

Transforming Technology, Acquisition, and Sustainment

Focus on the Warrior—Today and Tomorrow

JAY MANDELBAUM • DANNY REED • LEON REED

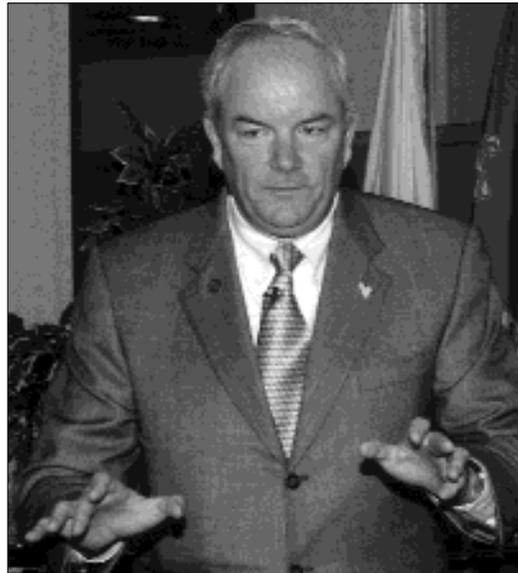
Over 400 members of the acquisition community gathered at Fort Belvoir Nov. 20-22 for the 12th Program Executive Officer/Systems Command (PEO/SYSCOM) Commanders' Conference. The 2002 fall conference allowed senior acquisition professionals from the Office of the Secretary of Defense (OSD), the Services, and industry to exchange views on how military transformation and the global war on terrorism are affecting their mission.

Keynote Address

Navy Adm. Edmund Giambastiani, Commander, U.S. Joint Forces Command, addressed the conference theme in his remarks. "We need an intense and continuous conversation between warfighters and acquisition professionals," Giambastiani emphasized, "to accomplish what we need." He noted that warfighters know what military problems they face, "but they may not know which technologies will help them solve these problems." But, when the acquisition community makes new technologies available, he added, "warfighters know a good technology solution when they see one."

Giambastiani highlighted the warfighters' support for evolutionary acquisition. Citing General Patton's famous aphorism that "a good plan executed violently today is better than a perfect plan tomorrow," he also suggested, by anal-

Principal Deputy USD(AT&L) Michael Wynne. "We are trying to influence dramatic changes in your roles and the way you do business," Wynne told the PEOs and Commanders. "We want to go too far. We want you to push back because otherwise we won't know if we've gone too far, and in fact, we'll suspect we haven't." ▼



ogy, that "an 80 percent solution today is better (and cheaper) than a 100 percent solution tomorrow."

AT&L Update

Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics Michael Wynne provided an update on AT&L efforts to improve acquisition and sustainment. "We are trying to influence dramatic changes in your roles and the



▲ Dr. Nancy Spruill, Director, Acquisition Resources and Analysis, OUSD(AT&L), provided an overview of the Business Initiative Council (BIC)—Secretary Aldridge's top-level committee to review DoD business practices and develop proposed solutions.

Mandelbaum is an Operations Research Analyst in the Office of Strategic and Tactical Systems, OUSD(AT&L). Danny Reed and Leon Reed are both members of the Research Staff at the Institute for Defense Analyses (IDA), in Alexandria, Va.

way you do business,” he told program managers in the audience. He also asked for feedback. “We want to go too far. We want you to push back because otherwise we won’t know if we’ve gone too far, and in fact, we’ll suspect we haven’t.”

Wynne emphasized the importance of reducing acquisition and logistics cycle times. “The system holds us in some disdain for the amount of time it takes to

systems to track with his vision: “It’s never late, it’s always available, it never breaks, and it’s easy to maintain.”

Wynne provided a summary of actions taken to implement recommendations made at the spring 2002 Program Managers’ Workshop. Immediately after the Workshop, his staff reviewed all the recommendations, identified which ones were already underway within AT&L,

you start procuring the system.” He called for adoption of truly evolutionary approaches to the entire requirements, development, acquisition, and test processes, and stated that “the ‘best’ is the enemy of the ‘better than we ever had before.’”

Wynne expressed a continuing commitment to streamlining and simplifying the acquisition process. Policies are being streamlined and more flexibility is being given to the program manager.



◀ Service Acquisition Executives Panel, from left: Claude M. Bolton Jr., Assistant Secretary of the Army (Acquisition, Logistics and Technology); Marvin Sambur, Assistant Secretary of the Air Force (Acquisition); Wynne; John Young, Assistant Secretary of the Navy (Research, Development and Acquisition); Retired Air Force Lt. Gen. Lawrence Farrell, President and Chief Executive Officer, National Defense Industrial Association; and Harry Schulte, Acquisition Executive, Special Operations Command.



▲ DAU and OSD executives from left: DAU President Frank J. Anderson Jr.; DAU Commandant, Army Col. Ronald C. Flom; Spruill; Edward C. “Pete” Aldridge Jr., USD(AT&L); and Donna Richbourg, former Principal Deputy Director, Defense Procurement and Acquisition Policy, OUSD(AT&L).

get a system into production.” Wynne stated that fixing this problem will require “partnering more with the test community up front.”

With the new emphasis on evolutionary acquisition, Wynne said that it’s important to test only “the capabilities that have been introduced.” He also advocated improving the sustainment of new

and then changed the focus of existing initiatives or adopted new initiatives to account for all the panel recommendations.

Wynne cited progress being made in developing “an iterative approach to KPPs [Key Performance Parameters] so they don’t become frozen eight years before



▲ Keynote speaker, Navy Adm. Edmund Giambastiani, Commander, U.S. Joint Forces Command. “When the acquisition community makes new technologies available,” he said, “warfighters know a good technology solution when they see one.”

“We took out the prescriptive and went, where we could, with bare bones. For those of you who never tried to read the 5000 document, it’s now readable—on one airplane ride.”

He emphasized that “we are still seeking bold ideas,” and that OSD is receptive to these ideas. “The paper will never be as blank as it is today,” he said, and encouraged members of the AT&L community to “brainstorm what we need to manage better.”

Overview of the Business Initiative Council

Dr. Nancy Spruill, Director, Acquisition Resources and Analysis, provided an overview of the Business Initiative Council (BIC). The BIC is Under Secretary Aldridge’s top-level committee to review DoD business practices and develop proposed solutions. The criteria for BIC actions are:

- Does it touch the warfighter?
- Does it provide a common good across all Services?
- Does it have savings/benefits?

Spruill described how the BIC is organized and how it operates. She recounted several rounds of BIC proposals that have been submitted to the Office of Management and Budget or other federal agencies and discussed the status of pending BIC actions. BIC proposals submitted last year and earlier this year included a variety of proposals to gain more flexibility in accounting for funds, increase thresholds under the Truth in Negotiations Act, and streamline technology readiness assessments.

Spruill noted that the BIC’s initial legislative proposals did not meet with a lot of success on Capitol Hill. “One of the reasons we did so poorly,” she said, “was that our important initiatives showed up too late in the cycle.” Congress was already in the process of developing the authorization bill, and it was too late to consider BIC proposals. For this reason, an important part

of the BIC’s activities for this year has been to try to streamline the legislative review process within DoD.

Reducing Total Ownership Costs (R-TOC)

Dr. Spiros Pallas, Principal Deputy Director, Strategic and Tactical Systems, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics), provided an overview of the Reduction of Total Ownership Cost (R-TOC) initiative. R-TOC was initiated three years ago because of concerns about the impacts of aging systems on Operations and Support (O&S) budgets and military readiness, and the perception that defense programs could adopt innovative industry support practices. Thirty systems were designated (10 per Service) as Pilot Programs to document effective approaches to R-TOC.

Dr. Spiros Pallas, Principal Deputy Director, Strategic & Tactical Systems, OUSD(AT&L). “All the R-TOC [Reduction in Total Ownership Cost] projects I’m familiar with,” said Pallas, “also give significant improvements in readiness and capability.”



▲ Wynne (standing) addresses the Sustainment Panel. Seated are members of the panel, from left: Jim Westphalen, Senior Program Manager, Contractor Logistics Support Programs, Raytheon Co.; Army Brig. Gen. Ed Harrington, Director, Defense Contract Management Agency (DCMA); and Lou Kratz, Assistant Deputy Under Secretary of Defense (Logistics Plans and Programs). Panel member not shown is Amy Barnett, Chief, Fielding and Sustainment Branch, Close Combat Missile Systems Project Office.

Pallas commented that R-TOC has been successful in reducing O&S costs (projected fiscal 2005 savings exceed \$1.3 billion), but maintained that cost savings are not the principal purpose of R-TOC. “All the R-TOC projects I’m familiar with also give significant

improvements in readiness and capability,” he said.

Despite the successes, R-TOC continues to have some problems. Among the most significant problems are the difficulty of measuring system O&S costs

(an issue many Pilot Programs have addressed) and the difficulty of obtaining seed money for R-TOC initiatives. OSD has attempted to address the difficulty in obtaining seed money by providing limited R-TOC funds through two Program Budget Decisions, with a third pending.

Pallas stated that R-TOC and other initiatives, such as Cost as an Independent Variable (CAIV) and Value Engineering (VE), are being merged under his leadership. CAIV provides for cost-performance trade-offs through the life cycle of a system, while VE involves the analysis of systems to identify ways that per-

program offices are not preparing them. He also noted that there "has been a precipitous decline in the use of VE," although the program's benefits have been clearly documented. His principal objectives, he stated, will be to expand R-TOC beyond the Pilot Programs and to identify ways to revitalize VE throughout the entire acquisition and sustainment process.

Technology Transition and the Acquisition Process

Noel Longuemare, former Principal Deputy Under Secretary of Defense (Acquisition and Technology), chaired this panel. Other panel members included:

- Navy Rear Adm. Jay Cohen, Chief of Naval Research
- Tim Harp, Assistant Deputy Under Secretary of Defense (Innovation and Technology Integration)
- Greg Hulcher, Special Assistant for Concepts and Plans, Strategic and Tactical Systems
- Peter Levine, General Counsel, Senate Armed Services Committee
- Air Force Col. Vincent Snyder, Systems Program Director, Intelligence, Surveillance and Reconnaissance Integration Systems Program Office.

The Panel initially focused on DoD's success with Advanced Concept Technology Demonstrations (ACTDs), which are intended to demonstrate a new warfighting capability. Air Force Capt. Winston Campbell began the panel discussions by presenting an overview briefing of the successes and problems with ARGUS, an ACTD that completed development and has made the transition to acquisition.

"We think ACTDs have worked," Harp said. Of the 67 ACTDs that have been seen through to completion, he noted, 80 percent were successful. But the funding gap between the demonstration of the technology and the point where the Service can pick up funding responsibility, he added, can be a problem. With the 71 currently active ACTDs, the sponsors are placing major emphasis on identifying transition funding.

Senior acquisition executives attending the fall 2002 PEO/SYSCOM Commanders' Conference, from left: Bolton; Wynne; Aldridge; and Anderson.



▲ Navy Rear Adm. Jay Cohen (left), Chief of Naval Research and Technology served on the "Transition and the Acquisition Process" panel. Chairing the panel was Noel Longuemare, former Principal Deputy Under Secretary of Defense (Acquisition and Technology).

formance can be improved.

"These initiatives all represent good systems engineering," said Pallas, "and all are currently hindered because we don't have nearly as many engineers to do continuous systems engineering as we once did, so if you come up with a good idea, you don't know who to turn to."

Pallas reminded the audience that all programs are required by the Under Secretary to submit CAIV plans. These plans have been coming in to OSD very slowly, and there is a perception that many

TUTORIALS AND PRESENTATIONS

Hulcher added that ACTDs often do not give enough attention to how the technology will be manufactured and deployed. Harp agreed that the approach “if you just want to throw a few out there for evaluation” might be a lot different than the approach a program would take “if you want to transition into the force.”

Levine said that the Armed Services Committee is “very supportive of ACTDs. We believe it’s an important component of the process of transitioning technology.” He stated that Capitol Hill’s concern isn’t so much with the ACTD program “but rather, how DoD handles technologies that aren’t in the ACTD program.”

Cohen stated that “the system works reasonably well and has led to technology dominance,” but both he and Snyder agreed that transition problems are the most serious problems with technology development. In particular, Cohen noted, as a technology developer he is paid to take risks, but the acquisition process has different goals and objectives. “PMs are rewarded for cost, schedule, content, but there is no reward for even moderate risk taking.”

Several panelists raised concerns about funding inflexibility. Cohen noted that after the ACTD has been demonstrated, “if the Service doesn’t have the money, the project doesn’t go forward.” ACTD

The entire afternoon preceding the conference proper was given over to three sessions of tutorials on emerging technical or acquisition policy issues. In addition to the tutorials, two special workshop sessions were held that lasted all afternoon. Unlike the tutorials, which were intended to provide updates and feedback on current policy initiatives, these two workshops were intended to be working sessions to grapple with significant new OSD policy actions.

Dr. Spiros Pallas, Principal Deputy Director, Strategic and Tactical Systems, chaired a session examining **Transformation of DoD’s Value Engineering Program**; and Betsy McChesney, Acquisition Review Specialist, Defense Procurement and Acquisition Policy, chaired a session to examine **Acquisition Strategies to Achieve Total Systems Management: A Guide to Increase Reliability and Reduce Logistics Footprint**.

Tutorial topics included:

DoD 5000 Revision and Evolutionary Acquisition Update—Skip Hawthorne (OUSD/AT&L)

Color of Money 101: a Primer on the Who, When, Where, and Why of the Restrictions on Congressional Appropriations—Siobhan Tack, Professor and Director, Financial Management Department, DAU

Implementing Performance Based Strategies for Weapon System Life Cycle Support—Lou Kratz, Assistant Deputy Under Secretary of Defense (Logistics Plans and Programs)

Business Case Analysis—Larry “Scoop” Cooper, Director of International Programs, DAU; and Air Force Lt. Col. Lee Plowden, Chief, Transformation Integration Branch, Office of the Deputy Assistant Secretary of the Air

Force (Management Policy and Program Integration)

Integrating Commercial and Military Manufacturing: More Than Just Commercial-Off-the-Shelf—Dr. Michael McGrath, Vice President, Sarnoff Corp.

Chairman Joint Chiefs of Staff Instruction (CJCSI) 3170 Update—Navy Capt. Jeff Germand, Chief Strategic and Tactical Systems Branch, J-8, Joint Staff

Industrial Base Analysis—a Readiness Tool—William Ennis, Director, Industrial Analysis Center, DCMA

Missile Defense: Acquisition Innovation in Practice—Rob Brown, Assistant Deputy for Program Integration, Missile Defense Agency

Planning and Executing Integrated Technical Performance Measures—the Precursor to and Predictor of Risk and Earned Value Performance—Richard Zell, Director, Supplier Operations, DCMA; and Mike Ferraro, General Engineer, Contract Technical Operations, DCMA

Technology Readiness Assessments—Janne Spriggs, Plans and Programs, Office of the Director, Defense Research and Engineering; and Jack Taylor, Associate Director for Ground and Sea Systems, Office of the Deputy Under Secretary of Defense (Science and Technology)

DLA Initiatives to Improve Support to Weapons Systems—Doug Walker, Chief, Weapon Systems Support, Defense Logistics Agency

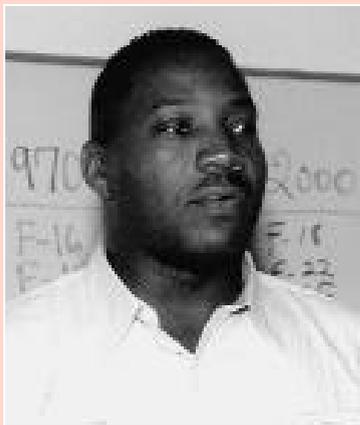
Applying Full Service Contracting in Support of Complex Weapon Systems—Joe Grossom, Director, Lifetime Support Business Area, Lockheed Martin Systems Integration; Jack Blalock, Business Development Manager, Northrop Grumman Newport News; and John Goodhart, Assistant Deputy Commander, Fleet Logistics Support



DoD 5000 Revision and Evolutionary Acquisition Update—Skip Hawthorne (OUSD/AT&L).



Color of Money 101: a Primer on the Who, When, Where, and Why of the Restrictions on Congressional Appropriations—Siobhan Tack, Professor and Director, Financial Management Department, DAU.



Business Case Analysis—Air Force Lt. Col. Lee Plowden, Chief, Transformation Integration Branch, Office of the Deputy Assistant Secretary of the Air Force (Management Policy and Program Integration).

funding can help bridge this gap, but that transition still represents a difficult challenge for the project and a primary area of risk.

Requirements and Acquisition Integration Panel

Ric Sylvester, Deputy Director, Defense Procurement and Acquisition Policy, chaired a panel on Requirements and Acquisition Integration. Panel members were:

- Coast Guard Cmdr. Carl Alam, Aviation Program Manager, U.S. Coast Guard Deepwater Program
- Navy Capt. Jeff Gernand, Chief of Strategic and Tactical Systems Branch, Requirements and Acquisition Division, J-8/Joint Staff
- Charles Greco, Deepwater Aviation Program Manager, Integrated Coast Guard Systems
- Dr. Glenn Lamartin, Director, Strategic and Tactical Systems, OSD
- John Landon, Deputy Assistant Secretary of Defense (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance [C3ISR], Space, and IT [Information Technology] Programs).

Lamartin stated that there is “a wide range of things we need to do better. We need to reduce the cost of owning systems, reduce the logistics tail, and get more capability to the warfighter, quicker.” One of his primary objectives, he said, is to “drive the systems engineering process back into defense acquisition.”

Landon stressed the importance of interoperability and block development. “No program or platform will be developed as a standalone system any more. All we’re interested in is development of an integrated capability.”

Alam and Greco gave the government and industry perspective on the Deepwater Program, the Coast Guard’s new program to define its major systems requirements for the next 30 years. The program is based on performance-based acquisition, and the government has developed a close partnership with the sys-

tems integrator. The government avoided specifying particular pieces of hardware, instead focusing on the mission that must be performed. The contractor’s objectives include trading off total ownership cost and the system effectiveness of various options.

Greco noted that the contract has a potential term of 30 years and also includes sustainment of the legacy fleet. The government and contractor teams are collocated, which has given the contractor “the unique opportunity of dealing with our customer, who is now our partner, in an extremely collaborative way.”

Gernand described changes that are underway in the Joint Staff requirements development process. “For the first time we’re going to ask the Services and combatant commands to sit down around the table and work it out together.” The emphasis in the future will be on capability-based requirements. A new Functional Capabilities Board is being developed to deliver “solutions that are born joint.”

Q&A Session with Service Acquisition Executives

Wynne chaired an evening panel of the Service Acquisition Executives and other senior officials. The panel members were:

- Claude M. Bolton Jr., Assistant Secretary of the Army (Acquisition, Logistics, and Technology)
- John Young, Assistant Secretary of the Navy (Research, Development and Acquisition)
- Marvin Sambur, Assistant Secretary of the Air Force (Acquisition)
- Harry Schulte, Acquisition Executive, Special Operations Command (SOCOM)
- Retired Air Force Lt. Gen. Lawrence Farrell, President and CEO, National Defense Industrial Association.

After brief initial statements by each panelist, the panel took questions from the audience for nearly two hours. Bolton noted one important development in his organization is reflected in his job title: the responsibility for logistics has been merged with acquisition and tech-

nology. He stated that the Army has tasked its program managers to have cradle-to-grave responsibility for programs, “and we’re going to make sure you have the wherewithal to make it happen, from the policy point of view and eventually encompassing the money as well.” Bolton also said that his office is taking a broad look at how the Army does business and will place an increasingly heavy emphasis on business issues in acquisition, logistics, and Science and Technology (S&T) programs.

Young praised the creativity and dedication of people involved in the acquisition process. He mentioned the Joint Strike Fighter, which he said was a good program but, until recently, the award fee provisions in the contract were not well thought out. The key to restructuring the contract, he told the PEOs and commanders, was to key award fee to schedule events rather than relying on subjective factors. He also stressed that the Services need to work jointness every day and praised the progress being made within the Navy.

Sambur said a primary goal of his was to gain agility in the acquisition process and to gain credibility for the acquisition process with outside organizations. He also said it was extremely important to “institutionalize collaboration between the warfighter, test, acquisition, and S&T,” to ensure that the most promising technologies get into the warfighter’s hands. He said industry is a vital part of the team and needs to be included in the collaborative process as well.

Schulte described how his acquisition process differs from Service acquisition processes, and how it is similar. He said that the requirements process was somewhat quicker at SOCOM, but that the budgeting process is no more effective. He believes acquisitions move more quickly, but “mostly because we’re smaller—so small we can be really tight with the user.” He said that the post-Sept. 11 atmosphere “has changed things a lot” for SOCOM. Missions are more urgent, and people recognize how important their job is.

Farrell commented on some best practices that could be adopted by the Services. Partnership was one best practice, he maintained, that is not consistently practiced within the Services. He also recommended that the Services should track stability of requirements, most particularly exercising control over the number and scope of KPPs. Finally, he recommended that the programs should bring industry into evolutionary acquisition discussions at an early stage of the program, to make sure industry understands the ultimate direction the program is headed as well as the crucial front-end requirements.

Value Engineering Award Ceremony

For the first time, DoD’s annual VE awards ceremony coincided with the PEO/SYSCOM Commanders’ Conference. Wynne and Pallas presided at these awards, and complimented the award winners for their contributions to national security. (For a complete list of winners, see the November-December 2002 issue of *Program Manager*, p. 58.)

Innovation and Technology in Support of the Warfighter: an Industry Perspective

Mark Ronald, Chief Operating Officer, BAE Systems, and President and CEO, BAE Systems North America, provided his perspective on the conference theme. He stressed that industry is fully committed to delivering good value to the warfighter and pledged whatever assistance is needed.

Ronald commented on the need to continue to take actions to attract and motivate a skilled workforce, which is necessary to maintain state of the art capabilities. “We’re on a honeymoon,” he said. “The dot coms have collapsed and the telcoms are hurting, but over time our ability to attract the right people is at risk.”

Ronald suggested that DoD should provide clearer guidance on teaming and vertical integration. Industry is willing to play by the rules, but it isn’t always clear what DoD wants. He commented that the industry consolidation is likely

to continue, probably more at the lower tiers than among the few large primes, and that this can influence DoD’s ability to maintain competitive markets. He also suggested that DoD should provide firmer guidance on when and where Prime Integrating Contractors will be used. Again, he said, industry is willing to play by DoD’s rules but sometimes these rules are not articulated clearly.

Sustainment Panel

Retired Air Force Lt. Gen. Tom Ferguson chaired this panel. Other panel members included:

- Army Brig. Gen. Ed Harrington, Director, Defense Contract Management Agency (DCMA)
- Lou Kratz, Assistant Deputy Under Secretary of Defense (Logistics Plans and Programs)
- Amy Barnett, Chief, Fielding and Sustainment Branch, Close Combat Missile Systems Project Office
- Jim Westphalen, Senior Program Manager, Contractor Logistics Support Programs, Raytheon Co.

Barnett and Westphalen provided an overview of a program that is considered a sustainment “success story”—the Improved Target Acquisition System (ITAS). Barnett noted that the support goal for ITAS was to improve systems availability while reducing O&S costs. The Army negotiated a Contractor Logistics Support (CLS) contract with Raytheon for this program.

Barnett stated that Operational Readiness (OR) rate is a key system performance metric and a key metric for the contractor. A minimum OR rate of 90 percent is established in the contract, with incentives for exceeding the target and penalties for falling short. OR rates have averaged 99.5 percent since the system’s inception. Surge and contingency clauses were built into the contract and have been exercised.

Funding issues represent a continuing challenge for ITAS. ITAS is not included in the Army Working Capital Fund, and there has been no easing of “color of money” restrictions. Barnett also com-

mented that there is no good, reliable O&S cost information for legacy systems, though information systems are getting a little bit better. With all the colors of money and all the pots of money, funding is too scattered to track the costs for a single system.

Westphalen seconded Barnett's comments from the contractor point of view. He said that the government-industry Integrated Product Team was a true partnership. The parties worked the statement of work together and ultimately there was an agreement between the tactical units, Raytheon, and the program manager. All three parties were essential to the arrangement's success.

Harrington stated that DCMA has become far more involved in the sustainment phase of contracts. The changes in the way the agency does business have resulted in far more contact with the logisticians, not just the program managers. He has stressed responsive-

ness to the agency's staff. "We need to go where the important work is for our customers—out in the field."

Kratz commended the ITAS program and described it as a very successful example of Performance Based Logistics (PBL). He said that successful examples like ITAS have been very influential in shaping DoD's approach to PBL. "In the initial PB support contracts," he commented, "we had lots of metrics, but have now concluded that fewer metrics are better. The emphasis should be on output."

Kratz seconded Barnett's view that PBL does not exacerbate "contractors on the battlefield" problems. He asserted that most contractors on the battlefield probably are not tied to weapon systems; instead, they're doing combat support or combat service support. Also, there are a good number of contingency sustainment personnel, hired by the operational forces to provide sustainment support.

"We are trying to help the Services carry out their stated policies and minimize contractors on the battlefield."

Conference Challenge

USD(AT&L) Edward C. "Pete" Aldridge Jr. concluded the conference. He thanked everyone for attending and emphasized to the audience how vital they were to the success of our fighting forces. "Your work as program managers has never been more important." He challenged those assembled to provide the troops the tools they need, in as short a time as possible. In closing, he said "you're doing a superb job."

Editor's Note: The full text of Secretary Aldridge's remarks begins on the following page. For information on past or future conferences, visit the PEO/SYSCOM Conference Web site at <http://www.acq.osd.mil/ar/peoindex.htm>.

DEFENSE ACQUISITION UNIVERSITY AND UNIVERSITY OF ALASKA ANCHORAGE SIGN MEMORANDUM OF UNDERSTANDING

The Defense Acquisition University (DAU) and the University of Alaska, Anchorage (UAA) signed a Memorandum of Understanding (MOU), during a ceremony held at the DAU West Region campus, San Diego, on Sept. 25, 2002. The MOU, which formalizes the DAU-UAA strategic partnership, calls for establishing cooperative training and educational programs in the areas of logistics and supply management. Signing the MOU from left: Kevin Carman, DAU West, Associate Dean; Andy Zaleski, Dean, DAU West; and Dr. Hayden Green, Dean, Graduate Business School, University of Alaska, Anchorage.

Photo courtesy University of Alaska

