

AT&L



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A PUBLICATION OF THE DEFENSE ACQUISITION UNIVERSITY

Pushing for a Sense of Urgency

Defense AT&L Interviews

Dr. James I. Finley

**Deputy Under Secretary of Defense
(Acquisition and Technology)**

Also

The Army's Largest ERP Implementation

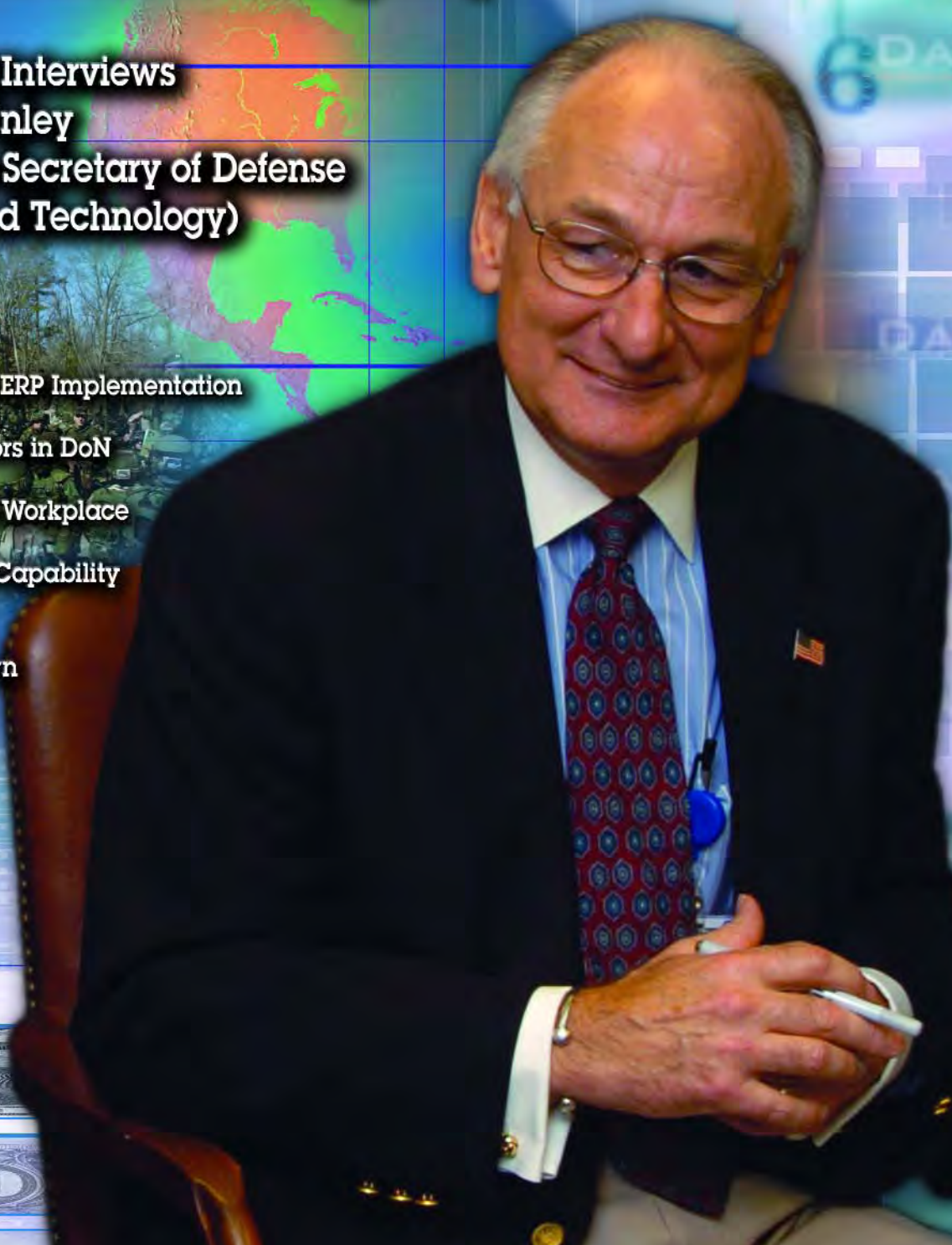
Independent Auditors in DoD

Generation Y in the Workplace

**Rapid Deployment Capability
in Action**

**What DoD Can Learn
from Hollywood**

Rapid Acquisition



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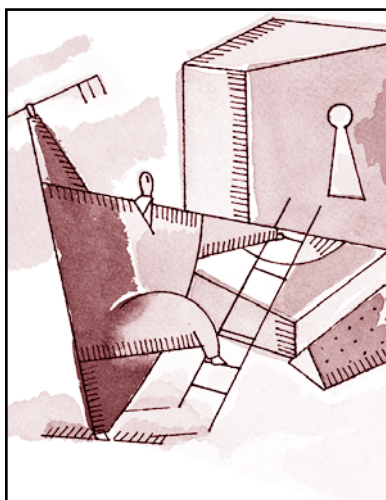
2 Pushing for a Sense of Urgency

Dr. James I. Finley, Deputy Under Secretary of Defense (Acquisition and Technology)
After 40 years in private industry, Finley brings a unique perspective to his position and a desire to bring together the best practices of the private sector and those of the DoD.



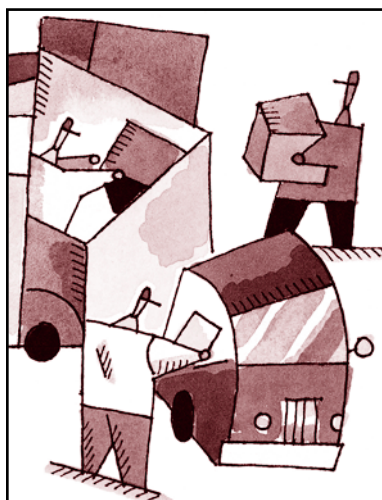
16 Generation Y in the Workplace

Cara Spiro
Members of Generation Y are the hottest commodities on the job market with needs and expectations quite different from those of other workers. How do employers meet the challenge of integrating these demanding young workers into the workplace?



8 Lessons Learned from the Army's Largest ERP Implementation

Col David W. Coker, USA
The Logistics Modernization program is poised to deliver total situational awareness of Army assets within five seconds of a request. Lessons learned are key to DoD's business transformation effort.



20 Rapid Deployment Capability in Action

Bob Poor and Randy Case
The RDC process facilitates fielding new capabilities quickly, as evidenced by the Navy's fielding of the Automatic Identification System, a commercial VHF Line-Of-Site transceiver that connects vessels and shore sites.



12 Just How Independent Are Internal Auditors in DoN?

Randall Exley
Independent review and evaluation of systems, activities, programs, and funds ensures that DoD leaders get an impartial and objective assessment of program effectiveness, efficiency, and compliance with laws and regulations.



24 It's All in the Talent

Maj. Dan Ward, USAF, and Maj. Chris Quaid, USAF
Talent agents for modeling boutiques and Hollywood casting directors know that hiring the right talent will determine the outcome, profitability, and well-being of their companies. Maybe they have something to teach DoD.



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28
When the Warfighter Needs it Now

Robert L. Buhrkuhl

The Joint Rapid Acquisition Cell is the single point of contact in OSD for addressing the urgent needs of the joint warfighter. Its structure and access to senior leaders make it effective in breaking down barriers that prevent timely and effective joint warfighting support.



32
Risky Business

Wayne Turk

Risk management is one of the most important areas of project management. The author presents the six key areas the Project Management Institute recommends be addressed in implementing an effective risk management program.

ALSO

Meet the AT&L Workforce	14
Strategies Gone Wild	36
From Our Readers	38
Top Ten Rewards to Being a Program Manager	40
CMM/CMMI Level 3 or Higher?	42
Heuristics for Joint Architecting	44

DEPARTMENTS

In the News	49
Spotlight on DAU Learning Resources	63
Career Development	69
Conferences, Workshops, & Symposia	72
Acquisition & Logistics Excellence	75
AT&L Workforce—Key Leadership Changes	83
Surfing the Net	87

Pushing for a Sense of Urgency

*Dr. James I. Finley
Deputy Under Secretary of Defense
(Acquisition and Technology)*

In March of 2006, Dr. James I. Finley was confirmed as the deputy under secretary of defense (acquisition and technology). In that capacity, he advises the secretary of defense and the USD(AT&L) on matters relating to acquisition and the integration and protection of technology. He is responsible for policies and procedures governing the Department's procurement and acquisition processes. Finley brings a new perspective to

the position, joining the federal government after over 40 years of experience in industry. In July, 2006, retired Adm. Lenn Vincent, DAU industry chair, sat down with Finley in his Pentagon office to find out what initiatives and goals Finley hopes to realize during his tenure, and his view of the similarities and differences between the private sector and the Department of Defense.

Q Just to start off, can you give us an overview of the duties and tasks of your position as the deputy under secretary of defense for acquisition and technology?

A My duties and responsibilities are to support the secretary, the deputy secretary of defense, and the under secretary of defense for AT&L with matters relating to acquisition and the integration and protection of technology, including oversight of the policies and procedures governing the DoD acquisition system. I believe that it is my job to support the Army, Air Force, Navy, and Marines in equipping our warfighters to give them the best that we can affordably provide.

Q What are some of your major goals and objectives?

A I have three major goals. One, to reduce cycle time; two, to increase competitiveness; and three, to broaden communications.

The acquisition system we have today takes over 10 years, end-to-end, to field major systems. Our technology is rotating every 18 months, and the bad guys are reinventing themselves every six months; there's something wrong between the

We have to set closure dates on projects and initiatives that impart a sense of urgency. To me, 18 months just doesn't do that. In industry, the norm from my experience was 30-, 60-, 90-day windows. That's a sense of urgency.



landscape of 10-plus years to get something fielded and the bad guys reinventing themselves every six months.

Our goal is to cut the cycle in half: to take it from 10-plus to five-minus years. We're focusing on the front end of the acquisition process: consolidating studies; evaluating alternatives with cost, requirements, and technology trade-offs; converging those evaluations with bounded solutions; and making decisions for an investment strategy. The Services, joint staff, and the Office of the Secretary of Defense—OSD—are all on board and supporting it to move forward using pilots to evaluate the process changes.

Our cycle time reduction goals cover a broad range from the Big A acquisition to simple things such as office memos. Time to staff and publish memos is being reduced an order of magnitude, from 40 to four days as a goal for some cases, using Six Sigma processes.

The second objective is to increase competitiveness. We want to improve the overall competitiveness of our industrial base, and I believe through reshaping the enterprise and acquisition, we will get dividends for a higher level of competitiveness. John Young [*director, defense research and engineering*] and I are joined at the hip in this process because DDR&E represents our science and technology incubation and leadership.

Traditionally, if you look at the DAPA [*Defense Acquisition Performance Assessment Project*] Report, the QDR [*Quadrennial Defense Review*], the CSIS [*Center for Strategic and International Studies*] Report, the Defense Science Board reports, you learn that big drivers in terms of cost growth and schedule delays are the fact that technology has to come into the mainstream prematurely and that requirements creep has escalated in inordinate ways.

Our methodology is to harden the requirements early and bring technology in when it's ready. We will structure programs into blocks or increments, keeping the requirements steady and pulling only mature technology into each block so we can be more certain to deliver capability on time, within budget. We call this "time-certain acquisition."

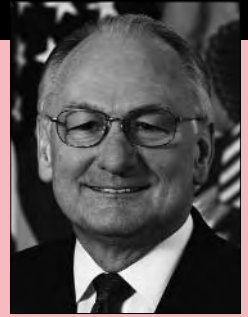
My third goal is to broaden our communications—listen; learn; identify our goals; get feedback within the building, with industry, with our coalition partners, with the Hill, up the chain, down the chain, side to side. It's important to communicate what we are trying to do and to listen. We need to continue to establish a working relationship with openness and transparency, to roll up our sleeves and adopt "the will to change" attitude.



You mentioned "Big A." Could we revisit that concept for a moment?

James I. Finley

Deputy Under Secretary of Defense (Acquisition and Technology)



The Senate confirmed James I. Finley to his position as deputy under secretary of defense (acquisition and technology) in February 2006.

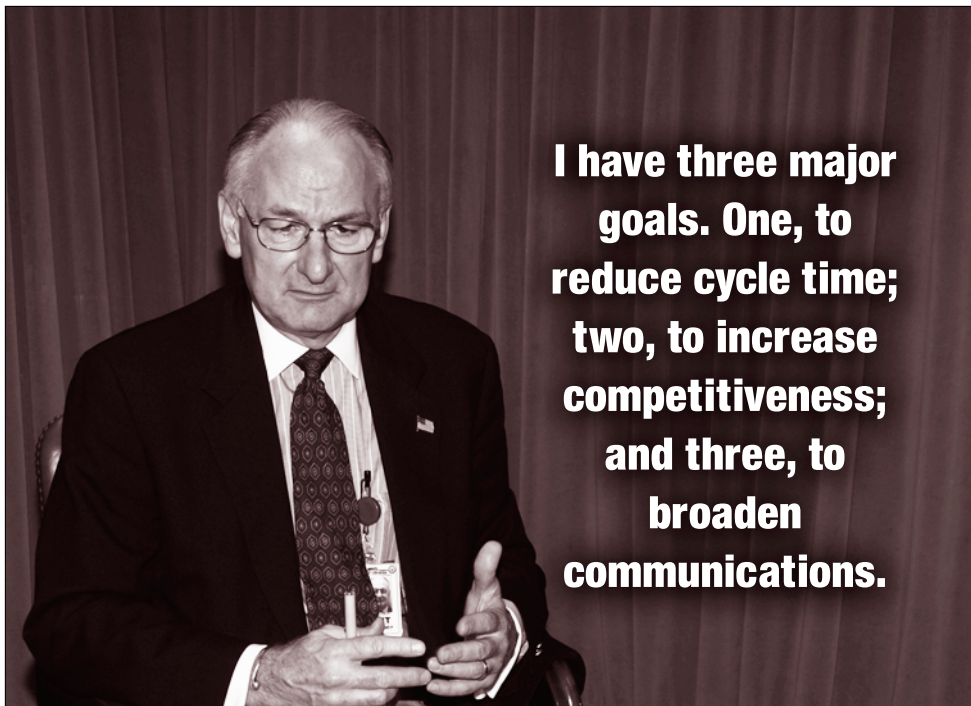
Finley is responsible for advising the secretary of defense and the under secretary of defense (acquisition, technology and logistics) on matters relating to acquisition and the integration and protection of technology. He is responsible for Department policies and procedures governing the Department's procurement and acquisition process.

Prior to joining the DoD in his current position, Finley spent over 30 years in the private sector. He held a variety of operational and management positions with GE, Singer, Lear Siegler, United Technologies and General Dynamics, where he was a corporate officer, president of information systems and chair of the Business Development Council. His business experience spans air, land, sea, and space programs for the DoD and includes the Federal Aviation Administration's Automatic Surface Detection Radar systems and the National Aeronautics and Space Administration Space Shuttle Program. Systems and subsystems experience includes mission analysis; design, development and deployment of weapon delivery; flight control; navigation; information management; C4ISR; battlespace management; and chemical/biological defense systems. Finley has over two decades of Joint program experience including: Air/Land Battle demonstrations integrating the Airborne Warning and Control System with 9th ID ground radar systems leading to Joint C4, utilizing the Joint Tactical Information Distribution System; deployment of the Joint Surveillance and Target Attack Radar System to Desert Storm, leading to the tracking of critical mobile targets and the "mother of all retreats"; system-of-systems battlefield awareness and data dissemination demonstrations leading to information-centric warfare doctrine for joint operations.

Leadership examples of performance awards are the Boeing Gold Certification Award, Honeywell Preferred Supplier Award, Northrop Grumman Blue Achievement, Lockheed Martin Best In Class Rating, Defense Security Service "Outstanding" Achievement Award, and the George Westinghouse Award.

In 2002, Finley formed his own consulting company, The Finley Group, LLC, to provide business assistance and advice for all facets of the business cycle, including start-up, growth, acquisition, and divestiture. Those market initiatives focused on information technology, retailing, and golf.

Finley received his bachelor's degree in electrical engineering from the Milwaukee School of Engineering and his master's degree in business administration from California State University, Fresno.



I have three major goals. One, to reduce cycle time; two, to increase competitiveness; and three, to broaden communications.

schedule, and performance after years of chasing the 100 percent solution. We're trying to make better decisions on what to invest in and realistically structure a program in terms of requirements, cost, and schedule much earlier in the decision-making process. The goal is starting programs that are affordable and with solid requirements and mature technology so that the program has predictable performance, and the warfighter gets what he needs, when he needs it.



Your position has immediate responsibilities and huge challenges. What unique experiences and skill sets do you bring to this position?



Big A integrates the traditional, independent processes of requirements, budgeting, and programmatic.

Requirements are provided by the Services and COCOMs [combatant commands], through the JCIDS [Joint Capabilities Integration and Development System] process and are driven by military strategy and capability gaps.

Second is the budget: Where's the money? That stovepipe tends to operate independently of the requirements. They historically come together maybe once a year, when they have to put the budget together, and then they depart—to say they are integrated is an overstatement.

The third stovepipe is what we call "little a." That is where the program comes together: the cost/schedule/performance of programs that are typically running on a day-to-day basis. So little a is all those things you have to do to successfully execute a program and field capability, things like an acquisition strategy, source selection, contracting, systems engineering, testing, manufacturing, and so on.

Part of the new process is to make the convergence of the three elements—requirements and money and acquisition programs—so we can strategically decide and target a solution that the warfighter can use.

Traditionally, we've gone after 100 percent of the capability. Anybody who has been in the acquisition business knows that going after 100 percent is sometimes going to cost you a lot more money than you expected at the beginning. Typically, you will end up overrunning on cost,



I have 40 years of broad industry experience—air, land, sea, and space. I came up the old-fashioned way; I started at the bottom and worked my way up. I came out of college with a bachelor's degree in electrical engineering, and I wanted to be where the most challenging problems were. That was my goal—to be part of solving challenging problems.

I learned that I had an ability to synthesize problems, to work with people towards solutions. What really excited me was to turn things around. I picked up my master of business administration degree in the process, complementing my technical background. I worked under the mentorship of a lot of excellent leaders in corporate America, at leading companies like GE, Singer, United Technologies, and General Dynamics. I've been very blessed to work with and for people I consider to be some of the finest leaders in the world.

I learned that getting the right people in the right place with the right support tools was an excellent formula for success. I learned it's important to recognize people. A simple "thank you" goes a long way.

I have been fortunate to be exposed to a very wide array of technology and manufacturing programs from the space shuttles' advanced development, to radar systems, to joint C4ISR [command, control, communications, computers, intelligence, surveillance, and reconnaissance] programs; the fundamentals have one common denominator—people.

Reshaping the enterprise with the support and the quality of the team that we have is awesome. I tell people, “This is a doable do: to reshape the enterprise, to meet the objectives we’ve laid out.” It is a major team effort, and great traction was certainly established before I came. I see myself as part of the team to help carry the ball across that goal line.

Q

You began your tenure with a 90-day plan to work towards forwarding Under Secretary Krieg’s six AT&L goals. Can you give us a picture of these first three months?

A

I was sworn in March 2, 2006. The first thing I did was a 90-day plan. I started out with a lot of questions of people within AT&L, people outside AT&L, civilian and military. My goal was to listen, process, ask questions; listen, process, ask more questions. We also took the QDR, DAPA, CSIS, and DSB [Defense Science Board] reports, and we sliced and diced those recommendations for short-term actions. By the end of those first 90 days, we formed our vision, strategy, and objectives.

Q

You’ve mentioned your experience in the private sector, which includes operational and managerial experience with General Dynamics, GE, and United Technologies. With all that business background, how would you compare the AT&L workforce with the industry workforce? DoD practices with industry practices?

A

The ability to move people around in industry is probably a little more agile and flexible than it is in the government. The interesting thing I’ve seen is that the reward and recognition system in the government is moving in the right direction. I think reward and recognition systems and performance-based human resource planning are the foundations for world-class performance. I am very impressed with the direction the AcqDemo [Acquisition Workforce Personnel Demonstration project] and the NSPS [National Security Personnel System] are taking.

I would strongly encourage people of all age groups to come work at DoD where appropriate because I think it is a great place to work. Every day for me is awesome, and the AT&L workforce as well as all the military and civilian personnel are excellent.

Q

And how do DoD practices compare with industry practices?

A

The DoD practices, I’d say, need some help. We are applying Six Sigma, which I think is an excellent process. I’m a Six Sigma process thinker, and I believe there are

a lot of benefits to having a process orientation because it tends to take the personalities out of the loop and keeps the focus on the business at hand. It has been an excellent way of reshaping companies in my industry experience.

We have a lot of opportunities to reshape this enterprise. We have a lot of opportunities to save money and to take that saved money and reapply it to areas where we can do better—for the warfighter and for the taxpayer. I feel that we are on the right track. We have a very high sense of urgency. As Norman Augustine said in his foreword of the DAPA report, the bottom line is the will to change.

I shared with Mr. Augustine that I’m going to utilize the “will to change” because I think for me, personally, that equates to what we have to do. Everybody has to change, including Jim Finley. My solutions that have worked in industry don’t necessarily work for the government, and government solutions that are working within the government, don’t necessarily work in industry. We get the best of the best, we put them together, we debate in an open and transparent forum, we make decisions, and we move forward with a sense of urgency.

I think we are on the right track. I think we’ve got great people to work with and we have alignment in the Pentagon. We need to keep reaching out to the Hill. The cuts that are coming in PB07 [the 2007 President’s Budget] are going to be challenging. We need to work together to understand how we can make things happen, more so with collaboration than legislation.

That’s part of our outreach program—to listen, to process, to work with the facts, and be proactive. We need to ask the questions for things we don’t understand and keep the ops tempo going at high gear.

Q

You mentioned Lean Six Sigma, and there is a renewed focus on the effort to make the Defense Acquisition Board—the DAB—more effective and efficient in conducting their milestone reviews and positioning programs to meet their schedule and performance targets. What kind of changes are being considered under this Lean Six Sigma process?

A

The kinds of changes being considered under Lean Six Sigma include reshaping meetings such as IIPTs [integrating integrated process teams], OIPTs [overarching integrated process teams], and DAES [Defense Acquisition Executive Summary].

For example, IIPTs: I heard from day one that IIPTs are a waste of time, add no value, and the amount of time we spent preparing for them was wasted—simply not a good

use of time. Time is a valuable commodity, and we've eliminated IIPTs. I have asked each of the Service acquisition executives to provide me their perspectives on how much money and time we have saved by eliminating IIPTs.

The defense acquisition executive summaries are another of the process change examples. We are streamlining and simplifying the process. For example, our objectives are to get things done in half the time with half the people. We want to go from 30-plus-page presentations to three-page presentations, standard formats instead of non-standard formats, and focusing on decision making instead of status reviews.

Trust, integrity, and data transparency are the cornerstones to make this successful with a greater sense of urgency. As we work through this, we will begin to provide predictable performance for the warfighter and the taxpayer.

Q *The DoD has spent a great deal of effort to create a business enterprise architecture, to create the framework to strengthen leadership oversight, realign major business systems programs, and apply private sector best business practices. What sort of progress do you see being made on the AT&L side regarding implementation of these practices?*

A I see progress being made within AT&L and across OSD, the JCS [Joint Chiefs of Staff], the COCOMs and components. It is coming from the leadership and transcends our civilian and military workforce. Broader communication needs to be continuously improved; everybody needs to be a participant in open and transparent communication. I am delighted to be a part of that process.

Q *In this particular area, do you see some areas that require greater focus than others?*

A Yes, my number one focus area is to reduce the cycle time of our acquisition system—streamline and simplify. We have taken excellent work from the QDR and the DAPA report to the next step of implementation. In particular, we are tailoring our JCIDS and Milestone decision-making process with the goal to reduce the cycle time in half—from the FAA/AoA [functional area analysis/analysis of alternatives] to the IOC [initial operational capability] timeframe.

The net result will be higher levels of predictable performance, faster fielding times for the warfighter, and better use of our taxpayer dollars.

Q *One of Mr. Krieg's imperatives is customer service, and you've been quoted as saying that customer service is "providing solutions with a sense of urgency." Can you expand on what you mean by that?*

A One thing that I've noticed that's different in the government from industry is that here, we don't use closure dates very often. When we do, they are often in terms of 18 months or 24 months—years instead of weeks. We have to set closure dates on projects and initiatives that impart a sense of urgency. To me, 18 months just doesn't do that. In industry, the norm from my experience was 30-, 60-, 90-day windows. That's a sense of urgency. If problems have timed out outside that timeframe, I suggest to people that we may not be looking at the right problem. We have to break that problem down into digestible pieces so that we can measure our progress, and we'll be happier for it and be rewarded accordingly.

I view everybody as a customer. I tell people that the organizational construct for me is upside down. I learned this from Deputy Secretary [Gordon] England some time ago; we support the organization, we flip it upside down, and everybody is the customer. Everybody is important.

Q *How do you communicate this sense of urgency through the rest of the acquisition workforce?*

A I believe a sense of urgency starts with leadership. People need to feel empowered and supported. It comes back to the will to change, for all of us. You have to walk it, talk it, and demonstrate it. If you don't, you probably won't be very successful.

Q *There has been much discussion analyzing and evaluating the possible impact of the Quadrennial Defense Review within the acquisition community. Can you provide the perspective on how the QDR will affect the workforce?*

A We are addressing the impact of the QDR within the acquisition workforce: for example, systems engineering, software engineering, contract management, pricing analysis, cost analysis. We have a mandate to improve the competencies in acquisition and technology.

For example, we need to put systems and software engineering excellence back into our mainstream. We need to address the loss of critical pricing analysis and cost analysis skills. We need to stand these groups up as centers of excellence in the Department of Defense, not just for AT&L, but to serve the larger DoD community.

Q

We're currently well-positioned to make lasting changes because of the alignment you mentioned between DoD, the Services, Congress, and having the spirit of communication be open and transparent. What transformational changes are needed to facilitate this improved communication?

A

I think we need to reach out. I see a need for more collaboration with the Hill and with industry. I believe we know what we have to do. If we are missing things, we need to discuss them and be responsive.

I haven't talked to anybody who doesn't appreciate this sense of urgency. I remember reading a column on Jack Welch, former chairman of GE. They asked him, "If you could change one thing, what would you do differently during your tenure at GE?" As I recall, his response was that if he could change one thing, he'd do things faster.

I have a very high sense of urgency as it is; doing it faster could be a challenge. The big difference here between industry and the Pentagon is the scale, the enormity of this enterprise. As a result, your communication process takes longer. We have to buy into the fact that everybody needs to be made familiar with what we want to change and why we want to change it. We have to get the debate going and make the decisions. I'm encouraged at progress so far.

Q

In December 2005, the Government Accountability Office wrote a report entitled "Defense Acquisition: DoD Has Paid Millions in Awards and Incentive Fees Regardless of Acquisition Outcomes." In March, you issued a memorandum regarding the award fee contracts, and in the memo, you incorporated four of the seven recommendations that GAO had commented on. Can you give us a view of how that memo is affecting the acquisition workforce in this particular area and how it will improve the award fee process.

A

I believe our memo is a positive first step. The GAO report is a good place to start. We need to go further. We need to look at all the Services' award fee processes. We need to identify the best practices, get our DFARS [Defense Federal Acquisition Regulation Supplement] updated and get them incorporated into our acquisition training at DAU.

I think we are on the right track. We need to address the issues of requirements creep and technology maturity, to improve overall predictable performance this year.

Q

Dr. Finley, thank you for your time.

New Senior Acquisition Executive on Board

WASHINGTON (AFPN), Aug. 22, 2006—Air Force officials recently named the new assistant secretary of the Air Force for acquisition.

As the Air Force's new senior acquisition executive, Sue C. Payton is responsible for all Air Force research, development, and non-space acquisition activities. She provides direction, guidance, and supervision on all matters pertaining to the formulation, review, approval, and execution of Air Force acquisition plans, policies, and programs.

Speaking at her confirmation ceremony, Secretary of the Air Force Michael W. Wynne said Payton would re-define integrity in the Air Force acquisition system upon assuming her new leadership role.

"Sue brings with her a mandate for integrity," Wynne said. "By infusing utmost integrity and transparency into our acquisition processes, she will restore credibility and confidence in our Air Force acquisition system, ensuring we husband resources to bring the best value products and services to our warfighters."

During her career, Payton has served in both industry and government. Most recently, she served the Department of Defense as the deputy under secretary of defense for advanced systems and concepts. She has extensive experience leading government and industry partnerships focused on maturing and applying technology, operations concepts, tactics, techniques, and procedures to solve worldwide national security problems.

"With acquisition experience in industry and government, guided by impeccable character, she will restore our acquisition community to greatness," Wynne said.

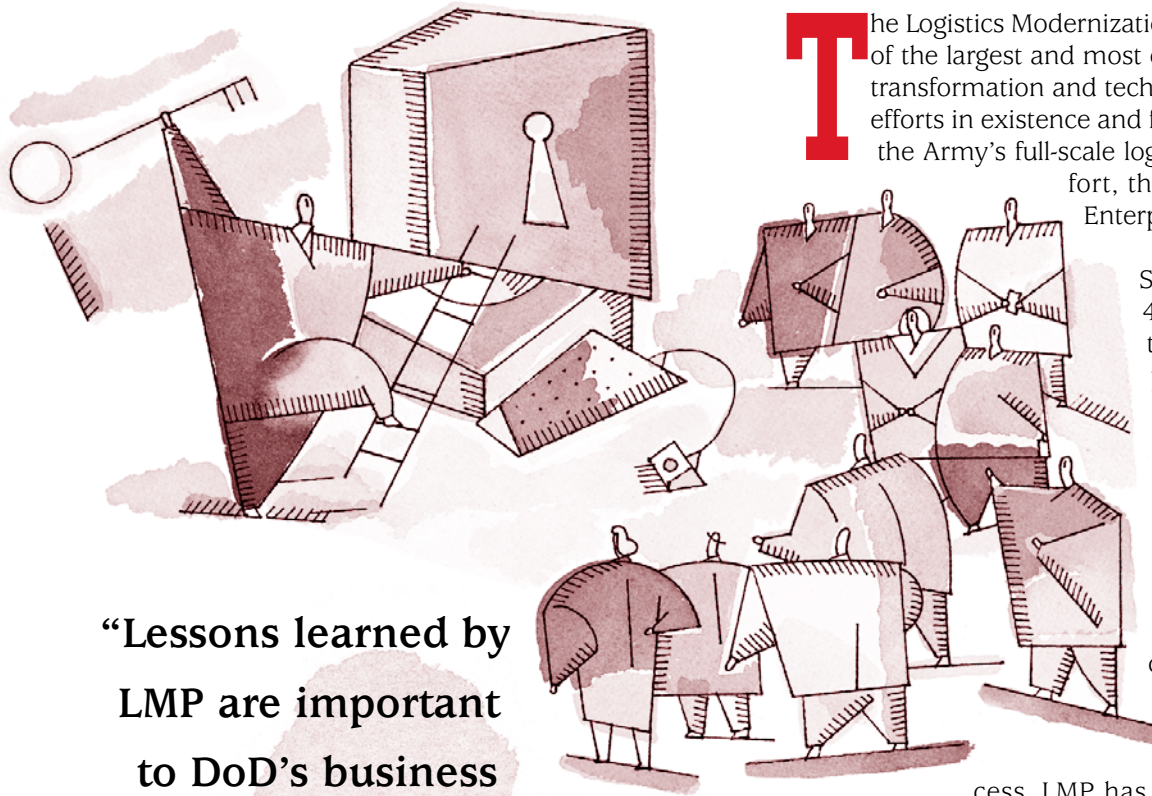
Former Deputy Under Secretary of Defense for Advanced Systems and Concepts Sue Payton briefs reporters on advanced capabilities technology demonstrations under review during a Pentagon press briefing on March 5, 2002.

DoD photograph by Helene C. Stikkel.



Lessons Learned from the Army's Largest ERP Implementation

Col. David W. Coker, USA



“Lessons learned by LMP are important to DoD’s business transformation effort. LMP is now on a path to success through emphasis of key transformation principles, senior leadership engagement, effective governance, and effective change management.”

Paul Brinkley,
deputy under secretary of defense
(business transformation)

The Logistics Modernization Program (LMP) is one of the largest and most comprehensive business transformation and technological modernization efforts in existence and forms the cornerstone of the Army’s full-scale logistics transformation effort, the Single Army Logistics Enterprise (SALE).

Since first deploying to 4,000 users in July 2003, the LMP has delivered impressive results. LMP manages \$4.5 billion in inventory, processes transactions with 50,000 vendors, and integrates with more than 80 Department of Defense systems. Compliant with the Clinger-Cohen Act and certified by the DoD Information Technology Security Certification and Accreditation Pro-

cess, LMP has achieved these accomplishments while sustaining two large legacy systems simultaneously and concurrently with enterprise resource planning (ERP) development and deployment. On March 8, 2006, under the direction of Kevin Carroll, the Army’s Program Executive Office Enterprise Information Systems (PEO EIS) assumed operational control of LMP to offer its expertise managing large-scale systems implementations.

LMP hasn’t made such strides without challenges. In reviewing what the program has done right and wrong, there is significant value in communicating lessons learned to other program managers, many of whom may be embarking on their first information technology-related programs. PMs can take the lessons learned and leverage the good decisions while avoiding those that were less than advantageous. In doing so, we ensure America’s warfighters get the products and services they need at the best

*Until Aug. 8, 2006, **Coker** was LMP project director. He is currently program manager for the Army’s logistics information systems program, responsible for maintaining and modernizing 16 of the Army’s major logistics systems operating in Iraq and Afghanistan.*

price without entangling taxpayer dollars in bureaucratic red tape—an approach that is crucial in wartime.

Communications: Critical to Manage User, Stakeholder Expectations

ERP implementation is about business transformation, not technology. Business transformation cannot occur without well-planned and -executed communications activities to deliver the context people need to understand the goals of the project. This is particularly critical to the success of long-term projects affecting thousands of users and contributing to national security objectives. In fact, communications in such circumstances are crucial when you take into account the natural resistance users feel on being asked to give up a homegrown system to learn new processes required by an ERP.

In most cases, soldier-users have been employing the legacy systems for years to accomplish their daily work. They thoroughly understand the old systems, and even as they curse old systems' shortcomings, many users have come to judge themselves as experts in their use. And there is a certain level of comfort, confidence, and pride inherent in that attained expertise. The implementation of an ERP solution will upset this apple cart. This is where an active change management, communications, and outreach program becomes necessary.

Today, Army G4, Army Materiel Command, and PEO EIS engage in frequent communications with LMP's current and potential customers as well as stakeholders in the Army and DoD. LMP has made it a priority to make the community more aware of the success as well as the challenges of LMP. This outreach involves keeping everyone informed of the program's progress and ensuring the new PM office, G4, Army Materiel Command, and the customers all have a clear line of common factual knowledge and understanding among them. Communications and outreach to all interested stakeholders, but especially to the users, play a pivotal role in ensuring the system deployment exceeds all positive expectations.

A lack of effective communications contributed to a fall-off in support for LMP from executive-level and middle management staff. Specifically, LMP failed to set realistic expectations about initial productivity. It is a fact in any systems implementation that productivity levels decline temporarily during the initial period after deployment. Because of the huge productivity improvements that are available with ERP, failing to adequately communicate expectations led to a distorted perception about what the system could *immediately* achieve. The effects have persisted until today, even though the system consistently exhibits superior performance according to all metrics.

These lessons haven't been lost on the Communications-Electronics Life-Cycle Management Command, one of

LMP Communication Tools

Among the LMP communication tools are:

- User satisfaction manager
- Monthly newsletter
- User editorial board
- User town hall meetings and roadshows
- Articles in respected publications
- Videos and Flash presentations
- Speaking engagements and exhibits at conferences and other forums
- Talking points cards
- Fact sheets and brochures

LMP Fast Facts

- World's largest fully integrated supply chain MRO planning and execution solution
- Integrates with 80+ DoD systems
- Manages \$4.5B in inventory with 50,000 vendors
- Clinger-Cohen-compliant and DoD Information Technology Security Certification and Accreditation Process-certified
- Handles 1.6M transactions daily
- 17,000 users upon full deployment

the first LMP deployment sites. C-E LCMC commanders have advised senior leadership to get users involved early on in the process and to explain the importance of the program and how it fits into the bigger picture. While bracing team leaders to expect a dip in productivity to go along with the learning curve, LMP has learned that good communications up front will be instrumental in making that learning curve shallower and shorter.

Another key lesson learned by LMP: Any approved changes to processes and procedures need to be effectively communicated through a series of planned notifications. In addition, Army and other government management structures need to be thoroughly briefed and educated on any aspects of the project that affect all the organizations collecting, owning, and using the logistics data contained within the system. These communications activities enable more effective and structured management reviews and greater understanding of any course corrections required during the project.

In any large ERP implementation, improved communications activities have pervasive effects throughout the project, even impacting the technical performance of the system. For example, during early phases of the project,



You're the Judge

Darleen Druyun, a senior procurement official at the Department of Defense negotiating the Boeing tanker lease, entered into a contract to sell her house on Oct. 21, 2002. John Judy, a member of the Boeing general counsel's office, who was himself engaged in the Boeing tanker lease, purchased her house for \$692,000. The purchase price represented a gross profit of \$77,747 for Druyun on the house she had purchased in August 2001. Druyun formally recused herself from any discussions involving Boeing on Nov. 5, 2002. The settlement date for the house sale was Jan. 3, 2003, the date on which Druyun went to work for Boeing as a senior vice president. DoD reached an agreement with Boeing to supply 100 tankers in May 2003. Judy appears to still own the house.

Did Darleen Druyun violate any laws in the sale of her home to a Boeing executive?

The verdict is on page 46.

It is important to communicate how all key processes and transactions are mapped to user roles within the organization. In doing so, the project team can more easily work with users to restrict roles to functional levels, and more readily configure the solution to meet higher-level business requirements (as opposed to aligning the system to meet specific job responsibilities, which nevertheless must be modified to realize the goal of delivering standardized data). As a result, the system has fewer variables to manage and maintain; managers and end-users get a more simplified view of the new environment; the system has a cleaner data feed into security systems; and training and technical support activities are simplified.

Training: The User Glue

One of the important factors LMP had to address regarding training was an initial failure to have the new business processes fully documented before going into training. In addition, the team found that some of the hesitancy related to implementing the system had to do with a subset of end-users who needed a more in-depth explanation of the new processes—an explanation that went beyond what was needed to operate the system. For example, in supply and demand planning exercises, some individuals readily gravitated to the new operations, while others needed a complete picture of the underlying reasoning behind why the processes were changing.

Training must ensure that users understand the value LMP brings to the warfighter. Logistics transformation allows soldiers on the front lines to have insight immediately into the supplies they need. When applied to LMP, an effective training approach ultimately allows soldiers to get supplies faster at a time when having supplies means the difference in mission success.

Moreover, users are more interested in a new system and new business processes when they can provide input on how to improve them. This mutual exchange of information within training and other site-readiness activities creates a more knowledgeable workforce and lowers anxiety levels. In addition, the project staff needs to assure site personnel that they are equal contributors within a single team, together managing the training resources and the training content.

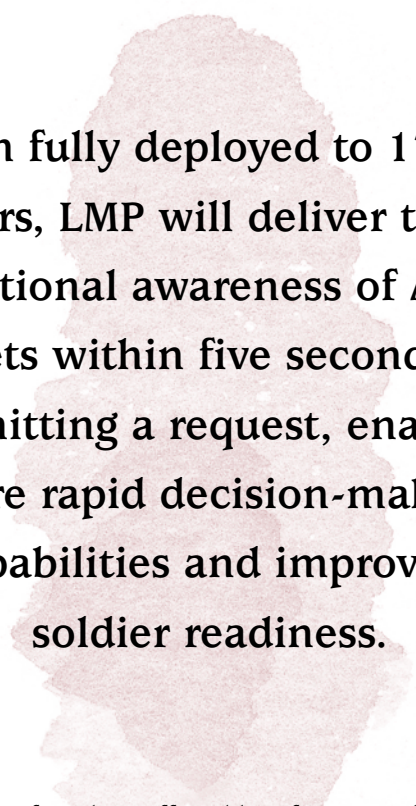
To achieve this total-team approach, LMP leaders recommend including site-training coordinators, operational experts, functional experts, and managers who contribute to defining training requirements in the training mix. Training coordinators and instructors need to work with project personnel to plan for available training facilities and equipment, review and refine the description of new roles and responsibilities, and conduct overview training on the new software's capabilities. In addition, Army subject matter experts need to participate in quality-assurance and dry-run activities to ensure that new system requirements are adequately addressed in course material.

Comprehensive Data Cleansing: A Must-Do

Eager to meet the urgent needs of wartime logistics, in July 2003, LMP and C-E LCMC jumped to convert legacy systems over to LMP. The lesson for both the program office and the deployed sites was clear: Doing what one can to understand the data in one's legacy systems, and very carefully following the procedures to prepare the data will pay off. It is not so easy to go back and fix data once the conversion has taken place.

Whenever any organization undergoes a transition from using a large number of systems to a single-system environment, conflicting sets of data must be reconciled to provide an accurate view of reality. LMP learned that Army subject matter experts could have simplified much of the complexity underlying the data cleansing efforts. Much of the data interaction between systems is a government-customer function, and the Army understands these data. The appropriate role of contractors in data migration should be to guide the Army in understanding the end-state data requirements, which reflect the much more disciplined approach inherent in an ERP system.

LMP found that factors such as a lack of serial numbers and invalid inventory locations compounded the transfer of data between legacy systems and the new envi-



When fully deployed to 17,000 users, LMP will deliver total situational awareness of Army assets within five seconds of submitting a request, enabling more rapid decision-making capabilities and improving soldier readiness.

ronment. Before the staff could perform any data migration to the new environment, item names, units of measure, unit price, and obsolete items to be deleted all had to be precisely identified. For example, if the bill of material of any acquisition is inaccurate, personnel at the receiving end are often confronted with a situation where a shipment lacks a simple part to complete the installation or configuration of a needed solution.

Thorough data cleansing activities are critical to achieving the total asset visibility enabled by LMP. In addition, the system reduces the time spent on activities that would otherwise require follow-up work stemming from discrepancies among numerous systems. For example, legacy systems often contain multiple versions of a single business transaction, which makes logistics and finance information difficult to reconcile.

System Support: Helping the Customer the Smart Way

Lessons learned during the initial LMP deployment resulted in the team's implementing several improvements to system support activities. Support personnel now use a root-cause-analysis procedure to establish the source of all problems and identify the appropriate fixes. LMP leaders have worked to ensure that support procedures take advantage of the knowledge of end users, functional experts, and other subject matter experts—people who are already familiar with the new environment—to develop scripts for support personnel responding to user requests. In addition, by establishing rules for properly categorizing all help desk calls, support personnel now serve as a feedback loop, contributing to information the project team uses to improve the system.

LMP found that automated help desk tools, processes, and procedures complemented a strong site-support staff. Problem tickets are documented using the Advanced Help Desk Tool, which assigns tickets to workflow coordinators and improves response time; and support staff document repeat conditions in the system for use by other personnel. The key lesson learned is that developing and implementing a support strategy make a significant difference in system availability and customer satisfaction. As a result, LMP has achieved a sustained 99.998 percent level of system availability, beating the industry-accepted standard of 99.5 percent.

LMP: Poised to Deliver the Full Benefits of ERP

LMP is operational, proven, and has been supporting the requirements of warfighters around the world, including soldiers on the frontlines in Iraq and Afghanistan, on a daily basis since 2003. As LMP worked through quality issues and strengthened project-management controls, the system's performance markedly improved and is well-positioned to achieve its ultimate, intended benefits: delivering real-time situational awareness, vastly improved decision-making capabilities in logistics and finance, significantly reduced costs, and major productivity improvements.

LMP requires Army logistics professionals to adopt new business processes, policies, and procedures to fully realize the benefits of the system. All organizations have an inherent resistance to change, so making the transition from multiple systems and localized processes to a unified logistics information environment requires a commitment to change. The transition often involves sacrificing previously established methods for new, standardized processes, but the benefits are enormous. These new processes result in the delivery of data applicable to all organizations across the Army, rather than a system marked by isolated islands of information difficult to reconcile, and errors that make the entire organization less efficient and flexible.

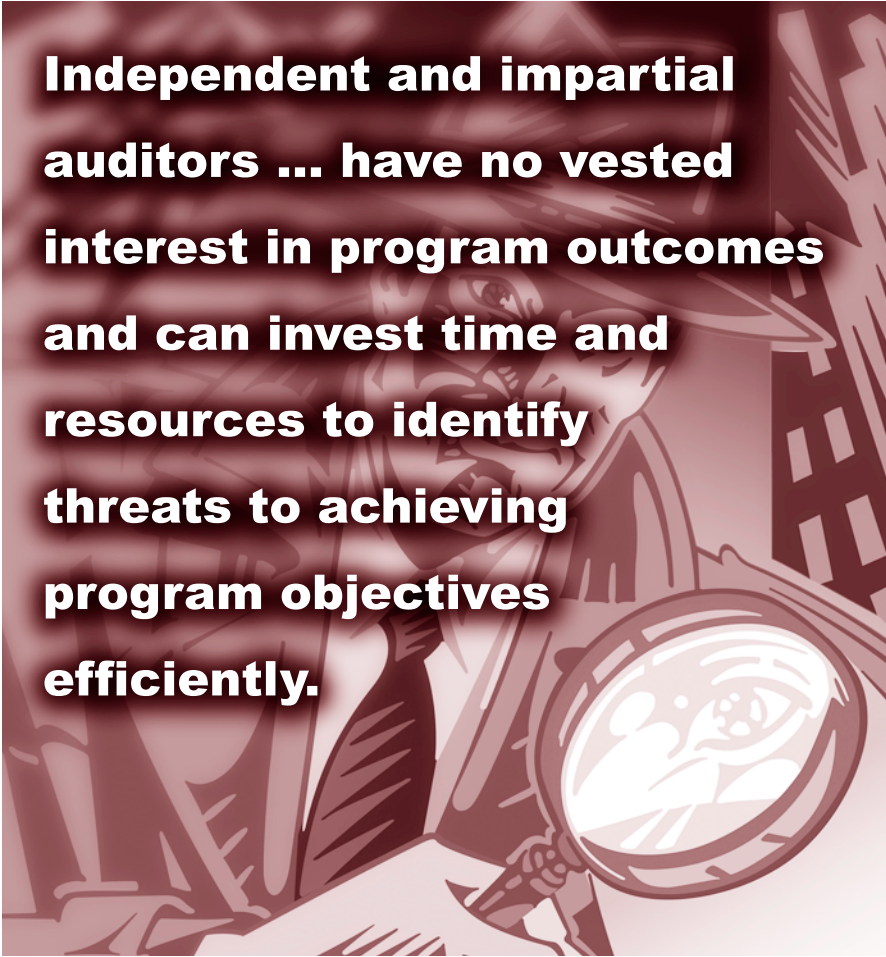
When fully deployed to 17,000 users, LMP will deliver total situational awareness of Army assets within five seconds of submitting a request, enabling more rapid decision-making capabilities and improving soldier readiness. Inventories will be significantly reduced because LMP allows logisticians to better plan and allocate resources, which will also dramatically reduce theater footprint. In addition, by delivering the capability to improve planning for maintenance and supply activities, LMP will have a direct effect on weapon systems' operational availability and will positively impact operational readiness.

For further information, contact khyde@corpcomm-inc.com.

Just How Independent Are Internal Auditors in DoN?

The Naval Audit Service

Randall Exley



Independent and impartial auditors ... have no vested interest in program outcomes and can invest time and resources to identify threats to achieving program objectives efficiently.

“demand” access to any personnel, information, and documents we want at any time? If the Naval Audit Service is independent of DoN leadership, who provides oversight to ensure the auditors follow the rules?

These questions have been asked many times over the years and have been the subject of much confusion. This article attempts to clear up the confusion and explain how the auditor general and I, as his deputy, view the Audit Service’s independence.

Why Does it Matter?

It is essential to note that auditor independence should be as important to Department leaders as it is to the auditors themselves. Having independent auditors review and evaluate systems, activities, programs, functions, and funds ensures those leaders get an impartial and objective assessment of program effectiveness and efficiency, and of program compliance with laws and regulations. It’s human nature for program managers to present their programs’ status in the most positive terms possible. They have a vested interest (in terms of

their annual performance evaluations, career advancement, and earnings potential) in showing their programs as proceeding on or ahead of schedule, within budget, and as meeting or exceeding performance objectives.

It is also possible the program managers are simply unaware of problems their programs are facing because they are so busy with macro-level management concerns or, at any given time, heavily focused on detailed aspects of certain parts of their programs. They may be too close to

What do we in the Naval Audit Service mean by our “independence,” when we use the term as internal auditors? Why is independence important to auditors, and why should it be important to Department of the Navy leaders? Is the Naval Audit Service independent of the DoN chain of command? Does independence mean the Naval Audit Service can decide what we audit with no input from DoN senior leaders? Does it mean Naval Audit Service resources are off limits to budget cuts? Can we

Exley is deputy auditor general of the Navy and has served as a DoD internal auditor for 35 years. He holds a master’s degree in business administration, and he is a certified public accountant, a certified internal auditor, a certified fraud examiner, and a certified government financial manager. He is a graduate of the Armed Forces Staff College and the Defense Leadership and Management Program.

the programs to see the problems, or they may not have the time and resources an independent audit brings to bear to thoroughly evaluate their programs and identify problems. Even if they are aware of problems, they may feel (sometimes over optimistically) that it is within their power to correct them; thus—in their view—there is no need to make those problems known to senior leaders. Independent and impartial auditors don't have to wrestle with these conflicts. They have no vested interest in program outcomes and can invest time and resources to identify threats to achieving program objectives. Through their audit work, they get the facts and draw their conclusions based on well-documented evidence, without introducing personal bias into their assessments.

What Do the Audit Standards Require?

As internal auditors, we are *not* independent of DoN, we are part of it. The auditor general, as the official solely responsible for internal audit within DoN, reports to the secretary and under secretary of the Navy. That reporting relationship provides organizational independence, which is what is called for by the Government Accountability Office's Generally Accepted Government Auditing Standards. The independence standard reads, in part: "In all matters relating to the audit work, the audit organization and the individual auditor, whether government or public, should be free both in fact and appearance from personal, external, and organizational impairments to independence."

The purpose of the standard is to establish credibility so that opinions, conclusions, judgments, and recommendations will be impartial and will be viewed as impartial by knowledgeable third parties. The standards state that

a government internal audit organization can be presumed to be free from organizational impairments to independence when reporting internally to management, if the head of the audit organization meets all of the following criteria:

- Is accountable to the head or deputy head of the government entity (in our case, the secretary or under secretary of the Navy)
- Is required to report the results of the audit organization's work to the head or deputy head of the entity; (the auditor general and other Naval Audit Service senior leaders meet with DoN senior leaders regularly throughout the year and at semiannual Oversight Planning Board (OPB) meetings, and copies of final audit reports are sent to the under secretary)
- Is located organizationally outside the staff or line management function of the unit under audit (the Naval Audit Service is part of the Secretary of the Navy staff).

The Naval Audit Service does meet all of these criteria.

Are We Free From Influence of Those We Audit?

Does organizational independence mean the Naval Audit Service is absolutely free from any influence by those we audit? No, that would be unrealistic. Like other DoN organizations, the Naval Audit Service has to compete for budget, personnel, and facilities support—and when budget and personnel cuts are levied on the Department, the Naval Audit Service often takes its fair share. Decisions in those areas are made by the people we audit, in their efforts to manage the organization as a whole and balance requirements: the assistant secretary of the Navy (ASN) (financial management and comptroller) oversees the DoN budget; DoN senior military and civilian leaders, including the Naval Audit Service's supporting Budget Submitting Office, shape budget proposals; the ASN (manpower and reserve affairs) manages personnel resources and pay; and the ASN (installations and environment) oversees facilities and support. All of these organizations and officials can impact our resources and daily operations—and the Naval Audit Service has audit responsibilities for all of them.

Organizational independence does mean that if decisions are made that the Naval Audit Service considers to be inappropriate or unfair, the auditor general can challenge them with the secretary and under secretary of the Navy—and has done so successfully on occasion.

Who are our Customers?

Does being organizationally independent mean the Naval Audit Service can audit whatever it wishes? The answer is "no." The Naval Audit Service is established in law to serve the secretary of the Navy—not the taxpayers, not the Congress, and not even the Office of the Secretary of Defense. If we do our jobs correctly and objectively, all of

**Does being
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Meet the AT&L Workforce

Maj. Scott Wilson Harris

Deputy Program Manager, V-22 Capabilities Integration
PMA-275, The V-22 Osprey Joint Program Office
U.S. Marine Corps



What does your job entail?

Daily coordination with Headquarters Marine Corps (HQMC), Headquarters Air Force Special Operations Command (AFSOC), Headquarters Special Operations Command (SOCOM), and OPNAV N78 in order to ensure the V-22 acquisition element priorities are included in the development and staffing of V-22

capabilities and budget proposals.

What do you find most fulfilling about your job?

The opportunity to use my past experience developing capabilities for HQMC as part of the joint program office team responsible for producing those capabilities. The opportunity to participate in the transition of mature science and technology projects into production capabilities for the V-22.

And what do you find most frustrating?

Defense acquisition of an ACAT 1D program is so complex that as soon as you think you understand all of the issues, you discover another layer of complexity.

What do you think makes you successful at what you do?

A belief in the critical importance of focused teamwork. The conviction that a three-strand cord is not easily broken, and a commitment to continual learning.

What are your interests and pastimes when you're not at work?

Sharing with elementary school students what Marine Corps pilots do on a daily basis. Passing on practical examples of how reading, writing, and math skills will help you achieve your goals.

Dr. Keith W. Jones

Electronics Engineer
Future Systems Integration
Branch, USAF Materiel
Command, Aeronautical
Systems Center



What does your job entail?

Developing software applications and helping to engineer effort to improve the organization's avionics design methodology.

What do you find most fulfilling about your job?

I like the fact that no two assignments are exactly the same. Each new assignment is an opportunity for learning, challenges, and growth. I can't believe we get paid to do this!

And what do you find most frustrating?

Seeing processes and procedures being developed without matters of substance (such as the physics and mathematics) to back the theories. It often seems we focus a lot of time and effort on the acquisition system and neglect the technical and integrative systems engineering.

What do you think makes you successful at what you do?

My creativity and nontraditional thinking make it possible for me to envision projects and solutions in eclectic ways.

What are your interests and pastimes when you're not at work?

I enjoy spending time with my family and friends, exercising, writing, public speaking, watching movies, and learning.

Is there anything unusual or interesting about you that you'd like to share with us?

I am a Vietnam-era veteran who started off as a musician then became a father and husband while I was still a high school student. I've won the 2004 Black Engineer of the Year Award, as well as Association of Old Crows Award and Scientific Achievement Awards.

Attention AT&L PEOs, PMs, Managers, and Supervisors

Do you have an employee you'd like to see recognized in *Meet the AT&L Workforce*—someone who works behind the scenes to support your organization? Send us the name, military rank (if appropriate), job title, defense agency/Service affiliation, and home or business mailing address, plus the employee's responses to the italicized questions above. Please include your own contact information, and spell out all acronyms. Profile responses may be edited.

Information may be e-mailed (preferably in a Word file) to datl@dau.mil.

We will contact you if your nominee is selected for publication.

Photographs: Only submissions with photographs will be considered. A casual photograph, not a formal bio portrait, is preferred. Submit a high-resolution digital file (300 dpi with a final print size no less than 3 x 5 inches) or mail a traditional photo to the address on page 1. *Photos cannot be returned.*

Independence does not mean freedom from control.

those stakeholders benefit from our work, but they are not our primary customers. Further, although (per secretary of the Navy instruction) no official other than the secretary and under secretary can ultimately tell the auditor general what to audit—or perhaps more important, what *not* to audit—the organizations we audit influence what the Naval Audit Service does in positive and constructive ways. Through the annual risk assessment and numerous meetings with the auditor general, deputy auditor general, and the assistant auditors general, those who are audited play a key role in helping us decide what to audit each year. Having their input allows the Naval Audit Service to perform audits that address the DoN's significant risks and the most critical concerns of its senior leaders. The Naval Audit Service's annual audit plan is reviewed by the OPB, which is made up mostly of leaders we audit (the ASNs, vice chief of naval operations, assistant commandant of the Marine Corps, Department of the Navy chief information officer, and general counsel), and is chaired by the under secretary of the Navy. Although the individual OPB members, other than the under secretary, cannot direct the auditor general to do or not do any audit, they do have influence on the content of the audit plan. The same is true for the Senior Review Board. That board, which includes many of the same members as the OPB, oversees DoN classified programs and reviews our audit plan in that area.

Ultimately, the outcome of this collaboration has been that every audit in our annual plan is either requested or agreed to by a DoN senior executive or flag officer. That buy-in from senior leaders gives the plan credibility with lower echelon commands when we do our audit work.

What the Naval Audit Service does want is independence from “inappropriate” influence by those we audit. Per secretary of the Navy instruction, those we audit should not be able to control what we audit, the scope of our audits, our access to information, or the people we talk to during an audit. Those we audit should also not be able to control our resources, promotions, and bonuses without our having the ability to go to the secretary or under secretary for a final adjudication. As noted previously, we have that ability. We want to be impartial in our work, and our audit reports should provide fair, objective, balanced, and truthful assessments of what we find.

Who Audits the Auditors?

Independence does not mean freedom from control. The Naval Audit Service receives oversight from:

- **The Department of Defense Inspector General**—which sets audit policy within the DoD, conducts quality assurance reviews of our work, and oversees peer reviews of DoD audit organizations
- **The Army Audit Agency**—which performs triennial peer reviews on our work
- **The Government Accountability Office**—which sets the audit standards for all government audit organizations and has authority to audit/evaluate the Naval Audit Service's performance and compliance with standards.

Those organizations are in a position to ensure we meet the independence standards and, if we do not, to address their concerns at higher levels of DoD.

How Independent are Public Accounting Firms?

The Naval Audit Service's independence is not absolute, but even external auditing firms cannot operate free of influence. For example, Certified Public Accounting firms have to concern themselves with getting the next contract. If they don't work with management constructively and present their findings fairly, the auditee may look elsewhere the next time. Independent firms must walk a fine line between serving the company managers, stockholders, and the Securities and Exchange Commission, and not becoming so independent that they lose the next engagement.

Our Message

The message the auditor general and I want to convey is that we are entitled to have organizational independence under the audit standards—and having the auditor general report directly to the secretary and under secretary of the Navy provides that. Conversely, we want DoN leader input on our audit plan, and we want most—if not all—audit topics we address to be requested or agreed to by DoN senior leaders. The auditor general needs some limited ability to select audits over the objections of senior leaders below the secretary and under secretary when he or she feels the risks warrant coverage. The under secretary has given the auditor general that ability.

Ultimately, the Naval Audit Service is not absolutely independent and is not intended to be. Naval Audit Service auditors are internal, not external, auditors—and even external auditors are not absolutely independent. However, by virtue of our organizational placement, the Naval Audit Service has the degree of independence intended and necessary to do our job.

The author welcomes comments and questions. Contact him at randall.exley@navy.mil.

Generation Y in the Workplace

Cara Spiro

The Department of the Navy is one of many employers trying to understand Generation Y. Who are they? What makes them tick? How do we recruit them—and more important, how do we retain them?

Generation Y (known to many as echo-boomers, boomer babies, millennials, the entitlement generation, or the digital generation), by the broadest definition, numbers more than 70 million Americans born between 1977 and 2000 and accounts for approximately 21 percent of the overall workforce. They are the fastest-growing segment of the workforce.

Known for their optimism, education, collaborative ability, open-mindedness, and drive, Generation Y are the hottest commodities on the job market. Generation Y'ers have always felt sought after, needed, and indispensable, and they are arriving at the workplace with higher expectations than any other generation before them. When Generation Y made their initial foray in the workforce, their positive reputation was built early because employers loved their energy, drive, and skills. However, many managers were a little taken aback by what they perceived as a short attention span and reluctance to perform tasks that lacked depth. Today, as the demand for intelligent workers intensifies, employers need to understand what motivates and inspires the loyalty of these high-performing employees.

Workforce Composition

Generation Y is only one of four workforce generations. In addition, today's workforce includes the Traditionalists (pre-1946), Baby Boomers (1946-1964), and Generation X (1964-1979). Each group has its own distinct set of values, view of authority, orientation to the world, loyalty, expectations of their leadership, and ideal work environment. Every generation is uniquely shaped by its own location in history, and this formative influence has enduring effects and brings something new and important to the workforce. That is why it is so important for high-level managers and executives to understand, respect, and regularly address generational differences that manifest themselves in the workplace.



Generation Y'ers want jobs with flexibility and telecommuting options that allow them to work, yet at the same time give them the opportunity to leave the workplace temporarily to care for children.

Everyone desires a workplace and culture that not only allows, but also encourages, him or her to be a productive and influential contributor. The challenge facing employers in the public and private sectors is to create an environment that meets the needs and expectations of all employees, regardless of the generation to which they belong.

Traditionalists grew up during World War II. They are familiar with hardship, value consistency, and are disci-

Spiro works with the Department of the Navy at the Naval Sea Systems Command. She holds a master's degree in business administration from The George Washington University and is currently writing a book about twenty-somethings in the workplace.

plined and respectful of the law. They are familiar with the top-down style of management that disseminates information on a need-to-know basis, and they get satisfaction from knowing a job is well done. Traditionalists are known for staying with one company for their entire career.

The Baby Boomers are an enormous generation that grew up in relative prosperity and safety. They developed their opinions during the sixties and seventies, believing in growth, changes, and expansion. They seek promotion by working long hours and demonstrating loyalty. In general, they believe anything is possible and therefore strive for the corner office, top title, and highest salary.

Between the generation that preceded them (Baby Boomers) and the generation that followed them (Generation Y), is a small group of the population born between 1967 and 1979. This small generation known as Generation X finds itself wedged between two huge demographic groups and as a result feels somewhat overlooked. These are the employees who are determined to maintain a work/life balance. The days of a job for life became history with Generation X. According to "Generation Flex," a *Sydney Morning Herald* article by Bonnie Malkin, the number of people staying in a job for five to 10 years declined by 21.3 percent between 1972 and 2000. In *Managing a Multi-Generation Workforce*, Gerry Davis, managing partner for Heidrick and Struggles, states that intensely self-focused post-Boomers born during the late 1960s and 1970s often lack loyalty to their employers. Without clear career goals, Gen-Xers place family and community above work requirements.

Generation Y has always been familiar with the Internet, CDs, DVDs, cellular phones, and digital cameras. This generation is more affluent, more technologically savvy, better educated, and more ethnically diverse than any previous generation. They're always looking to develop new skills and embrace a challenge. They strive for success, and therefore measure that success in terms of what they've learned and the skills they've developed from each experience. Generation Y often takes longer to find stable careers and settle into lifelong relationships. Though Generation Y'ers often take longer to emerge into the professional world, they are more likely to obtain graduate degrees than previous generations because of their high regard for education.

What Makes Generation Y Tick?

Generation Y's characteristics put them in high demand in today's job market, but managers and employers are having an extremely difficult time understanding how to incorporate them in the work environment. Following are some of their most unique characteristics, which are proving to be beneficial on one hand, yet extremely challenging on the other.

High Expectation of Employers

Y'ers want fair and direct managers who are highly engaged in their professional development.

Need for Ongoing Learning

Generation Y'ers are known for their ability to multitask. They seek out creative challenges and view colleagues as vast resources from whom to gain knowledge. It is important for employers to continue giving them challenging projects in order to prevent boredom and attrition. Y'ers aren't eager to bury themselves in a cubicle and take orders from others in the workforce. They want ownership and control of their own fate.

Goal, Goals, Goals

Y'ers want small goals with tight deadlines so that they can build ownership of tasks. They should be challenged to find technological solutions to everyday issues.

Desire for Immediate Responsibility

They want to make an important impact immediately on projects they are involved with. They are looking for immediate gratification and an opportunity to excel.

Balance and Flexibility

The more psychologists and social scientists study this generation, the more they realize that Generation Y members are most drawn to flexibility and balance in their day-to-day life, so it's important for employers to understand how to incorporate flexibility and work life balance into their recruiting strategies.

Even in this time of lean staffing, Generation Y workers like to have a life outside work. Generation Y'ers don't want to repeat what they perceive to be the mistakes their parents made. Unlike the boomers, they don't want to work long hours at the expense of family, friends, and personal pursuits. Whereas the boomers put a high priority on career, today's youngest workers are more interested in making their jobs accommodate their family and personal lives. Money is important to them but maintaining work-life balance outranks money. In most cases, it's not the corner office or a large paycheck that drives Generation Y, but rather, the opportunity to work for a company that fosters strong workplace relationships and inspires a sense of balance and/or purpose.

Generation Y'ers want jobs with flexibility and telecommuting options that allow them to work, yet at the same time give them the opportunity to leave the workplace temporarily to care for children. They see work as one component of a balanced life portfolio that includes family, friends, fitness, and fun. Demonstrating flexibility, while focusing on goals and accountability, can go a long way toward inspiring loyalty in Generation Y employees. Affording employees some flexibility to balance family, educational pursuits, leisure, and community activities

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often leads to better performance as well as higher retention rates.

The Challenge for Employers

Generation Y will most likely prove, if capitalized on, to be one of the greatest assets of companies today; however, many organizations are failing to formulate strategies to recruit and especially to retain this talent. The challenge that lies ahead is to find a balance between a work environment that leverages the benefits of Generation Y but does not alienate the rest of the workforce.

Coaching is one of the most successful methods for retaining Generation Y employees because it allows employees to thrive in an environment designed to enable their success. Frequent coaching and mentoring by higher-level employees challenges new graduates to take on more challenging work. It takes advantage of employee potential by playing to their strengths, while at the same time, it helps them recognize and understand their weaknesses. Many successful business entities are creating mentorship programs to impress and recruit younger employees. Generation Y employees accept that they cannot rely on their employers to take care of their careers, but they appreciate all the help they can get. In addition to required annual appraisals, feedback from managers is best when given frequently and in a constructive manner. This helps employees better understand what they're doing well and how they can improve upon their skills.

Mentors should be honest and clear with young employees, stating the specific behaviors and why they are good or bad. Together the managers and employees should establish desired goals, and ways in which to accomplish them. Additionally, mentors should keep in mind that Generation Y'ers—like most people in the working world—thrive on praise. Don't save recognition for a year-end banquet, but compliment and give positive reinforcement during an assignment. This open dialogue and understanding has proved to be very successful in organizations all over the nation.

To this goal-oriented generation of employees, training may be the most important aspect of workplace coaching. It may be even more important than bonuses and stock options to some young employees. So it's essential to provide Generation Y with a variety of training options—online, on-the-job, and classroom. And employers should keep in mind the technology expertise and productivity potential of this generation of workers. It is a wise investment to spend money out of the company budget on state-of-the-art equipment and cutting-edge training.

Personalized Motivation and NSPS

Managers of Generation Y workers should explore a New Age idea recently introduced into the business world: *per-*

sonalized motivation. This is method of profiling employees to determine how each individual prefers to be managed. These approaches can be easily implemented and, in no time, enable employees to give managers information on the best ways to motivate them and, therefore, maximize their potential. Some of the most basic questions used in this method are: What would you like to do more of? What would you like to do less of? How would you like to be managed?

The need to identify employees' critical motivators is important because most managers are not skilled at motivating their employees. When managers don't know what motivates an individual, they mistakenly assume that all employees like to be managed in the same way. The personalized motivation methodology increases open communication in the workplace and better understanding of what will get the best performance out of each employee.

The new Department of Defense National Security Personnel System will undoubtedly lead to this type of open communication, enabling employees and managers to establish goals and deadlines together as a team. NSPS is about performance and results. Generation Y values working in an organization where they know what is expected, where there is a shared vision of what needs to be accomplished, and where they are provided feedback about performance. NSPS encourages meetings between supervisors and employees to cooperatively establish goals, the monitoring of success, and communication of accomplishments. It is believed that NSPS will improve the way the DoD hires, assigns, compensates, and rewards its employees, while preserving the core merit principles. The change to NSPS is perfectly aligned with Generation Y thoughts, beliefs, and desires in fostering a high-performing culture of outside-the-box thinkers. The system is in the beginning stages but has the potential to be a great model not only for government organizations, but also for the private sector.

Generation Y is a powerful group of young individuals with unique attributes and a potential considered by most social scientists and researchers to be infinite. It is vital for organizations inside and outside government to take the necessary steps to better understand Y'ers. Above all, Generation Y wants to—and has what it takes to—balance workplace success with a healthy lifestyle. The challenge is now on organizations to provide the environment in which that can happen. The key is for employers to work with these young employees, to listen to them, and to understand what makes them tick.

The author welcomes comments and questions and can be contacted at caro.spiro@navy.mil.

Rapid Deployment Capability in Action

The Automatic Identification System

Bob Poor ■ Randy Case

Since 9/11, the Automatic Identification System (AIS) has received significant attention within the Departments of the Navy, Defense, and Homeland Security. Numerous friends and allies, systems commands, commercial shipping firms, and others are fielding AIS initiatives at varying levels of maturity. From a program management perspective, this commercial off-the-shelf capability hits the grand slam of acquisition: it is inexpensive; it is innovative; it is simple to understand; and most important, it provides a useful capability to a variety of customers at all levels of warfare.

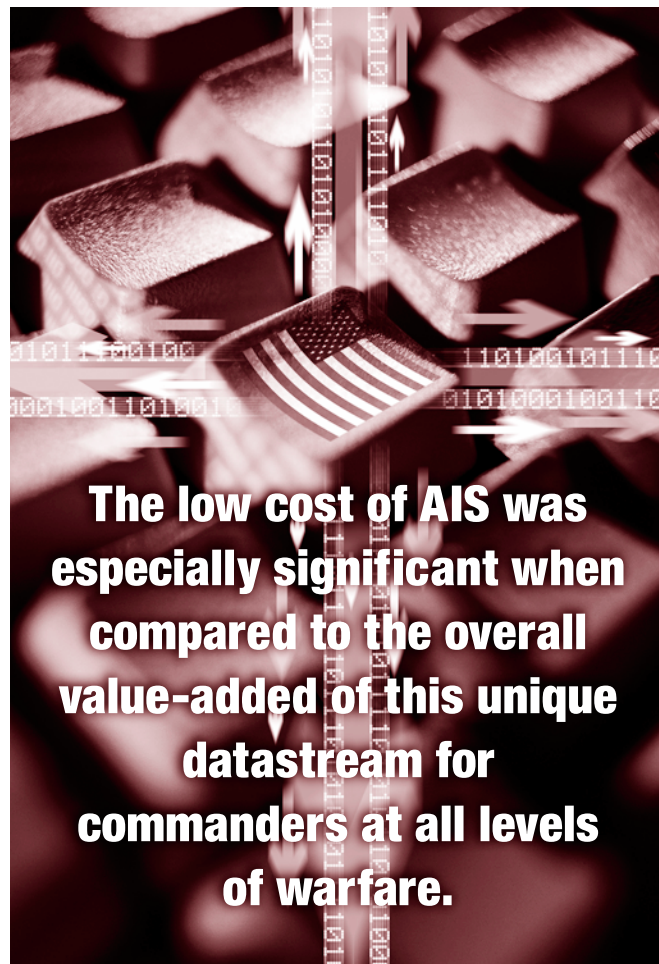
AIS is fielded in the Navy today primarily via the Rapid Deployment Capability process. The RDC process has received significant attention lately, because it seems to offer a means for program managers to surmount chronic challenges embedded in the Joint Capabilities Integration & Development System process: untenably long delays between functional needs analysis and deployment; costs resulting from JCIDS-related events and deliverables; and acquisition processes often more focused on risk aversion than risk management.

As the saying goes, “You can have it good, you can have it cheap, or you can have it fast—any two of the three.”

In that light, the following provides our thoughts, high-fives, wishes for do-overs, and lessons learned from our experiences working rapid deployment in a life-cycle management world. Please note that we are cheap and we are fast; we will leave the reader to determine if we’re good.

The AIS Initiative

AIS, a commercial VHF Line-Of-Site transceiver, connects vessels and shore sites that purchase the capability. This virtual network shares hull, location, deployment, and other information. AIS has been around for years but began to gain traction in the aftermath of 9/11 as Defense



The low cost of AIS was especially significant when compared to the overall value-added of this unique datastream for commanders at all levels of warfare.

and Homeland Security leaders reconsidered the implications of the post-Cold War world. In 2002, several events significantly raised awareness of AIS. The International Maritime Organization established guidance on the mandatory carriage of AIS transceivers aboard merchant shipping of a certain tonnage. The U.S. Navy provided implementation guidance for AIS for the first time. Soon after, a variety of U.S. Navy platforms and organizations, largely in U.S. Central Command, began local AIS installations. The fleet provided extremely positive feedback on these early initiatives.

In his fiscal year 2006 Global War On Terror Implementation Guidance Memorandum (July 2005), the chief of

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naval operations (CNO) directed OPNAV [*Operational Navy*] N6/N7 Warfare Requirements and Programs, in coordination with Fleet Forces Command and OPNAV N8 Warfare Assessments, to develop a plan to procure and install AIS systems for all surface ships by the end of fiscal 2006. OPNAV tasked our office within PEO C4I and Space to pull together the specifics of this plan.

As program executive office action officers started to clarify and define the operational, budgetary, and acquisition-related requirements for fielding, we began to realize that unlike our previous experiences in acquisition, getting appropriate operational and budgetary oversight and execution approvals was proving relatively easy. For example, an AIS concept of operations drafted by the Third Fleet staff and facilitated by Naval Warfare Development Command quickly evolved from first draft to Commander Fleet Forces Command approval in less than a year. Similarly, in conjunction with OPNAV staff, we generated budget estimates, identified funding streams, and received congressional authorization to spend resources in less than six months.

We were greatly aided by the simple fact that AIS is easy to understand from an operational and systems engineering perspective, and the costs associated with fielding were extremely low. The low cost of AIS was especially significant when compared to the overall value-added of this unique datastream for commanders at all levels of warfare. Additionally, senior Navy leadership's need for new, relevant capabilities in support of maritime domain awareness and the global war on terror provided great momentum for our efforts.

SECNAVINST 5000.2C, Section 2.8.1 [*Secretary of the Navy Instruction 5000.2C, "Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," Section 2.8.1*] explicitly relates RDC to "the ability to react immediately to a newly discovered enemy threat(s) or potential enemy threat(s) or to respond to significant and urgent safety situations through special, tailored procedures." In our submission, we used safety and enemy threat language in our justification. Specifically, we discussed AIS in support of safety at sea, maritime domain awareness, and homeland defense. While some may joke that an RDC designation acts as a "get-out-of-jail-free card," in actuality RDC is more of an "acquisition permission slip" that assists the RDC manager in expediting decisions within the requirements, planning, programming, budgeting, and execution (PPBE), and acquisition management communities.

Four pages in all, our RDC submission included a brief description of the operational requirement and urgency of the threat; the range of available AIS products; quantities required; identification of funding; deployment date;

logistics and maintenance support requirements; plans for testing; and manpower, personnel, and training requirements for fielding. The assistant secretary of the Navy for research, development and acquisition approved the RDC plan in January 2006.

In a typical acquisition cycle, funding for research, development, test, and evaluation (RDTE) acts as the primary resource during the first years of a program. As a program evolves into its operations and support phase, procurement and maintenance funding grow. Meanwhile, a fundamental risk within the acquisition community is requirements creep. Based on our experience with AIS, an addendum to this risk is as follows: a fundamental risk within the rapid deployment capability process is rapid requirements creep within a given execution year in which scarce resources were pulled together at the eleventh hour for the RDC in the first place.

In the case of AIS, we received procurement dollars after approval of our RDC. This funding allowed for commercial off-the-shelf purchases and installation but did not support any development in support of additional fleet requirements to our initial baseline capability. To mitigate this lack of funds to handle emergent requirements, we requested RDTE funding through the Office of Naval Research's Rapid Technical Transition (RTT) process, to begin integrating AIS information into the Global Command and Control System (GCCS) family of systems. Simultaneously, the calls for integrating AIS into the common operational picture grew louder as the fleet's AIS concept of operations matured. We used this RTT-provided RDTE to deliver a significantly greater capability than originally envisioned in the CNO's guidance, based on rapid creep of operational requirements. Essentially, we provided a second increment of the AIS capability that fed tracks into GCCS-M [*Maritime*] within three months of receipt of the RDTE funding. Without this additional RDTE funding, we believe our RDC efforts would have been considered a colossal failure by Navy operational commanders.

Fielding the AIS Capability to the Fleet

We considered our integrated AIS capability, developed using the RTT RDTE based on rapid requirements creep, to be an 80 percent solution for the fleet. But by getting our AIS capability quickly into the hands of operators, we received significant operational feedback that allowed us to make measurable and attainable improvements to our baseline in weeks, not years. The flip side of this effort, of course, was that configuration management became a tremendous pain. We believe our configuration management headache, however, has been more than offset by the benefit of quickly deploying this technology to the warfighter. The admirals and commodores who led our afloat strike groups became our strongest and most effective advocates.

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While an RDC designation is not a get-out-of-jail-free card, it significantly streamlines dialogue and decision making within the requirements, PPBE, and acquisition management communities.

As we are writing this article, the initial AIS RDC capability has been fielded on about 60 U.S. Navy unit-level ships and the integrated AIS capability on six U.S. Navy force-level ships. The ongoing fleet AIS lessons learned will go a long way toward defining capabilities as AIS transitions from RDC to Program of Record. We hope to achieve a positive Milestone C decision during the first half of fiscal year 2008.

In certain cases, the RDC process provides an incredible opportunity within the Navy and DoD to get new capabilities fielded quickly. Whenever these new capabilities provide "the ability to react immediately to a newly discovered enemy threat ... or to respond to significant and urgent safety situations through special, tailored procedures," we recommend program managers invest the time and energy to consider this acquisition strategy. While an RDC designation is not a get-out-of-jail-free card, it significantly streamlines dialogue and decision making within the requirements, PPBE, and acquisition management communities.

The authors welcome comments and questions and can be contacted at robert.poor@navy.mil and randall.case@navy.mil.

Top Ten Lessons Learned

Flag-level Support. The explicit CNO Guidance from July 2005 acted as the key enabler for our effort. Without senior leadership urgency of need, getting approval to move forward would have been unlikely. Once the RDC was approved, senior leadership provided critical hands-on support in expediting our tasks required to field.

Stakeholder Coordination. Immediately following the CNO's July 2005 Guidance, we convened regular telephone conferences with action officers from OPNAV, type commanders, fleet units, and the acquisition and technical communities. The telephone conferences provided a convenient forum to get stakeholders on the same page early in the process. This coordination was critical in maintaining the rapid pace needed to meet fleet expectations and manage the rapid requirements creep inherent in an RDC.

Rapid Requirements Creep. Having operational requirements as clearly defined as possible should help reduce rapid requirements creep. But in an RDC effort, the time required to flesh out and prioritize requirements with the operational community is not available. Essentially, our engineers and Navy operators learned about AIS at the same time. In hindsight, we should have more aggressively pulled lessons learned from early fleet do-it-yourself installations in Central Command's area of operations. We tried to be sensitive to their high operational tempo within Operations Enduring Freedom and Iraqi Freedom, but we erred on the side of caution. From an acquisition perspective, the RDC request itself was the most critical document. It must balance schedule and performance information while allowing some leeway for expansion of the initial requirement. This leeway allows managers to incorporate operator input normally collected during the concept refinement, technology development, and system development and demonstration phases of a typical JCIDS program of record. In any case, our biggest headache throughout the RDC has been managing fleet expectations under severe time and budget constraints. Without our RDTE plus-up, our best efforts would probably still have been considered a failure by our customers.

Road Shows. One of the ways we could have better managed fleet expectations would have been to visit key senior Navy leadership and action officers and give a road show on our RDC. Without the road shows, our action officers were nearly driven into the ground by the volume of questions and requests for briefings.

Funding Streams. We had to be innovative to garner funding. By definition, an RDC system is not fielded or funded via the typical PPBE process. Therefore, congressional supplementals, global war on terror supplementals, research laboratories' developmental resources, and below-threshold re-

programming dollars make the difference between success and failure.

The 80 Percent Solution. Our mantra this year was, "If we field we win." When we began to field, our customers became our strongest advocates—and our most severe critics. The lessons learned and momentum we received from these early installations significantly improved the initial 80 percent solution we provided. In the same light, if we had waited to complete more of the systems engineering typically associated with an acquisition program, we would not have been rapid—and so not an RDC.

Operational Test Community. We engaged with the operational test community soon after receiving initial approval from the CNO on our plan. SECNAVINST 5000.2C states that under an RDC the program sponsor may obtain an operational test assessment of operational effectiveness and suitability. In actuality, our Milestone Decision Authority required appropriate levels of developmental and operational testing prior to giving his approval for procurement and fielding. Bringing Commander Operational Test and Evaluation Force test personnel into our plans early added to our workload up front in the RDC process but became a great facilitator as we coordinated our quick reaction (operational) assessment.

Proof of Concept. Even before we began our RDC process, we worked with the fleet to demonstrate an extremely early prototype in a venue consistent with the required application. We received authorization to conduct a Proof of Concept integrated AIS installation on *USS Theodore Roosevelt* through the hard work of ship's company and staff personnel. This "warts-and-all" temporary installation provided enough information on the military utility of our capability to key stakeholders to garner support quickly for our RDC efforts.

Teaming. In hindsight, we should have spent more time teaming with other systems commands and programs. In an effort to maintain our momentum for the RDC, we centralized the early technical decisions within our office and did not delegate many of the fielding actions until nearly a year after we began. Teaming with providers of similar products and services should greatly reduce an RDC's risk.

Socializing the RDC Process. Finally, we cannot stress enough that socializing the RDC process itself is critical to success. Within our program office, command, and the entire Navy, there was virtually no corporate knowledge on the RDC process. In hindsight, as we socialized our capabilities with our stakeholders, we should have made a more focused effort to socialize the means by which we provided our capability: the RDC.

It's All in the Talent

What DoD Can Learn from Hollywood

Maj. Dan Ward, USAF ■ Maj. Chris Quaid, USAF

Hey kids, here's a fun Acquisition Riddle for you:

Question: What do you call it when the Government Accountability Office identifies 23 DoD systems with a net cost overrun of \$23 billion?

Answer: A people problem!

Get it? Most people would call it a "bad process," but we said "people problem." Isn't that funny? Here's another:

Question: What do you call it when the Pentagon reports to Congress that 36 major next-generation weapon systems are over budget, some by as much as 50 percent?

Answer: A people problem!

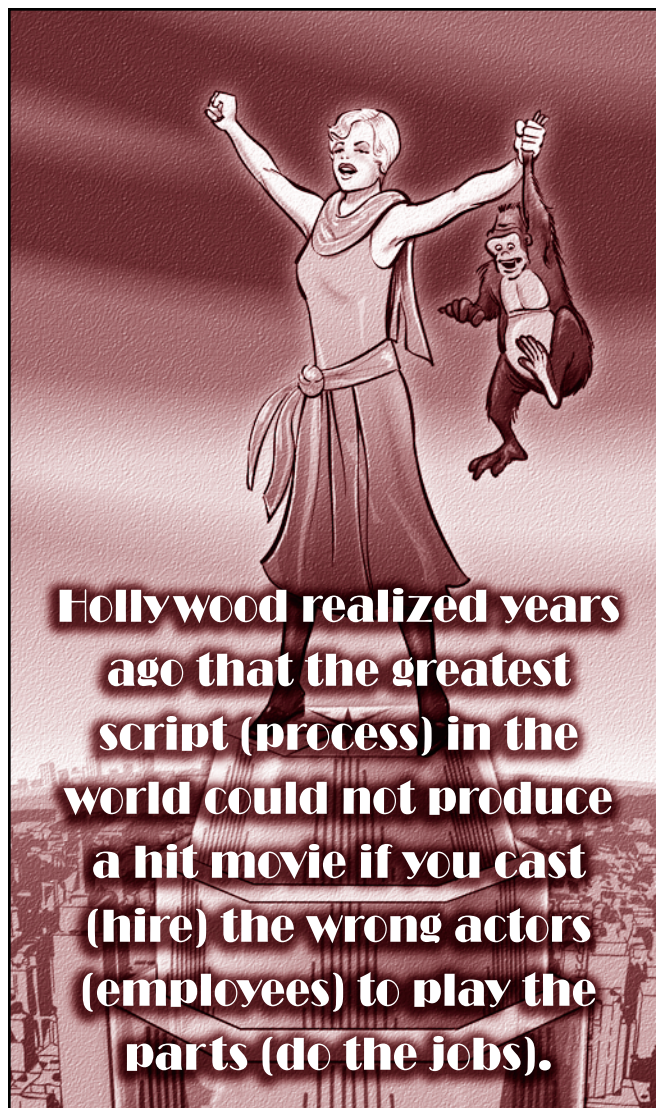
Get it? We didn't say "a bad process" that time either! This is what professional comedians call a "running gag."

It's Not the System's Fault

For all the attention spent on process reengineering, one might get the impression that bad processes are what led David Walker, the comptroller general, to tell the House Armed Services Committee, "The Department of Defense is simply not positioned to deliver high-quality products in a timely and cost-efficient fashion."

We agree wholeheartedly (albeit sadly) with Walker's assessment. We also wish to point out it is not the system's fault. People are the problem. That's right, we don't blame the bureaucracy. We blame the bureaucrats, and you can tell them we said that.

Yes, the system is bad (according to Walker); it's always been bad (according to Lawrence J. Korb, a former Pentagon assistant secretary); and it always will be bad (call it a hunch). The question, of course, is what can we do about it? Before we attempt to answer that question, it is probably a good idea to identify the root cause or causes.



Root cause analysis, particularly in the case of an ancient and convoluted problem like this one, requires an uncommonly keen mind, so naturally we turn to our favorite early 20th century British journalist, Gilbert Keith Chesterton (GKC to his fans). Writing in London's *Daily News* on Jan. 18, 1908, our Mr. Chesterton proclaimed: "By all

Ward holds degrees in electrical engineering and engineering management. He is Level III certified in SPRDE, Level I in PM, T&E, and IT. He is currently assigned to the Air Force Research Laboratory in Rome, N.Y. Quaid is assigned to the Technical Executive Office of the National Geospatial-Intelligence Agency.

means let us reform the system; but let us try to procure a few reformed people to reform it.” The system, in his analysis, is undeniably bad, but within the system there are people who are even worse. If we seek the source of badness, GKC says, we need look no further than the human heart.

So It's (Gulp) the People?

At this point, some well-intentioned readers may object to the politically incorrect and potentially insensitive observation that people are the problem. Are we not all professionals with an appropriate collection of Certificates of Training and Documents of Accomplishment hanging on our walls? Are we not all patriots and “the most valuable assets” of our various organizations? Indeed, that is certainly the case. In fact, the human potential for making positive contributions is precisely what makes us so destructive when we go off course.

Failing to recognize people as the problem has several severe consequences, including minimizing responsibility and accountability. It makes it quite difficult to learn from our mistakes, which is the key to improving our outcome (note that we didn't say “improving the process”). Perhaps this preference for blaming the system rather than people is why the *New York Times* observed, on July 11, 2006, that “blame for the [DoD's] cost overruns is not easily assigned.” Indeed! Obfuscating accountability seems to be one of the system's main objectives.

Blaming the system rather than the people also means we need not spend too much time improving the talent on our roster. After all, the people aren't the problem—and everyone knows the saying about what to do if it ain't broke.

The DoD's Business Management Modernization Program and various similar efforts have had little measurable effect, perhaps because of their focus on revamping the system rather than reforming the people. Similarly, some leaders in Congress, out of an admirably generous desire to help make things better, are moving to assert more control over the defense acquisition system, an endeavor that even its supporters admit is likely to have mixed results. In the same altruistic spirit of helpfulness, Norman R. Augustine, former chief executive of Lockheed Martin and a former Army under secretary, said, in the same *New York Times* article, that “what is needed most is to make it extremely difficult to start a new program,” which should not be until “the need is clear, the technology is there, and there is money to do the job.”

We think cutting off a person's fingers is a strange way to get him or her to do better work. It's not clear how additional controls will address the underlying problem. For that matter, we (and others) aren't sure those particular actions will even address the symptoms.

Of course, we could be wrong. Action is clearly needed—and sooner rather than later. Given the options on the table, one might reasonably wonder if, indeed, the DoD should move forward with the proposed plans to limit award fees, seek additional congressional oversight, enact new barriers, require a greater number of firm-fixed-price contracts, and implement a new raft of best practices borrowed from industrial or historical success stories. In a word—why not? There's no reason *not* to do those things, and they will certainly make some people feel good. They will probably even get lots of people promoted, and who doesn't like promotions?

We feel compelled to point out, however, that such a system-focused approach is rather simplistic and unlikely to actually improve acquisition outcomes. But we also believe that in the end, these actions probably won't make things any worse than they already are, so we might as well give them a try. The important thing is not to stop there. Recall GKC's advice: “By all means let us reform the system; but let us try to procure a few reformed people to reform it.”

Scouting for Talent: The Importance of HR

Specifically, the importance of human resources needs to be greatly elevated. We need to focus on recruiting, training, and retaining people with the right attributes, skills, and attitudes to do this job well. Did you notice that we didn't say “focus on *ways* to recruit, train, and retain”? That's because the key is not to create new and better ways, but to actually *do* it—bring new and better people on board.

So let's talk about HR for a moment. Or, as we prefer to describe it, let's talk about talent. Come back to the year 1997, when Warner Bros. released their blockbuster film *The Matrix*. *Matrix* had an outstanding story to tell, and they used an incredible cast to do it. Who can forget the great acting abilities of Jean-Claude Van Damme as Neo?

“Wait a second,” you say, “Jean-Claude Van Damme—he wasn't in *The Matrix*! He is a karate-chopping, low-budget actor who wouldn't have been permitted within a five-mile radius of the studio.” Yes, you caught us. It was Keanu Reeves who delivered an outstanding performance as Neo. (And yes, we are going somewhere with this.)

We've been programmed by total quality management, Six Sigma, process re-engineering, and a host of MBA classes to believe that in the end, the only thing that really matters is following the process. A process completed is a successful mission, regardless of whether we accomplish the mission the process was originally created for. Don't take our word for it: Read the Six Sigma books carefully and you'll see the emphasis—that individual efforts do not matter as much as the whole and the process.

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Ken Krieg
Under Secretary of Defense (AT&L)

January 2006

Message from the USD(AT&L)

Welcome to the first edition of the AT&L eLetter. This monthly, electronic publication will keep you up on the latest news to help you do your job—supporting the warfighter. I appreciate your hard work and the ethical, professional way you meet the challenges you face every day.

Recently, we announced some stellar performers who have made significant contributions to our mission. I extend my hearty congratulations to the winners of the 2005 Packard Award and the AT&L Workforce Development Awards for their contributions.

I am proud to join you all in providing our warfighter with the latest information on our work and its interests. Many of you have been instrumental in speaking on our behalf in America and around the world. The latest informationally and strategically speaking on our behalf in America and around the world. The latest informationally and strategically speaking on our behalf in America and around the world.

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If the process and the “hive” are what really matter, obviously the HR function deserves to be ignored. We can hire anybody into a job or position as long as the process is intact. Van Damme (see, we told you we had a point), like Reeves, is a male actor who knows karate, talks funny, and performs in action movies. A process drone has no basis on which to differentiate between the two and might reasonably conclude there would be no problem in casting Jean-Claude in *The Matrix* instead of Keanu.

Of course, the process drone would be dead wrong. What a different—and unprofitable—movie *The Matrix* would have been with the wrong cast. Lucky for the audience and for Warner's bottom line, Hollywood has learned to harvest billions of dollars by using casting directors (a.k.a. HR folks) to figure out who is best suited to maximize the earning potential of a movie. Hollywood realized years ago that the greatest script (process) in the world could not produce a hit movie if you cast (hire) the wrong actors (employees) to play the parts (do the jobs).

**The DoD acquisition system
is not the worst of all
possible systems, so things
are already better than
they could be.**

Hollywood movie companies pay very large sums of money to their casting directors (HR specialists) to ensure that the right person is in the right job. If the casting director fails to perform, two things happen: The movie (no matter how good the script) flops, losing millions of dollars, and the casting director is replaced.

Jim Collins' book *Good to Great* focused on how good companies became great companies. When Collins asked revolutionary CEOs how they turned their companies around, not one said the number one goal was to make great processes—the great CEOs all said the number one ingredient of a great company is great people.

In the Interests of Science

In the interest of scientifically proving our point, we conducted some rigorous independent research into the murky realms of HR. Specifically, we had Quaid call a top modeling agency in New York City, to discuss their approach to HR and talent acquisition. Q Models is responsible for some of the hippest supermodel phenoms and hottest talent in the world today (think Charlize Theron). If anybody knows the secrets of human resources,

it must be these guys. Their whole universe rests on finding the right talent.

We will now offer a small portion of that phone call, edited for clarity and brevity and to eliminate the first few moments of surprise and disbelief while the HR/talent agent got used to the fact that she was talking to an Air Force space operator.

Quaid: Does your industry value the HR folks who find the right people for the right jobs?

Q Models: We reward the good talent scouts very well, but the bad ones don't do so well, and they eventually get fired or leave.

Q: So your top HR scouts are compensated for finding the one right person for the one right job, correct?

Q-M: The best HR scouts are compensated well, but they are not looking for the one "right" model for the one "right" job. They are searching for people who can be valuable to the agency and our clients across a broad spectrum. Our employees must adapt and provide a flexible effort to a multiple and varying number of opportunities for placement.

Q: How did you get into HR for Q Models? How do you and the other agents stay at the top of your game?

Q-M: I had a few other jobs, and one day about eight years ago, I was offered the opportunity to try to assist an agent—and I learned I had a talent for finding talent and I enjoyed doing it.

Q: Do most of your peers go to school? How do you keep sharp? Is there an annual training requirement?

Q-M: In my experience, most of my peers are like me. They kind of fell into the job and if they were good at it they stuck around. There is no schooling or ongoing training. It's all from the gut. I don't think it's a job where you go to college to learn how to do it. You either can find talent or you can't.

As that interview shows, HR—finding talent—is as much an art as a science. There seems to be no prescribed right way to do it, but it's absolutely imperative to get the right results. It's a gut-level skill, not a process-driven activity.

Yes, It's the People

Finding talent is itself a talent, and an important one at that. A little nurturing of this discipline will reward good HR, with clear benefits for the organization and our customers. Government HR's emphasis on process and systems far and away eclipses any talent-based focus. Talent scouts in the government (not including the local military recruiter) generally make the same amount of compensation without regard to whom they've just hired and into what position, as long as their numbers are up and the appropriate boxes are checked.

The resulting product is the reality of our government today, so eloquently described by David Walker. PMs and

HR professionals place employees by the numbers into buckets, without consideration of enthusiasm, creativity, or character. This directly correlates to the DoD's being behind schedule, over budget, with minimal accountability, and so on.

Talent agents for modeling boutiques and Hollywood casting directors know that hiring right will determine the outcome, profitability, and well-being of their companies. The companies know this as well and reward the talent agents and casting directors accordingly. Government employees are often in similar positions, making critical decisions that determine the fates of millions of dollars or even thousands of human lives. Should it not be just as critical for the government to have the right people in the right job? With as much—if not more—to lose, should the government not put as much emphasis on people as a movie company? Thus the persistent theme of our articles: "Hey people, it's all about people!"

The best designed system in the world can produce negative results in the hands of the cynical, apathetic, or self-serving. And the worst system can produce positive results when proactive, intelligent, and selfless people take the wheel. It's the job of the leaders (along with the HR talent scouts) to seek, nurture, and position the good people, while filtering out or redirecting the negative ones. The DoD acquisition system is not the worst of all possible systems, so things are already better than they could be. The system is also not the best of all possible systems, so there's lots of room for improvement—but like any system, it's not perfectible, no matter how many times it is reformed, re-engineered, or reimagined. And no amount of process re-engineering will change the fact that some of the people who make up the DoD acquisition workforce have what it takes and some ... well ... just don't—though they might well shine in another field.

By all means, let's continue to criticize the system and re-engineer the processes. It probably won't make things worse. Let's keep pushing to reform the way we do things but recognize that we can't expect those reforms to mean anything at all until we also address the people who must enact the reforms and implement the processes. Let's heed Chesterton's warning, "As long as we go on cursing the system, the system will be perfectly safe." Let's recognize the wisdom of cursing the people as well ... and then seriously focus on helping them get better.

The authors welcome comments and questions. Contact them at daniel.ward@rl.af.mil and christopher.quaid@pentagon.af.mil.

When the Warfighter Needs it Now

Robert L. Buhrkuhl

The presence of the news media on the battlefield ensures almost instantaneous reporting of the course of the battle to the world: destruction, casualties, human suffering—and the battlefield capabilities of our own forces as well as those of our adversaries. Recent reporting has also brought to light the United States' deficiencies in getting innovative solutions to our warfighters rapidly enough to adjust to the changing tactics and techniques of our enemies. Today, more than ever, with a smart and adaptive adversary, the Department of Defense faces an enormous challenge to quickly identify and validate solutions that will effectively counter the enemy's adaptability and to execute an acquisition process that provides warfighters with solutions in a timely manner with all required training and support.

The traditional defense acquisition processes, which include individual Services' acquisition processes, are designed primarily for major weapon systems costing billions of dollars in research, development, test and evaluation, as well as production, manufacturing, fielding, and sustainment. Because of the enormous resource investments required and because of congressional scrutiny, program decisions tend to be deliberative and tied to budgetary priorities, schedules, and vagaries. Consequently, the materiel solutions developed can take up to 10 to 15 years to get into the hands of the warfighter.

DoD weapon systems design, development, and acquisition cycles have steadily increased since the 1950s, forcing the Department to transform its ways of doing business to effectively address capability shortfalls unique to



Recent reporting has also brought to light the United States' deficiencies in getting innovative solutions to our warfighters rapidly enough to adjust to the changing tactics and techniques of our enemies.

nonconventional warfare. As a result, much work is now being done within the Department to speed up the traditional acquisition processes, but it is problematic for these changes to be developed, proved out, and instituted quickly enough to address the ever-changing challenges of the global war on terrorism. Our military services have acknowledged the need to more rapidly field materiel solutions to the warfighter and have instituted processes—and in some cases, created whole organizations—designed to do just that.

Joint Rapid Acquisition Cell: Faster and Good Enough is Better

In recent years, the Department has been aggressively pushing the concept of joint operations requiring interoperable and complementary capabilities among our warfighters. The Department's emphasis on jointness, as well as acknowledgment that traditional DoD acquisition

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methods are not as responsive as necessary, led then Deputy Secretary of Defense Paul Wolfowitz, to create the Joint Rapid Acquisition Cell in September 2004. The JRAC was specifically formed to help break down the institutional barriers that prevent timely and effective joint warfighting support. Unlike Service-specific rapid acquisition processes, the JRAC specifically serves the joint warfighter through the combatant commanders (COCOMs) and does not duplicate the functions of the Service-unique rapid acquisition processes.

The JRAC's responsibility is to assist in resolving issues in response to COCOMs' certified/prioritized joint urgent operational needs (JUONs) as well as the recommendations of the chairman, Joint Chiefs of Staff, to validate JUONs as immediate warfighting needs (IWNs). By definition, a JUON is a COCOM-prioritized need that, if unfilled, could result in the loss of life, injury, or the failure of a mission.

The JRAC provides the single point of contact in the Office of the Secretary of Defense for addressing the urgent needs of the joint warfighter. The JRAC's structure and access to senior leaders make it unique and effective. The JRAC reports to the secretary of defense through the under secretary of defense, acquisition, technology and logistics (USD(AT&L)) and the USD (comptroller), and consists of a core and an advisory group composed of 26 flag officer- and Senior Executive Service-level representatives from the Services, COCOMs, and select defense activities. The core group representatives include experts in acquisition, law, funding, logistics, contracting, and technology; they are empowered to make rapid decisions on behalf of their organizations, within the scope of the effort. The JRAC Core meets only when necessary.

The advisory group supplements the JRAC Core with additional subject matter expertise and meets depending upon the nature of the JUON and the COCOM involved. When a JUON is submitted to the Joint Staff, the goal is for the Joint Staff to make a recommendation on its disposition within 48 hours, but no longer than 14 days. A JUON may be satisfied by the full range of doctrine, organization, training, materiel, leadership, education, personnel, and facilities options, as has occurred on two separate occasions. If the Joint Staff determines that the JUON would be best satisfied with a materiel or logistics solution, it recommends that the JRAC convene and consider designating the JUON as an IWN. The JRAC's goal is to provide a solution to the IWN in less than 120 days (well short of the time frame planned or possible within the normal DoD acquisition process). The JRAC does not provide direct funding for satisfying an IWN. Congressional supplementals, such as the Iraqi Freedom Fund, have been the primary source of funding for IWN solutions. If funding is not available through supplemental sources, the JRAC works with the USD (comptroller) to find funding through the military departments, defense agencies,

COCOMs, and the United States Special Operations Command.

During its initial days of operation, the JRAC conducted an extensive review of all existing federal and DoD acquisition and contracting regulations to determine if there were any significant legal or regulatory impediments to rapid acquisition. In general, the JRAC found that existing regulations provide sufficient flexibility to allow rapid procurement of urgent and unusual materiel solutions. However, there has been a tendency within the Department to overlook this latitude. The JRAC was successful in using the flexibility provided in these regulations to expedite some urgently needed equipment and supplies to warfighters in both Afghanistan and Iraq soon after the JRAC was organized.

Even greater rapid acquisition authority was granted to the secretary of defense with the passage of section 806 (c) of the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Pub. L. No. 107-314), as amended by section 811 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (Pub. L. No. 108-375). This legislation, entitled Rapid Acquisition Authority (RAA), gives the secretary of defense the authority to rapidly acquire equipment that is urgently needed to eliminate a combat capability deficiency that has resulted in combat fatalities. This authority is limited to an aggregated amount of not more than \$100 million during any fiscal year. While not actually providing additional funding, the RAA allows the secretary of defense to reallocate DoD funds, if required, and provides the authority to waive laws and regulations dealing with testing and procurement to acquire critically required equipment. The secretary of defense designated the JRAC to be the administrator of the RAA. The RAA has been used twice since being granted by Congress. In both cases it was used to quickly procure equipment to counter IEDs [*improvised explosive devices*].

DoD has established numerous other organizations to adapt to the challenges of asymmetric warfare in Iraq and Afghanistan, including the Joint IED Defeat Organization, the Combating Terrorism Technology Task Force, and the Army's Rapid Equipping Force. Each Service, as noted previously, has its own rapid acquisition processes to meet the battlefield needs of its servicemembers. Additionally, Congress has assisted the Department with funding rapid initiatives with the Iraqi Freedom Fund Supplemental, established for use in Operation Iraqi Freedom, Operation Enduring Freedom, and the global war on terror.

When Faster Saves Lives

This concerted effort has led to numerous JRAC success stories, among them assisting in the rapid development, procurement, and deployment of the counter-rocket, artillery, and mortar intercept capability to enable base



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Adm. Edmund P. Giambastiani, vice chairman, Joint Chiefs of Staff, addresses attendees at the Joint Rapid Acquisition Workshop held in Tampa, Fla., in June. Photograph by Sr. Airman Carlye Rodriguez, USAF.

engineering solutions with specialized industry, with the approach of our adversary who improvises from the readily available technology suppliers. Krieg asked the attendees to become more customer-centric and less supplier-centric while speeding our evolution toward more rapid cycles of change and technology adaptation.

Luncheon speaker Adm. Edmund P. Giambastiani, vice chairman, Joint Chiefs of Staff, emphasized three points for improving rapid acquisition: track and account for delivery of capability to resolve urgent needs; address long-term sustainment of delivered capability; and assess and address the appropriate level of interoperability, balancing risk and the effects of unintended consequences.

camps to successfully engage and destroy incoming rockets, mortar, and artillery rounds. The JRAC provided acquisition management oversight and helped secure funding for Spiral 1 Development of the full-spectrum effects platform, which will provide COCOMs with a suite of non-lethal measures when fighting in urban areas. Funding obtained by the JRAC facilitated the development and enhancement of an improved situational awareness data link for better command and control capabilities for NORAD [*North American Air Defense Command, now North American Aerospace Defense Command*] aircraft over U.S. cities—a vital capability in the case of another catastrophe like 9/11. More recently, the JRAC gained approval and funding in less than 30 days to purchase commercial radios to improve communications and interoperability among U.S. and coalition forces in countering terrorist operations in remote, rugged border regions. Finally, the JRAC provided funding and continues to provide acquisition management oversight of a biometrics enterprise initiative—a capability that focuses on the heart of winning the global war on terror by enhancing the Department’s ability to identify and track terrorists. These are just a few examples of JRAC success stories.

Joint Rapid Acquisition Workshop Focuses on Improving Process

In June of this year, the JRAC hosted a Joint Rapid Acquisition Workshop in Tampa, Fla., with the theme “Improving Rapid Acquisition – Meeting Immediate Warfighter Needs.” All the JRAC’s Flag and Senior Executive Service representatives, as well as Joint and Service acquisition officials, were invited. Ken Krieg, USD (AT&L), the keynote speaker, emphasized that speed and responsiveness to the customer must be driven with a focus upon the rapid acquisition of capability—not simply systems. He contrasted the time-consuming approach of developing and

assess and address the appropriate level of interoperability, balancing risk and the effects of unintended consequences.

Attendee comments included the need for readily available funding of initiatives occurring in the year of budget execution, and smoothly transitioning good ideas into Service programs of record. The JRAC intends to bring these improvements to fruition and has initiated a follow-up strategy that will keep senior leaders engaged in the joint rapid acquisition improvement process focused on the areas the Workshop attendees identified as the most immediate and opportune for improvement. These initiatives will not only better serve the warfighter, but will also provide valuable lessons learned as the Department’s acquisition processes continue to evolve in the 21st century. The JRAC’s efforts have brought positive effects for U.S. and allied troops on the battlefield—and in this business, that equates to lives saved.

In recent months, as joint requirements are better identified to counter the rapidly changing challenges in the global war on terrorism, there has been a significant increase in the number of JUONs submitted by COCOMs that have become IWNs. The JRAC is one of several innovative measures to effectively meet the demands of asymmetric warfare. The recent JRAC Workshop was a first step in documenting the lessons learned as DoD begins to institutionalize a more robust rapid acquisition approach and provide more rapid, capability-centric solutions to today’s warfighter.

More information on joint rapid acquisition is available on the DAU Web portal at <<https://acc.dau.mil/JRA>>.

Risky Business

Wayne Turk



A good risk management process ... should be used to continuously assess what can go wrong in the project, determine which of the risks are most important, identify the potential effects or outcomes, and implement strategies to deal with them.

Skating on thin ice, sky diving without a reserve chute, flashing a full wallet in a bad neighborhood, unprotected sex, rooting for Dallas from the middle of the Redskins' cheering section—all of these have one thing in common: there are significant risks involved. It is the same with managing a project. But guess what, that's why they invented risk management.

Risk management is a discipline for living with the possibility that future events may cause adverse effects. A

good risk management process to identify and mitigate the bad things that can happen is a necessity for program managers. It should be used to continuously assess what can go wrong in the project, determine which of the risks are most important, identify the potential effects or outcomes, and implement strategies to deal with them. Looking at any of the risky activities above, there are ways—some simple and some more complex—to avoid or mitigate the risks involved. PMs need to do the same with project risks.

According to Al Ware, senior risk manager at Space and Naval Warfare Systems Command, Charleston, S.C., "The process of managing risks within DoD is an accepted concept and has been a requirement for almost two decades. It is not a passing fad. It has been clearly documented as a key element of the top best business practices, especially among Fortune 500 businesses. Every few years the wording of the DoD directives requiring the management of risks has been made stronger and stronger until it is definitively mandatory."

The Risk Management Program

The Project Management Institute uses the systems approach in the *Guide to the PMBOK* as a recommendation for implementing a risk management program. The approach covers six major areas:

- Risk management planning
- Risk identification
- Risk assessment
- Risk quantification
- Risk response planning
- Risk monitoring and control.

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Let's take a brief look at these areas.

The Plan

Everything in DoD starts with a plan. The risk management plan presents the strategy and ground rules, defines the stakeholders, sets the objectives of the program, defines the process and organizational structure, and presents roles and responsibilities. It may also contain the template(s) for the documentation associated with the program. It is also helpful to create (or copy from others, if possible) the defined risk areas. Some common areas of risk are technical, financial, project management, and environmental. The plan should also present requirements for prioritizing and for closing the risks. There is probably a good example of a successful risk management plan somewhere in your organization. Find it and tailor it for your project. Many organizations have a central risk management group—a good idea, as this concentrates experience, knowledge, and a single process in one area. They can help you with your specific project needs and provide processes and good advice.

The Identification

Identification of all of your risks is extremely important. The initial identification can come from anywhere or anyone but usually comes from someone on the project team. The form used to submit risks may be based on whatever format is desired or standard in the organization, although a Microsoft® Word document is commonly used for submission, and a spreadsheet is usually used for tracking. Initially, the PM (or risk manager) will go out to the team and others to request risk inputs. Don't worry if there are a large number. That's actually a good sign—it means people are taking it seriously. As time passes, new risks will be identified and added to the list while some old risks will drop off. Sometimes it requires a nudge to get people to identify and submit risks. They worry that risks reflect badly on them individually or on the project.

The Assessment

Risk assessment means evaluating the risk. The assessment begins with an analysis, whose depth will vary with the project. Assessment is tied closely with risk quantification, which is based on the results of the analysis. A combination of the probability and impact (which together define the severity) will determine whether the risk can essentially be ignored or will require close monitoring. The simplest type of quantification is a risk matrix with axes being *probability* and *impact*. Using general rating categories (high, medium, and low) along each axis will give results that could range from low/low (essentially ignore) to high/high (you'd better watch this one closely or you may be out of a job). The higher the severity, the more monitoring or action it needs and the higher priority it should be given. Also, the higher the priority, the more detailed the analysis that is required.

The Quantification

There are many detailed and complex methods of quantifying or ranking risks. One good analysis of these can be found in *Preparing for the Project Management Professional (PMP) Certification Exam*, 2nd Edition, by Michael W. Newell. There are a number of other good sources.

The Response

The result of the assessment also serves as the basis for determining the response strategy. Sometimes—as they used to say in the math books—the strategy “should be intuitively obvious to the most casual observer” (a hated phrase by students because frequently it wasn't very obvious). There are several different approaches using up to 16 strategy elements/choices, but these four are considered the basic strategies for most users:

- **Elimination/Avoidance.** Ridding your project of the risk completely is cost-prohibitive or very difficult, if not impossible. And if you could eliminate or avoid it, it wouldn't be a risk any more and could be closed.
- **Transfer.** Shift the risk to someone else or into an area where consequences are more tolerable. Sometimes this can be done by contracting out the source of the risk, especially by using a fixed price contract. However, after transferring the risk, you may be dependent on someone else and may not have insight into what is happening. The final result could be a bad surprise.
- **Acceptance/Monitoring.** For risks with a low ranking or priority, this is an acceptable method. It is also a possibility when the cost of mitigation is too high to be acceptable. Then the risk should be monitored until the severity (probability and impact) becomes unacceptable.
- **Reduction/Mitigation.** Determine a strategy that will reduce the severity of the risk to an acceptable level. The strategy might be a different (lower-risk) technology, more testing, a change in personnel, or any of a hundred other mitigation strategies.

Einstein reputedly said “It is not possible to solve a problem using the same thinking that created it.” David Hilson, in *Innovative Risk Management*, says risk management requires fresh thinking, namely in the development of effective risk responses. Hilson also says that “just identifying risks is not enough, and if appropriate action is not taken, then risk exposure will remain unchanged. However deciding what is ‘appropriate’ for each risk demands a degree of innovation, being prepared to consider and implement actions which were previously not thought necessary.” In other words, you may have to be creative to mitigate your risks. Creativity is one of the things that PMs are paid for.

The Risk Management Organization

Since risks can affect any or all areas of a program, one accepted idea is to have the risk management control at the highest level of the organization practicable. This can

15 Bad Reasons for Not Using Risk Management

- We have no risks.
- Identifying and making risks public will kill the program.
- We deal with problems as they arise.
- My customer/boss/whoever doesn't want to hear that he/she is the source of risk.
- You can't predict what will happen a year from now.
- No one on the staff knows how to do risk management.
- We plan to start implementing risk management next year.
- There is nothing in it for me.
- Our job is to develop megawidgets, not fill out bureaucratic forms and go to stupid meetings.
- If I gave a realistic risk assessment, no one would listen.
- That method/process/tool/software/hardware is not a risk. X said so.
- This project is too small to do risk management.
- We can't identify risks based on government (or industry) metrics because our project/process is different.
- Things are going smoothly. We're on schedule and under budget.
- We don't have time.

Based on excerpts from The Little Book of Bad Excuses, Software Program Managers Network, June 1998.

save resources or provide economies of scale for solutions. While the higher-level the control, the wider the reach, there is also less direct contact or oversight at the working level. Therefore, it might be better to have a central RM function but have the function also at the project level. Representatives from all levels should be involved to ensure that multiple perspectives are incorporated, more risks are identified, and better control strategies are developed.

The following are some roles and responsibilities in the RM program for a typical organization. Names and specific responsibilities may vary, but this provides an outline of an RM organization within a program. In some cases, positions and responsibilities can be combined.

- **Program Manager**—has overall responsibility for the program and projects, including RM.
- **Risk Management Manager/Director**—responsible for the risk management program; usually chairs the Risk Management Committee/Board.
- **Risk Management Committee or Board**—drawing members are from all levels and parts of the organization, provides overall guidance to risk management activities. This includes periodic reviews of all (or at least

the most significant) risks, validation of risk information, assignment/approval of risk ownership, reviews of risk response strategies and status, and approval for adding or closing risks.

- **Risk Manager**—maintains the RMP and risk database, ensures information is up to date for the Risk Management Committee/Board, and provides administrative support to the Committee/Board, requests input/updates from risk owners.
- **Risk Owner**—PM, functional integrated project team lead, or task manager over the area containing the risk; responsible for some or all of the analysis, and developing response strategies; also responsible for monitoring the risk and providing updates to the risk data base.
- **Risk Action Managers/Team Members**—assigned by the PM or task manager and responsible for specific actions under the response strategy.

Processes

While processes will be different among organizations, there are some activities that should take place in almost every risk management program. The first of these is the risk database. This is a living document, updated periodically (read as “frequently”), and cannot be just “shelfware.” In the submission and tracking of risks, the following information is suggested as input.

- **Name**—use an individual and easily understood name for each risk.
- **Identification number**—each risk should have an individual number for easy tracking; this is usually assigned by the Board/Committee or the risk manager.
- **Description**—a write-up with enough information to adequately and accurately describe the risk (this sounds simple, but can be very difficult).
- **Date**—the date that the risk is presented to the Board/Committee or accepted as a risk.
- **Person responsible for managing**—usually assigned by the PM or risk manager and can be the person who identified the risk (although that has a tendency to cut down identified risks if people think that they will be responsible).
- **Probability of occurrence**—usually general categories like high, medium, and low, or a specific estimated probability from 0 to 1.
- **Impact**—what happens if the threat comes true? How will it impact the project? If the impact is a dollar cost, it should be estimated and revised as necessary. The impact should have a rating, either general or numerical. Many organizations use numerical values from 1 to 5, with 1 being minimal impact and 5 being maximum impact—a “showstopper.”
- **Severity**—this can also be general categories or a specific numerical value.
- **Mitigation strategies**—how the project will avoid, reduce, or mitigate the risk. This should include cost, milestones, and a timeline.

Ware says that “severity is also referred to as the risk Exposure Value. The exposure of the risk is the first indicator on the severity and is a significant tool in aiding the RM team in prioritizing risks. The exposure is automatically calculated in some risk databases (e.g., Risk Radar (available from SPMN)).”

As mentioned earlier, risks can be identified and submitted by anyone. Once submitted, they should remain in draft status until the Committee/Board approves them for entry. Once the risks are approved, it may require significant analysis work or modeling to determine the impact to cost, schedule, or performance. For these major risks, some type of a repeatable analysis or modeling process is needed.

The Committee/Board should meet periodically. The frequency might be anywhere from weekly to quarterly, depending on the number and level of the risks. For most DoD programs, monthly is probably about right. In preparation for the meeting, the owners of all risks will update the status. At the meetings, there should be a review and approval/disapproval of draft risks for inclusion in the database, the status of the highest priority risks (the “Top 20” is a good guide), and any risks that can be closed. On many projects, the risk status is also briefed during IPRs using some sort of a stoplight chart (red, yellow, green).

The risk database should be available for view by everyone in the program. A caveat here is that sometimes a risk, even a very low-level risk, can make people start worrying about their jobs. This is especially true with funding risks. However, that issue is offset by the fact that when people know about risks, they can work to resolve or lower them.

The risk manager should also hold periodic reviews with risk owners. In some cases, this is also a part of the Committee/Board meeting. However, a separate meeting is recommended so that there can be detailed discussion of the status, milestones, etc.

Closure

Closing a risk is a happy time for all. It is done when the risk is no longer a risk (duh!). The risk could have been overcome by events, resolved, or completely transferred. The last—completely transferred—can only be closed if it no longer is a risk to the project. The closed risk needs to stay in the database with all of the appropriate information and dates, but in a closed status.

According to Ware, technically speaking, a risk is also closed when it has transitioned into a problem, and the PM needs to invoke planned contingency actions. There are two schools of thought on the proper use of the contingency plan: Use the contingency plan as a backup mit-

If you don't identify, assess, and respond to risks, your project could go down the tube and take you with it.

igation plan in case the initial actions do not successfully mitigate the risk down to a more manageable level; or use the contingency plan for what the team will do when you-know-what has hit the fan.

The final process should be the completion of a lessons-learned report, or a white paper, or entry into a lessons learned database. In the report, there should be both specific lessons learned and general lessons learned that might apply to other areas. Most organizations have some kind of a standard format.

No amount of teaching and no RM tool will enable a team to successfully protect a project if that team does not have the right “cultural attitude” toward risk management. In *Project Risk Management*, Bruce T. Barkley says, “A risk management culture can be defined as the ‘prevailing standard for how risk is handled.’ An organization with a strong risk management culture has policies and procedures ... to go through disciplined risk planning, identification, assessment, and risk response project phasing. A mature organization does not treat risk management as a separate process, but rather ‘embeds’ the risk process into the whole project planning and control process.”

Risk management is one of the most important areas of project management. If you don't identify, assess, and respond to risks, your project could go down the tube and take you with it. Einstein defined insanity as “doing the same thing over and over again and expecting different results.” In other words, no lessons learned.

As the Chinese proverb says, “If we don't change direction we're likely to end up where we're headed.” And if you don't do good risk management, you are headed down the road to failure. Risk management helps identify when you are heading in a potentially wrong direction and helps you change direction so that you don't end up “where [you were] headed.”

The author welcomes comments and questions. Contact him at wayne.turk@sussconsulting.com or rwturk@aol.com.

Strategies Gone Wild?

Implications for Resourcing the Force in the Midst of Complexity

Christopher R. Paparone



The sensemaking rubric suggests we should educate future defense professionals to work more collaboratively with their political clients.

The value of the first “P” in PPBE [*the planning, programming, budgeting, and execution process used as a strategic management tool in the Department of Defense*] is based in a strategic planning paradigm that has been under attack in both business and organizational literature for quite some time. There are obvious problems with trying to predict what kinds of forces and equipment systems will be needed for the uncertain future while trying to making sense of the ambiguous and complex contemporary operational environment. The fallacy of the logic of PPBE is that we can create long-term objectives (set seven to 15 years out) that will solve the complex problems we discover and re-discover today. There is little or no evidence that such long-range planning works and a growing body of evidence suggesting that it may be counterproductive to creating highly adaptive, self-organizing, and network-centric organizations. Yet the Department of Defense has been increasing the emphasis on planning, as evidenced by the plethora of written strategies (I count at least 15 in current publications available on the World Wide Web) and the growth of episodic planning events and processes, such as the Quadrennial Defense Review (QDR) and those contained in the Joint Strategic Planning System.

Given little or no evidence that strategic planning works, the emphasized use of the “P” in PPBE seems to reflect an organizational ideology—unquestioned belief that prob-

lems can be unilaterally defined scientifically, in relative independence from other conditions, through a process called *reductionism*. Indeed, the DoD force management practice is to reduce and categorize problems (treated as dependent variables) and associate them with potential funding of programmatic solutions in doctrine, organization, training, materiel, leadership, personnel, and facilities (the Department’s list of standing independent variables). Planning is believed to serve as an unemotional argument for justifying and objectively measuring the use of public resources. But I have yet to come across a study that examines how accurate our planning has been to produce the capabilities we need today. I performed an informal evaluation that reveals that we may be doing a rather poor job of prediction.

For example, the 1993 Report of the Bottom-Up Review (the precursor to the QDR process we have today) included only one counterterrorism task envisioned during “peace enforcement and intervention operations.” The task, “securing protected zones from internal threats, such as snipers, terrorist attacks, or sabotage,” was too vague to tie to any significant program or budget. A later example is the 1998 Clinton administration’s U.S. National Security Strategy for a New Century. This plan had a section on “transnational threats” that grouped terrorism along with drug trafficking and international crime. Counterterrorism goals were apparently addressed in the following sentence: “Our policy to counter international terrorists rests on the following principles: (1) make no concessions to terrorists; (2) bring all pressure to bear on all state sponsors of terrorism; (3) fully exploit all available legal mechanisms to punish international terrorists;

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and (4) help other governments improve their capabilities to combat terrorism.” This legalistic strategy did little to fuel defense programs that we need today. Joint Vision 2020, published in June 2000, focused on a force protection-oriented, antiterrorism goal, without mention of any major DoD comprehensive role in combating terrorism in an offensive or pre-emptive way.

Conspicuously absent in all of these strategy documents are predictions associated with prosecuting a global war on terror of the magnitude we are engaged in today. I conclude that these strategy documents hardly guided creation and acquisition of DoD capabilities to counter terrorism; and, with the advantage of hindsight, they were insufficiently visionary to mobilize the military toward a global war on terror that emerged within the future year’s defense planning window. It is also important to note that none of these documents gave any indication of foreseeable military operations that would include the multi-billion dollar need for military support for stability, security, transition, and reconstruction operations as we are witnessing today in Iraq and Afghanistan.

Applying the Concept of Sensemaking

Indeed, the environment we face—and perhaps have always faced as a nation—is best described as so complex as to defy the results of long-term, predictive-style planning. Instead of borrowing from the Cartesian scientific metaphor as the template for solving problems, perhaps the Department has to look for alternate paradigms for generating appropriate force capabilities. Studying a social-psychological concept called *sensemaking* has the potential to offer DoD new ways to contemplate multiple paradigms at the same time.

Sensemaking (to paraphrase the definition of the term from the works of University of Michigan professor Karl E. Weick) is being open to the process of using, modifying, rejecting, and creating shared mental models when dealing with situations of incoherency and disorderliness. There is a growing literature on sensemaking that suggests our view of reality is inherently unstable. That is, when we realize our current cultural preferences, frameworks, mental models, doctrines, decision processes, etc., do not seem to be working well for us to make sense of the world, we have to be of the reflexive mindset to explore alternative ways of sensemaking.

By adopting the premise of sensemaking—that humans can create and share a malleable sense of reality—defense acquisition and logistics professionals and their political elected or appointed clients (in both the Executive Branch and Congress) may also find new ways to think well beyond the false clarity associated with strategic planning. They may have to consider together the possibility that PPBE represents a cultural preference for a reality that serves more to lower anxiety and bring a comfort-

able sense of clarity to chaos. In that regard, PPBE may be a kind of psychic prison (what Weick calls a form of “pluralistic ignorance”) that precludes professionals and clients from considering alternate mental models that may facilitate more adaptive sensemaking. In his book *The Social Psychology of Organizing*, Weick explains how this phenomenon appears to work. My own remarks are bracketed:

This impression of knowing becomes strengthened because everyone seems to be seeing and avoiding the same things. And if everyone seems to agree on something, then it must exist and be true [*like the efficacy of PPBE, even in the face of contrary evidence*]. ... Having presumed that the environment is orderly and sensible [*or must be so*], managers make efforts to impose order [*as our military doctrine on “stability operations” demands*], thereby enacting the orderliness that is “discovered.” The presumption of nonequivocality provides the occasion for managers to see and do things that transform the environment into something that is unequivocal [*this explains the Department’s proliferation of strategy documents and processes*].

Weick goes on to say that this failure to realize the ritualistic nature of planning, results in self-fulfilling prophecies. For example, to consider changing the hierarchical nature of the PPBE process (a top-down decision-making paradigm) would involve challenging the traditional and elite power structure of the professional officer corps and defense civil service employees. These professionals typically view political appointees as temporary hires who lack the professional knowledge to see and interpret the world the way they do. The political appointees in turn see the professional employees as stuck in their ways and therefore not worth including in the decision-making process. The excluded body of professionals is insulted by this deliberate exclusion and, as Weick points out, will “cling even more tightly to the key element in their self-definition.” Political appointees are moved to make decisions documented in the planning phase of PPBE, giving them a sense of control; and the longer-term professionals, in the meantime, cling to the ideology of existing programs and budgets. Prophecies of the professional elites and their political clients are both confirmed by the never-ending cycle facilitated by the PPBE process. The spiraling effect of these confirmations makes a paradigm shift away from PPBE unlikely, unless defense professionals and their political clients revalue their assumptions about learning.

Learning to Value a Collaborative Approach

The sensemaking rubric suggests we should educate future defense professionals to work more collaboratively with their political clients. Sensemaking requires more emphasis on valuing collaborative inquiry with shared mindfulness of more effective metaphors (e.g., less to-



Why Some Policies are Ignored

There's an old expression, "rules were made to be broken." Although most rules exist for a good reason, people tend to forget or take for granted why a particular rule is needed. Take traffic lights for instance. They keep traffic moving in an orderly fashion and help prevent accidents. But when traffic lights first appeared about 100 years ago, people ignored them. Even today, some people tend to ignore traffic lights, which is why there are several seconds during which all lights at a traffic intersection are red, and it's also why red-light cameras are getting more and more common. There are also exceptions to rules. In the traffic light example, emergency vehicles and funeral processions are allowed to break the rule of stopping at a red light.

A group of rules along with their background and implementation details are often packaged in a document called a "policy." In the federal government, we usually call a policy an "instruction" (or INST for short). Essentially, policies are the rules, guidelines, and processes we use to conduct our day-to-day business in an orderly manner. We have literally hundreds of such instructions in our environment. Generating a new instruction or merely updating an existing instruction may take many months and sometimes even years, as there are numerous organizations to be solicited for comment and concurrence before a policy is issued.

One of the problems with policies (like traffic lights) is that they are often ignored. This could be for several reasons. One is that the people affected by the policy are not aware of it; you can't follow a policy you don't know about.

Policies can also get ignored if they're too long and complicated. I recently saw a draft policy that was 90 pages long, with 53 references and 11 appendices—and one appendix was just the list of all the references! Most people don't have time to read, let alone digest and implement, such a long and complicated policy.

Third, if the wording in the policy is too vague, it's subject to a wide variety of interpretation and implementation. Examples are using nonquantified and nonmandating words such as "some," "large," "sparingly," and "should."

Yet another reason for policies being ignored is that they do not include the measurements, reviews, and inspections required to assess compliance. Even when measurements are required by the instruction, they may not be generated, submitted, collected, or analyzed on a basis regular enough to assure compliance.

To avoid wasting time and effort, we should not generate policies that are likely to be ignored. A good policy should:

- Focus on the problem, clearly stating what it is, why it had to be addressed, and how the policy addresses the issue.
- Attempt to eliminate any loopholes. If someone can too easily get around the policy, the wording should be made tighter. A good policy has any exceptions listed clearly within it.
- Be simple, clear, and as succinct as possible. If people don't have time to read the policy, they won't have time to follow it. And surely if they don't understand the policy, they won't be able to follow it either.
- Specify the consequences of not following the policy. Consequences need to be enforceable. If a policy can't be enforced, it becomes merely a guideline rather than a rule.

We should also keep in mind that policies should be created only when there is a widespread and repeated problem and pattern of actions that are inconsistent with the organization's values. Even then, there should be a period of questioning whether the problem is best addressed by a policy, education, or both.

Before any organization starts to create a new policy—or even renew or modify an existing policy—there should be a reality check as to whether that policy is worthwhile and will likely be followed. Unless it meets all of the above criteria, it will likely be ineffective and not worth the time to write or the paper it's printed on. We should aim to keep the number of policies we have small and to assure compliance with those few that truly need to exist.

I have developed a checklist as an aid to developing policy. It is available as a PDF file in the electronic version of *Defense AT&L* at <<http://www.dau.mil/pubs/damtoc.asp>>.

Al Kaniss

ward mechanical images of cause-and-effect relationships found in the PPBE planning doctrine, and more toward organic ones); a greater variety of mental models (e.g., those derived from systems thinking, complexity and chaos theories, and competing theories of politics); and multiple interpretive schemes (e.g., those stemming from various metaphysical perspectives that transcend the false science associated with PPBE and its related tightly engineered processes). In that regard, sensemaking requires de-emphasizing so-called lessons learned, written doctrine, established techniques, and other formal assertions that falsely convey a sense of unique professional knowledge and known cause-and-effect relationships. Sensemaking creates opportunities for inventive mindfulness within the wider variation of professional-client interpretations about environment. For example, the late Harvard professor, Donald Schön, describes in his book *The Reflective Practitioner*, the comparison of the philosophy of educating based in this sort of action-research and that of the traditional model of education as follows:

Complexity, instability and uncertainty are not removed or resolved by applying specialized knowledge to well-defined tasks. If anything, the effective use of specialized knowledge depends on a prior restructuring of situations that are complex and uncertain. An artful practice of the unique case appears anomalous when professional competence is modeled in terms of application of established techniques to recurrent events It is difficult for them to imagine how to describe and teach what might be meant by making sense of uncertainty, performing artistically, setting problems, and choosing among competing professional paradigms, when these processes seem mysterious in light of the prevailing model of professional knowledge.

In short, the defense education system needs to be versed in facilitating adaptive learning-while-acting (i.e., the new science of exploring complexity) rather than teaching forms of reductionism (i.e., the old science of linear cause-and-effect relationships) such as that inherent to strategic planning.

Because long-term predictions are implausible, a professional-client relationship should be oriented more on executing budgets while together exploring ill-defined, in-

tractable issues with an acknowledgement of the need to consider multiple interpretations of reality. With this acknowledgement of complexity, executing budgets must be viewed as a continuous and collaborative sensemaking process. The planning rubric for allocating resources should transform to a plan-to-learn model under normal conditions of surprise and uncertainty rather than a plan-to-know process based on the myth of the long-range strategic management paradigm. Defense Department professionals must serve as the antitheses of what Schön describes as the “self-serving elite who put science-based technique” as their “masquerade of extraordinary knowledge.” Defense professionals instead learn they must treat their political leaders as clients with whom they must have open and honest dialogue. Together, in the budget execution process, they build sensemaking bridges as they walk on them.

Building elaborate communications networks and electronic collaboration capabilities can help enable more enlightened and improvisational forms of sensemaking by facilitating new sources of expertise, both inside and outside the cultural boundaries of the DoD. In a flexible

communications environment (like that exploited by Al Qaeda), it is fruitless to try and predict where leadership might emerge. The primary role of postmodern professional organizations can no longer be that of a producer of learnedness, stability, and certainty in managing financial resources. A transformed DoD would be constantly organizing in a never-ending condition of complexity—spawning a kind of spontaneous approach to unlearning the inculcated tools of PPB and focusing on shared sensemaking while executing the budget. A more holistic and collaborative intra-organizational and inter-organizational sensemaking approach signals a looped pattern of act—learn—act (mutual, real-time, interdependent responsiveness during budget execution) from the more familiar linear cause-effect paradigm associated with PPBE and its strategic planning-programming-budgeting sequence. Through revaluing learning as the principal strategy, encouraging client-centered sensemaking, and establishing flexible networks, the façade PPBE process can be removed and the culture truly transformed.

A transformed DoD would be constantly organizing in a never-ending condition of complexity—spawning a kind of spontaneous approach to unlearning the inculcated tools of PPB and focusing on shared sensemaking while executing the budget.

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Top Ten Rewards to Being a Program Manager

Maj. Gen. Jeffrey R. "Jeff" Riemer, USAF

#10: We acquire marketable skills that are in demand by both defense and private industry.

Program management skills are highly valued both inside and outside the government. Leading people and managing the cost, schedule, and performance of projects are universally important skills that are needed beyond the defense sector. Developing and honing these skills as government PMs makes us extremely marketable to private industry—according to the magazine *Chief Project Officer*, experience is the number one requirement when hiring a program manager.

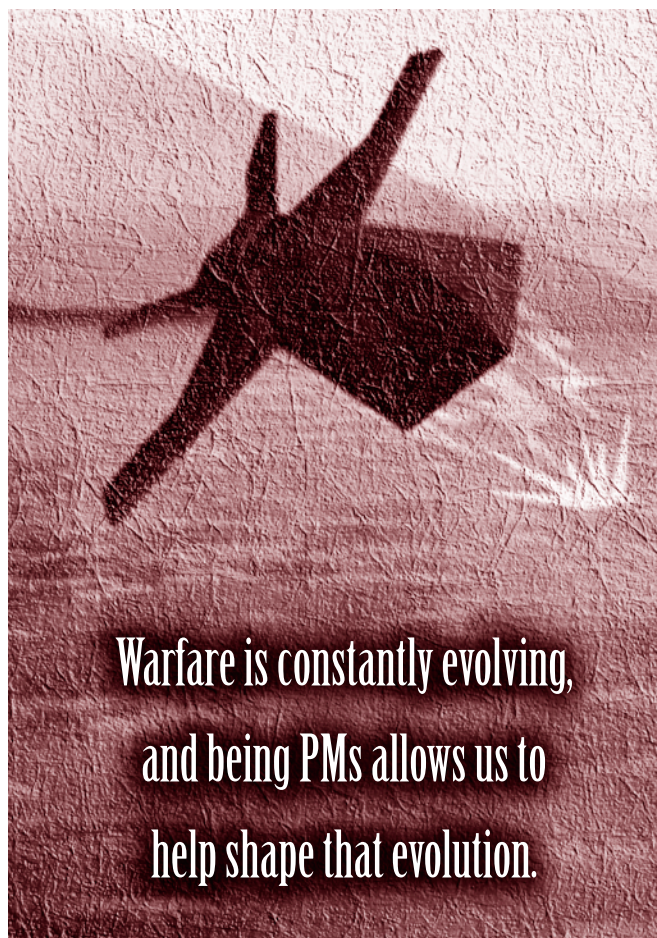
#9: The results of our efforts will shape how America goes to war for the next 30 to 40 years.

Warfare is constantly evolving, and being PMs allows us to help shape that evolution. For example, PMs were responsible for the development, testing, and fielding of the new command and control systems, aircraft, and precision-guided munitions. This example provides just one example of the impact program managers have made over the years on the efficiency and effectiveness of today's warfighter.

Right now, PMs are improving upon today's bombs, ships, tanks, and planes while developing tomorrow's weapon systems that will provide exciting, revolutionary new capabilities for our warfighters. The next generation of soldiers, sailors, Marines, and airmen will have unprecedented amounts of situational awareness, reach, stealth, endurance, surveillance, accuracy, speed, and precision with which to defend our nation.

#8: We can apply lessons learned to prevent future problems

Being a PM allows us the opportunity to learn from the mistakes and the successes of program managers before us. As PMs, we will continually be challenged as new problems arise and future risks emerge. However, we are not alone! Another PM has probably already dealt with a similar situation and either developed a solution or at least



Warfare is constantly evolving,
and being PMs allows us to
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pinpointed a few pitfalls. By sharing information with our peers, predecessors, and successors, we can better manage the risks and even structure our programs to help avoid the problems altogether.

#7: We make and implement decisions.

I like making decisions—and as a PM, I am constantly called upon to do so. I often don't have perfect information, but even so, I can't wait too long before making and implementing the decision. Determining when to make a decision or when to wait for more information is a constant balancing act for PMs. When I am presented with recommendations on a pending decision, I often find myself more concerned about the "white space" in the information provided. What information was left out or omitted? What questions were not asked?

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As PMs, we cannot be afraid of making decisions and taking action. However, we also must not be afraid of admitting that we don't know the answer. If I don't know the answer, I say so—and then go and find it.

#6: We get to lead, and leading programs is exciting and rewarding.

Leadership is demanding, yet it is both exciting and rewarding. Being a PM provides many opportunities to lead. First, we start out by following and being part of a larger team where we are given projects to lead. Then we lead an entire program. Leading a program was one of my favorite assignments. Eventually, we may be asked to lead multiple programs.

#5: We're judged by the objective measures of cost, schedule, and performance.

Success and failure in many other careers is measured subjectively, but a PM can be judged objectively, on how programs perform and whether they meet the cost and schedule objectives. In order to meet these objective measures, we all need to exhibit the utmost credibility and integrity. We need to ensure that we have set realistic cost, schedule, and performance goals. We cannot fall into the trap of being overly optimistic; instead, we need to clearly communicate with our warfighters so that we all have a shared expectation of what is possible. These expectations should be founded in the benchmarks and lessons learned from our predecessors.

When we lay out a program, we need to provide the warfighter with a continuum of options from which to choose. The warfighter is always going to want capability quickly, but we can't promise things we can't deliver. On one end of the continuum is the quickest possible point we could deliver capability, accompanied by the risks and cost to do it. On the other end is a program with enough funding and a reasonable schedule that we believe would be successful 90 percent of the time. In most instances, schedule and funding constraints will force our programs to fall somewhere in between the two extremes. In these instances, we need to clearly articulate with our warfighters how many of the program's capabilities we can provide and the associated risks they can expect, given the current level of funding and schedule. Where we get into trouble is making commitments to deliver things when we believe the funding or schedule is insufficient and then missing the commitment.

#4: We're on the cutting edge of tomorrow's systems.

PMs interface with all the new and emerging technology that the Department of Defense develops. Through our investment in science and technology, we are constantly on the lookout for new ways to apply the latest research and innovation to our warfighters' weapon systems. As

As PMs, we will work with and develop
the next generation of technology
and weapon systems.

PMs, we will work with and develop the next generation of technology and weapon systems.

#3: Over 50 percent of DoD's acquisition workforce is near retirement age.

We are approaching a critical juncture within the DoD acquisition community. Over half of our workforce will be eligible to retire within five years. We cannot afford to lose that much of the workforce without first gathering the lessons learned from all of their experience and expertise. We need additional PMs right now, and we need them to start learning now from our experienced workforce before it is too late.

#2: We experience and impact multiple aspects of government.

PMs interact across all aspects of the government and our society. Militarily, we report our progress to DoD and interface with our warfighters. We impact the economy at large through our interaction with the defense industry. Program managers work with Congress and its staffers to get authorization and funding for our programs.

While we personalize our programs, neither the program nor the funding is ours. The programs belong to the warfighters and the funding belongs to the taxpayers. PMs need to be stewards of the taxpayers' money. We need to be as efficient and prudent as possible. If our programs are unable to execute, we need to give back our excess funding.

#1: We do it for the challenge. It isn't easy!

I love a challenge. Being a PM means challenges every day. It challenges us to ask questions, make decisions, and to take action. It challenges us to learn from each other and to grow as leaders.

It is not easy to be a program manager, but it is truly exciting and rewarding!

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CMM/CMMI Level 3 or Higher?

No Guarantee for Success

Timothy A. Chick

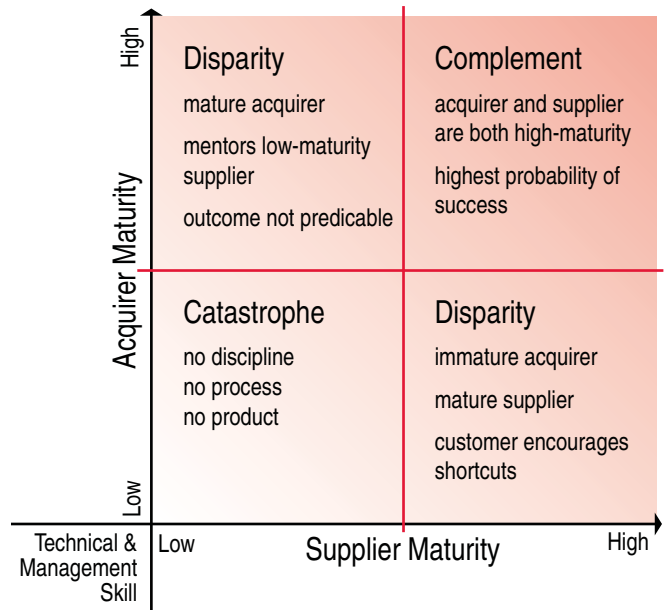
For many years, I've heard war stories about how a given supplier delivered software late, went over budget, and the quality of the product was less than expected. The people telling the stories are surprised because the supplier claimed to be a CMM [*Capability Maturity Model*] Level 3 or higher organization, and the clients assumed that would be a recipe for success. Now that organizations have started to migrate from CMM to CMMI [*Capability Maturity Model Integration*] and are achieving high CMMI levels—3 or higher—people are starting to make similar unrealistic assumptions about process maturity and project success. Why is this? What do CMMI levels really say about an organization? Could it be that the acquirers are depending too much on a “banner” and not using the information available to them to manage the project's risks, including those risks associated with using a given supplier?

What is CMMI?

The CMMI is a collection of best practices for the development and maintenance of both products and services. It was developed to enhance and replace the use of multiple process models, while preserving the government and industry investments in process improvement. By combining multiple models into a single model, the CMMI has enabled the use of common terminology, common components, common appraisal methods, and common training material across multiple disciplines. This, in turn, reduces the cost of establishing and maintaining process improvement efforts across the enterprise using multiple disciplines to deliver products or services. The CMMI currently covers systems engineering, software engineering, integrated product and process development, and supplier sourcing. The CMMI represents the consolidation of the following models:

- The Capability Maturity Model for Software (SW-CMM) v2.0 draft C
- The Systems Engineering Capability Model (SECM), also known as the Electronic Industries Alliance 731 (EIA 731)
- The Integrated Product Development Capability Maturity Model (IPD-CMM) v 0.98

In addition to being a consolidation of multiple models, the CMMI represents the incorporation of many im-



Supplier and Acquirer Maturity Mismatch

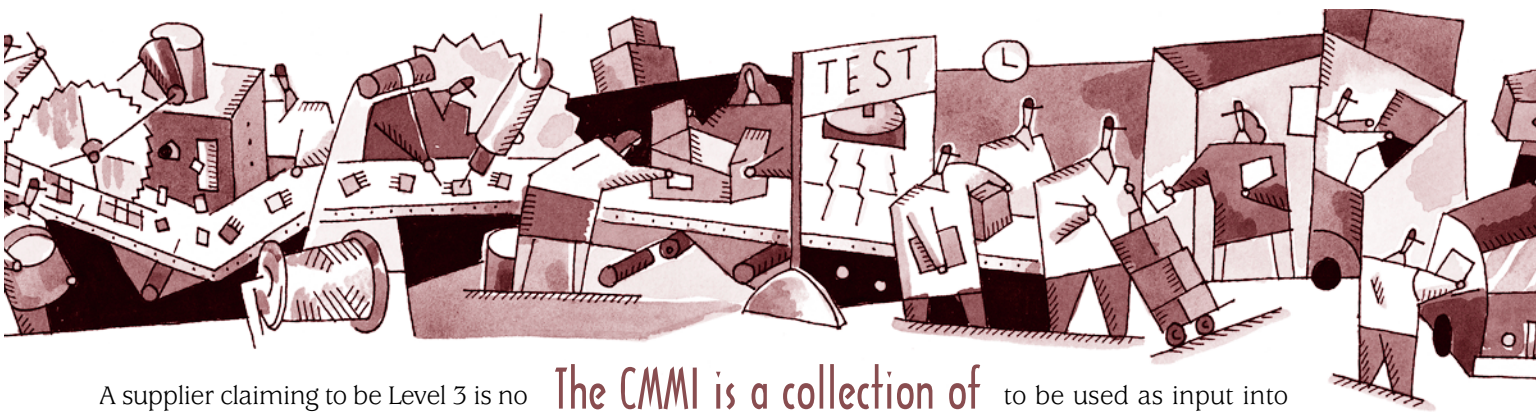
provements and lessons learned from earlier model use. The CMMI Framework is also consistent and compatible with the ISO/IEC 15504 *Technical Report for Software Process Assessment* (ISO 98).

Organizations can use the model as a guide for improving their ability to develop or maintain products and services on time, within budget, and with desired quality. It provides the framework for enlarging the focus of process improvement beyond a single discipline, such as software, to improve all areas that impact product development and maintenance.

Using CMMI for Software-intensive Acquisition

A supplier's CMMI rating should be used as part only of the contract award criteria. It demonstrates simply that the supplier is *capable* of following mature processes, not that it necessarily *will* on a particular contract. As time goes on, the supplier may no longer be capable of following mature processes—thus the imposition of a three-year limit on Standard CMMI Appraisal Method for Process Improvement (SCAMPI) “A” results.

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A supplier claiming to be Level 3 is no guarantee that the project within the supplier's organization is following the organization's processes. The only way an acquirer has to determine that the people actually doing the work are following mature process is to do a SCAMPI "B" or "C" assessment of the supplier. From the acquirer's perspective, SCAMPIs are used as a risk identification and mitigation tool, so they must be performed on the groups doing the acquirer's work.

Someone once told me that without focusing on the PI—process improvement—part of SCAMPI all you get is a SCAM. Too often, acquirers demand CMMI maturity or capability levels and rely heavily upon those claims without an adequate understanding of their impact upon the work that will be performed for the acquirer. Acquirers, also, too often do not effectively utilize the SCAMPI or other appraisal methods when performing supplier monitoring and oversight. These appraisal methods allow the acquirer to tailor the appraisal scope to target specific appraisal goals and information needs in order to identify the salient risks associated with the given supplier. Those same risks, defined as weaknesses associated with individual process areas, can be tracked or monitored as the contract progresses by doing the following:

- Identifying software-related risks
- Developing a plan to mitigate the risks
- Performing trade-off analyses to establish levels of surveillance for weak areas that need improvement and critical areas where performance must be maintained
- Defining adequate reporting or insight, through the use of metrics, to be provided to the program office to facilitate continuous monitoring.

However, appraisal methods are rarely used to define the risks associated with the execution of a contract, to develop a plan to mitigate those risks, and to work the plan. A primary reason that appraisal methods like the SCAMPI are not being fully utilized by acquirers is the lack of understanding and appreciation of how an organization's process maturity and capability affects the product being developed, and how the acquirer plays a vital role in assuring that good practices are being applied by the supplier to the product being developed. Thus, SCAMPIs need

The CMMI is a collection of best practices for the development and maintenance of both products and services.

to be used as input into an acquirer's risk-management process in order to fully understand the risks or weaknesses associated with the development of a particular software-intensive system.

Practice What You Preach or it Really Won't Matter

It has been shown that an acquirer with low process maturity is at greater risk of having its program delivered over cost, behind schedule, and with reduced functionality and/or avoidable defects, even if the supplier is of a higher maturity; the result is a disparity in maturity, as shown in the graphic on the previous page. For example, acquirers may try to circumvent development and management processes because they feel that following the process impacts their ability to meet the goal, resulting in rework or cost and schedule increases—which is exactly what the processes were designed to avoid in the first place.

To help the acquirer avoid such disparities, the Software Engineering Institute has developed the CMMI Acquisition Module (CMMI-AM), which defines effective and efficient practices performed by acquisition professionals in an acquisition program office. It provides a foundation for acquisition process discipline and rigor that enables product and service development to be repeatedly executed with high levels of acquisition success.

In order to avoid the feeling of being cheated or scammed, it is not enough simply to hire a supplier that claims to be of high CMMI capability or maturity. Without addressing the weaknesses of a supplier or at least taking the time to understand why they are considered weaknesses and making a conscious decision as to how to handle or not handle the weaknesses, one cannot influence the outcome or products. In addition to a supplier's capabilities and maturities, the acquirer must also perform at a high maturity—or the supplier's abilities really won't matter.

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Heuristics for Joint Architecting

Maj. Todd. Wieser, USAF ■ *Maj. Gregory J. Miller, USAF* ■ *Maj. Aaron Piepkorn, USAF* ■ *Maj. James Kennedy, USAF* ■ *Robert Mills* ■ *Lt. Col. John Colombi, USAF*

There is no question that Department of Defense and chairman of the Joint Chiefs of Staff directives have increased the development of operational and systems architectures. The DoD Architectural Framework (DoDAF) and its associated governing publications have provided considerable information and examples covering DoD architecture processes and products for those engaged in requirements and architecture development. But even though the guidance is good, there need to be more general heuristics to help guide those involved in this growth industry. Based on recent experiences with joint architecture development, we propose some general heuristics covering the following: the architecture team; common lexicon; process ownership; appropriate abstraction; organizational bias; level-of-war bias; and hollow-transfer activities.

The Architecture Team

The majority of architecture producers in the DoD are either government civilians or contractors. Borrowing an Army slogan, they are also often an army of one. Their levels of formal architecture education and training usually vary, and their domain knowledge of the area being modeled is usually low. Ultimately, lack of knowledge in the domain equals architecture pain. If at all possible, members of an architecture team should not only understand architecture design well, but also have real-life experience in the domain being modeled. Unfortunately, because of personnel and budget constraints, that may not be possible. Therefore, how well an architect or an architecture team develops an extended team of subject matter experts and contacts is critical to developing a useful architecture. If the architecting team makes little to no effort to seek out domain expertise when they do not have it, or if they reference only governing publications and briefs, the models produced will be poor, and the architecture will most likely not provide the benefits sought.

Common Lexicon

The lack of common terminology is quickly apparent in any joint endeavor. There are still a number of terminology differences between the Services that often confuse those outlining operational architecture inputs, controls, and outputs. An example is the terms that different Ser-

If at all possible, members of an architecture team should not only understand architecture design well, but also have real-life experience in the domain being modeled.

vices use for a pre-execution practice. The Army and Marines often use the term “rock drill,” while the Air Force primarily uses the term “rehearsal.” Both mean roughly the same thing, but to Air Force personnel not familiar with Army terminology, discussion of a “rock drill” can be confusing. Therefore, use the joint dictionary in order to have a joint vocabulary. Any time definitions are needed, use joint standards and sources, such as Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*. If those do not work, reference multi-Service publications. If there is no resolution, all the applicable definitions should be provided, with indication that they mean the same thing.

Process Ownership

Determining who owns the process in joint activities has long been a part of doctrinal debates and continues to influence how the Services integrate and interoperate. Even though one Service may be the lead for certain types of operations (for example, the Air Force for air superiority or the Army for the land campaign), other Services can execute the same or very similar processes within the same domain. The Navy can conduct air superiority missions and the Marines can conduct land operations. With multiple Services and commands involved, there are multiple and overlapping guidances, terminologies, and techniques. Overlapping guidance adds to the confusion when attempting to standardize common processes, especially with operational activities in joint enterprise architecture. Ideally, joint architectures need to have buy-in by all the

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major stakeholders. Unfortunately, this is not always the case. Therefore, when defining a joint process stalls, there needs to be a process owner to make firm calls so the architecture moves forward, a base standard is set, and interoperability is achieved when needed. This owner or lead agent must benevolently determine what the core activities in an operational architecture will be and how to overcome community or stakeholder differences.

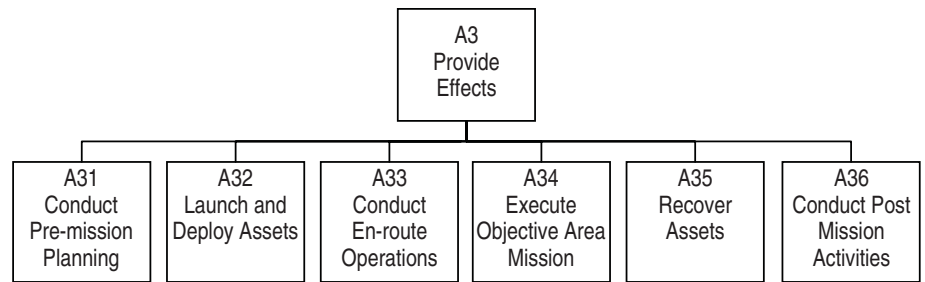
Appropriate Abstraction

One of the hardest things to do when developing architecture is to define the level of abstraction. How deep in the weeds does the architect or architecture team go? DoDAF states that the “degree of granularity should be driven by the type of analysis or assessments that are of interest.” But finding the right level of granularity can be very hard, and it can take multiple design iterations. If models are made at a high level only, the architect risks developing architecture that can be easily briefed to top leaders and fills program requirements, but does not answer critical questions for field operators and true stakeholders. This becomes a critical tradeoff in joint enterprise architecture that should not be quickly overlooked. The right level of abstraction highlights commonality and critical differences across Services and commands. At the same time, it also addresses operational processes in enough detail to allow informed decisions for the questions being asked. If the right level of abstraction is not chosen, the model is useless to those who need it the most. Therefore, abstract too high—the models can lie; abstract too low—one gets lost in the flow. Finding the right level of abstraction is critical in ensuring the architecture can be communicated effectively and still be useful for its intended purpose.

Organizational Bias

Within the DoD, almost everything revolves around the organization. This includes funding, identity, deployments, and other activities. Existing regulations tend to focus on job titles, roles, and responsibilities—not on key processes. When transformation is conducted, the first questions asked usually concern where people will be assigned and what organization charts will look like. It has often been said that the default method to solve a government problem is to generate a new organization. This mindset—thinking in terms of organization and jobs first—is what we call “organizational bias.” DoDAF operational views are supposed to focus on activities and functions, not on organizations. As enterprise architects look across a complex environment like the DoD system of systems, they usually find it is easier to identify organizations and not underlying activities. DoD architects must realize that

FIGURE 1. Activity-Based Node Tree



many of the publications they reference and the subject matter experts with whom they consult will tend to have this bias and will not focus on core processes. Unfiltered organizational bias can result in operational activities that are stove-piped and inefficient. This is easily seen when examining an activity node tree (OV-5) that has been heavily influenced by organizational structure. The organizational bias is often depicted as repeated boxes that identify the same or similar activity in different branches on the tree.

To illustrate, consider a notional example in which the architecture team is modeling the operational activities of an Air Force special operations organization. Assume the organization has three main functions: provide force application (direct attack on adversary forces); provide mobility (infiltration and exfiltration); and perform psychological operations (dropping leaflets and broadcasting television or radio programs). Each of these functions is performed using different assets (personnel and aircraft) but involves similar activities, such as “pre-mission planning,” “launch aircraft,” “conduct en-route operations,” “accomplish recovery,” and “conduct post-mission debriefs.”

An architecture model—and more important, a mindset—that relies too much on organizational form could very easily result in an activity node tree with major branches built around each mission function and with duplicate lower-level branches. These lower-level branches may result in development of numerous tools or systems, all essentially aimed at providing the same capability. For example, three different (stove-piped) systems could very well be developed to facilitate “conduct en-route operations” for the force application, provide mobility, and perform psychological operations functions. These stove-piped systems would likely result in higher cost and reduced interoperability and flexibility.

To minimize this organizational bias, operational modeling should focus on the functions and activities to be performed, rather than on who or what unit performs them. This is illustrated in the activity node tree shown in Figure 1. Once the common processes are mapped, the truly different activities stem from the common ones and can

You're the Judge: The Verdict (from page 10)

Druyun's home sale appears just as she advertised it: a mere coincidence that met all legal requirements. Were a violation to exist, it would be of 18 U.S.C. section 209, a law prohibiting supplementation of federal salary by a nonfederal entity. However, on the face of the information provided, some questions were bound to be raised, as evidenced by several press articles including one in the Oct. 7, 2003 *Wall Street Journal* and another in the *Washington Post* of the following day.

To serve as a comparison, take the house sale by Rep. Randy "Duke" Cunningham, R-Calif., to Mitchell Wade—a clearly illegal exchange. Cunningham sat on the House Defense Appropriations Subcommittee. Wade's company, MZM, Inc., was in defense intelligence contract work. Wade purchased Cunningham's house in November 2003 for \$1,675,000. Shortly after Wade purchased the house, MZM began receiving multimillion-dollar contracts. Wade put the former Cunningham house on the market immediately after the purchase and never occupied it. It remained on the market for seven months. Wade eventually sold it for a loss of approximately \$700,000.

Key differences exist between the two cases. The purchase price for Druyun's house was in line with other purchases in the same neighborhood. The fact that Druyun possessed the house for a relatively short time while making a substantial gain is irrelevant unless the August 2001 seller somehow conspired with Boeing to sell an artificially underpriced home. There is no evidence to support such a conspiracy theory. In addition, the Northern Virginia real estate market was booming at the time, and annual 10 percent increases in home values were the norm. Finally, Judy occupied the house he purchased, indicating he was buying it for himself.

The inflated purchase price of Cunningham's house, as evidenced by the subsequent sale at a significant loss, was clearly a subterfuge for bribery. Wade's failure to occupy the house and his attempt to sell it that same month further support the bribery charge.

Although the Druyun sale met all legal requirements, there is an important point to consider. Individuals occasionally find themselves in a conundrum between behavior that is legal for the individual yet may not be good for the organization. This is often referred to as an *apparent conflict of interest*. It is easy to rationalize away apparent conflicts of interest, especially if the action is not a legal violation.

Not every individual action is good for the organization. In this case, even if Druyun had not been convicted of other violations, the DoD decision to lease Boeing tankers would have been tainted by the sale of her home, even though she had cleared it with Air Force general counsel. The government does not expect individuals to take a monetary loss, but in light of the Northern Virginia housing market at the time, Druyun could have declined to sell the house to Judy based on the apparent conflict and could still have reasonably expected to make a fairly rapid sale at a comparable price to another buyer.

Individuals should guard against apparent conflicts of interest—which need not be of the magnitude of a house transaction. For example, do you meet alone with a vendor at the end of every quarter just before a big order is placed? There may be valid reasons for doing so, but the natural inclination for someone observing the behavior is to suspect that some illegal business may be going on. Instead of meeting alone, think about taking someone with you as an observer, or use it as a training opportunity for a less experienced employee. By increasing transparency in your individual activities, you may reduce the apparent conflict.

be depicted in the lower levels and branches of the tree. By keeping the focus on process, we can better ensure interoperability and minimize the amount of stove-piped system solutions. Bottom line: For the process to rule the show, organizational bias has to go.

Level-of-War Bias

This bias stems from the fact that the majority of military organizations and the systems that support them are partitioned into two levels: the operational and the tactical. The operational level focuses on what, where, when, and how forces will be organized, integrated, and employed to achieve strategic goals. These are higher-order activities that primarily guide and govern the activities of the tactical level. The tactical level focuses on lower-level ac-

tivities, specifically the execution of specific missions. Organizations are formed at this level and usually report to an operational level headquarters or operating center. Although the levels are relatively easy to differentiate and understand, real processes do not restrict themselves to these human-created divisions. As network capabilities increase and organizations are pushed to transform into more streamlined and flatter entities, the lines between the tactical and operational levels blur. Viewing processes as a whole and not restricting them to operational or tactical lanes only is essential to becoming more effective and is a main aspect of many business process reengineering and Lean methodologies. Architects need to realize this and recognize when individuals speak and think with a level-of-war bias. For example, talking to someone

at a command headquarters will often center on operational-level systems and processes. Talking with those at the squadron or company level will often result in tactical-level emphasis. But unlike these conversations, operational and tactical processes do not operate in isolation, and neither should their architectures. The architect must see these biases and seek the whole picture process and then pick the right level of abstraction. Therefore, to confine the architecture to only one level of war can make the architecture poor.

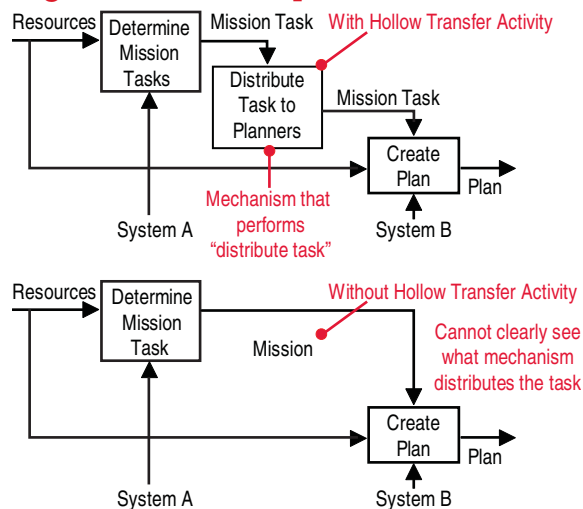
Hollow Transfer Activities

Using the DoDAF, operational activities are often modeled using integrated definition (IDEF) methods, specifically the IDEF0 (pronounced IDEF-zero) function modeling method. IDEF models were originally developed for process modeling involving physical production tasks such as manufacturing, in which material assets (outputs) are produced using raw materials (inputs) and manufacturing resources, facilities, and manpower (mechanisms), subject to the manufacturing rules and procedures (controls). IDEF0 function modeling has since been adopted for other applications such as business process modeling and DoDAF.

When using IDEF0 for DoDAF activity modeling, an interesting problem arises when dealing with information transfer activities. Many functions within larger processes involve activities that simply move information or products from one location or node to another. Architects may find themselves creating many of the same types of information transfer activities, some inferred and some specifically outlined in governing publications. These activities are easily found in terms such as obtain, receive, transmit, issue, distribute, submit, store, and others. We call these activities “hollow” transfer activities. They are hollow because they do not contain a transformation function that produces a new and unique output. They are transfer activities because they simply move information from one location to another. The information content is not changed or transformed in any way; it is merely transferred or made available to support other activities or functions.

The question of how an architect should show these types of activities within IDEF0 and other modeling methods generates considerable debate in the modeling community. Some IDEF0 and other modeling purists would argue that the “obtain information” activity should not be shown

FIGURE 2. Activity Diagram Showing Hollow Activity.



because it does not show a transformation. Others would argue that the discussion is somewhat trivial or should be left to system views, not operational activities. But there is a danger, depending on the purpose of the architecture, in leaving these activities out of operational views.

For example, Figure 2 shows two activity models depicting the same mission-tasking process. A mission objective is received, analyzed, and broken down into one or more mission tasks, which are distributed to mission planners and then

used as controls to help create a mission plan. This same process could occur within a single room or in different locations across the world. The top model in the figure shows the “distribute task to planners” hollow transfer activity. The bottom model does not. In the top model, there is no doubt that the transfer activity has visibility. But again, it is hollow because there is no transformation; the output is the same as the control. The “mission task” control is also the “mission task” output. By showing the hollow transfer activity, it is very clear that the “distribute task to planners” activity must occur, and there should be a mechanism (person or technology) assigned to it. A missing mechanism could show a gap in capabilities, especially since the “distribute task to planners” activity can take significant time and resources.

The bottom model does not include the “distribute task to planners” activity. It is more precise and focuses on the core activities that are not distribution functions. As such, there are no hollow transfer activities depicted. From this model, it would be easy to overlook output distribution activities and the mechanisms that execute them. In simple terms, one could model a process but not see its distribution pitfalls and thus not ensure the right information gets to the right people. If the operational activities do not include the transfer activities, systems and their functions may not be appropriately visible. Eliminating hollow transfer activities may also not accurately capture what could be the most time- and resource-intensive activities within an enterprise.

Ultimately, if the purpose of the architecture includes ensuring the right information or product gets to the right people at the right time, or mapping existing real-world, constraint-based and location-dependent processes, it is essential that hollow transfer activities be represented in some form. That may mean altering existing modeling techniques or investigating new methods to answer the

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critical questions. How an architecting team deals with this can be critical, especially considering the growing importance of interoperable and net-centric architectures. The failure to make certain activities visible within an operational architecture can influence where future investment and existing resources are spent. Failure to model transfer activities properly or make them visible for analysis can inadvertently further DoD interoperability and information-distribution problems. Therefore, it is critical to examine hollow transfer activities to prevent distribution problems and lack of interoperability.

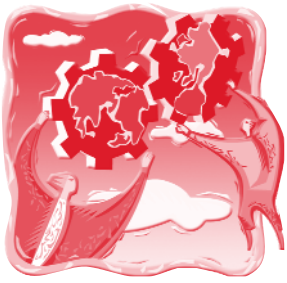
To Wrap it Up

In summary, we have proposed the following heuristics in order to help overcome and avert problems when developing joint operational architectures:

- Lack of knowledge in the domain equals architecture pain. A readily available network of subject matter experts makes the architecture relevant.
- To have a joint vocabulary, use the joint dictionary. Seek a common understandable vocabulary by referencing joint standards and the joint dictionary.
- When defining a joint process stalls, there needs to be a process owner to make firm calls. When establishing an enterprise-wide operational architecture, there needs to be one boss to overcome irreconcilable differences across stakeholders.
- Abstract too high—the models can lie; abstract too low—one gets lost in the flow. Architect at the level of abstraction that provides the answers sought.
- For the process to rule the show, organizational bias has to go. People tend to think "organization" first, not "process," and architecture models should be created independent of the organization.
- To confine the architecture to only one level of war can make the architecture poor. Follow the process and information flows; do not limit context to operational or tactical level if not a necessary constraint.
- Critically examine hollow transfer activities to prevent distribution problems and lack of interoperability. Be critical of hollow transfer activities and ensure they have the appropriate visibility in order to prevent and address capability gaps.

As systems increase in complexity, the architect's job will continue to be tested. These simple heuristics can help increase interoperability and the gains produced from architectural development in the DoD.

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In the News

ARMY NEWS SERVICE (JUNE 16, 2006) **ARMY BEGINS ASSESSMENT OF NEW LAND WARRIOR SYSTEM**

The Army is conducting an extensive operational assessment of the Land Warrior and Mounted Warrior Soldier Systems at Fort Lewis, Wash., this summer. Land Warrior, developed by Program Executive Office Soldier, Fort Belvoir, Va., combines computers, lasers, navigation modules, radios, and other technologically advanced equipment to improve soldiers' ability to communicate on the battlefield, their situational awareness, and, ultimately, their ability to fight effectively and survive. Mounted Warrior, designed for combat vehicle crewmen, includes communications and displays that will improve situational awareness on or off the vehicle.

The 4th Battalion, 9th Infantry Regiment, 4th Stryker Brigade Combat Team, 2nd Infantry Division, will conduct the assessment, which is being sponsored by the Army Infantry Center and Program Executive Office Sol-

dier, from May through September 2006. Col. Richard Hansen, project manager Soldier Warrior, explained the reason for the assessment: "In late 2004, the U.S. Army Infantry Center conducted a side-by-side comparison between Land Warrior-equipped soldiers and currently equipped soldiers at Fort Benning, Ga. This squad-level operational assessment demonstrated that Land Warrior capabilities do improve the combat effectiveness of soldiers and small units engaged in dismounted operations."

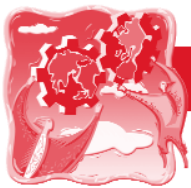
The battalion is being equipped with 440 Land Warrior systems and 147 Mounted Warrior Systems for the assessment. Equipping and training ran May 15 through June 16. Assessment exercises and activities will continue through September 2006. The assessment is expected to provide significant insights about Land Warrior and Mounted Warrior combat effectiveness, tactics, techniques, and procedures.

Hansen noted that many improvements are the result of feedback from soldiers: "Soldiers have been positive so far concerning benefits from Land Warrior capabilities and continue to provide us valuable feedback to improve the system for the Limited User Test this September."

For more information on the Land Warrior and Mounted Warrior Systems, visit <http://www.peosoldier.army.mil> or contact Debi Dawson, 703-704-2802.



Soldiers participate in Land Warrior Training.
Image courtesy PEO Soldier.



MARINE SQUADRON WRENCHES UP SPEED, EFFICIENCY (JULY 6, 2006)

Lance Cpl. Karim Delgado, USMC

MARINE CORPS AIR STATION FUTENMA, OKINAWA, Japan—Marine Aviation Logistics Squadron 36 implemented a new process aimed at increasing the speed and efficiency of all logistics within the squadron.

The system, Enterprise AIRSpeed, integrates modern solutions for business practices used by major corporations such as Boeing, General Electric, and Microsoft, and applies them to a military environment.

The solutions are founded on the business theory that the sum of something's parts are of greater value than its whole, and continuous improvement should be demanded from every part of an organization.

The new system will reduce the amount of time and effort necessary to complete logistics projects, according to Staff Sgt. Billy Carter, a fixed-wing aircraft power plants mechanic with Marine Aviation Logistics Squadron 36. One example is how the squadron repairs an engine. Prior to the implementation of AIRSpeed, the Marines from the power plant section focused on repairing only the discrepancy noted by the ground crew who pulled the engine from the aircraft.

The problem created by this process of troubleshooting a single component is that it could lead to several costly repairs and engine checks before maintainers identified the exact defect, Carter said.

With the new process in place, they disassemble the entire engine and service or replace each part before rebuilding and returning the engine to the supply system. Though the overhaul may appear more time consuming and costly, it is more effective because Marines are able to fix the problem with the engine and repair other discrepancies that may not be immediately visible, he said. The squadron began using the AIRSpeed system June 5, after officers and staff noncommissioned officers came back to Marine Aviation Logistics Squadron 36 from state-side classes on the system.

The leaders passed on the knowledge to their noncommissioned officers in charge, who went back to their respective sections to get the junior enlisted Marines involved, according to Capt. John Digiovanni, the avionics officer of Marine Aviation Logistics Squadron 36. "It's those Marines who are the backbone of the shops," Di-



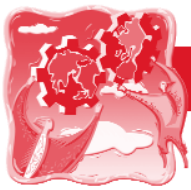
U.S. Marine Lance Cpls. Kenneth Sobecki (top) and Robert Schultz, both fixed-wing aircraft power plant mechanics, work on an engine part of the KC-130 Hercules aircraft at the Marine Aviation Logistics Squadron 36 airframe shop, June 28, 2006. Photograph by Lance Cpl. Bryan A. Peterson, USMC.

giovanni said. "They're the ones who use the current systems and equipment, so they'll be able to make the most difference in improving the way the squadron works as a whole."

The system will enhance mission success by standardizing practices throughout the squadron and eliminating unnecessary steps. This will also allow units with the squadron to transfer equipment quickly and efficiently, said Maj. Jack G. Abate, the Marine Aviation Logistics Squadron 36 aircraft maintenance officer.

"It's a disciplined methodology whose purpose is to keep us all on the same page," he said.

Delgado is assigned to Marine Corps Base Camp Butler, Okinawa, Japan.



DEFENSE LOGISTICS AGENCY PRESS RELEASE (JULY 5, 2006) **DLA-FEMA TEAM "EXERCISED, READY TO GO"**

Fort Belvoir, Va.—Although the Defense Logistics Agency had a major positive impact in relief efforts after hurricanes Katrina and Rita in 2005, the agency achieved success with minimum notice beforehand, according to director Vice Adm. Keith W. Lippert. The DLA director says last year's fortunate outcome has resulted in a planned, streamlined, well-funded team ready to respond when called.

DLA's partnering with the Federal Emergency Management Agency was a highlight of the admiral's keynote address at the Defense Partnering and Alliances Conference June 26-28 in Arlington, Va. Bernadette L. Whitehead, program manager for performance-based logistics at DLA, also addressed the conference and talked about the agency's participation in performance-based logistics. The meeting's purpose was described as looking at how public and private sectors can work together to weed out inefficiencies in the supply chain.

Lippert latched onto that point, recalling how an off-the-cuff, complex working arrangement with FEMA, devised within days of Katrina's catastrophic landfall, still managed to deliver \$409 million worth of supplies to the devastated Gulf Coast.

He predicted that this year will be different. If DLA's success in 2005 hinged on good fortune, Lippert said, this year's support during what might be another busy hurricane season will succeed through the work of experts already in place, drawing from lessons learned after the last disastrous storms.

In the wake of Katrina and Rita, DLA delivered millions of Meals Ready to Eat, or MREs (the high-calorie meals designed for soldiers in combat operations) as well as lower calorie commercial ready-to-eat meals for FEMA. Unfortunately, Lippert recalled, that drew down DLA's MRE inventory "to a point I was not comfortable with" until after producers surged to restore supplies.

There were also issues with transport and in-transit "visibility" of supplies sent into the region. "When you ship a truck full of supplies," Lippert said, "you would like to know where that materiel is at all times."

The upshot of DLA's and FEMA's newfound dependence on each other was a series of meetings that have been held since November. Both agencies wanted to see how they could collectively work together.

Contrasting last year's convoluted effort with how the agencies have agreed to work together this year, Lippert first displayed a virtual "spaghetti" of lines and boxes depicting last year's DLA's approval chain for FEMA support. "I'll let you chew on that for a minute," the admiral said to the audience.

Then he showed the new DLA-FEMA working relationship, streamlined into a three-segment, interlinked supply chain, the emphasis placed on rapid, direct crisis response. Since May, Lippert added, DLA has sent people to FEMA as part of a full-time working group. The agencies' partnering agreement has also let DLA put materiel on the shelf earmarked for FEMA support. For its part, FEMA has provided almost \$95 million to DLA to prepare for the hurricane season.

The DLA director said the agency has also hired 75 people at Defense Supply Center San Joaquin, Calif., and Red River Defense Distribution Depot, Texas, to set up a moveable distribution depot to direct all materiel from DLA. "We've exercised this team," Lippert said. "They're in place and ready to go."

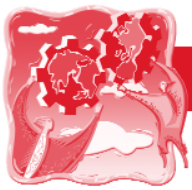
Beyond FEMA, the admiral also emphasized DLA's partnering with industry and the military services. He pointed to performance-based logistics milestones in the agency's work with Northrop Grumman, the Army's future combat system, and Kelly Aviation Center as DLA works with its industry partners. Meanwhile, he said, DLA has become much more engaged with its military customers, placing 102 customer service representatives side by side in the field with the warfighters. "Our goal is customer support and customer assessment to make sure we're doing better and better," Lippert said.

Media Contact: Marcia Klein, (703) 767-5064 or marcia.klein@dla.mil.

ARMY NEWS SERVICE (JULY 10, 2006) **EQUIPMENT REUTILIZATION SAVES TAXPAYER DOLLARS**

Sgt. Wayne D. Haley, USA

TIKRIT, Iraq—Supply specialists at Contingency Operating Base Speicher can now supply their soldiers with needed equipment and save taxpayers money at the same time.



Soldiers turn in equipment they no longer need to the DRMO at Contingency Operating Base Speicher near Tikrit, Iraq.

Photograph courtesy DRMO, Contingency Operating Base Speicher.

The Defense Reutilization and Marketing Office opened for business last month near Tikrit.

The DRMO redistributes or disposes excess or damaged property and supplies no longer needed by military units. The inventory ranges from air conditioners and vehicles to clothing and computers.

The impact on units in and around COB Speicher is already showing.

“DRMO has been a great help throughout our deployment,” said Capt. Andy Baker, company commander for Headquarters and Headquarters Company, 3rd Special Troops Battalion, 3rd Brigade Combat Team, 101st Airborne Division.

“Since arriving in Iraq, my company has constantly received the newest and best equipment the Army has to offer, rendering obsolete many of the items that we received from the unit we took over from,” Baker said. “DRMO has helped ease the burden of accounting for

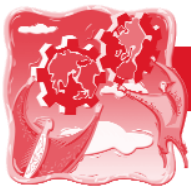
property that we don’t need and allowed us to turn it in a timely fashion.”

War and contingency operations generate considerable amounts of refuse, damaged property, and hazardous waste. Such items must be handled and disposed of properly. DRMO’s purpose is to make sure all efforts are made to reutilize or demilitarize militarily significant equipment.

The current DRMO team is made up of members from all Services as well as civilians.

“We established the working plans for running a DRMO yard and a fully functional facility at Speicher by working with the 101st Airborne Division,” said Air Force Reserve Capt. Raul Trevino. “The work had long tedious hours, over 100° weather, and hostile terrain ... but we got it done.”

Haley writes for the 133rd Mobile Public Affairs Detachment.



MARINE CORPS NEWS (JULY 12, 2006) **MARINES "EYE" UNMANNED AERIAL VEHICLE CAPABILITIES**

CENTRAL COMMAND THEATER OF OPERATION—Marines serving with Battalion Landing Team 1st Battalion, 8th Marine Regiment, 24th Marine Expeditionary Unit (Special Operations Capable), trained with the X-63 "Dragon-Eye" unmanned aerial vehicle June 11, as part of a training exercise in the Central Command theater of operation.

The bungee-cord-launched "Dragon-Eye" provides organic aerial reconnaissance and surveillance at the small-unit level, giving Marine units the opportunity to observe real-time enemy movements beyond their traditional capacity.

Whisper-quiet and weighing less than five pounds, the "Dragon-Eye" is able to navigate pre-assigned waypoints via a global positioning system while transmitting data—either still images or video—to a two-man control station.

Capable of low-light operation and with a wingspan of just 18 centimeters, the drone can sustain flight for approximately 60 minutes. And because of its relative low cost, it can be fielded to Marines in large numbers.

The effective deployment of the unmanned aerial vehicle is able to transform a small tactical unit into an all-seeing machine of war, while supplying aerial surveillance and intelligence that can keep patrols and convoys out of harm's way.

AMERICAN FORCES PRESS SERVICE (JULY 19, 2006) **ARMY MOVING TOWARD MORE JOINT, CAPABLE AIRCRAFT**

Donna Miles

WASHINGTON—The idea of the Services operating jointly with fewer aircraft platforms that share common features is the key to the modernization effort taking place throughout the military aviation community, the Army Aviation director said here yesterday.

Army Brig. Gen. Stephen D. Mundt called the trend toward jointness a key driver in aviation modernization programs. "It's critical we work together. It's a joint world," he said. "There is no way that this nation can afford for everybody to have their own specific capabilities and be redundant across the board."

But Mundt told Pentagon reporters he's concerned by budget cuts being eyed by Congress that threaten to set back the first major step toward that goal. These cuts could delay, by as long as two years, production of the Joint Cargo Aircraft and ultimately drive up the price, he said.

They could also affect another major Army aviation program: the Armored Reconnaissance Helicopter, he said. "It's like a self-licking ice cream cone. I don't know a better way to describe it," he said. "If you take money out of the program, you have to increase the schedule because you can't buy everything you want within the same timeframe. If you increase the schedule, you increase the cost ... because if you don't buy it today, it doesn't get cheaper tomorrow. The cost goes up."

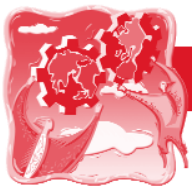
Initially, the RAH-66 Comanche helicopter was the centerpiece of the Army's modernization effort, but that project got scrapped in February 2004. Funds from the Comanche program got channeled into other aviation projects, including the Joint Cargo Aircraft.

The JCA, being developed jointly by the Army and Air Force, will replace multiple other fixed-wing platforms—the Army C-23 Sherpa, C-26 Metroliner and C-12 Huron, and for some smaller missions, the Air Force C-130 Hercules. The request for proposals for the new aircraft is currently on the streets, Mundt said, and the Army hopes to begin adding the first JCAs to its fleet in fiscal 2007.

Mundt said a memorandum of agreement signed last month by the two Services to pave the way ahead for the aircraft's development defies all who said it would never happen. "Against everybody who said the Army and Air Force will never sign an MOA to go to the same aircraft, we did it," he said. "It is a different world today. ... It is much easier for us to talk from a joint environment, joint concept, so that's exactly what ... Joint Cargo Aircraft does."

Capable of landing and taking off on a very short runway, the JCA will be critical to providing supplies to forward-deployed troops, Mundt said. With JCA, the Army could fly into 29 additional airfields in Iraq and another 10 airfields in Afghanistan.

"Which means soldiers, sailors, airmen, and Marines would not be on the roads driving," Mundt said. "We would not be flying the wings off the CH-47s that we're already under-resourced on."



The C-295 Joint Cargo Aircraft, to be used in the U.S. Army's Early User Survey evaluation for its JCA mission, is displayed July 18 at the Royal International Air Tattoo, RAF Fairford, United Kingdom. Photograph courtesy Raytheon/EADS CASA North America.

The JCA will absorb much of the stress being placed on the Army's CH-47 helicopter fleet, which has amassed almost 1.2 million flight hours since October 2001.

"That's a lot of hours, four to five times the number of hours we normally would accrue on any one of these platforms," Mundt said. "CH-47s have been serving us forever [and are an] exceptional platform. But we are literally flying the wings off them."

The JCA offers another benefit over the Sherpa; it can fly above 10,000 feet without supplemental oxygen, so it's able to be used for medical evacuation. The Army currently pays contractors to perform this service in Afghanistan.

Another major modernization program, the Armored Reconnaissance Helicopter, will replace the aging and overtaxed OH-58D Kiowa Warrior fleet, Mundt said. Each OH-58D currently flies about 70 hours a month vs. the 14 hours a month it was designed for, he said.

"The Armored Reconnaissance Helicopter is a much more powerful, much more capable [aircraft] with better sensors [and] platform for what we are trying to do," he said. It features a larger, enhanced engine, upgraded tail rotor, and improved glass cockpit.

The Army awarded a contract to Bell Helicopter Textron Inc., for delivery of 38 of the new ARH aircraft by fiscal 2008, with an additional 300 to be delivered by fiscal 2013.

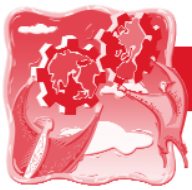
ARMY NEWS SERVICE (JULY 20, 2006) **LEAN SIX SIGMA EASES FISCAL CONSTRAINT CHALLENGES**

Beth Reece

WASHINGTON—As commanders throughout the Army look for ways to cut operating costs, business practices of Lean Six Sigma are reducing expenses and improving productivity throughout manufacturing, contracting, administrative services, and even recruiting.

"People will say, 'We're in the Army; we're not a business,'" said Col. Mike Petrash, deputy commander for the 96th Regional Readiness Command in Utah. "I would counter that and say every time we do a transaction, every time we promote a soldier, pay a soldier, supply a soldier, or move that soldier from point A to point B, that is a business transaction."

Lean Six Sigma is a combination of two business-improvement systems, Lean and Six Sigma. Lean refers to the reduction of waste, or the elimination of unneces-



In the News

sary steps to increase speed and productivity. Six Sigma is the reduction of variance to improve system performance. Together, they free up resources and help ensure quality equipment and services are quickly provided to soldiers.

Strides made through LSS practices may best be seen on manufacturing and repair floors such as at Red River Army Depot, Texas.

"We're getting tremendous payback because of Lean Six Sigma. We saved, last year alone, \$30 million on our Humvee line," said Army Col. Douglas J. Evans, depot commander. "It's not only in dollars but also in the number of vehicles that we can get to the soldiers who need them."

The facility can now turn out 32 mission-ready Humvees a day, compared to three a week in 2004.

LSS is also reforming administrative services and human resources.

"When our team took a look at awards processing, we found that on average it was taking 90 days from when we got a request for an award in, to when the award was published. By taking a look at our process and reducing our cycle time, we've been able to reduce that to 21 days," said Army Col. Lori M. Dupuis, chief of staff for the 96th Regional Readiness Command in Utah.

In charge of nearly 6,500 soldiers in 65 units throughout six states, the 96th RRC has used Lean Six Sigma to also reduce the deployment preparation time for a battle-rostered unit from 30 days down to just three.

"Using the Lean Six Sigma approach, we went directly from defining the process to improving it," said Petrash.

At the U.S. Army Recruiting Command, Lean Six Sigma has improved the LEADS system, through which recruiters receive prospective recruits and direct them through the enlistment process.

Of 32 steps taken to recruit new enlistees, subject matter experts from the Recruiting and Accessions Command determined that only 11 were value added. And by reducing the steps by 66 percent, USAREC officials also decreased by 40 percent the time it takes to get applicants through the process.

"We had the immediate return on the investment, which was to cut time and put people in the schools quicker. We were able to eliminate a lot of waste," said Army Chief Warrant Officer 4 Jack Bailey, chief of USAREC's Special Missions Recruiting Division.

"But it's the intangibles, the impact it had on the soldier in the field that was more customer-centric. The benefit was so much more than what we realized inside our four walls. It was just a huge success story," Bailey said.

Where Lean Six Sigma has been implemented, it's been successful, said Mike Kirby, deputy under secretary of the Army for business transformation.

"This is all in a backdrop of severe fiscal year constraints, so we have to do business differently," said Kirby.

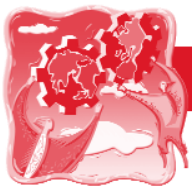
"Lean Six Sigma is a lot different from the programs we tried to implement before. It gives you a set of tools that even the most inexperienced person can use," said George E. Kunkle III, process optimization manager at Corpus Christi Army Depot, Texas. "Initial response to Lean Six Sigma may be resistance, but it only takes one event for people to see right away that this is the right direction."

At Kunke's depot, employees decreased the time it took to rebuild the UH-60 Blackhawk from 256 days to an average of 70.

"Lean was the vehicle that we needed," said Clarence L. Dean, chief of UH-60 Blackhawk Assembly Branch No. 2. "It helped us to really sit down and think about how we do our job."

During fiscal 2005, the Army Materiel Command saw \$110 million in savings and cost avoidance by implementing Lean Six Sigma practices. By removing waste and better controlling output, for example, Letterkenny Army Depot, Pa., reduced costs by \$11.9 million in Patriot air defense missile system recapitalization. And Pine Bluff Arsenal, Ark., reduced repair cycle time by 90 percent and increased its production of M-40 protective masks by 50 percent.

"We are turning things around faster for the warfighter," said Gen. Benjamin Griffin, commanding general of Army Materiel Command. "This is showing significant savings and improvement wherever it has been implemented."



In the News

But using Lean Six Sigma principles to redefine principles and improve speed, quality, and cost requires the collaboration of both management and employees.

"The workers have to be enfranchised, because they understand the processes. We have to solicit their input on how to make their processes more lean and more efficient," said Kirby.

Marc Higgs, process improvement specialist at Red River Army Depot, used his experience and knowledge to influence how Lean Six Sigma practices would create improvements at the depot.

"Lean Six Sigma is good for the soldier, it's good for the employee, it's good for Red River Army Depot, it's good for the Army," he said.

AIR FORCE PRINT NEWS (AUG. 1, 2006)

ROVER ADDS EXTRA SET OF EYES TO SKY

Ann Patton

U.S. AIR FORCE ACADEMY, Colo.—A demonstration of the Remote Operated Video Enhanced Receiver during field training here on July 28 allowed basic cadets an opportunity to see how an extra set of eyes in the sky is a critical weapon in military arsenals.

"It's important to take a new group of leaders and have them interface on the battlefield with real-time heroes and to see their courage, honor and initiative," said Air Force Lt. Col. Gregory Harbin of the ROVER demonstration team, which included decorated combat operators.

The ROVER demo served as a mini-laboratory, exploring the possibility of integrating it into curricula for military academies and other military organizations throughout the service branches.

Air Force Lt. Col. Mike Wermuth, the academy's director of geosciences, is enthusiastic about the demonstration and its possible curricula integration.

"I thought it was great, and I'm sure it will be better in the future, especially after presentations at West Point and ROTC units at Ft. Lewis," he said, pointing out demo leaders plan to refine their presentations after each site visit.



A basic cadet holds the controller for an unmanned aerial vehicle used during a Remote Operated Video Enhanced Receiver demonstration July 28 at the U.S. Air Force Academy. The ROVER is basically a laptop with antennas that receive video captured by a UAV showing real-time, nearby dangers and allowing ground troops to make quick decisions regarding air strikes.

U.S. Air Force photograph by Dennis Rogers.

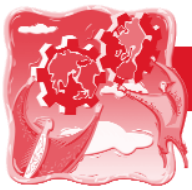
Wermuth said geospatial technology and intelligence is rapidly expanding. As a response to that trend, the academy has changed the title of geography major to a major in geospatial science.

The two-year-old ROVER system looks simple. A laptop with cables and wires attached receives video captured by an unmanned aerial vehicle. The video shows real-time, nearby dangers and helps ground troops make quick decisions regarding air strikes. Videos during the academy demonstration streamed from cameras aboard the small Raven UAV flying overhead.

"This is a demonstration of the kind of warfare we're growing toward," Air Force Secretary Michael Wynne said.

He visited the demo site in Jacks Valley July 28 and emphasized the importance of receiving cadet feedback on the technology's development.

"It's like talking on the telephone," said Harbin, who is assigned to the 609th Combat Operations Squadron at Shaw Air Force Base, S.C. "We see what the pilots see."



In the News

Using Global Positioning System technology, ROVER shortens talk time describing targets and coordinating attacks, reducing it to seconds rather than minutes. Troops in the field can also receive video imagery from Predator aircraft, C-130s equipped with a Scathe View imaging system, or fighters carrying Sniper targeting pods.

ROVER is highly precise. It can direct strikes against insurgents within 75 meters of troops without endangering the troops.

"We can target people's noses," Harbin said.

He cited an incident where an identified insurgent was riding a donkey. The insurgent was killed but his donkey was not.

"Situational awareness is the key," said Army Maj. David Bristol, the assistant product manager for the Raven UAV.

The system can operate for day and night videos, and it can map and save images. Images are captured at 30 frames per second.

The Raven UAV used during the academy demonstration looks more like an overgrown model airplane than a weapon. Its wingspan stretches to only five feet and its length is a mere 38 inches. Made of Kevlar, the drone is launched in minutes by hand and only requires a pilot to maneuver it and another person to monitor incoming information. It can be programmed for routes and target areas or be flown remotely by the operator.

The Raven has 45 to 60 minutes of flight time on one battery. Upon landing, it hovers, then drops to the ground where it breaks into pieces to await for reassembly. The drone can travel up to 34 miles per hour and is flown to search for improvised explosive devices and perform reconnaissance for patrols. It is virtually silent in the air.

At four and a half pounds, a ROVER can be transported in a rucksack. Retired Master Sgt. Kyle Stanbro, who served three tours in Iraq, remembers traveling with a ROVER by whatever means available.

"We moved on foot, horse, donkey, and vehicle," he said. The technology directly aided in destroying 65 enemy vehicles in six and a half hours. "We would have done more but ran out of vehicles to target."

As sophisticated as it is electronically, ROVER is user-friendly. Most users quickly become savvy in its operation.

Not only is ROVER saving ordnance, but more important, it is saving lives. While ground forces are on patrol, the Raven can see beyond buildings and spot terrorists running to engage a patrol.

"This is something that will simply save your life," Harbin said.

In combat as well, ROVER can reduce collateral damage. Stanbro recalled an incident in Iraq where a local citizen reported suspicious activity on a soccer field. Images streamed into the ROVER were only those of children enjoying a pick-up soccer game.

"The system has also sparked security development for homeland disasters, borders, and garrisons," Bristol said.

The technology aided in search and rescue efforts after Hurricane Katrina by capturing video images for responders to use in searches for survivors and assessing damage.

The ROVER also showed up at a Kerry Underwood concert at Redstone Arsenal in Alabama and was launched from the top of a building for security.

Harbin wants to see the ROVER technology integrated into course work and training "sooner than later."

Military communications advanced from carrier pigeons in World War I to radio communication in World War II. Both became institutionalized in terms of communication.

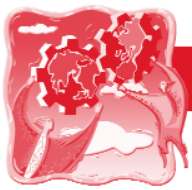
The colonel wants to see the same for video.

"These are 21st century warriors for sure," he said of the academy class of 2010, who will work with this technology in the future.

Patton is with U.S. Air Force Academy Public Affairs.

AIR FORCE PRINT NEWS (AUG. 2, 2006) WYNNE: WE ARE LOGISTICIANS OF INFORMATION

WASHINGTON—As does its enemies, the Air Force considers cyberspace a warfighting domain. The Air Force has always been in the



Secretary of the Air Force Michael W. Wynne speaks to the newest group of brigadier general selectees and their spouses during the Senior Leadership Orientation Course in Washington, D.C., on July 31. The SLOC is held each year to help colonels selected for promotion transition into their role as a general officer. The weeklong course prepares future generals for issues they may encounter when they take on their new leadership role.

U.S. Air Force photograph by Tech. Sgt. Cohen A. Young, USAF.

business of flying and fighting in the air, and in past decades, has included space in that mission. This year the Air Force expanded its mission to include cyberspace—the domain of information—said Secretary of the Air Force Michael W. Wynne, during the Senior Leadership Orientation Course here July 31.

Both the secretary and Air Force Chief of Staff Gen. T. Michael Moseley addressed SLOC attendees.

“You always wonder what it is to be ‘net-centric,’” said Wynne. “I think it’s a warfighting domain. I see our en-

emies think it’s a warfighting domain. So let’s make it an Air Force domain.”

Air Force officials cemented cyberspace into its mission statement after realizing the Service was already heavily involved in the transport, packaging, and protection of valuable warfighting information.

“It turns out, we are the logisticians of information,” Wynne said. “We pick it up everywhere, we send it through space, we get it up there—like a pachinko machine—through our satellite network, and back down to the ground station. [We put it] into the hands of the commander, just in time, and we figured we have to defend it.”

The protection and maintenance of information systems involves defending the nodes of cyberspace to include the satellite dishes, satellites, routers, and the development and deployment of new satellite systems. The Air Force designs, deploys, and defends information systems for the joint warfighter and for itself, Wynne said.

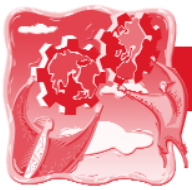
“We are net-centric, and we actually deliver and we depend upon cyberspace to get this done,” he said. “We put a lot of trust in the messages we receive and the targeting we get ... because we drop stuff from way up there, and we shoot from huge distances [away]. We need to trust the messaging traffic and imagery and geolocators when they come over our network.”

Taking on the domain of cyberspace will not pull resources from other missions, Wynne said, because the Air Force already has as many resources committed to cyberspace as it needs and will simply focus on the ones it has.

“I found out we have over 20,000 people working in cyberspace,” he said. “We are now ... trying to figure out how to organize, train, and equip [them]. We always did. But it was more of just a pickup game. Now it is becoming more organized.

“With the chief of staff’s support, we are moving in that direction,” he said. “We are doing a lot of scouting, feeling around, and forward looking. This is a domain the Air Force could now be dominating.”

The secretary also addressed potential concerns about cutting manpower, or force shaping, during wartime. He said force-shaping efforts will result in better-managed resources that can be redirected at other areas of con-



In the News

cern for the Air Force, including recapitalization of the aircraft fleet.

“We have got to figure out how to make sure the people who are here in 2015 to 2020 have the best equipment for the next fight,” Wynne said. “We need to offer this nation the maximum number of options so [it] can deter, defeat, and dissuade any enemy over the next period of time.”

Moseley discussed the Air Force’s efforts to posture itself for success in both the war on terrorism and in future wars, while trying to avoid mistakes it has made in the past.

The general told course attendees that the air forces of the past have failed because they did not understand their enemies, they were not interdependent with a joint team, they didn’t increase training and infrastructure to support their fights, and because they didn’t begin their fights with the right amount of aircraft, munitions, or support.

The priorities and initiatives of today’s Air Force, Moseley said, are designed to ensure the Service doesn’t repeat the past. The three priorities today are prosecuting the war on terrorism, developing and caring for airmen and their families, and recapitalizing and modernizing the air and space inventory.

The Air Force has 67 specific “executable initiatives” to help it achieve its priorities, Moseley said. Those initiatives include ensuring 100 percent of uniform-wearing airmen are in an aerospace expeditionary force bucket, enhancing combat skills training during basic military training, finalizing total force integration efforts, and expediting the acquisition process on programs like the KC-X, F-22, and the joint cargo aircraft.

ARMY NEWS SERVICE (AUG. 8, 2006)

DEPLOYED SOLDIERS TEST BODY VENTILATION SYSTEM

FORT BELVOIR, Va.—The Army’s Rapid Equipping Force (REF) delivered 500 body ventilation systems to heat-stressed soldiers in Iraq and Kuwait last month.

The portable, lightweight ventilation system will help reduce heat-related injuries, and will undergo one year of assessments by such soldiers as drivers, military police, and machine gunners. Another 1,700 vests will be shipped and issued to soldiers in similar units and duty positions in upcoming months.

“The BVS project is another example of how the Army culture is changing in order to provide warfighter solutions in a timely manner,” said Army Col. Gregory Tubbs, REF director. “It also provides another example of how much good can be accomplished when Army organizations like PEO Soldier and the Rapid Equipping Force team to help the warfighter.”

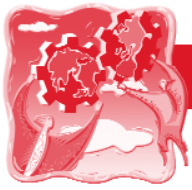
The BVS weighs less than five pounds and can be worn under body armor. Air circulates inside the vest to increase the soldier’s comfort and performance in hot-dry climates by significantly increasing the evaporation rate.

The BVS has two main components—a ventilation unit and an air distribution garment that looks like a vest. The VU, or blower, is a battery powered fan that can be attached in a variety of positions to meet the soldier’s



Army Sgt. Mark Waits, an M1114 gunner assigned to the 3rd Battalion, 29th Field Artillery Regiment, puts on his individual body armor with the Army’s new body ventilation system before leaving for a mission. The BVS is an advanced prototype cooling system that is being tested in Iraq and Kuwait for one year.

U.S. Army photograph.



In the News

need and comfort. The filtered blower system fits neatly into a pouch and is similar to a fanny pack.

"It definitely keeps me cool," said Army Sgt. Mark Waits, an M1114 gunner with the 3rd Battalion, 29th Field Artillery Regiment. "I don't feel as fatigued after a mission in the BVS."

The BVS operates approximately eight hours with commercial lithium rechargeable batteries, with a recharge time of four to five hours. Filters are the system's primary maintenance.

"When GlobalSecure approached us with their quick, simple, and reliable BVS design, I knew we could work with and count on the REF to get it to soldiers," said Army Col. Richard Hansen, director, Project Manager Soldier Warrior.

GlobalSecure was selected among other vendors for its overall quality and product design, service, timeliness, and price.

The Rapid Equipping Force is committed to working with industry and governmental partners such as Soldier Warrior to develop versatile equipment that protects soldiers and ensures their survivability and lethality.

"If the warfighters need it, then I won't rest until I explore every option to meet those needs," said Tubbs.

SUPPORTING THE WARFIGHTER WITH INNOVATIVE, COST-EFFECTIVE, GREENER TECHNOLOGIES

Gary Leitner

Established in 1994, the Joint Group on Pollution Prevention (JG-PP) has been actively fostering cooperation between the DoD Services, the National Aeronautics and Space Administration (NASA), and original equipment manufacturers (OEMs) in an effort to leverage valuable resources and identify new channels for implementing promising innovative technologies in response to weapons/space systems environmental compliance issues.

Our partnership at the flag officer level involves the military services, NASA, Defense Logistics Agency (DLA), and Defense Contract Management Agency (DCMA) as needed. At the request of industry, it is chartered by the Joint Logistics Commanders (JLC) to reduce/eliminate

hazardous materials, avoid duplication of effort, minimize technical risks, and balance cross-Service acquisition and sustainment pollution prevention (P2) issues and concerns. Through DCMA, projects are brought to the JG-PP by the OEMs.

Our project partnerships include DoD platform and component OEMs such as The Boeing Company, Lockheed Martin, Raytheon, Hamilton-Sundstrand, Messier-Dowty, Héroux-Devtek, Eaton Aerospace, and many others. JG-PP projects frequently partner with other DoD chartered and ad hoc groups such as the Propulsion Environmental Working Group, Joint Committee on Aging Aircraft (JCAA), the Hard Chrome Alternatives Team, the Joint Cadmium Alternatives Team, and the Joint Service Solvent Substitution Team to ensure the necessary DoD weapon/space system and supplier communities buy-in. Past and current projects have targeted HazMat such as hexavalent chromium in both plating processes and coating systems, cadmium, and various hazardous solvents with successful implementation of qualified alternative materials. JG-PP, JCAA, and NASA recently completed Institute for Printed Circuits IPC, Association Connecting Electronics Industries, Class 3 testing, using Military Standard MIL-STD-810 requirements on three leading lead-free solders being substituted in worldwide electronic systems to aid in determining potential impacts to DoD systems.

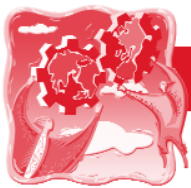
Our working group actively employs a complementary set of collaborative tools to accomplish our mission and goals: validation methodology; information/resource brokering; and project selection process.

Validation Methodology

We employ a multi-phase validation methodology to effectively match common environmental problems within Services/industries with joint solutions. Our coordination identifies common qualification requirements and cost sharing to qualify new, improved, environmentally acceptable technologies for joint-Service weapon and space system applications. The collaboration continues as part of the technology transfer process with ongoing involvement of project integrators to promote implementation at both the manufacturing, remanufacturing, and depot maintenance levels.

Information/Resource Brokering

Our information/resource brokering efforts include access to an electronic resource library that includes data on potential technologies, project information and goals, and contacts. Our Web site originated in 1997 as an out-



In the News

reach P2 resource for government and industry for past and current project initiatives. The Web resource maintains over 2.2 gigabytes of data and hosts over 80,000 worldwide Internet visitors annually. In addition, we maintain an electronic file resource with over 10 gigabytes of historical data to support ongoing group efforts.

Project Selection Process

To enhance our project selection process, we formed a project selection committee composed of knowledgeable people from the participating agencies to assess new alternative processes and technologies efficiently and quickly. In 2006 we initiated three new projects:

Nonchromate Primers for Military Applications

We partnered with the Naval Air Systems Command Aircraft Equipment Reliability and Maintainability Improvement Program to demonstrate/validate promising nonchromate primers with improved corrosion protection formulation to military specification requirements. The project is intended to reduce worker exposure to hexavalent chromium.

Low Temperature Cure Powder Coatings

We partnered with the Environmental Security Technology Certification Program to demonstrate, validate, and implement a volatile organic compound/hazardous air pollutant-free low temperature cure powder coating on DoD weapon system components in a depot production environment. The demonstration will verify and validate the environmental, performance, and economic advantages of the proposed technology when compared to the baseline coatings. Powder coating technologies can reduce or eliminate risk and cost associated with the use of hazardous solvent-borne organic chromate coatings.

Corn Hybrid Polymer Coating Removal on Delicate Substrates

We coordinated joint service interests for this joint-Service initiative project to evaluate and demonstrate the effectiveness of corn hybrid polymers (CHP), as a potential process to remove coatings from radomes and other delicate substrates during maintenance, repair, and overhaul operations. CHP is an isolated polycrystalline byproduct material resulting from the commercial processing of corn. It offers an effective alternative to solvent treatment as a means to remove coatings from various composite substrates.

The committee is continuing to coordinate project efforts that will focus on propylene glycol antifreeze recy-

cling, a less toxic replacement for ethylene glycol antifreeze and tactical vehicle biodiesel applications to support government initiatives to reduce dependency on petroleum based fuels.

The Payoff

By engaging in joint environmental technology improvement projects, stakeholders are able to leverage valuable resources through cost sharing and technical expertise that minimize technical risks and result in a more unified, cost-effective, and timely problem-solving approach. The result provides reduced weapons system life cycle costs by improving performance over existing technologies, reducing environmental costs, and reducing maintenance turnaround times.

Our effective collaborative efforts bring together the right people to support the warfighter with innovative, cost-effective, greener technologies in an effort to optimize military, economic, and ecological concerns.

Visit <http://www.jgpp.com> for additional information and a complete listing of all our JG-PP projects.

Leitner is JG-PP Working Group chair at U.S. Marine Corps Logistics Command and can be contacted at gary.leitner@usmc.mil.

DEPARTMENT OF DEFENSE NEWS

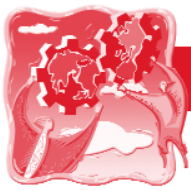
RELEASE (AUG. 10, 2006)

DOD RELEASES SELECTED ACQUISITION REPORTS

The Department of Defense (DoD) has released details on major defense acquisition program cost, schedule, and performance changes since the December 2005 reporting period. This information is based on the Selected Acquisition Reports (SARs) submitted to the Congress for the June 2006 reporting period.

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

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operation and



In the News

maintenance (except for pre-Milestone B programs, which are limited to development costs pursuant to 10 U.S.C. §2432). Total program costs reflect actual costs to date as well as future anticipated costs. All estimates include anticipated inflation allowances.

The current estimate of program acquisition costs for programs covered by SARs for the prior reporting period (December 2005) was \$1,584,718.7 million. After subtracting the costs for two final reports (Aerial Common Sensor (ACS) and Advanced SEAL Delivery System (ASDS)) and adding the costs for four new programs (Advanced Deployable System (ADS), Heavy Lift Replacement (HLR), LHA Replacement, and VH-71 Presidential Helicopter) from the December 2005 reporting period, the adjusted current estimate of program acquisition costs was \$1,612,682.5 million. For the June 2006 reporting period (shown below), there was a net cost decrease of \$76.7 million (-0.005 percent), due to revised cost estimates and support requirements for the MH-60R.

CURRENT ESTIMATE (\$ IN MILLIONS)

December 2005 (85 programs) \$1,584,718.7

Less final reports on
two programs (ACS
and ASDS) -1,965.6

Plus four new programs
(ADS, HLR, LHA
Replacement and VH-71) +29,929.4

**June 2006 Adjusted
(87 programs) \$1,612,682.5**

Changes Since Last Report:

Economic \$ 0.0
Quantity 0.0
Schedule 0.0
Engineering 0.0
Estimating -121.4
Other 0.0
Support +44.7
Net Cost Change \$ -76.7

Plus initial procurement cost estimates
for DD(X) Destroyer (previous reports
limited to development costs per 10
USC §2432) +27,813.3

December 2005 (85 programs) \$1,584,718.7

For the June 2006 reporting period, there were quarterly exception SARs submitted for five programs. The reasons for the submissions are provided below.

Navy

AESA (Active Electronically Scanned Array)—The SAR was submitted to report program expenditures of more than 90 percent. Therefore, in accordance with 10 U.S.C. §2432, this is the final AESA SAR submission.

MH-60R—The SAR was submitted to rebaseline from a Development to a Production Estimate following a Full Rate Production decision (Milestone III) on March 31, 2006. Program costs decreased \$76.7 million (-0.7 percent) from \$11,396.0 million to \$11,319.3 million, due to revised cost estimates and support requirements.

MH-60S—The SAR was submitted to report a schedule slip of six months for the Airborne Mine Countermeasure (AMCM) Initial Operational Capability (IOC) from March 2007 to September 2007. Also, AMCM Interim Process Review IV slipped from April 2007 to July 2007.

Air Force

C-5 AMP (Avionics Modernization Program)—This is the initial SAR submission since the program exceeded the Major Defense Acquisition Program (MDAP) reporting criteria.

NAVSTAR GPS (Global Positioning System)—The SAR was submitted to report schedule slips of six months or more. The M-code Receiver Card Ready for Production slipped from January 2009 to May 2011. Also, the 1st Block IIF Space Vehicle Available for Launch slipped from November 2006 to January 2009.

New SARs (As of June 30, 2006)

The Department of Defense has submitted an initial SAR for the Air Force's C-5 AMP (Avionics Modernization Program). This report does not represent cost growth. Baselines established on this program will be the point from which future changes will be measured. The current cost estimate is provided below:

CURRENT ESTIMATE (\$ IN MILLIONS)

Program

C-5 AMP (Avionic
Modernization Program \$ 859.3

Total \$ 859.3



Spotlight on DAU Learning Resources

SIX DEGREES OF ACQUISITION INTEGRATION: PART II

Christopher Roman, Stephanie Possehl, Joni Forman, and Sue Stein

In the last issue of *Defense AT&L*, we described ACQ451—Acquisition Integration, a new 400-level course to be offered by DAU. We devised the course construct called “Six Degrees of Integration.” We previously discussed the first two degrees (“Big A” and Functional Specialty integration); this continuation article describes the remaining four degrees.

Life-cycle Integration

The third degree of integration is life-cycle integration—in other words, making choices that integrate near- and long-term consequences of acquisition decisions. In defense acquisitions, managers must frequently make a difficult trade-off between an investment that promises to lower total ownership cost versus their need to deploy quickly and contain current cost. A single right answer to such trade-off decisions is elusive.

The “Kiowa Warrior” case study situates the participants in exactly such a dilemma. The case describes the trade-off the Army had to make in 1999 between funding upgrades to the aging Kiowa Warrior helicopter fleet vs. spending funds to hasten development of the next-generation Comanche. Participants are usually aware that Comanche was later cancelled and that the life of the Kiowa fleet was extended, but we ask them to play the role of a 1999 decision maker. With no foreknowledge of the eventual fate of Comanche, which course of action would they recommend? In the pilot offerings, opinion in the class was almost evenly split. The point, of course, is not to achieve class consensus, but to explain reasoning and expose competing criteria. For that purpose the case works well.

We also ask participants to work through a series of one-paragraph caselets, which address a sequence of life-cycle integration issues of a new generation of night vision goggles encountered sequentially over a period of years. By distributing the caselets one at a time, and asking table groups to analyze each one sequentially, participants gain experience at making life-cycle choices and seeing the repercussions of prior decisions.

SIX DEGREES OF ACQUISITION INTEGRATION

1. **“Big A” Integration.** Integrate the business processes and decision systems, (e.g. requirements generation and procurement).
2. **Functional Specialty Integration.** Integrate professional specialists on an acquisition team (e.g., logisticians and testers).
3. **Life Cycle Integration.** Integrate decision criteria to account for both near- and long-term consequences within and across programs.
4. **System of Systems Integration.** Integrate separate acquisitions to ensure current and future interoperability.
5. **Joint Integration.** Integrate requirements across military services to support the Services with a single joint acquisition.
6. **International Integration.** Integrate U.S. requirements with those of our allies to support multiple nations with a single acquisition.

System of Systems Integration

The fourth degree of integration is integration between separate systems that can operate autonomously but gain synergy by interoperating with one another. This type of integration is a requirement of virtually every complex defense system today. Problems arise trying to achieve the coordination, interface standards, schedule, and budget synchronization necessary to integrate systems that are managed by independent organizations.

To immerse the participants in the thorny technical and management issues surrounding system of systems integration, we use another case study, “Joint Strike Fighter Interoperability.” The case describes the long intensive effort to map out the Joint Strike Fighter’s position in the network of interoperating systems with which it would share the future battlespace. Issues that the participants analyze are:

- Who generates and enforces system of systems requirements?
- Who maintains the network configuration baseline for current and future interoperating systems?
- How and where are the system-of-systems capabilities tested?



Spotlight on DAU Learning Resources

- How does one trade off single-system capabilities against system-of-systems capabilities? That is, how much should the Joint Strike Fighter depend on other external sensors and control systems being available in combat?

Following the case discussion, participants are asked, “Where is your program in a system of systems?” They are asked to draw a diagram of the program they work on (or one with which they are most familiar) within a system of systems framework and explain it to their fellow participants. In workgroups, they share their own personal challenges of operating within this framework. This particular exercise also often exposes ineffective integration. As a participant graphically maps out and describes the interdependencies of his/her program with other programs, it is common to see that the liaison activities among the programs are insufficient and the interoperability risks are correspondingly high.

Joint Integration

The fifth degree of integration is integration of systems for use by multiple Services. Joint programs bring their own unique integration challenges such as varied requirements, competing priorities, funding challenges, testing needs, and cultures between the Services. The case study “Joint Biological Point Detection System” describes the difficulty of harmonizing requirements across the armed services and developing a single joint system for detecting biological attacks. As in the other cases, the myriad of competing criteria and priorities renders this case without a single right answer. However, participants become involved in the debate and soon realize that building one system that will satisfy multiple armed services is a risky undertaking. However, the alternative of developing Service-unique systems has its own problems, including higher cost per Service, duplication of effort, and lost economies of scale. Following the case, participants discuss their own challenges with joint programs and compare strategies applied to cope with them.

International Integration

The sixth and last degree of integration is integration across nations. The United States is increasingly including allies in the development and production of new defense systems, to share the cost, to gain wider access to technologies and skills, and to reinforce international military cooperation among allies. The challenges of international integration are similar to those of joint programs but are complicated by necessary interaction across governments and cultures. The case study used for this course module is the “Rolling Airframe Missile,”

which was codeveloped and coproduced by the United States and Germany. The case exposes the difficulties of achieving consensus across nations on what a system must do and how it must evolve. Because international program management involves many special players (Department of State, Department of Commerce, etc.) and many unique laws and regulations, a DAU guest instructor who specializes in international program management facilitated this lesson. In the two pilot offerings, the expertise of the guest instructor was vital because class discussion raised subtle and nuanced questions about international acquisition policy and regulations. Future offerings may include a non-DAU guest speaker such as a current program manager of an international program.

Course Wrap-up

The course concludes with reflections on perceptions that have changed during the course and with participants finalizing their integration action plans—actions they will take upon returning to their jobs to foster increased acquisition in their environments. The action plan is the essential take-away for participants. Although every lesson gives participants opportunities to learn by application, applying integration principles back on their jobs will reinforce what they have learned and improve their programs. One unfinished aspect of course design is whether and how to follow up with participants regarding their integration action plans. The Acquisition Community Connection Web site, <<https://acc.dau.mil/CommunityBrowser.aspx>>, may be an appropriate venue for participants to continue learning from each other as they pursue and share results of their individual action plans.

Early Success

DAU’s new triad of 400-level courses appears to be an early success. ACQ451, in particular, appears to be filling a niche in necessary knowledge and skills to achieve effective acquisition integration. By partitioning the course objective of effective integration across six separate degrees and analyzing each degree in turn, participants are left with an appreciation for the full scope and challenge of effective integration. If any of these new 400-level courses interest you, you can find course dates and instructions for registering at <<http://www.dau.mil>>.

Roman is professor of acquisition management at DAU, where he specializes in information technology and software. Possehl is professor of systems engineering management in the Defense Systems Management College–School of Program Managers. Stein is currently the



Spotlight on DAU Learning Resources

lead ISD for the School of Program Managers and the DAU action officer—COE Accreditation. Forman is professor of acquisition management at DAU, managing the development of executive curriculum.

DAU LEARNING RESOURCES FOR DMSMS PROFESSIONALS AND NEWCOMERS

Bill Kobren

The Defense Acquisition University, working in concert with the Defense Logistics Agency (DLA) and the DoD Diminishing Manufacturing Sources and Material Shortages Working Group, has fielded an extensive set of DMSMS-related training and implementation resources. These include four Web-based continuous learning modules (with a fifth planned); DMSMS, obsolescence, and continuous modernization materials in several of our DAU courses; and comprehensive Web-based materials available on the DAU Logistics Community of Practice (LOG CoP).

The four continuous learning modules are available either for continuous learning credit for the DoD acquisition, technology and logistics workforce, or in a browse mode that allows students to review the content but not receive official credit for completion.

While there are no prerequisites for any of the DMSMS courses, CLL 201, the DMSMS Fundamentals Course, should be taken before attempting CLL 203 or CLL 204.

The modules, which can be accessed on the DAU Continuous Learning site at <http://clc.dau.mil/>, are:

CLL 201—Diminishing Manufacturing Sources and Material Shortages Fundamentals

This three-hour computer-based continuous learning module is designed to provide a working-level overview of DMSMS issues and contains six lessons: Overview of DMSMS; Combating the DMSMS Problem; Reporting, Measuring, and Predicting DMSMS; Guidance and Reference Sources; DMSMS Tools for the Program Manager; and Successful DMSMS Management Models. This is a Service-neutral and discipline-neutral course at the end of which students will have a good basic working knowledge of DMSMS history, issues, tools, and current initiatives; and they will have seen real examples of successful proactive DMSMS programs. Students will understand why standardization of policy and procedure within the DMSMS community is so important and will be familiar with many other related topics. One of the most important tools covered is the DoD DMSMS Center of Ex-

cellence. Upon completion of this module students receive three continuous learning points.

CLL 202 - Diminishing Manufacturing Sources and Material Shortages Executive Course

This one-hour course provides concise DMSMS information for executives or program managers requiring an understanding of how DMSMS impacts their operations in terms of reliability, maintainability, supply chain efficiency, funding, policy, procedure, and staffing. The course is tailored to offer the executive a perspective of management/supervisory actions necessary to enable effective DMSMS mitigation, thereby enhancing mission readiness, efficiency, and cost effectiveness; and to understand the challenges and options to ensure proper establishment of an optimum proactive DMSMS team. Upon completion of this module, students will receive one continuous learning point.

CLL 203 - Diminishing Manufacturing Sources and Material Shortages Essentials

While not mandatory, students may have previously taken either the DMSMS Fundamentals or the DMSMS Executive Overview modules, both of which provide the fundamentals of proactive DMSMS management and cover regulations and policies, how to set up a DMSMS program, applicable metrics, and other issues. It is assumed that CLL 203 students have a working knowledge of these topics. As with the other modules, this module will center on electronics because it remains one of the primary problem areas. However, mechanical and materials DMSMS initiatives will also be covered. This module contains more technical content than the other modules. It will introduce students to DLA's DMSMS programs and capabilities and will review basic techniques for component research. The module will take approximately two hours to complete. Students receive two continuous learning points upon completion of this module.

CLL 204 Diminishing Manufacturing Sources and Material Shortages Case Studies

Though not mandatory, it would be helpful if students have completed the CLL 201, CLL 202, and CLL 203. While the other modules gave students the basic concepts, tools information, and skills, this course ties it all together. In this module, students will have an opportunity to review a few DMSMS program scenarios and evaluate the program's level of proactivity. Students will also make simple DMSMS management decisions for a real world DMSMS scenario, learning that in DMSMS, there is no single best way to do anything. One group's decision may not be the same as that of another group, but



Spotlight on DAU Learning Resources

both may be equally effective. This module will take students approximately two hours to complete. Upon completion of this module students receive two continuous learning points.

Tailored classroom versions of these courses can also be arranged and presented to your organization by a DLA or Service instructor by contacting dksp@dmsms.org.

Revised Web-based LOG 204 Released

In addition, DAU recently deployed a newly revised Web-based LOG 204—Configuration Management course, which includes a module on DMSMS as part of a larger lesson on issues and initiatives impacting configuration management. LOG 235—Performance Based Logistics also discusses the importance of DMSMS and obsolescence planning and the use of continuous modernization as a mitigation strategy.

Under the broader umbrella of “Aging Systems” at https://acc.dau.mil/simplify/ev.php?ID=11656_201&ID2=DO_TOPIC on the DAU Logistics Community of Practice Sustainment site <https://acc.dau.mil/log>, the university also maintains individual sites on the five topics listed below. Visited more than 23,000 times over the last two years alone, these sites contain extensive materials and resources related to:

- **Obsolescence**—the process or condition by which a piece of equipment becomes no longer useful, or a form and function no longer current or available for production or repair.
- **Diminishing Manufacturing Sources and Material Shortages**—the loss or impending loss of the last known manufacturer or supplier of raw material, production parts, or repair parts.
- **Continuous Modernization**—a process by which state-of-the-art technologies are inserted continuously into weapon systems to increase reliability, lower sustainment costs, and increase the warfighting capability of a system to meet evolving customer requirements throughout an indefinite service life.
- **Technology Insertion (sometimes also referred to as Technology Transition)**—the process of applying critical technology in military systems to provide an effective weapons and support system in the quantity and quality needed by the warfighter to carry out assigned missions and at the “best value” as measured by the warfighter.
- **Lead-Free Electronics/ Solder**—an issue that has arisen in large part as a result of a European Union directive which, among other things, results in the elimination of the use of lead in electronic components. This en-

vironmental initiative raises some very real concerns related to reliability and maintainability of high-tech weapon systems, as well as potential logistics issues related to configuration management, parts management, and cataloging.

The DMSMS site at https://acc.dau.mil/simplify/ev.php?ID=11666_201&ID2=DO_TOPIC contains dozens of DMSMS links, documents, and policy memos, from across DoD and the military services, including the *DoD Diminishing Manufacturing Sources and Material Shortages (DMSMS) Guidebook* (Version 1.1), a compilation of the best proactive practices from across DoD Services and agencies for managing the risk of obsolescence. With material extracted from various DoD DMSMS management documents, this DoD DMSMS Guidebook provides the DMSMS program manager with a central repository of best practices. Additionally, it identifies assorted measurement tools that may be useful in analyzing and tracking the effectiveness of DMSMS Programs.

Complementing the DMSMS resources available through the DMSMS Knowledge Sharing Portal at <http://www.dmsms.org>, the OSD Defense Microelectronics Activity at <http://www.dmea.osd.mil>, the Government-Industry Data Exchange Program at <http://www.gidep.org>, and a number of individual Service Web sites, DAU is an integral part of an aggressive DoD effort to help programs proactively manage and mitigate their DMSMS problem.

Kobren is program director, sustainment; he may be contacted at bill.kobren@dau.mil

NAVY NEWSSTAND (JULY 21, 2006) PEO IWS, DAU RELEASE NAVAL OPEN ARCHITECTURE ONLINE LEARNING MODULE

WASHINGTON—The Program Executive Office, Integrated Warfare Systems (PEO IWS), chair of the Open Architecture Enterprise Team (OAET), and the Defense Acquisition University (DAU) released the Naval Open Architecture Continuous Learning Module (CLM) July 19.

CLM is an online learning course that has been developed to introduce Navy and Marine Corps acquisition professionals, sponsors, and fleet requirements officers to OA principles, and how to implement OA across the naval enterprise.



Spotlight on DAU Learning Resources

"We have long needed an introduction to Open Architecture that can be used by all hands to get a basic understanding of what it's all about, why we do it, and what it does for us," said Bill Johnson, director of Naval Open Architecture. "The continuous learning module we're fielding now meets that need. I'd encourage individuals interested to log in and take the course."

The CLM introduces the student to OA technical and business principles, including modular design and design disclosure, reusable application software, interoperable joint warfighting applications and secure information exchange, life cycle affordability, and encouraging competition and collaboration.

In addition, the course discusses best practices in OA contracting, ways to properly incentivize contractors, OA-related intellectual property rights issues, and some examples of the successful implementation of OA in the ARCI (Acoustic Rapid COTS Insertion) and E-2 Hawkeye programs.

This CLM is available on the DAU Continuous Learning Center (CLC) Web site at <https://learn.dau.mil/html/clc/clc.jsp>, which is a Department of Defense resource dedicated to the delivery of continuous learning opportunities in support of the acquisition workforce. The CLC is a publicly accessible Web site, and anyone can take the courses it offers. Navy and Marine Corps personnel, however, will receive credit for successfully completing the two-hour course.

More information about naval OA is available from the Naval Open Architecture Special Interest Area on the Defense Acquisition University's Acquisition Community Connection Web site at <https://acc.dau.mil/oa>.

Released by the Program Executive Office, Integrated Warfare Systems Public Affairs.

DAU CONTINUOUS LEARNING CENTER MODULES ADDED

The following new online learning modules are available on the DAU Continuous Learning Center Web site at <http://clc.dau.mil> through both "browse" and "register" options:

New Modules

- Contingency Contracting Officer Refresher – (CLC 114)
- Procedures, Guidance, and Information (PGI) – (CLC 113)

- Utilities Privatization Contract Administration – (CLC 120)

Harvard ManageMentor Modules

In order to access the Harvard ManageMentor Modules you must register for the module. Proprietary considerations prevent the modules from being available in browse mode. Register using the Continuous Learning Module registration process and select the "Harvard Business Management Modules" radio button in the Training Category section.

Coming Soon ...

The following continuous learning modules are in development and will go live during August – September 2006.

- Berry Amendment
- Evolutionary Acquisition
- Independent Logistics Assessment
- Information Assurance (update)
- Modular Open System Architecture
- Quality Assurance Auditing
- Software Anti-Tamper
- Software Protection
- Structuring Contracts for Emerging DoD Requirements
- Fundamentals of Technical Transfer and Pricing Controls
- Outcome Performance Measures
- Technical Planning
- Technical Readiness Assessments

DAU MIDWEST REGION PARTNERS WITH DEFENSE CONTRACT MANAGEMENT AGENCY (DCMA) DETROIT

Travis Stewart, dean, DAU Midwest Region in Kettering, Ohio, and Army Colonel Susan K. Grubb, commander, Defense Contract Management Agency (DCMA) Detroit, Mich., signed a Learning Organization Agreement on Aug. 9, 2006. Under the terms of the Learning Organization Agreement, the Midwest Region and DCMA Detroit will partner to provide professional education and training opportunities across the acquisition, logistics, and technical disciplines to DCMA Detroit offices.

DCMA Detroit works directly with defense suppliers to ensure that DoD, federal, and allied government supplies and services are delivered on time, at projected cost, and meet all performance requirements. DCMA directly contributes to the military readiness of the United States and its allies, and helps preserve the nation's freedom. DCMA-Detroit has several offices throughout the



Spotlight on DAU Learning Resources

state of Michigan. Their mission is to provide customer-focused acquisition life cycle and combat support to ensure readiness worldwide, 24/7.

DAU Midwest Region, Kettering, Ohio, serves the 12 surrounding Midwest states and has Learning Organization Agreements within the academic community, as well as with a number of DoD acquisition organizations/federal agencies:

- Headquarters Air Mobility Command
- U.S. Transportation Command
- Defense Contract Management Agency (DCMA) St. Louis
- Defense Contract Management Agency (DCMA) Boeing
- National Geospatial-Intelligence Agency
- U.S. Army Program Manager, Future Combat Systems (Brigade Combat Team)
- Defense Information Systems Agency (DISA),
- U.S. Army Logistics Systems Support Office, Communications Electronics Command
- United States Department Of Treasury, FedSource
- Department of Energy (DoE)
- Environmental Management Consolidated Business Center.

For further information on DAU Midwest Region's learning organization agreements, contact Stephanie France (937) 781-1063, e-mail Stephanie.France@dau.mil.

COURSES EQUIVALENT TO MANDATORY DOD ACQUISITION COURSES

Ever wonder if your previous private-sector training and education, or training and education you may be contemplating for the future, would meet the statutory requirements for DoD acquisition certification? Find out today by checking the matrix compiled by the Defense Acquisition University at <http://www.dau.mil/learning/appg.aspx> for a summary of equivalent credit authorization for DAU courses. (Course equivalencies are renewed annually and are effective only as indicated.) The matrix is an extensive list of academic courses—classroom only—offered by various training providers that have been certified as equivalent to mandatory acquisition courses provided by DAU.

To date, no provision for computer-based technologies such as computer conferencing or Internet delivery has been identified. Individuals seeking credit for equivalency courses should provide a copy of their college transcript to their servicing personnel office.

DAU 2007 CATALOG

The 2007 DAU Catalog has been posted at www.dau.mil/catalog. The version on the Web site is configured as traditional .PDF files broken down by chapter and appendix as well as the Catalog in its entirety. You may request a Catalog on CD or in hardcopy (one hardcopy per request) by contacting DAU's Student Services Office at student.services@dau.mil. Please be sure to specify CD or hardcopy. Currency of information should always be confirmed online.

DAU AND U.S. MARINE CORPS SIGN MEMORANDUM OF AGREEMENT FOR CONTINGENCY CONTRACT TRAINING

On Aug. 1, 2006, the Defense Acquisition University and the U.S. Marine Corps established a new program of instruction to deliver contingency contract training to Marines. Tim Shannon, dean of DAU's Capital and Northeast Region, and Mike Mutty, the Marine Corps acting deputy assistant commandant for installations and logistics (contracting), signed the five-year Memorandum of Agreement, marking a clear shift to mission-focused training that supports Marines in worldwide contingencies such as Afghanistan and Iraq.

For the past few decades, Marine officers attended the Naval Postgraduate School's 18-month master's degree program. The master's degree provided a suitable education base for acquisition professionals working on major weapon system programs. Under the new agreement, Marines will complete a five-month program of instruction focusing on contracting on the battlefield. This practitioner-based training will develop the practical skills that the Marine Corps' leadership desires for contingency contracting officers supporting deployed units.

For the past several months, DAU Capital and Northeast Region professors Bob Spangler, Lenny Manning, Dave Fowler, Army Lt. Col. Raleigh Jimenez, and Mike Wooten have been planning and developing the program of instruction with Maj. Sean Hayes, Maj. Chad Dean, and Cmdr. Drew Mullins for the Marine Corps. A pilot program began in October 2006 at Camp Lejeune, N.C.



Career Development

ARMY NEWS SERVICE (JUNE 30, 2006) ARMY ESTABLISHES NEW CORPS FOR CIVILIANS

As the nation prepares to observe 230 years of independence on July 4, America's Army civilians celebrate the establishment of the new Army Civilian Corps.

The new name unifies civilians serving the Army, and "embodies the commitment of these dedicated individuals who serve as an integral part of our Army team," according to a June 19 memo jointly signed by Francis J. Harvey, Army Secretary, and Gen. Peter J. Schoomaker, Army Chief of Staff.

"Army civilians serve in all three theaters, and are deployed worldwide supporting the Army mission and the global war on terrorism," Harvey and Schoomaker said. "As the Army's missions have become more complex, so have the roles of Army civilians."

More information on the Army Civilian Corps can be viewed by visiting the following Web address: http://acpol.army.mil/employment/about_civcorp.htm.

AIR FORCE PRINT NEWS (JULY 13, 2006) SECOND PHASE OF NSPS BEGINS IN OCTOBER

WASHINGTON—The Defense Department announced plans July 12 to transfer more than 66,000 additional DoD civilian employees into the new National Security Personnel System beginning in October.

The plan, delivered to Congress earlier this week, ushers in the second phase in implementing the new pay-for-performance personnel system and affects organizations throughout DoD.

The first 11,000 DoD civilian employees were converted to the new system under "Spiral 1.1" of the phase-in on April 30. Defense officials are taking cues from this group to help smooth the way for the "Spiral 1.2" transition.

Mary Lacey, NSPS program executive officer, recently met with senior leaders from the Spiral 1.1 transition to identify what worked well and what improvements are needed.

"We are already assessing implementation for the first group of employees," she said.

The transition for the first group ran smoothly. Officials reported a 99.9 percent accuracy rate in completing affected employees' personnel actions and no glitches in processing their pay through the Defense Finance and Accounting Service.

"We are pleased with what we are seeing thus far, at least with the technical aspects of the conversion," Lacey said.

The Spiral 1.2 roll-in will take place over a four-month period through January 2007, and will include civilian employees from organizations throughout DoD, including some overseas.

Affected components will have the discretion to convert their workforce anytime between October 2006 and January 2007 to ensure enough time to train their employees, Lacey said.

"Training is critical to the successful transition to NSPS," she said. "We want to give organizations sufficient time to train employees, do it right, and implement when they are ready."

Ultimately, the system will apply to more than 650,000 DoD civilian employees.

Employees being converted to the new system will receive new performance plans that are clearly linked to their organization's mission and strategic goals. They will also be converted to pay bands that replace the grade ratings under the general schedule.

Officials emphasized that no employee will lose pay during the conversion to NSPS. Most will receive an initial pay bump to account for time already earned toward their next within-grade increase. A conversion tool in the NSPS 101 course, posted on the NSPS Web site, helps employees estimate the value of their within-grade increase, as well as their career group and pay band under the new system.

The performance appraisal cycle for Spiral 1.2 employees will begin on the actual day of their conversion to NSPS and continue through Sept. 30, 2007. These em-



Career Development

employees will receive their first performance pay increase in January 2008.

The ongoing NSPS conversion includes only the human resources parts of the system, which include job classification, compensation, performance management, staffing, and workforce-shaping elements.

It does not include elements of the new system involving labor relations, collective bargaining, independent third-party review, adverse actions, and the National Security Labor Relations Board.

DoD and the Office of Personnel Management have appealed a late February court decision blocking implementation of these provisions. U.S. District Judge Emmet Sullivan ruled that they would fail to protect civilian employees' ability to bargain collectively. The decision was based on a lawsuit filed by the American Federation of Government Employees and 12 other labor unions.

Defense officials hope for a decision on the appeal by the year's end as they continue implementing parts of the new personnel system not caught up in litigation.

NSPS is one of Defense Secretary Donald H. Rumsfeld's key initiatives designed to transform DoD operations to better meet 21st-century needs. It is replacing what officials call an outdated, 50-year-old civilian personnel management system that rewards employees for length of service rather than performance. The new program, in development since 2003, replaces the current general schedule personnel system with broad pay bands.

"NSPS is critical to the department's transformation to a results-oriented, mission-focused culture," said Michael Dominguez, principal deputy assistant secretary of defense for personnel and readiness. "The performance-based system will create an environment where our employees will be focused on outcomes that support our national security mission, and they will be rewarded for the results."

AIR FORCE MATERIEL COMMAND PUBLIC AFFAIRS (AUG. 3, 2006) PERSONNEL CENTERS SCHEDULED FOR REALIGNMENT

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—In an effort to provide and deliver services in the most effective and efficient way for the Air Force, military officials plan to realign about 170

civilian personnel positions to the Air Force Personnel Center at Randolph Air Force Base, Texas.

From the 170 positions, 135 are slated to realign from Air Force Materiel Command's four Interim Personnel Centers. Realignment has been programmed for fiscal 2011 to accomplish centralized work loads.

Within Air Force Materiel Command, it will involve positions at IPCs located at Hill Air Force Base, Utah; Robins Air Force Base, Ga.; Tinker Air Force Base, Okla.; and Wright-Patterson Air Force Base. The Air Force also will realign positions from Bolling Air Force Base, Washington, D.C.

Base Realignment and Closure, or BRAC, directed the Air Force to centralize some Air Force Materiel Command civilian personnel servicing functions at Air Force Personnel Center.

These decisions supplement Air Force's long-established strategy called "PALACE Compass"—part of Defense Department regionalization efforts directed by BRAC to consolidate transactional civilian personnel services.

The Air Force began consolidating civilian personnel services to Air Force Personnel Center in 1996 in response to the DoD-mandated regionalization of civilian personnel operations.

The Air Force presently provides a full range of personnel services for approximately 85,000 Air Force civilians and limited services for all employees Air Force-wide (approximately 140,000).

According to Roger Blanchard, assistant deputy chief of staff for manpower and personnel, Headquarters U.S. Air Force, the Service is approaching the implementation of the BRAC language in the context of the larger things that are happening to the Air Force across the institution.

"That means that we're going to do this in a way that helps the Air Force recapitalize and balance its portfolio," Blanchard said. "We're going to do this in a way that respects and preserves the mission capability of critical interim personnel center institutions. We're going to do it in a way that is deliberate, systematic, and we're not going to rush to judgment."



Career Development

Blanchard, along with Barbara Westgate, Air Force Materiel Command executive director, is a co-chair of the Air Force Service Level Agreement Steering Group.

The steering group will include participation from a commander at one of Air Force Materiel Command's three air logistics centers, a senior level representative from a customer command, and the executive director of the Air Force Personnel Center.

The steering group will define the required level of service for review and approval by Gen. Bruce Carlson, commander of Air Force Materiel Command, and Lt. Gen. Roger Brady, deputy chief of staff for Manpower and Personnel.

Service-level agreement efforts will position the Air Force to implement consolidation efforts meaningfully, efficiently, and without degrading mission capability.

According to Westgate, it's important to understand what transactional services can move to Randolph Air Force Base versus those non-transactional activities that should be accomplished locally.

"Our working group has the experience needed to make that determination," she said. "Gen. Carlson is not going to let any servicing resources leave until we're sure our core mission will be supported adequately."

AIR EDUCATION AND TRAINING COMMAND NEWS SERVICE (AUG. 17, 2006) AETC PREPARING FOR REDUCED CIVILIAN AUTHORIZATIONS

RANDOLPH AIR FORCE BASE, Texas—Air Education and Training Command officials are looking at ways to streamline organizations to smaller, more agile forces and organizational structures to reduce the effect of reductions in the civilian workforce next spring.

The Air Force plans to reduce its civilian workforce strength by 2,000 positions during fiscal 2007 as a result of Program Budget Decision 720.

"This is not just an AETC effort. Every command and organization in the Air Force is transforming to a smaller, leaner, and more capable force all while engaged in com-

bat operations," said Col. Greg Patterson, the AETC A1 manpower and personnel director. "Part of this is driven by our Air Force's urgent need to modernize our fighter and mobility aircraft."

The colonel said the people portion of the budget equation is one of the few places left to attain large, long-term financial changes.

"It's a very delicate balance between ensuring we are taking care of our people while we strive to generate savings in a constrained budget environment as we try to recapitalize the Air Force," Patterson said.

"I want our civilian workforce to know we are very concerned about the impacts of any force reductions within the command," said Gen. Bill Looney, AETC commander. "We are going to work with every individual and hope to find viable options and opportunities to make this work for us and our Air Force."

"This will not be an easy process, or one without pain," he said. "We have recently determined the overall number of positions our command is going to lose. Now, we are concentrating on finding the most efficient, least painful approach to implementing those reductions."

Patterson said AETC should pass the number of authorization reductions to the wings shortly.

"At that time, we will be able to discuss the options available for us to provide support to all affected employees," he said.

Patterson said some of the possible support options include the Voluntary Early Retirement Authority, Voluntary Separation Incentive Pay, and placement via the Department of Defense Priority Placement Program.

Noting that any reduction in the number of civilian authorizations can potentially lead to a reduction in force, Patterson said, "Using the programs we have available and in place, we believe we can minimize any impact on our civilian workforce."

"It's important that folks work with us as we go through these reductions, and we'll make every effort to keep everyone informed as we reach key milestones."



Conferences, Workshops & Symposia

44TH ANNUAL TARGETS, UAV'S, AND RANGE OPERATIONS SYMPOSIUM AND EXHIBITION

The 44th Annual Targets, UAVs, and Range Operations Symposium and Exhibition will be held Oct. 30–Nov. 1, 2006, at the Marriott Bay Point Resort Village Golf & Yacht Club. In today's environment there is an increased emphasis on joint operations by the Defense Department and the Defense Industry. This event will provide a forum for open exchange of technical and programmatic information between the Defense Department, its military services, industry representatives, and foreign organizations in the test and evaluation of air-to-air and ground-to-air weapons systems, which provide air/ground crew training for combat readiness. Watch the conference Web site for details on registration <<http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList>>. For more information contact Simone L. Baldwin, meeting planner, at 703-247-2596 or e-mail sbaldwin@ndia.org.

ARMY SMALL BUSINESS CONFERENCE

The Army Small Business Conference will be held Nov. 1–2, 2006, at the Hilton McLean, in Tysons Corner, Vienna, Va. An agenda for the conference will be posted soon at <<http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList>>. For questions or inquiries contact: Carissa Mirasol, meeting planner at 703-247-2588 or cmirasol@ndia.org.

SAN DIEGO SPAWAR INDUSTRY CONFERENCE

The 2006 SPAWAR Industry conference will be held Nov. 14–16, 2006, at the Bahia Hotel and Resort in San Diego, Calif. This year's event is presented by the National Defense Industrial Association and the Space and Naval Warfare Systems Command. The Industry Conference is a major symposium for senior military, government, and industry officials to share their visionary and strategic perspective on the requirements, resources, development and implementation of initiatives that will provide direction for industry to shape business. For more information and details on upcoming registration, watch the conference Web site at <<http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList>>.

25TH ARMY SCIENCE CONFERENCE

The 25th Army Science Conference will be held Nov. 27–30, 2006, at the JW Marriott Orlando, Grande Lakes, in Orlando, Fla. The 25th ASC marks a significant milestone for the Army science and technology community, with this year's conference theme paying tribute to 50 years of promoting and showcasing the Army's S&T program: *Transformational Army Science and Technology—Charting the Next 50 Years of Science and Technology for the Soldier*. The Army Science Conference is an annual event sponsored by the assistant secretary of the Army (acquisition, logistics and technology). Watch for details of the conference and registration information at <<http://www.asc2006.com/>>.

2006 NCMA GOVERNMENT CONTRACT MANAGEMENT CONFERENCE

The 2006 National Contract Management Association (NCMA) Government Contract Management Conference will be held Dec. 4–5, 2006, in Tysons Corner, Va. Watch The NCMA Web site for upcoming details of the conference and registration information <<http://www.ncmahq.org/meetings/calendar.asp>>.

THE INTERSERVICE/INDUSTRY TRAINING, SIMULATION, AND EDUCATION CONFERENCE (I/ITSEC)

The 2006 Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC) will be held Dec. 4–7, 2006, in Orlando, Fla. This year's theme will be *Training the 21st Century Joint Force ... Mission Focused to Achieve Warfighting Excellence*. As in past years, this year's event will welcome participants from Army Navy, Air Force, Marine Corps, Coast Guard, and industry. Its objectives are to promote cooperation among the military services, industry, academia, and various government agencies in pursuit of improved training and education programs, identification of common training issues, and development of multi-Service programs. Initiated in 1966 as the Naval Training Device Center/Industry Conference, the conference has evolved and expanded through increased participation by all the Services as well as industry. Registration for the conference will begin in fall 2006. Watch the conference Web site at <<http://www.iitsec.org/registration.cfm>> for more conference information and details on registration.



Conferences, Workshops & Symposia

AGILE COMBAT SUPPORT MODERNIZATION PLANNING CONFERENCE

The Agile Combat Support (ACS) Modernization Planning Conference will be held Dec. 5–7, 2006, in Las Vegas, Nev. ACS is the capability produced by the forces and processes that create, sustain, and protect Air and Space Forces across the full spectrum of military operations. Over 80 percent of any Air Force deployment is comprised of ACS capabilities.

As the Air Force transforms from a threat-based to a capabilities-based planning and modernization construct, the need for lighter, leaner, ACS systems/capabilities in the realms of infrastructure, logistics, and force protection is a reality. Participants include military representatives from headquarters Air Force, Secretary of the Air Force/Acquisition, numbered Air Forces, major commands, government civilians, ACS functionals, national and DoD research labs, system program offices, battlelabs, and anyone with a stake in ACS Modernization Planning.

This year's event will:

- Give attendees an understanding of ACS, e.g., doctrine and contingency operations
- Discuss the planning processes and capability shortfalls in ACS with representatives involved in ACS modernization across the Air Force
- Provide an update on the status of efforts, and obtain a vector check on the direction for future modernization and planning issues
- Provide a venue for developers of potential ACS solutions to showcase their capabilities to the Air Force ACS customer base
- Provide a forum for networking with the ACS community.

Register at [<https://www.technologyforums.com/6AS/>](https://www.technologyforums.com/6AS/).

23RD ANNUAL TEST AND EVALUATION CONFERENCE

The 23rd Annual Test and Evaluation Conference will take place March 12–15, 2007, at the Westin Resort Hilton Head Island, Hilton Head Island, S.C. This national conference is invaluable to those tasked with directing and executing system development programs for the Department of Defense, Department of Homeland Security, Department of Energy, and other government departments tasked with various elements of our nation's security. Test planners, M&S users and developers, range operators, program managers, military personnel charged with system acquisition respon-

sibilities, industrial professionals, and others under contract with the government to provide support to our nation's defenses will also benefit. For registration or more information on this year's event, watch the conference Web site at <http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList>.

23RD ANNUAL NATIONAL LOGISTICS CONFERENCE AND EXHIBITION

The 23rd Annual National Logistics Conference and Exhibition will be held March 19–22, 2007, at the Hyatt Regency Miami, Miami Convention Center, in Miami, Fla. Share insights with senior DoD leadership, top industry executives, project directors and program managers, information technology providers and developers, government policy makers and regulators, defense contractors and design professionals, third party logistics providers, and equipment suppliers and manufacturers. For more information on this year's event, contact Meredith Geary, meeting planner, at mgeary@ndia.org or call (703) 247-9476. For details on registration, watch the conference Web site at <http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList>.

5TH ANNUAL U.S. MISSILE DEFENSE CONFERENCE

The 5th Annual U.S. Missile Defense Conference will be held March 19–23, 2007, at the Ronald Reagan Building and International Trade Center, Washington, D.C. A key objective of the 2007 conference is to continue building the Ballistic Missile Defense System (BMDS) team relationships that will in turn make development of a global missile defense system a successful reality. The BMDS Team includes members of the Missile Defense Agency (MDA), Department of Defense, military service staffs, and industry.

The conference—hosted by the American Institute of Aeronautics and Astronautics (AIAA), in cooperation with Northrop Grumman Corporation and supported by MDA—will expose the BMDS to the entire missile defense community, educate conference participants on the system-level approach to BMDS development, and serve as an exchange of ideas on BMDS evolution. Discussions will focus on the evolutionary development of a global, layered, integrated BMDS; the integration and testing of BMDS capability; the status of fielding BMDS elements; and the current political/policy environment, including the merits of extending BMDS capabilities to allies. Consistent with this focus is the theme of the conference, Global Ballistic Missile Defense—A Layered De-



Conferences, Workshops & Symposia

fense. Register for the 2007 conference at <http://www.aiaa.org/content.cfm?pageid=230&lumeetingid=1475&viewcon=overview> >.

GUNS AND MISSILE SYSTEMS CONFERENCE AND EXHIBITION

The 42nd Annual Armament Systems: Guns and Missile Systems Conference and Exhibition will be held April 23-26, 2007, in Charlotte, N.C. The 2007 conference will present topics that demonstrate how our nation's current gun, munition, and missile system technologies can be adapted and evolved to meet tomorrow's missions and operations. For more information on the conference, contact Heather Horan, meeting planner at hhoran@ndia.org or call (703)247-2570. Watch for registration details at <http://eweb.ndia.org/eweb/DynamicPage.aspx?Site=ndia&Webcode=EventList> >.

DEFENSE ACQUISITION UNIVERSITY ACQUISITION COMMUNITY CONFERENCE/SYMPOSIUM 2007

Mark your calendar and plan ahead to attend the April 17, 2007, Defense Acquisition University Community Conference/Symposium, sponsored by the Defense Acquisition University Alumni Association. Watch the association Web site at <http://www.dauaa.org> > for future announcements, updates, and registration information.

25TH DARPA SYSTEMS AND TECHNOLOGY SYMPOSIUM

The 25th Defense Advanced Research Projects Agency (DARPA) Systems and Technology Symposium (DARPA Tech) is scheduled for the week of August 6, 2007, at the Anaheim Marriott in Anaheim, Calif. Registration for DARPA Tech 2007 is expected to open in April 2007. Watch the DARPA Web site at <http://darpa.mil> > for details on the 2007 event.

JOINT SERVICES ENVIRONMENTAL MANAGEMENT (JSEM) CONFERENCE

The Joint Services Environmental Management (JSEM) Conference will be held May 21-24, 2007, at the Greater Columbus Convention Center in Columbus, Ohio. JSEM 2007 is a comprehensive summit on the evolving world of environment, energy, and geospatial information within DoD. JSEM 2007 will highlight the many new and innovative ways the Department of Defense, other federal agencies, states, and the defense industry are meeting mission needs while protecting the environment. The conference affords the opportunity to share ways to integrate environment, energy,

and geospatial information management into Defense operations. It also will address a wide range of perspectives, including policy, implementation, best management practices, data management, and technology.

The JSEM 2007 Conference and Exhibition is evolving, just as Defense business practices are evolving. Conference organizers are merging Energy and Geospatial Information Management into the 2007 event, which is now recognized as the most significant event for environmental policy makers, practitioners, and professionals. Future registration details will be posted to the conference Web site at <http://www.jsenconference.com/2007/registration.htm> >.

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. First prize is \$2 million, second prize is \$500,000, and third prize is \$250,000. To succeed, vehicles must autonomously obey traffic laws while merging into moving traffic, navigating traffic circles, negotiating busy intersections, and avoiding obstacles. The DARPA Grand Challenge Web site <http://www.darpa.mil/grandchallenge> > is the primary resource for information about the Urban Challenge event.

FEDERAL ACQUISITION CONFERENCE AND EXPOSITION (FACE) POSTPONED TO 2007

The Federal Acquisition Institute (FAI), based upon recommendations of the Federal Acquisition Conference and Exposition (FACE) Steering Committee, composed of the FACE sponsors, determined not to hold FACE in 2006. The next FACE will be in 2007. It will continue to be sponsored by the Chief Acquisition Officers Council, Federal Acquisition Institute, U.S. General Services Administration, and Department of Defense. For more information on 2006 FAI scheduled events, visit the FAI Web site at <http://www.fai.gov/resource/face2006.htm> >.



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AIR FORCE PRINT NEWS (JULY 7, 2006) 'LIGHTNING II' MONIKER GIVEN TO JOINT STRIKE FIGHTER

WASHINGTON—The Air Force chief of staff announced Lightning II as the F-35 name during a Joint Strike Fighter Inauguration Ceremony today at the Lockheed Martin Aeronautics Co. at Fort Worth, Texas.

Gen. T. Michael Moseley made the final decision after an extensive nomination and review process, coordinated with the other Services and partner nations.

In naming the F-35, Moseley said, "Today, the enemies of peace and freedom have been put on notice. They

have feared this day because the F-35 provides the coalition warfighter the perfect blend of speed, precision, and stealth.

"In my travels, airmen have given me some great suggestions that we'll see on new Air Force weapons systems in the near future," he said. "The name for the F-35, Lightning II, was a win for aviation heritage and culture."

The heritage associated with this name played a significant role in its selection. The original P-38 Lightning was also a strike fighter and had the most air-to-air kills in the Pacific during World War II. Both of America's top two aces—Maj. Richard Bong, 40 kills, and Maj. Thomas



JOINT STRIKE FIGHTER—The Lockheed Martin F-35 Lightning II is presented for the first time at the Lockheed Martin plant in Fort Worth, Texas, July 7, 2006. The Lightning II is a fifth-generation, supersonic stealth fighter designed to replace a wide range of existing aircraft, including the AV-8B Harrier, A-10 Thunderbolt II, F-16 Fighting Falcon, F/A-18 Hornet, and Royal Air Force Harrier GR-7 and Sea Harriers.

Photograph courtesy Lockheed Martin.



Acquisition & Logistics Excellence

McGuire, 38 kills—scored all of their victories in the P-38 Lightning in WWII.

The Lightning II name also draws parallels with a formidable force of nature. Like lightning, the F-35 Lightning II will strike with destructive force. The stealth characteristics of the jet will allow the F-35 to strike the enemy with accuracy and unpredictability; when the enemy finally hears the thunder, the F-35 is long gone.

The F-35 Lightning II is the next generation strike fighter bringing cutting-edge technologies to the battlespace of the future. The Lightning II's advanced airframe, automatic logistics, avionics, propulsion systems, stealth, and firepower will make it an affordable, lethal, supersonic, and survivable aircraft for warfighters across the globe.

The Air Force is the Department of Defense's executive agent for designating and naming military aerospace vehicles. Air Force and Navy representatives proposed the Lightning II name during the review process.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 12, 2006) **DOD AWARDS GRANTS TO MINORITY INSTITUTIONS**

The Department of Defense announced today plans to award 32 grants totaling \$9.5 million to 31 minority institutions. These grants represent the final phase of the fiscal 2006 DoD Historically Black Colleges and Universities and Minority Institutions Infrastructure Support Program. The grants will enhance programs and capabilities at these institutions in scientific disciplines critical to national security and the DoD.

This announcement is the result of merit 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 2006 program solicitation received 155 proposals in response to a broad agency announcement issued in November 2005.

The Army Research Office plans to award 11 equipment grants (ranging from \$95,000 to \$200,000) and 21 research grants (ranging from \$211,000 to \$500,000) with performance periods of 12 and 36 months respectively. Awards will be made only after written agreements are reached between the department and the institutions.

The list of recipients is available online at <http://www.defenselink.mil/news/Jul2006/d20060712hbcu.pdf>.

OGDEN AIR LOGISTICS PUBLIC AFFAIRS (JULY 24, 2006) **OGDEN AIR LOGISTICS CENTER EARNS SHINGO GOLD**

G. A. Volb

HILL AIR FORCE BASE, Utah—Ogden Air Logistics Center's 573rd Aircraft Maintenance Squadron took a page out of the "Process Improvement Handbook" and earned a Gold Level Shingo Prize for Excellence in the process, July 17.

The award, the second highest of four ratings available for excellence in public sector manufacturing, was earned by the squadron and support units in accomplishing depot-level maintenance of F-16 Fighting Falcons.

"The process included production, engineering, quality, business operations, flight testing and many other areas," said Dr. Chalon Keller, chief of Ogden ALC's Transformation Division. "Unlike last year, when just one product line of the squadron competed for the prize and earned a silver-level award, the entire F-16 maintenance enterprise competed and won gold."

Dr. Keller said all of the squadron's major and secondary programs were evaluated by the Shingo team this year.

"It represents a quantum leap forward in Lean implementation in just a single year," she said. "The modification programs include the Common Configuration Implementation Program, Falcon Structural Augmentation Roadmap, as well as full aircraft painting, unscheduled drop-in work, and Foreign Military Sales workloads. They wanted to see evidence that the squadron vigorously implemented world-class manufacturing strategies and business practices that achieved world-class results through the implementation of Lean techniques.

"In essence," Keller said, "the team was looking for widespread use and understanding of Lean principles. And they determined that the 573rd does just that—in a highly effective and sustained manner."

The team not only evaluated what most would think of as the traditional aspects of manufacturing, but also scored everything from the strategic vision provided by the ALC commander and budgetary process of the 309th Aircraft Maintenance Group, to the recognition program within the 573rd.



Acquisition & Logistics Excellence



HILL AIR FORCE BASE, Utah—Steve Vanballegooie, an aircraft pneumatics systems mechanic with the 573rd Aircraft Maintenance Squadron (forefront), laces up the F-1 bladder cell of an F-16 while crammed into a 10x10 foot work space. Vanballegooie said it would take about two days to complete. At right, Jordan Smith, and at left, Brodie Martin, both sheet metal mechanics with the 573rd AMS, fix fastener holes on the F-16's "turtle back." The turtle back houses hydraulics and fuel lines, the work part of Falcon STAR—a structural modifications program that will take the service life of the aircraft to the year 2020. The F-16 customer is the Burlington Air National Guard in Vermont.

U.S. Air Force photograph by G. A. Volb.

"This award recognizes every support agency and everyone throughout the F-16 value stream who contribute to producing a combat-ready F-16 for the warfighters throughout the Air Force," said Maj. Gen. Kevin Sullivan, Ogden ALC commander. "The complexity of F-16 maintenance and modification work done here makes this achievement that much more impressive."

Col. Art Cameron, commander of the 309th Maintenance Wing, pointed out several improvements directly impacting customers and ALC work.

"Flow day reductions for the CCIP and Falcon STAR lines resulted in a savings of nearly \$6 million for customers this fiscal year," he said, "and we haven't delivered a late aircraft back to a customer in over two years."

Because of increased efficiency, said Cameron, "we are operating with an hourly rate of about 20 percent below what was projected, while the number of safety flight defects reported by customers has also decreased—just

two this year in nearly one million production hours.

"For the F-16 AMXS to compete and be awarded prizes in each of the past two years is the best validation our continuous process improvement efforts could hope to receive," said Cameron.

Yet, the 573rd, which falls under the 309th MXW, won't be resting on its past achievements.

"I want to lead the first public sector organization to become a Platinum recipient of the Shingo Prize," said Robert Hall, the 573rd AMXS director. "Not just to win the award, but because we know that in order to realize our full potential we must focus in a very disciplined manner on Lean every day. The result is our ability to continue to reduce cost, reduce flow days, and generally become a more efficient organization. That's good for us and our customers—we retain workloads because our customers are happy and create more capacity to bring in new workloads."

The Shingo Prize is recognized as the Nobel Prize for manufacturing excellence and is alongside the Deming Award and Malcolm Baldrige National Quality Award in prestige and significance.

Until last year it was only open to private sector entities; the fact that it's now open to public sector organizations is validation that government agencies like the ALCs have made vast improvements in recent years.

Volb is with Ogden Air Logistics Center Public Affairs at Hill AFB, Utah.

AIR FORCE MATERIEL COMMAND NEWS RELEASE (AUG. 1, 2006) **CONTINUOUS IMPROVEMENTS DELIVER SUCCESS**

Gen. Bruce Carlson, USAF

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—As a large enterprise, Air Force Materiel Command faces large challenges. Consider that this command managed a fiscal 2006 budget of \$44.7 billion and a total ac-



Gen. Bruce Carlson, USAF



Acquisition & Logistics Excellence

tive duty military and civilian workforce of more than 78,000 people.

We're all responsible for being good stewards of the taxpayers' money and for improving ways in which AFMC supports the warfighter. But within an enterprise the size of AFMC, it's challenging to continuously, and honestly, look at all of the command's work processes and eliminate waste or steps with no value.

A few years ago we conceived a methodology under which strategic objectives came to life and were successfully incorporated into our daily lives through the processes we employ. We dreamed further that we would develop a means by which we would institutionalize a consistent, reliable, and economical way to realize these strategic aims.

Today, we find ourselves with a firm foundation of strategic processes upon which to build. In turn, we're in a position to launch the next phase, which will ensure we achieve the goals set by leadership.

One of the essential tools that will help AFMC get there is continued application of Air Force Smart Operations for the 21st century, or AFSO21. By now you should have heard about AFSO21 and know that it is an overarching strategy to improve how we accomplish our daily tasks.

AFSO21 makes AFMC more efficient through continuous process improvement ... but it drives significant change. Many of us have sat in a briefing or classroom and heard how people are reluctant or resistant to change. But let's consider the command's latest success stories involving the application of AFSO21 principles.

Organizations at two air logistics centers were recently selected for Shingo Prizes, which promote awareness of Lean manufacturing concepts and recognize companies that achieve world-class manufacturing status. At Warner Robins ALC, Robins AFB, Ga., the C-5 Programmed Depot Maintenance unit earned a Gold Shingo Prize. The center's F-15 Programmed Depot Maintenance team and the F-15 Avionics Squadron earned Bronze Shingo Prizes. At Ogden ALC, Hill AFB, Utah, the 573rd Aircraft Maintenance Squadron earned a Gold Shingo Prize.

These are outstanding accomplishments when you consider that the Shingo Prize is referred to in some circles as the "Nobel Prize in manufacturing" because it establishes a standard for world-class excellence.

It also demonstrates that AFMC is, in fact, a good steward of taxpayers' money. At the same time, it signifies AFMC's commitment to increasing the quality and availability of weapon systems to the warfighters who protect our country and our armed forces.

AFSO21 continues to help this command build upon successes that were obtained in previously uncharted territory. It's critical that everyone accept and embrace continuous process improvement and the resulting changes. By doing so, we will create an environment that inspires trust, innovation, and a passion for achieving improved performance ... helping us become "One Materiel Command."

Carlson is the commander, Air Force Materiel Command, at Wright-Patterson AFB, Ohio.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 2, 2006) **2006 MAINTENANCE AWARD WINNERS ANNOUNCED**

The Department of Defense announced today the 2006 winners of the Secretary of Defense Maintenance Awards at the depot and field levels. These awards are presented annually to recognize outstanding achievements in military equipment and weapon systems maintenance.

The Robert T. Mason Depot Maintenance Excellence Award recipient is the High Mobility Multipurpose Wheeled Vehicle (HMMWV) Recapitalization Program at Red River Army Depot, Texas. The program, through the depot workforce's responsiveness, exceptional work ethic, and dedication to the mission, streamlined the overhaul/remanufacturing processes of humvees to support our warfighters in the global war on terrorism.

The depot-level award is named in recognition of Robert T. Mason, a former assistant deputy secretary of defense for maintenance policy, programs, and resources. Mason served as the champion of organic depot maintenance for three decades, while helping to transform DoD organic depot-level operations.

There are six field-level awards presented in the categories of small, medium, and large units (two each). The recipients of this year's Secretary of Defense Field-level Maintenance Awards are:



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SMALL CATEGORY

Helicopter Antisubmarine Squadron Light Four Seven— USN

Naval Air Station North Island, Calif.
Navy

303d Intelligence Squadron – USAF

Osan Air Base, Republic of Korea
Air Force

MEDIUM CATEGORY

297th Transportation Company

Fort Hood, Texas
Army

437th Maintenance Squadron/ 315th Maintenance Squadron

Charleston Air Force Base, S.C.
Air Force

LARGE CATEGORY

3rd Wing

Elmendorf Air Force Base, Alaska
Air Force

3rd Materiel Readiness Battalion – USMC

Okinawa, Japan
Marine Corps

The awards will be presented to the winners at the Secretary of Defense Maintenance Awards banquet on Oct. 25, 2006, during the 2006 DoD Maintenance Symposium and Exhibition at the Grand Sierra Resort (formerly the Reno Hilton) in Reno, Nev. Additional information regarding the 2006 DoD Maintenance Symposium and Exhibition can be found at <<http://www.sae.org/dod>>.

MARINE CORPS NEWS (AUG. 7, 2006) **COMBAT ZONE INGENUITY PROTECTS MARINES, EARNS \$5,000**

Cpl. Daniel J. Redding, USMC

CAMP TAQADDUM, Iraq—Seven Marines were presented with a \$5,000 award for their combat zone ingenuity in designing and creating a protective armor kit for military forklifts and front end loaders, commonly called TRAMs, at a ceremony here Aug. 6.

Those awarded—welders and mechanics assigned to Combat Logistics Regiment 15, 1st Marine Logistics Group (Forward)—were selected for the recognition by the Ma-

rine Corps' Beneficial Suggestion Program after fabricating from scratch a steel cover, complete with protective glass windows, that fits over the cab of the TRAM.

TRAM is the Marine Corps acronym for "Tractor, Rubber-tired, Articulated steering, Multi-purpose."

Awarded were:

- **Staff Sgt. Andrew N. Zabel**, the project's team leader, and 27-year-old from Batavia, Ill.
- **Cpl. James A. Carrillo**, 23, from Chicago.
- **Cpl. Kelsey S. Marshall**, 23, from Anchorage, Ala.
- **Lance Cpl. Jonathan C. Elkins**, 20, from Moorehead, Ky.
- **Cpl. Adam L. Schroeder**, 22, from Platteville, Wis.
- **Cpl. Rogelio De La Graza**, 21, from Premont, Texas.
- **Cpl. Jonathan M. Rakestraw**, 22, from Pittsburgh.

Brig. Gen. David G. Reist, commanding general of the 1st Marine Logistics Group, came from nearby Camp Fal-lujah to recognize the Marines and thanked them as he presented the award.

"You Marines are saving lives, and that's what it's all about," said Reist, who currently serves as the deputy commanding general for support of Multi National Forces-West.

In May of this year, as extra forces were being called on to secure Ramadi, the capital of Al Anbar province, Col. David M. Richtsmeier, the 1st Marine Logistics Group (Forward) commanding officer in Iraq, ordered the men to come up with an armor kit for the TRAMs, which were planned to be used to build new combat outposts throughout the city.

With Ramadi the setting of some of the fiercest fighting in the struggle to stabilize Iraq, the slow-moving TRAMs needed something that would protect the operators if they came under enemy attack while fortifying the outposts, said Richtsmeier, who recommended the Marines for the award after seeing the results of their efforts.

The goal was to create a replicable force protection system with blueprints that other units could use to add armor to TRAMs anywhere in Iraq.

Detailed schematics were created for each piece of the adapted armor, including precise measurements and clarification on which part of the original humvee armor kit the pieces came from.



Acquisition & Logistics Excellence

Combat Logistics Battalion 7, a 1st MLG unit located northwest of here at Al Asad Air Base, used these schematics to build an armored protection system for one of their own TRAMs.

Over the course of two weeks, the seven-man team worked around the clock developing the system, using leftover armor designed for a humvee and an air conditioner built for another vehicle system to complete their makeshift product.

Fueled by energy drinks and music, the Marines were inspired by the unique mission they were tasked with and the benefits of their final product to others.

“Our motivation came from the ever-present rebuilding mission that the Marines of the I Marine Expeditionary Force have been given,” said Zabel, the team leader. “I tried to make it a point every day to emphasize the fact that by building this armor shell, we were [potentially] saving the life of a heavy equipment operator.”

Adapting parts intended for a completely different machine—and overcoming the tight spaces and sharp angles of the TRAM—were some of the major frustrations they met head on, said Schroeder.

Carrillo and Marshall, vehicle mechanics used to fixing engines and transmissions in humvees, helped overcome some of these frustrations when they adapted a larger alternator to power the air conditioning unit for the new cab.

The challenges of building something with no prior design to gauge from kept the Marines working almost non-stop until they completed the project, said Rakestraw, who drafted the blueprints of the design.

As heavy equipment mechanics, Rakestraw and De La Garza added their expertise of working on TRAMs and other large military vehicles to the team.

Senior personnel involved in the project encouraged the Marines to submit their final product to Marine Corps Logistics Command for their Beneficial Suggestions awards program.

“[The Marines] went beyond their ‘normal job expectancy’ to quickly and effectively neutralize a very dangerous situation for heavy equipment operators,” said Shirley P. Stiles and Robin G. Wimberly, who work with the Beneficial Suggestion program and helped get the

Marines approved for the \$5,000 gift that was split between the seven.

The Beneficial Suggestion Program, run by Marine Corps Logistics Command in Albany, Ga., is designed to take advantage of the creativity of military and civilian personnel who contribute practical and innovative ideas for improving and maintaining productivity, economy, efficiency, and mission effectiveness for Marine Corps programs and operations.

“It’s like winning the lottery, only in the Marine Corps way,” said Elkins, who along with his fellow metal worker, Schroeder, was responsible for the precise cutting and welding to form the new cab cover.

The seven Marines played a big role in ensuring the TRAM operators were protected as they supported combat operations in Ramadi, said Richtsmeier.

Feeling protected made it easier for the TRAM operators in Ramadi who endured sporadic enemy attacks while operating in Ramadi, said Pfc. Michael E. Jordan, a heavy equipment operator who helped build some of the new combat outposts in the city.

Redding is with 1st Marine Logistics Group in Iraq. Contact him at Daniel.Redding@cssemlf-wiraq.usmc.mil.

CAMPBELL RECOGNIZED WITH PRESIDENTIAL RANK AWARD

Stacy L. Umstead

Defense Distribution Center Deputy Commander Phyllis C. Campbell has been recognized for exceptional service with the 2005 Presidential Rank Award of Distinguished Executive.



*Phyllis C. Campbell,
SES*

Each year, the President of the United States confers the rank of Distinguished Executive on a small select group of career members of the Senior Executive Service who have provided exceptional service to the American people over an extended period of time. These senior executives are outstanding leaders, who consistently demonstrate strength, integrity, industry, and a relentless commitment to public service. Through their personal conduct and results-oriented leadership, they have earned and kept a high degree of public confidence and trust. They have demonstrated their success



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in balancing the needs and perspectives of customers, stakeholders, and employees with organizational results. Executives from across the government are nominated by their agency heads, evaluated by citizen panels, and finally, designated by the president. The award is both prestigious and unique.

To a standing ovation in a recent Town Hall meeting attended by DDC Headquarters employees, Campbell addressed her accomplishment, "It's a great honor. It's a humbling honor. I share it with all of you because without you, I wouldn't have been noticed. It is a great affirmation of what you do." Campbell, who has served as DDC's deputy commander since 1998, has been the driving force behind DDC's evolution from a materiel, storage-focused activity to a robust, full-service distribution and transportation activity.

She attended Weber State University and is the recipient of numerous special achievement and performance awards including the 2002 Presidential Meritorious Executive Rank Award, the Distinguished Order of Saint Martin, and the Military Ancient Order of Saint Christopher award in recognition of her contributions to transportation initiatives.

Umstead is with Defense Distribution Center Command Affairs.

KRIEG DIRECTS APPLICATION OF LEAN SIX SIGMA TO THE DAB PROCESS

Under Secretary of Defense (Acquisition, Technology and Logistics) Ken Krieg, in a June 28 memorandum to all Defense Acquisition Board members and Overarching Integrated Product Team leads, discussed his ongoing initiative to review and apply Lean/Six Sigma principles to the DAB process. This review, Krieg wrote, would "make the DAB more effective and efficient in conducting milestone reviews and better position programs to meet their cost, schedule, and performance targets." Krieg's memorandum further discussed Overarching Integrated Product Team (OIPT) meetings and the need to reduce the number of meetings—called Integrating Integrated Product Team (IIPT) meetings. Toward that end, he suspended the use of IIPTs as the standard course of action in favor of smaller, focused issue meetings to ensure OIPT principals are prepared and aware of all issues. Read Krieg's memorandum in its entirety at http://www.acq.osd.mil/docs/With_autopen_and_date.pdf >.

ABERDEEN TEST CENTER NEWS RELEASE (AUG. 8, 2006)

ATC DIRECTOR AWARDED JOHN W. MACY JR. AWARD

Susan Hagan

Harry V. Cunningham, director of the U.S. Army Aberdeen Test Center's Test Technology Directorate, was recently awarded the John W. Macy Jr. Award in a ceremony held in the Pentagon's Hall of Heroes. The Macy Award is sponsored by the Secretary of the Army and recognizes excellence in the leadership of civilians by an Army military or civilian supervisor. Award recipients are described as "leaders who best exemplify the highest traditions of service and whose leadership style embraces the Army's philosophy that our leaders are responsible for civilian personnel management."

"When a director receives recognition, it is in effect recognition of the exceptional work done within the directorate by assigned personnel," said Cunningham. "So I was honored to accept this award because, as I see it, this recognizes the exceptionally competent, professional and quality work that goes on within the Test Technology Directorate every day by government civilians, contractors, and military personnel. I accepted the award for them, not me."

In 34 years of military and federal service, Cunningham has demonstrated that he is both a highly technical professional and a strong and effective leader. In 2002, ATC established what would become the Test Technology Directorate. Created to establish test technology to enable ATC to test transforming Army capabilities in a net-centric warfare environment, TTD was chartered with identifying the nature of the emerging warfighting technologies, how they would be employed on the battlefield, how to test their effectiveness and develop solutions as shortcomings might be discovered. Cunningham was appointed as director, and immediately began to build a team that has grown from two people to more than 100 engineers, scientists, and technicians.

Through his efforts, ATC is now actively engaged in executing 14 separate development programs to develop technologies to support the test and evaluation of the Future Combat Systems.

Hagan is a public affairs specialist working for the U.S. Army Aberdeen Test Center.



ARMY NEWS SERVICE (AUG. 22, 2006) **RED RIVER ARMY DEPOT WINS DOD MAINTENANCE AWARD**

Belinda Lee

TEXARKANA, Texas—Red River Army Depot, Texas, has received DoD's highest award for depot-level maintenance: the 2006 Secretary of Defense Robert T. Mason Depot Maintenance Excellence Award.

The award recognizes RRAD's High Mobility Multipurpose Wheeled Vehicle Recapitalization Program, though which depot employees streamlined the HMMWV overhaul and remanufacturing processes to support soldiers fighting the war on terror.

"This is a well deserved recognition. This dedicated workforce strives each day to support the warfighter with the best equipment possible," said Army Col. Douglas J. Evans, depot commander. "I congratulate the entire Red River team for a job well done."

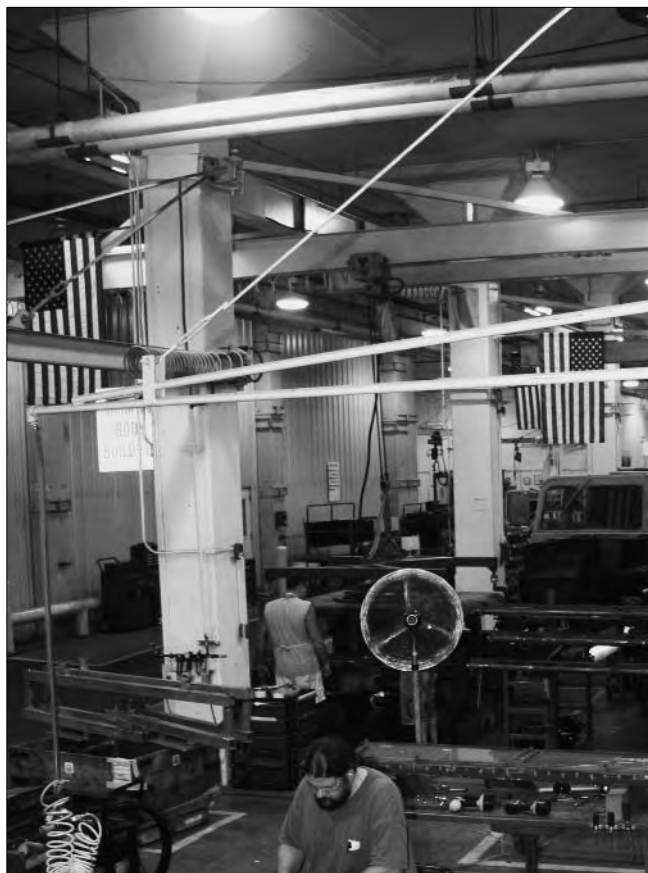
RRAD officials credit the success to the use of Lean Six Sigma methodologies and partnerships. LSS application has resulted in a production increase of three to 120 vehicles per week, an 88 percent reduction in safety accidents, and a 99.7 percent positive customer service rate.

Current trends withstanding, RRAD will realize over \$100 million of net cost avoidance by the end of 2006.

"Lean Six Sigma has resulted in production workers' taking ownership of the humvee product," said Army Sgt. Maj. Dennis Miller of RRAD. "The definitive establishment of duties for each station lets the worker realize his accomplishments and contributions to the final product."

The awards will be presented at the Secretary of Defense Maintenance Awards banquet Oct. 25, during the 2006 DoD Maintenance Symposium and Exhibition at the Grand Sierra Resort, Reno, Nev.

Established in 2004, the depot and field-level awards commemorate Robert T. Mason, a former assistant deputy secretary of defense of maintenance policy, programs, and resources. The annual awards recognize achievements in the maintenance of military equipment and weapon systems.



Red River Army Depot was recently named the recipient of the 2006 Secretary of Defense Robert T. Mason Depot Maintenance Excellence Award for their improvements in the HMMWV Recapitalization program.

Photograph by Pam Barrett



AT&L Workforce— Key Leadership Changes

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 10, 2006) GENERAL OFFICER ASSIGNMENTS

The chief of staff, Army announces the following officer assignments:

Maj. Gen. Charles W. Fletcher Jr., commanding general, Military Surface Deployment and Distribution Command, Alexandria, Va., to director, operations and plans, U. S. Transportation Command, Scott Air Force Base, Ill.

Maj. Gen. Kathleen M. Gainey, deputy chief of staff, C-4, resources and sustainment, Multi-National Force-Iraq, Operation Iraqi Freedom, Iraq, to commanding general, Military Surface Deployment and Distribution Command, Alexandria, Va.

Brig. Gen. Steven M. Anderson, assistant chief of staff, C-4/J-4, United Nations Command/Combined Forces Command/U. S. Forces Korea/deputy commanding general (support), Eighth U. S. Army/deputy commanding general, U. S. Forces Korea (advanced element), Korea, to deputy chief of staff, C-4, resources and sustainment, Multi-National Force-Iraq, Operation Iraqi Freedom, Iraq.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 14, 2006) GENERAL OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has nominated **Army Lt. Gen. Robert T. Dail** for appointment to the grade of lieutenant general and assignment as director, Defense Logistics Agency, Fort Belvoir, Va. Dail is currently serving as the deputy commander, U.S. Transportation Command, Scott Air Force Base, Ill.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 14, 2006) GENERAL OFFICER ASSIGNMENT

The Air Force chief of staff, announces the assignment of the following general officer: **Maj. Gen. John T. Sheridan**, program executive officer and system program director, space radar, Office of the Under Secretary of the Air Force, Chantilly, Va., to deputy director, National Reconnaissance Office, and program executive officer and system program director, space radar, Office of the Under Secretary of the Air Force, Chantilly, Va.

PROGRAM EXECUTIVE OFFICE ENTERPRISE INFORMATION SYSTEMS (PEO EIS)

Catherine Doolos was named U.S. Army program manager for the Single Army Logistics Enterprise during an Assumption-of-Charter Ceremony on July 26, at PEO Enterprise Information Systems, Fort Belvoir, Va. The SALE looks at all Army logistics domains and includes three PEO EIS projects. The three—Logistics Modernization Program, Fort Monmouth, N.J.; Product Lifecycle Management Plus, Fort Belvoir, Va.; and Global Combat Support System—Army (Field/Tactical), Fort Lee, Va.—work together to create a unique factory-to-foxhole supply chain for the Army. LMP handles 1.6 million transactions daily at the national level, PLM+ is the integrator, and GCSS-A (F/T) is the retail system of delivery for soldiers.



Catherine Doolos
Program Manager,
Single Army
Logistics Enterprise

Doolos is dual-hatted as PM SALE and as deputy program executive officer for finance and logistics at PEO EIS. She became (acquisition) board-certified in December 2004 and earned a master's in business administration from Troy State University.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 28, 2006) FLAG OFFICER ANNOUNCEMENT

Secretary of Defense Donald H. Rumsfeld announced today that the president has nominated **Navy Vice Adm. Ann E. Rondeau** for reappointment to the grade of vice admiral and assignment as deputy commander, U.S. Transportation Command, Scott Air Force Base, Ill. Rondeau is currently serving as director, Navy Staff, N09B, Office of the Chief of Naval Operations, Pentagon, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (JULY 31, 2006) FLAG OFFICER ASSIGNMENTS

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

Rear Adm. (lower half)(selectee) Thomas J. Eccles is being assigned as deputy commander for undersea warfare,



AT&L Workforce—Key Leadership Changes

SEA-07, Naval Sea Systems Command, Washington, D.C. Eccles is currently serving as major program manager for Seawolf, Program Executive Office Submarines, Washington, D.C.

Rear Adm. (lower half) (selectee) John Elnitsky II is being assigned as commander, Naval Undersea Warfare Center, Washington, D.C. Elnitsky is currently serving as major program manager for undersea mobility, PM 399, Naval Sea Systems Command, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (AUG. 17, 2006) **FLAG OFFICER ASSIGNMENT**

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignment: **Rear Adm. (selectee) Wayne G. Shear** is being assigned as commander, Naval Facilities Engineering Command/Chief of Civil Engineers, Washington, D.C. Shear is currently serving as director, Ashore Readiness Division/director, Seabee Readiness Division, N46, Office of the Chief of Naval Operations, Washington, D.C.

U.S. ARMY NEWS RELEASE (AUG. 10, 2006)

ARMY CHIEF OF ENGINEERS TO RETIRE

The secretary of the Army, in consultation with the chief of staff of the Army, has agreed to submit the request for retirement of Lt. Gen. Carl A. Strock, chief of engineers and commander, U.S. Army Corps of Engineers to the secretary of defense for approval. Strock made his request based on family and personal reasons, which the secretary of the Army honors and supports.

The U.S. Army's chief of engineers is a unique duty position with separate and distinct command and staff responsibilities. Staff duties include advising the Army on engineering matters and acting as proponent for real estate and other related engineering programs. Duties as the commander of the Corps of Engineers include leadership of a major command that is the world's largest public engineering, design, and construction management agency. The Corps is organized geographically into divisions with subordinate districts throughout the United States, Asia, and Europe. In addition, a provisional division with four districts was activated Jan. 25, 2004, to oversee operations in Iraq and Afghanistan.

Strock became chief of engineers and commanding general of the U.S. Army Corps of Engineers on July 1, 2004. He has been instrumental to the success of the reconstruction efforts in Iraq and Afghanistan as well as managing the Corps' recovery efforts in the aftermath of Hurricane Katrina. Previous to his assignment as chief of engineers, Strock served as the director of civil works, Headquarters, U.S. Army Corps of Engineers. As such, he managed the Army's multibillion-dollar annual civil works program, the nation's primary planner, designer, builder, and operator of flood control, navigation, environmental restoration, and multiple-purpose water resource projects. Strock also spent six months in Iraq during 2003 as the deputy director of operations for the Coalition Provisional Authority. He oversaw the beginning of the Iraq reconstruction effort under the CPA's authority and took part in standing up the new Gulf Region Division in Iraq in January 2004.

Strock is a former enlisted soldier who graduated from Officer Candidate School and then spent 11 years in special forces, airborne, and mechanized infantry units prior to transferring to the Corps of Engineers in 1983. He commanded the 307th Engineer Battalion throughout Operation Just Cause and Operations Desert Shield/Desert Storm. He also commanded the Engineer Brigade of the 3d Infantry Division, and the Corps of Engineers Pacific Ocean and the Northwestern Divisions.

In accordance with Title 10, U.S.C., the secretary of the Army will now convene an advisory board that will recommend a list of officers from which the president will approve one officer for nomination to and confirmation by the Senate.

For additional information contact Suzanne Fournier at (202) 761-4715 or e-mail Suzanne.M.Fournier@hq02.usace.army.mil; or Lt. Col. William Wiggins at (703) 697-7591 or William.Wiggins@hqda.army.mil.



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Acquisition & Logistics Excellence

An Internet Listing Tailored to the Professional Acquisition Workforce

Surfing the Net

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.

Advanced Concept Technology Demonstrations (ACTDs)

www.acq.osd.mil/actd/

ACTD's accomplishments, articles, speeches, guidelines, and POCs.

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*.

Committee for Purchase from People Who are Blind or Severely Disabled

www.jwod.gov

Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

Defense Acquisition University (DAU)

www.dau.mil

DAU Course Catalog; *Defense AT&L* magazine and *Defense Acquisition Review Journal*; course schedule; policy documents; guidebooks; training and education news for the AT&L workforce.

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 Electronic Business Program Office (DEBPO)

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 Systems Management College (DSMC)

www.dau.mil

DSMC educational products and services; course schedules; job opportunities.

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/ds/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)

www.faionline.com

Virtual campus for learning opportunities; information access and performance support.

Federal Acquisition Jump Station

<http://prod.nais.nasa.gov/pub/fedproc/home.html>

Procurement and acquisition servers by contracting activity; CBDNet; reference library.

Federal Aviation Administration (FAA)

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)

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

Information for technology-rich commercial companies on doing business with the federal government.

International Society of Logistics

www.sole.org



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Surfing the Net

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.

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 CCOMs and conducts R&D into spectrum-efficient technologies.

Library of Congress

www.loc.gov

Research services; Congress at Work; Copyright Office; FAQs.

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.oft.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/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.sbaonline.sba.gov

Communications network for small businesses.

DoD Office of Small and Disadvantaged Business Utilization

www.acq.osd.mil/sadbu

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 (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.

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 defenseatl@dau.mil. DAU encourages the reciprocal linking of its home page to other interested agencies. Contact: webmaster@dau.mil.

Defense AT&L Writer's Guidelines in Brief

Purpose

The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

Subject Matter

We do print feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

Defense AT&L reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

Length

Articles should be 1,500 – 2,500 words. Significantly longer articles: please query first by sending an abstract and a word count for the finished article.

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 stiltedness and 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 <<http://www.dau.mil/pubs/damtoc.asp>>. Click on "Submit an Article to *Defense AT&L*."

Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

Graphics

We use figures, charts, and photographs (black and white or color). Photocopies of photographs are not acceptable.

Include brief numbered captions keyed to the figures and photographs. Include the source of the photograph. We publish no photographs or graphics from outside the DoD without written permission from the copyright owner. We do not guarantee the return of original photographs.

Digital files may be sent as e-mail attachments or mailed on zip disk(s) or CD. *Each figure or chart must be saved as a separate file* in the original software format in which it was created and must meet the following publication standards: 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 defenseatl@dau.mil. Subject line: *Defense AT&L graphics*.

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All articles written by authors employed by or on contract with the U.S. government must be cleared by the author's public affairs or security office prior to submission.

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Submission Dates

Issue	Author's Deadline
January-February	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

If the magazine fills before the author deadline, submissions are considered for the following issue.

Submission Procedures

Submit articles by e-mail to defenseatl@dau.mil or on disk to: DAU Press, ATTN: Judith Greig, 9820 Belvoir Rd., Suite 3, Fort Belvoir VA 22060-5565. Submissions must include the author's name, mailing address, office phone number (DSN and commercial), e-mail address, and fax number.

Receipt of your submission will be acknowledged in five working days. You will be notified of our publication decision in two to three weeks.

<http://www.dau.mil/pubs/damtoc.asp>

