munitions maintenance operations, management and policies, as well as depot-level maintenance production and major weapon system acquisition activities.

As for her new assignment, Close said it is a tremendous opportunity to command the Ogden Air Logistics Center.

"I am honored that General Carlson selected me



Brig. Gen. Kathleen D. Close,
USAF
U.S. Air Force photograph



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to replace one of our Air Force's visionary leaders, General Sullivan," said Close. "Ogden is known for its forward-thinking business practices and embracement of Lean principles and I am eager to build upon the strong foundation General Sullivan and his team have put in place."

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 11, 2007)

FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignments:

Rear Adm. (lower half) Nevin P. Carr is being assigned as director, Navy International Programs Office, Secretary of the Navy, Washington, D.C. Carr is currently serving as deputy surface warfare for combat systems/weapons, N86F, Office of the Chief of Naval Operations, Washington, D.C.

Rear Adm. (lower half) Stephen S. Voetsch is being assigned as commander, Operational Test and Evaluation Force, Norfolk, Va. Voetsch is currently serving as deputy chief of staff for operations, training and readiness, N3/N7, U.S. Pacific Fleet, Pearl Harbor, Hawaii.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 15, 2007)

GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Army Col. Kendall P. Cox Sr. for promotion to the grade of brigadier general. He is currently serving as executive director, Office of the Chief of Engineers, U.S. Army Corps of Engineers, Washington, D.C.

Army Col. William T. Crosby for promotion to the grade of brigadier general. He is currently serving as project manager, cargo helicopter, Program Executive Office, Aviation, Redstone Arsenal, Ala.

Army Col. Peter N. Fuller for promotion to the grade of brigadier general. He is currently serving as project manager, Stryker Brigade Combat Team, program executive officer, Ground Combat Systems, Warren, Mich.

Army Col. Brian R. Layer for promotion to the grade of brigadier general. He is currently serving as executive officer to the deputy chief of staff, G-4, Washington, D.C.

Army Col. Thomas J. Richardson for promotion to the grade of brigadier general. He is currently serving as executive officer to the deputy commanding general, U.S. Army Materiel Command, Fort Belvoir, Va.

Army Col. Paul L. Wentz for promotion to the grade of brigadier general. He is currently serving as executive officer to the commanding general, U.S. Army Materiel Command, Fort Belvoir, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 30, 2007)

FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignments:

Rear Adm. (lower half) (selectee) Patrick H. Brady is being assigned as commander, Naval Undersea Warfare Center, Washington, D.C. Brady is currently serving as major program manager for Advanced Undersea Systems Program, Program Executive Office for Submarines, Washington, D.C.

Rear Adm. (lower half) (selectee) Anthony M. Kurta is being assigned as director, Navy Europe programs, resources, and support/director, transformation activities, U.S. Naval Forces, Europe, Naples, Italy. Kurta is currently serving as director, Surface Warfare Officer Career Management Division, PERS 41, Navy Personnel Command, Millington, Tenn.

Rear Adm. (lower half) (selectee) Thomas C. Traaen is being assigned as deputy chief of staff for logistics, fleet supply and ordnance, N4, U.S. Pacific Fleet, Pearl Harbor, Hawaii. Traaen is currently serving as deputy commander, Fleet Logistics Operations, Naval Supply Systems Command, Mechanicsburg, Pa.

Rear Adm. (lower half) (selectee) Nora W. Tyson is being assigned as commander, Logistics Group, Western Pacific/commander, Task Force 73/commander, Navy Region Singapore. Tyson is currently serving as executive assistant to the chief of naval operations, Office of the Chief of Naval Operations, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (MAY 31, 2007)

FLAG OFFICER ANNOUNCEMENT

Secretary of Defense Robert M. Gates announced today that the President has made the following nomination: Navy Rear Adm. (selectee) Jeffrey A. Wieringa has been nominated for appointment to the



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grade of vice admiral and assignment as director, Defense Security Cooperation Agency, Arlington, Va. Wieringa is currently serving as director, Navy International Programs Office, Office of the Secretary of the Navy, Arlington, Va.

72ND AIR BASE WING PUBLIC AFFAIRS (MAY 31, 2007)

GENERAL RENO TAKES COMMAND OF OKLAHOMA CITY AIR LOGISTICS CENTER

Brandice J. Armstrong

TINKER AIR FORCE BASE, Okla.—Maj. Gen. Loren M. Reno said his five main focus areas as the newly named Oklahoma City Air Logistics Center commander are: supporting the warfighter, stewardship, suppliers, safety and quality, and teamwork. Reno detailed his keys to success before approximately 1,500 airmen, civilians, friends, and family during a change of command ceremony May 30. The general took over the reins of leadership from the previous director, Robert J. Conner, who retired.

“This is where my head is, this is where my heart is,” Reno said regarding his focus areas and new responsibilities. “I value all our people. I ask for your help to serve

as wingmen with me as together we take care of this great Air Force family.

“We are one command ... one enterprise,” the general said. “We will deliver war-winning expeditionary capabilities to the warfighter ... on time, on cost.”

Shortly after assuming command, Reno said, “You’ll hear me talk a lot about ‘better’ because that sums up where I plan for us to go from here. My thoughts are that together we commit to give the warfighters what they need and the taxpayers what they deserve. We will continue to sharpen the sword for our great warfighters.”

Reno comes to Tinker after serving as the Defense Logistics Agency vice director at Fort Belvoir, Va., since October 2005. He brings more than 30 years of leadership and logistics experience to the position. Since receiving his commission in 1974, the general has completed 17 assignments. Among them was a tour at OC-ALC from February 1998 to June 2002. During that time, Reno served as director of Technology and Industrial Support, director of Propulsion Transition, director of Propulsion, and vice commander of OC-ALC.



Gen. Bruce Carlson, left, passes the guidon to Maj. Gen. Loren M. Reno during a change of command ceremony May 30 at Tinker Air Force Base, Okla. General Carlson, the commander of Air Force Materiel Command, presided over the ceremony in which General Reno became the commander of the Oklahoma City Air Logistics Center at Tinker.

Air Force photograph by Margo Wright



AT&L Workforce—Key Leadership Changes

Gen. Bruce Carlson, commander of Air Force Materiel Command, presided over the ceremony. “As the Oklahoma City Air Logistics Center moves forward in (Air Force Materiel Command), I want to assure you that you are in good hands with General Reno, who is absolutely the right guy for the job,” Carlson said. “General Reno will fit perfectly here at Team Tinker.”

Reno succeeds Conner, who made history in August 2005 when he became the first-ever civilian director of the largest air logistics center in the Air Force. In his 32-year career, Conner completed 14 assignments, five of which were at Tinker. His retirement became effective after the ceremony.

“For the people of this center, the only word I have is ‘awesome,’” Conner said. “When I first arrived here in 1993, your reputation led me to believe this was the best air logistics center in the Air Force. Your performance over the last 14 years has confirmed that and more. I can’t thank you enough for what you’ve done.”

Following the change of command ceremony, Conner, a member of the Senior Executive Service, received several certificates and letters of appreciation for his years of civil service.

“Bob, you’ve done a magnificent job as the director of the Oklahoma City Air Logistics Center,” Carlson said. “On behalf of AFMC, I want to say ‘Thank you for your career and a job well done.’”

Armstrong writes for 72nd Air Base Wing Public Affairs.

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 4, 2007) **GENERAL OFFICER ANNOUNCEMENT**

The Army chief of staff announced the following officer assignment: **Brig. Gen. Michael Ferriter**, director for operations, plans, logistics and engineering, J-3/4, U.S. Joint Forces Command, Norfolk, Va., to effects coordinator, XVIII Airborne Corps, Fort Bragg, N.C..

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 8, 2007) **GENERAL OFFICER ANNOUNCEMENT**

The chief of staff, Army announces the assignment of the following officer: **Col. Paul L. Wentz**, executive officer to the commanding general, U.S. Army Materiel Command, Fort Belvoir, Va. to command,

13th Sustainment Command (Expeditionary), Fort Hood, Texas. Assignment of Wentz to a general officer position should not be construed as the Senate’s consent of his promotion nomination, and there will be no action to frock or promote him until Senate confirmation.

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 11, 2007) **GENERAL OFFICER ANNOUNCEMENT**

Secretary of Defense Dr. Robert M. Gates announced today that the President has made the following nomination: Marine Corps Lt. Gen. Emerson N. Gardner Jr. has been nominated for reappointment to the grade of lieutenant general and assignment as principal deputy director, Program Analysis and Evaluation, Office of the Secretary of Defense. Gardner is currently serving as the deputy commandant for Programs and Resources, Headquarters, United States Marine Corps, Washington, D.C.

CLAIRE GRADY NAMED COAST GUARD SENIOR PROCUREMENT EXECUTIVE

The Coast Guard has named Claire Grady to fill a new position as senior procurement executive and head of contracting activity effective July 2007. As the senior acquisition official, she will lead the effort to strengthen the Coast Guard’s acquisition programs. Grady comes to the Coast Guard from her position as director of strategic initiatives in the Homeland Security Department’s central procurement office. She has 16 years of government acquisition experience and previously worked for the U.S. Navy.

ANTHONY MARTOCCIA APPOINTED DIRECTOR, OFFICE OF SMALL BUSINESS PROGRAMS

Deputy Under Secretary of Defense for Acquisition & Technology James I. Finley has announced the appointment of Anthony Martoccia as director, Office of Small Business Programs, Office of the DUSD(A&T). In this capacity, Martoccia will be the DoD focal point for developing DoD-wide policy to guide procurement processes to meet Small Business procurement goals and objectives. Martoccia holds a bachelor’s in political science from the University of Nevada and a master’s in management from Central Michigan University. Most recently, he was an associate administrator for government contracting and business development at the United States Small Business Administration, where he served as a chief advisor to the small business administrator responsible for providing direc-



AT&L Workforce—Key Leadership Changes

tion, oversight, and policy to all federal small business contracting programs. He brings, according to Finley's announcement, "a wealth of knowledge, experience, and leadership to this position and will play a critical role in our Small Business efforts within the Department of Defense."

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 29, 2007) **GENERAL OFFICER ANNOUNCEMENTS**

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Air Force Brig. Gen. Kathleen D. Close has been nominated to the grade of major general while serving as the commander, Ogden Air Logistics Center, Air Force Materiel Command, Hill Air Force Base, Utah.

Air Force Brig. Gen. Charles R. Davis has been nominated to the grade of major general while serving as the director, Joint Strike Fighter Program, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, Pentagon, Washington, D.C.

Air Force Brig. Gen. David W. Eidsaune has been nominated to the grade of major general while serving as the commander, Air Armament Center and program executive officer, weapons, Air Force Materiel Command, Eglin Air Force Base, Fla.

Air Force Brig. Gen. Patrick D. Gillett Jr. has been nominated to the grade of major general while serving as the director, logistics, Headquarters Air Combat Command, Langley Air Force Base, Va.

Air Force Brig. Gen. Larry D. James has been nominated to the grade of major general while serving as the deputy director, Signals Intelligence Systems Acquisition and Operations Directorate, National Reconnaissance Office, Washington, D.C.

Air Force Brig. Gen. William N. McCasland has been nominated to the grade of major general while serving as the

director, space acquisition, Office of the Under Secretary of the Air Force, Washington, D.C.

Air Force Brig. Gen. Robert H. McMahon has been nominated to the grade of major general while serving as the director, logistics, Headquarters Air Mobility Command, Scott Air Force Base, Ill.

DEPARTMENT OF DEFENSE NEWS RELEASE (JUNE 29, 2007) **FLAG OFFICER ASSIGNMENTS**

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignments:

Rear Adm. (lower half)(selectee) Terry J. Benedict is being assigned as program executive officer for integrated warfare systems, Office of the Assistant Secretary of the Navy (Research, Development and Acquisition), Washington, D.C. Benedict is currently serving as deputy director direct reporting program manager and technical director, strategic systems programs, Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) Washington, D.C.

Rear Adm. (lower half) Michael S. Frick is being assigned as vice commander, Naval Sea Systems Command, Washington, D.C. Frick is currently serving as program executive officer for integrated warfare systems, Office of the Assistant Secretary of the Navy (Research, Development and Acquisition), Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 11, 2007) **FLAG OFFICER ANNOUNCEMENT**

Secretary of Defense Robert M. Gates announced today that the president has nominated **Navy Rear Adm. David Architzel** for appointment to the grade of vice admiral and assignment as principal deputy assistant secretary of the Navy (research, development and acquisition), Pentagon, Washington, D.C. Architzel is currently serving as program executive officer for aircraft carriers, Pentagon, Washington, D.C.



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A Six-pack of Tips for Defense AT&L Authors

1 Look at back issues of the magazine. If we printed an article on a particular topic a couple of issues ago, we're unlikely to print another for a while—unless it offers brand new information or a different point of view.

2 We look on articles much more favorably if they follow our author guidelines on format, length, and presentation. You'll find them at <www.dau.mil/pubs/dam/DAT&L%20author%20guidelines.pdf>.

3 Number the pages in your manuscript and put your name on every page. It makes our life so much easier if we happen to drop a stack of papers and your article's among them.

4 Do avoid acronyms as far as possible, but if you must use them, define them—every single one, however obvious you think it is. We

get testy if we have to keep going to acronymfinder.com, especially when we discover 10 equally applicable possibilities for one acronym.

5 Fax the *Certification as a Work of the U.S. Government* form when you e-mail your article because we can't review your manuscript until we have the release. Download it at <www.dau.mil/pubs/dam/DAT&L%20certification.pdf>. Please don't make us chase you down for it. And please fill it out completely, even if you've written for us before.

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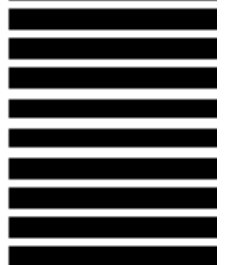
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Acquisition Central <http://acquisition.gov>

Shared systems and tools to help the federal acquisition community and the government's business partners conduct business efficiently.

Acquisition Community Connection (ACC) <http://acc.dau.mil>

Policies, procedures, tools, references, publications, Web links, and lessons learned for risk management, contracting, system engineering, total ownership cost.

Aging Systems Sustainment and Enabling Technologies (ASSET) <http://asset.okstate.edu/asset/index.htm>

A government-academic-industry partnership. ASSET program-developed technologies and processes increase the DoD supply base, reduce time and cost associated with parts procurement, and enhance military readiness.

Air Force (Acquisition) www.safaq.hq.af.mil

Policy; career development and training opportunities; reducing TOC; library; links.

Air Force Materiel Command (AFMC) Contracting Laboratory's FAR Site <http://farsite.hill.af.mil>

FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

Army Acquisition Support Center <http://asc.army.mil>

News; policy; *Army AL&T Magazine*; programs; career information; events; training opportunities.

Assistant Secretary of the Army (Acquisition, Logistics & Technology) <https://webportal.saalt.army.mil>

ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; links to other Army acquisition sites.

Association for the Advancement of Cost Engineering International (AACE) www.aacei.org

Promotes planning and management of cost and schedules; online technical library; bookstore; technical development; distance learning; etc.

Association of Old Crows (AOC) www.crows.org

News; conventions, courses; *Journal of Electronic Defense*.

Association of Procurement Technical Assistance Centers (APTAC) www.aptac-us.org

PTACs nationwide assist businesses with government contracting issues.

Central Contractor Registry <http://www.ccr.gov/>

Registration for businesses wishing to do business with the federal government under a FAR-based contract.

Committee for Purchase from People Who are Blind or Severely Disabled www.abilityone.gov

Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

Defense Acquisition University (DAU) and Defense Systems Management College (DSMO) www.dau.mil

DAU Course Catalog; *Defense AT&L* magazine and *Defense Acquisition Review Journal*; DAU/DSMC course schedules; educational resources.

DAU Alumni Association www.dauaa.org

Acquisition tools and resources; government and related links; career opportunities; member forums.

DAU Distance Learning Courses www.dau.mil/registrar/enroll.asp

DAU online courses.

Defense Advanced Research Projects Agency (DARPA) www.darpa.mil

News releases; current solicitations; "Doing Business with DARPA."

Defense Business Transformation Agency (BTA) www.acq.osd.mil/scst/index.htm

Policy; newsletters; Central Contractor Registration (CCR); assistance centers; DoD EC partners.

Defense Information Systems Agency (DISA) www.disa.mil

Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System.

Defense Modeling and Simulation Office (DMSO) www.dmsomil

DoD Modeling and Simulation Master Plan; document library; events; services.

Defense Technical Information Center (DTIC) www.dtic.mil/

DTIC's scientific and technical information network (STINET) is one of DoD's largest available repositories of scientific, research, and engineering information. Hosts over 100 DoD Web sites.

Director, Defense Procurement and Acquisition Policy (DPAP) www.acq.osd.mil/dpap

Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy, guidance.

DoD Defense Standardization Program www.dsp.dla.mil

DoD standardization; points of contact; FAQs; military specifications and standards reform; newsletters; training; nongovernment standards; links.

DoD Enterprise Software Initiative (ESI) www.esi.mil

Joint project to implement true software enterprise management process within DoD.

DoD Inspector General Publications www.dodig.osd.mil/pubs/

Audit and evaluation reports; IG testimony; planned and ongoing audit projects of interest to the AT&L community.

DoD Office of Technology Transition www.acq.osd.mil/ott

Information about and links to OTT's programs.

DoD Systems Engineering www.acq.osd.mil/se

IPolicies, guides and other information on SE and related topics, including developmental T&E and acquisition program support.

Earned Value Management www.acq.osd.mil/pm

Implementation of earned value management; latest policy changes; standards; international developments.

Electronic Industries Alliance (EIA) www.eia.org

Government relations department; links to issues councils; market research assistance.

Federal Acquisition Institute (FAI) <https://www.atrrs.army.mil/channels/faitas>

Virtual campus for learning opportunities; information access and performance support.

Federal Acquisition Jumpstation <http://prod.nais.nasa.gov/pub/fedproc/home.htm>

Procurement and acquisition servers by contracting activity; CBDNet; reference library.

Federal Aviation Administration (FAA) www.asu.faa.gov

Online policy and guidance for all aspects of the acquisition process.

Federal Business Opportunities www.fedbizopps.gov

FedBizOpps.gov is the single government point-of-entry for federal government procurement opportunities over \$25,000.

Federal R&D Project Summaries www.osti.gov/fedrnd/about

Portal to information on federal research projects; search databases at different agencies.

Federal Research in Progress (FEDRIP) <http://grc.ntis.gov/fedrip.htm>

Information on federally funded projects in the physical sciences, engineering, life sciences.

Fedworld Information www.fedworld.gov

Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

Government Accountability Office (GAO) <http://www.gao.gov>

GAO reports; policy and guidance; FAQs.

General Services Administration (GSA) www.gsa.gov

Online shopping for commercial items to support government interests.

Government-Industry Data Exchange Program (GIDEP) www.gidep.org

Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

GOV.Research_Center <http://grc.ntis.gov>

U.S. Dept. of Commerce, National Technical Information Service (NTIS), and National Information Services Corporation (NISC) joint venture single-point access to government information.

Integrated Dual-Use Commercial Companies (IDCC) www.idcc.org



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Surfing the Net

MANPRINT (Manpower and Personnel Integration)

www.manprint.army.mil

Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; briefings on the MANPRINT program.

National Aeronautics and Space Administration (NASA)'s Commercial Technology Office (CTO)

http://technology.grc.nasa.gov

Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

National Contract Management Association (NCMA)

www.ncmahq.org

"What's New in Contracting?"; educational products catalog; career center.

National Defense Industrial Association (NDIA)

www.ndia.org

Association news; events; government policy; National Defense magazine.

National Geospatial-Intelligence Agency

www.nima.mil

Imagery; maps and geodata; Freedom of Information Act resources; publications.

National Institute of Standards and Technology (NIST)

www.nist.gov

Information about NIST technology, measurements, and standards programs, products, and services.

National Technical Information Service (NTIS)

www.ntis.gov

Online service for purchasing technical reports, computer products, videotapes, audiocassettes.

Naval Sea Systems Command

www.navsea.navy.mil

Total Ownership Cost (TOC); documentation and policy; reduction plan; implementation timeline; TOC reporting templates; FAQs.

Navy Acquisition and Business Management

www.abm.rda.hq.navy.mil

Policy documents; training opportunities; guides on risk management, acquisition environmental issues, past performance;

news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

Navy Acquisition, Research and Development Information Center

www.onr.navy.mil/sci_tech

News and announcements; acronyms; publications and regulations; technical reports; doing business with the Navy.

Navy Best Manufacturing Practices Center of Excellence

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)

www.navair.navy.mil

Provides advanced warfare technology through the efforts of a seamless, integrated, worldwide network of aviation technology experts.

Office of Force Transformation

www.ofc.osd.mil

News on transformation policies, programs, and projects throughout the DoD and the Services.

Open Systems Joint Task Force

www.acq.osd.mil/osjtf

Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

Parts Standardization and Management Committee (PSMC)

www.dscc.dla.mil/programs/psmc

Collaborative effort between government and industry for parts management and standardization through commonality of parts and processes.

Performance-based Logistics Toolkit

https://acc.dau.mil/pbltoolkit

Web-based 12-step process model for development, implementation, and management of PBL strategies.

Project Management Institute

www.pmi.org

Program management publications; information resources; professional practices; career certification.

Small Business Administration (SBA)

www.sba.gov

Communications network for small businesses.

DoD Office of Small Business Programs

www.acq.osd.mil/osbp

Program and process information; current solicitations; Help Desk information.

Software Program Managers Network

www.spmn.com

Supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

Space and Naval Warfare Systems Command (SPAWAR)

https://e-commerce.spawar.navy.mil

SPAWAR business opportunities; acquisition news; solicitations; small business information.

System of Systems Engineering Center of Excellence (SoSECE)

www.sosece.org

Advances the development, evolution, practice, and application of the system of systems engineering discipline across individual and enterprise-wide systems.

Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L))

www.acq.osd.mil

USD(AT&L) documents; streaming videos; links.

USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)

http://akss.dau.mil

Automated acquisition reference tool covering mandatory and discretionary practices.

U.S. Coast Guard

www.uscg.mil

News and current events; services; points of contact; FAQs.

U.S. Department of Transportation Maritime Administration

www.marad.dot.gov

Information and guidance on the requirements for shipping cargo on U.S. flag vessels.

Information for technology-rich commercial companies on doing business with the federal government.

International Society of Logistics

www.sole.org

Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

International Test & Evaluation Association (ITEA)

www.itea.org

Professional association to further development and application of T&E policy and techniques to assess effectiveness, reliability, and safety of new and existing systems and products.

Joint Capability Technology

Demonstrations (JCTD)

www.acq.osd.mil/jctd

JCTD's accomplishments, articles, speeches, guidelines, and POCs.

U.S. Joint Forces Command

www.jfcom.mil

A "transformation laboratory" that develops and tests future concepts for warfighting.

Joint Fires Integration and Interoperability Team

https://jfiit.eglin.af.mil

USJFCOM lead agency to investigate, assess, and improve integration, interoperability, and operational effectiveness of Joint Fires and Combat Identification across the Joint warfighting spectrum. (Accessible from .gov and .mil domains only.)

Joint Interoperability Test Command (JITC)

http://jitc.fhu.disa.mil

Policies and procedures for interoperability certification; lessons learned; support.

Joint Spectrum Center (JSC)

www.jsc.mil

Provides operational spectrum management support to the Joint Staff and COCOMs and conducts R&D into spectrum-efficient technologies.

Library of Congress

www.loc.gov

Research services; Congress at Work; Copyright Office; FAQs.

Links current at press time. To add a non-commercial defense acquisition/acquisition and logistics-related Web site to this list, or to update your current listing, please fax your request to *Defense AT&L*, 703-805-2917 or e-mail [datl\(at\)dau.mil](mailto:datl(at)dau.mil). Your description may be edited and/or shortened. DAU encourages the reciprocal linking of its home page to other interested agencies. Contact: [webmaster\(at\)dau.mil](mailto:webmaster(at)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 1,500 – 2,500 words.

Author bio

Include a brief biographical sketch of the author(s)—about 25 words—including current position and educational background. We do not use author photographs.

Style

Good writing sounds like comfortable conversation. Write naturally; avoid heavy use of passive voice. 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 and acronyms. Define *all* acronyms used. Consult "Tips for Authors" at <www.dau.mil/pubs/damtoc.asp>. Click on "Submit an Article to *Defense AT&L*."

Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use fancy fonts, 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.

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

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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: 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 [datl\(at\)dau.mil](mailto:datl(at)dau.mil). Subject line: *Defense AT&L graphics*.

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Submission Dates

Issue	Author Deadline
July-August	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 [datl\(at\)dau.mil](mailto:datl(at)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.



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