

# DAU Alumni Association Sponsors 20<sup>th</sup> Annual Acquisition Symposium

## Evolutionary Acquisition—Delivering Warfighting Capabilities Today and Tomorrow

CHRISTINA CAVOLI

The 20<sup>th</sup> Annual Defense Acquisition University Alumni Association (DAUAA) Acquisition Symposium took place at Fort Belvoir, Va., June 17-18, 2003. Presented under the theme “Delivering Warfighting Capabilities Today and Tomorrow Through Evolutionary Acquisition,” the symposium offered a forum for a rich exchange of ideas and information between top representatives from the government and industry, all united by a common bond formed through training experiences at the Defense Acquisition University (DAU) and Defense Systems Management College (DSMC).

### DAUAA—Bringing Together the Very Best

The vision of the DAUAA—to be an association that brings together the best leadership and management resources for improving defense systems acquisition—drives the organization of the annual symposium, now celebrating its twentieth year. Through keynote speakers, alumni presentations, workshops, and panel sessions, this year’s symposium sought to bring to life the policies and emerging practices of evolutionary acquisition (EA) by presenting DoD, industrial, and congressional leadership examples to attendees. The symposium also invited members to attend the annual Acker Award Ceremony, DAUAA’s most prestigious award, and the annual anniversary luncheon and Charter Member recognition ceremony.

*Cavoli is a freelance writer for Program Manager magazine and also publishes OSD’s Acquisition Today newsletter.*



**“Managing a program with spiral development is similar to driving a car at night with headlights. It is critical to know what’s ahead, up close; as in spiral development, the details of what’s next are more important.”**

—Dr. Glenn Lamartin  
Director, Defense Systems  
OUSD (AT&L)

The concept of EA was examined from top to bottom: from forecasting the potential of EA and providing concrete, successful examples of EA in action; to outlining the remaining barriers, both externally and internally, that can hinder EA from achieving successful implementation; and to advising on how to overcome such obstacles. Workshops were offered to cover important initiatives such as interoperability for future combat systems, DoD initiatives for software productivity, and the defense-wide information assurance initiative.

### Evolutionary Acquisition—Taking a Three-Pronged Approach

Dr. Glenn Lamartin, Director, Defense Systems, OUSD(AT&L), provided the opening keynote address. In his speech, “Evolutionary Acquisition in Context,” he referred to one of former USD(AT&L) E.C. “Pete” Aldridge’s five goals for the AT&L workforce: *to achieve credibility* within the business community and to establish a context for decision making that incorporated a joint, mission-centered philosophy.

Lamartin reminded the audience that the realities of our current world provoke and insist on changes in the way business is done. “Can we really rely on the luxury of a six-month buildup to the next war?” asked Lamartin. The current nature of changing threats demands that when any system deploys, it does so with confidence and interoperability.

To meet the ever evolving needs, Lamartin presented a new model. He suggested thinking of capability in terms of a three-pronged approach: an *oper-*

ational view (what do we need?); a **systems view** (what do you want to do what?); and a **technical view** (the no-kidding, engineering “how-to”). Unlike previous models, this approach is not chronological, but a continual collaborative effort. Success, he said, hinges on the continual flow of communication between the three areas in all directions to keep the effort on track.

### Strategic Direction

This model, coined as “joint integrated architecture,” also takes a new approach to requirements development. Instead of the bottom-up, stovepipe approach to requirements generation, the new model suggests turning the old process on its head. Under strategic direction, the process begins with the stated goals of senior leaders and administrators and it flows down to the military. National military strategy asks what the force is required to achieve; the joint vision asks what the force is expected to become; and the joint concept of operations asks how, operationally, the tasks can be accomplished and the vision realized.

### First Increment May Not be Final Product

Evolutionary acquisition assists this process by shortening cycle time and delivering useful capability to the warfighter with the understanding that the first increment may not be the final product and can be expected to improve over time—to “evolve.” Understanding that evolutionary process deters programs from becoming hopelessly overloaded before deployment, a process Lamartin likened to an overloaded bus: “people sticking out of every window, too much stuff stacked on top—because everyone believes that this is the only bus that is going to be here any time soon. EA means that another bus is coming; there’s no need to overload every bus.”

### Benefits of Allowing Capability to Evolve

EA also offers the possibility of a shorter Test and Evaluation (T&E) cycle time, when used correctly. By allowing capability to evolve in successive increments, the entire package should not undergo T&E with every issue; only the new or



**“Given the large scope of the work and the size of the Defense Contract Management Agency, changing to truly ‘customer-focused’ contract management necessitated true, gut-changing transformation.”**

*—Sallie Flavin  
Deputy Director, Defense  
Contract Management Agency*

altered aspects need be evaluated, decreasing the turnaround time.

### Approaching EA From Two Perspectives

EA must also be approached from two perspectives. An incremental development envisions what the end stage will be, and achieves that goal through incremental stages. Spiral development knows the desired direction, but the full potential may be unclear; as the increments progress, feedback from the user,

updated technology, and other changing environmental factors contribute to how the final stage will appear.

### Challenges to Implementing EA

In envisioning spiral development, some of the challenges to successful implementation of EA are clear: How can realistic cost estimates for spiral development projects be established? How can program managers arrange expectations to unfold through a period of time, rather than front-loading everything at the beginning of a program? Lamartin suggested an approach that focuses on a fully funded sound estimate for the first increment, then a rough estimate for the next increment, and an even hazier “wedge” for successive future increments—a “difficult cultural shift” that will require time and training.

Lamartin provided another analogy to clarify his meaning: Managing a program with spiral development is similar to driving a car at night with headlights. It is “critical to know what’s ahead, up close; as in spiral development, the details of what’s next are more important.” The program manager, he said, must accept that the future continues, ahead, along winding roads, and over hills; but, rather than try to pinpoint that unknowable section of road, “with focus and trust, clarity will come with time.”

### Transforming to a Customer-Centered Culture

Sallie Flavin, Deputy Director, Defense Contract Management Agency (DCMA), offered a view of how her organization has transformed bureaucratically driven procedures into proactive, customer-oriented approaches. Over 11,000 acquisition professionals, dealing with over 320,000 contracts, work for DCMA; the agency focuses on bringing awarded contracts to fruition.

Given the large scope of the work and the size of the agency, changing to truly “customer-focused” contract management necessitated “true, gut-changing transformation,” said Flavin. “Transformation is necessary in response to external and internal pressures.” The shift

to a customer focus brought to the forefront ideas of entrepreneurship, creativity, and the idea of regarding directives and regulations as guidance, not prescriptive instructions.

#### DCMA and *OneBook*

Flavin described the shift at DCMA as a significant cultural change. Previously, a regulatory system had evolved in which the system drove the action, rather than the reality of a particular contract. A large collection of regulations, known as the *OneBook*, had become the ubiquitous source for dictating how all business was conducted; the *OneBook* ruled all the processes, but ultimately became focused more on process than on the actual end result.

When Flavin arrived at DCMA, there were 29 established metrics in place. "How can anyone know what is important or essential in that mix?" she asked.

Flavin emphasized the significance of the cultural shift necessary to move away from established procedures like the *OneBook*. Such compendiums are the result of a great deal of hard-earned wisdom and experience, Flavin said, and such material should not be ignored or discarded. Nonetheless, she added, the *OneBook* must be considered guidance, not prescription. Given the diverse nature of operations around the globe in disparate fields, she noted, it is almost impossible to superimpose a static procedure that can satisfy the needs of every situation, every time.

#### A New Model

The new model, "A Customer-Centered Culture," expresses a new idea. Instead of focusing on process, the model begins with the outcome, and then figures out what must be done to achieve that desired outcome. The *OneBook*, Flavin explained, then becomes a source of guidance rather than the overarching structure influencing the process. The model moves from *responding* to *anticipating* customer needs.

An example Flavin described of DCMA's success under the new ap-



**"The opportunity exists for the DoD to engage with Congress, to communicate through reports, and to show Congress what works and what doesn't."**

—Jonathan Etherton  
Vice President, Legislative  
Affairs  
Aerospace Industries Association  
of America (AIA)

proach is Wide Area WorkFlow (WAWF), a system for performing electronic acceptance and invoicing on DoD contracts. To date, over 5,000 employees have been trained and over 1,700 contract trading partners exist. Over 40,000 transactions have been successfully completed under the new system. Under WAWF, the percentage of on-time payments has risen to an impressive 99.9 percent; interest per million paid has plummeted from the non-WAWF average of \$294 to 3.6 cents.

#### A Congressional View of Evolutionary Acquisition

To provide a view of EA from outside government and industry, an address on the "Congressional View of Evolutionary Acquisition" was presented by Jonathan Etherton, Vice President, Legislative Affairs, Aerospace Industries Association of America (AIA). A former longtime staff member of the Senate Armed Services Committee, Etherton gave the symposium a concise view of the congressional role in dealing with EA.

#### Interest and Reaction

The congressional response to EA, according to Etherton, can be boiled down to interest and reaction: Congress, while interested in the potential that EA represents, seeks to understand how it will maintain its oversight role and figure into new, streamlined DoD processes.

In the budgets of fiscal 2002 and 2003, Congress has sought to set boundaries and define EA and spiral development. Congress seeks a blueprint that ensures that the DoD can accommodate current law and congressional oversight while implementing new concepts. As an example, Etherton cited section 803 of the fiscal 2003 budget, which authorized spiral development but requested that Congress receive a report that depicted how this new concept would work within existing cost and control settings, with the first report due by September 2004.

Such reports, Etherton asserted, were a method for Congress to solicit feedback about questions and concerns that exist about DoD transformation. Etherton emphasized the need for DoD officials to respond in a timely and cooperative fashion to congressional requests for such feedback and periodic reports as a method of ensuring that Congress remains supportive of transformation goals while remaining assured of the coexistence between the new concepts and existing requirements.

#### U.S. Industrial Base for DoD Critical Components

Etherton added to his recommendation a cautionary note concerning future con-



**“Effective communication is mandatory for successful program management. Trust is critical; government and industry relations must be able to share bad information as well as good.”**

—Navy Rear Adm. (Sel) Jeffrey Wieringa  
PEO, Tactical Aircraft Systems  
NAVAIR, briefing on  
Evolutionary Acquisition and  
the F-18 Hornet

gressional tenor: he noted that the House has currently solidified an intense focus on establishing provisions that establish a U.S. industrial military base that is entirely self-sufficient and provides a domestic source for all critical components for DoD systems. The “substantive content” of such systems would increase from the current content of 50 percent American-produced content to 65 percent, and can no longer include any other country outside of the United States.

Such an approach could significantly increase the burden to defense contractors, Etherton stated; as costs inevitably spiral upward, the budgetary capability for DoD transformation could be diverted. If Congress adopts such a resolution, it could have a major impact on

the DoD to implement new ideas such as EA.

#### **A Reasonable Balance**

As a final observation, Etherton advised that the DoD find a reasonable balance between streamlining and the congressional worry about involvement in oversight: “The opportunity exists for the DoD to engage with Congress, to communicate through reports and to show Congress what works and what doesn’t.” He cautioned that without reliable, consistent feedback to Congress, DoD could face the “political backlash” of being held accountable when something goes awry and the “mandate of oversight” may appear to have failed. In this final recommendation, Etherton urged that DoD leaders be forthcoming with Congress in providing feedback.

#### **EA in Practice—F-18 Hornets**

Navy Rear Adm. (Sel) Jeffrey Wieringa, the self-described “poster child for evolutionary acquisition,” gave a presentation on the successful evolution of the F-18 Hornet, a fighter plane that has evolved from its first inception as the premier digital plane in the 1980s to one of the most sophisticated warfighters of current times. [See p. 50, May-June 2003 *Program Manager*.] While every evolution of the Hornet contained new technologies and improvements, Wieringa pointed out that each iteration built upon previous successes; the latest edition, the SuperHornet, took 90 percent of its avionics suite from the model of its predecessor.

Wieringa underlined that effective communication is mandatory for successful

# 2003 DAUAA ACQUI

## *Focus on Evoluti*

### *Acker Award Goes to Ray*



DAU Commandant Army Col. Ronald Flom displays the raffle prize—a model of an RAH-66 Comanche helicopter manufactured by The Boeing Company.



Raytheon Chairman and CEO Daniel P. Burnham (right) accepts the 2003 David D. Acker Award from Defense Acquisition University President Frank J. Anderson Jr.



DAU President Frank J. Anderson Jr., thanks the members of the Service Acquisition Executive (SAE) Panel. From left: Anderson; Marvin R. Sambur, Air



◀ Derrell James, Director for Business Development, Collins Aviation Systems, speaks as an industrial panelist on Performance Based Logistics.



Louis A. "Lou" Kratz, Assistant Deputy Under Secretary of Defense (Logistics Plans and Programs), addresses the audience as a part of the Panel on Performance Based Logistics.



DAUAA Vice President Maureen Fino acts as Symposium Chairwoman for the third year in a row.



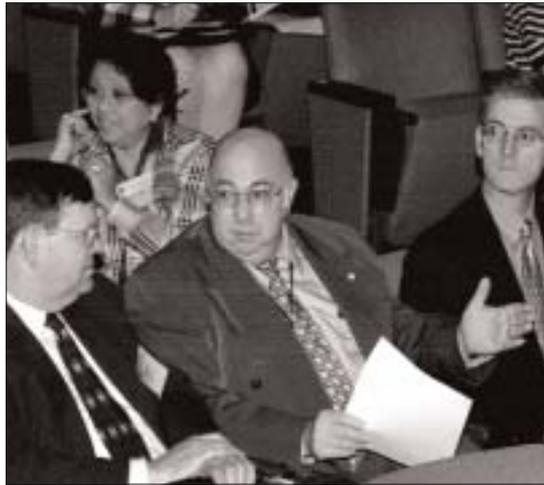
From left: DAU Commandant Army Col. Ronald Flom; Army Gen. Paul Kern, Commanding General, Army Materiel Command; DAU President Frank J. Anderson Jr., and DAUAA Symposium Chairwoman Maureen Fino at the end of the first day.

# S I T I O N   S Y M P O S I U M

*onary Acquisition*  
*the on CEO, Daniel Burnham*



Force SAE; John Young, Navy SAE; Claude M Bolton Jr., Army SAE; and DAU Commandant Army Col. Ronald C. Flom, who served as panel moderator.



Participants at the symposium enjoyed many opportunities to network and interact.



DAU Director of Strategic Partnerships/DAUAA Vice President of Operations Wayne Glass, addresses the Symposium.



Acknowledging DAUAA corporate sponsors. From left: Symposium Chairwoman Maureen Fino; Dr. Glenn Lamartin, Director, Defense Systems, OUSD(AT&L); Kurt Hull, Director of Government Learning Partnerships, Raytheon; Nick Cozempa, Vice President, Project Management Process, Lockheed Martin; Robert Bolt, Vice President, Public Policy and Analysis, Boeing; Barry Offrey, Vice President, Contract Pricing and Task Management, Northrop Grumman; and DAU President Frank J. Anderson Jr.

program management. Trust is critical, he stated. Government and industry relations must be able to share bad information as well as good. Additionally, complete and effective communication is necessary: both sides must be sure the information is being processed the same way. "It's like driving a car while your spouse is talking," he said. "Your spouse says, 'Look out. Look out. Look out! LOOK OUT!' It isn't until the fourth time real communication is occurring."

#### Army Materiel Command and EA

Army Gen. Paul Kern, Commanding General, Army Materiel Command (AMC), delivered the final presentation. With a mission to "provide superior technology, acquisition support, and logistics to ensure dominant land force capability for soldiers, the United States, and our allies," AMC, he reported, has successfully leveraged transformation to meet an increased operational pace with improved performance, all at a lower cost.

#### Seconds vs. Weeks

Advanced technology, Kern said, can reach the warfighter faster, and deployed systems are hallmarked by interoperability. Digitization has accelerated the process precipitously; "We do in seconds what used to take days or weeks," Kern stated.

The incorporation of EA into the process allows a much shorter acquisition response time for meeting the needs of the warfighter. Time-based requirements, as opposed to traditional fixed requirements, allow capability to reach the end user in increments and help capture user feedback as progress is made to the final increment. Kern defined spiral development as a "process" within the strategy of EA that may or may not be employed, depending on the specific program.

#### Recognition

The symposium provided an opportunity for members of industry and government with a common interest in the continued improvement of the workforce to interact and exchange ideas. DAUAA recognized the success of the



**"Advanced technology can reach the warfighter faster, and deployed systems are hallmarked by interoperability. Digitization has accelerated the process precipitously. We do in seconds what used to take days or weeks."**

*—Gen. Paul Kern, USA  
Commanding General  
Army Materiel Command*

Corporate Sponsor program, an effort initiated to provide the broadest possible outreach in strengthening the partnership between the DoD AT&L workforce and defense industry. By becoming a sponsor, companies can participate in advancing reciprocal learning opportunities and help develop the government and industry acquisition workforce to meet the accelerating needs of EA.

#### Corporate Sponsors

As a token of appreciation to its corporate sponsors, Bill Bahnmaier, DAUAA vice president, Membership, presented certificates of appreciation to Raytheon, Boeing, Northrop-Grumman, and Lockheed-Martin. The relationship between these corporate sponsors—all of whom are also corporate university strategic partners of the Defense Acquisition University—and DAUAA represents an opportunity to improve education and training for the workforce of both government and industry.

#### The David D. Acker Award

The David D. Acker "Skill in Communication" Award is DAUAA's most prestigious award. Created to honor former DSMC professor, David D. Acker, the award is presented annually to one individual who has promoted and communicated acquisition management excellence to the acquisition workforce.

The title of the award is a tribute to Acker, who played an active role in the preparation of the charter for the college and provided assistance and guidance to the commandant, as needed, from 1971 to 1973. He was a professor of management at the college for many years, during which time he performed with distinction in every department. He was one of the founders of the DSMC Alumni Association in 1983 and actively served in various positions on the Board of Directors until his death in 1992.

Past winners include current acting USD(AT&L) Michael Wynne, former Deputy Under Secretary of Defense (Acquisition Reform) Colleen Preston, and Assistant Secretary of the Army (AL&T) Claude M. Bolton.

This year's award was presented on June 17 to Dan Burnham, the chief executive officer and chairman of Raytheon. (Burnham has since stepped down from his role as CEO, and remains the Chairman of Raytheon and active in company councils and committees.) The award selection committee focused on Burnham's success with Raytheon and his commitment to improving relationships between government and industry;

Raytheon was the first corporation to sign a strategic partnership with DAU.

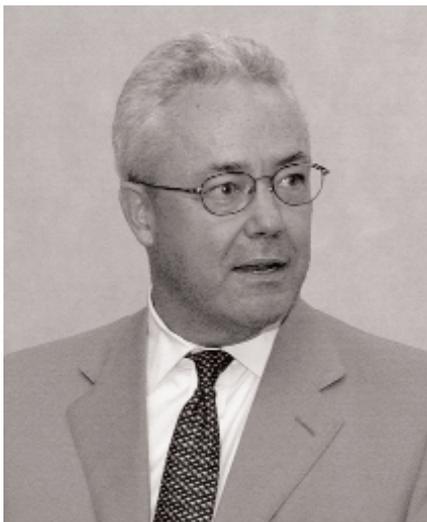
DAU President Frank Anderson Jr. presented the award, describing Burnham as a “great teammate of the university and of DoD.” He spoke of Burnham as an individual who had led a significant transformation in his own company, shifting the focus of Raytheon to meet the 21st century concerns of the United States and its allies. “The word you think about connected to Mr. Burnham is ‘passion,’” said Anderson, “and I emphasize ‘passion’—I got pumped up just sitting at the table tonight and listening to him.”

In his acceptance speech, Burnham admitted to displaying animated enthusiasm when dealing with topics he cares about. “Mr. Anderson says I’m passionate? The last time I talked here, I got so carried away my glasses flew straight off my face,” he admitted. Burnham spoke of his appreciation and admiration of the defense procurement community. “Not everyone knows what you do,” he said, “but I do.” He recalled times during the 1990s when, despite those who questioned the need for defense after the Cold War ended, the acquisition corps remained focused on American security.

His appreciation of the job done by the DoD AT&L community helped create what he described as a “palpable bond” between industry and government. “The days of arm’s length [between government and industry] are long gone,” he said. “Learning together is now key. We can learn from each other’s cultures.” He urged program managers to give objective assessments frequently and to demand that industry give them feedback as well. “Government oversight really helps,” he stated. “Industry gets better when we have to explain stuff.”

#### 2004 Symposium

Plans are already under way for the 2004 Defense Acquisition University Alumni Association Acquisition Symposium, according to DAUAA Vice President for Membership Bill Bahnmaier. “Mark your calendars now for the 21st Symposium,” Bahnmaier said, “which will again be



**“Not everyone knows what you [defense acquisition community] do, but I do. ... The days of arm’s length [between government and industry] are long gone. Learning together is now key. We can learn from each other’s cultures.”**

*—Daniel P. Burnham  
Chairman, Raytheon  
DAUAA 2003 Acker Award  
Winner*

held at the Defense Acquisition University, Fort Belvoir, June 15-16, 2004.”

**Editor’s Note:** For more information on DAUAA, read “DAUAA Celebrates Anniversary, March-April 2003 *Program Manager*, p. 74, or visit the DAUAA Web site at <http://www.dauaa.org>.

### *Army Teams with Consortium of Universities to Establish Institute for Collaborative Biotechnology*

The Army announced on Aug. 22, 2003, that the University of California at Santa Barbara (UCSB) was awarded a contract for up to \$50 million over five years to serve as the newest Army-sponsored University Affiliated Research Center (UARC). UCSB will partner with the California Institute of Technology (Cal Tech) and the Massachusetts Institute of Technology (MIT) to establish the Institute for Collaborative Biotechnologies (ICB).

The ICB will provide the Army with core competencies and expertise in the area of biologically derived and biologically inspired materials, sensors, and information processing expected to impact applications in precision strike, signature management, chem/bio and particulate environmental protection, and counter-terrorism capabilities.

“The ICB brings together world-class research institutions with the Army and future industry partnerships to leverage the rapid progress and large investments in Biotechnology,” said Acting Deputy Assistant Secretary Research and Technology, Dr. Thomas H. Killion. “Full spectrum mission effectiveness and force survivability are essential elements of Army Transformational goals. Biotechnology holds great promise for creating paradigm shifting capabilities to achieve these goals.”

A single university will serve as lead UARC host for the ICB, with sub-contracts to two other universities that complement the expertise of the host institution and are fully integrated and networked into the host institution program.