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## PROGRAM MANAGER



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**KEITH CHARLES**  
DIRECTOR, AT&L WORKFORCE MANAGEMENT

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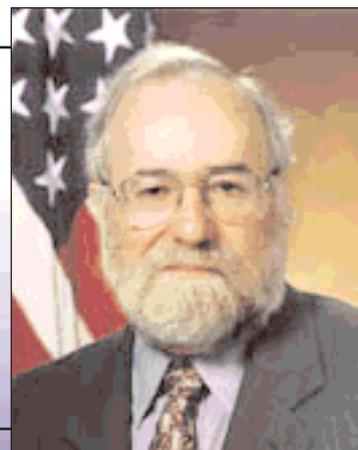
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**TELECOMMUTING PROGRAM — Is "FLEXPLACE" SUITED TO YOUR ORGANIZATION?**

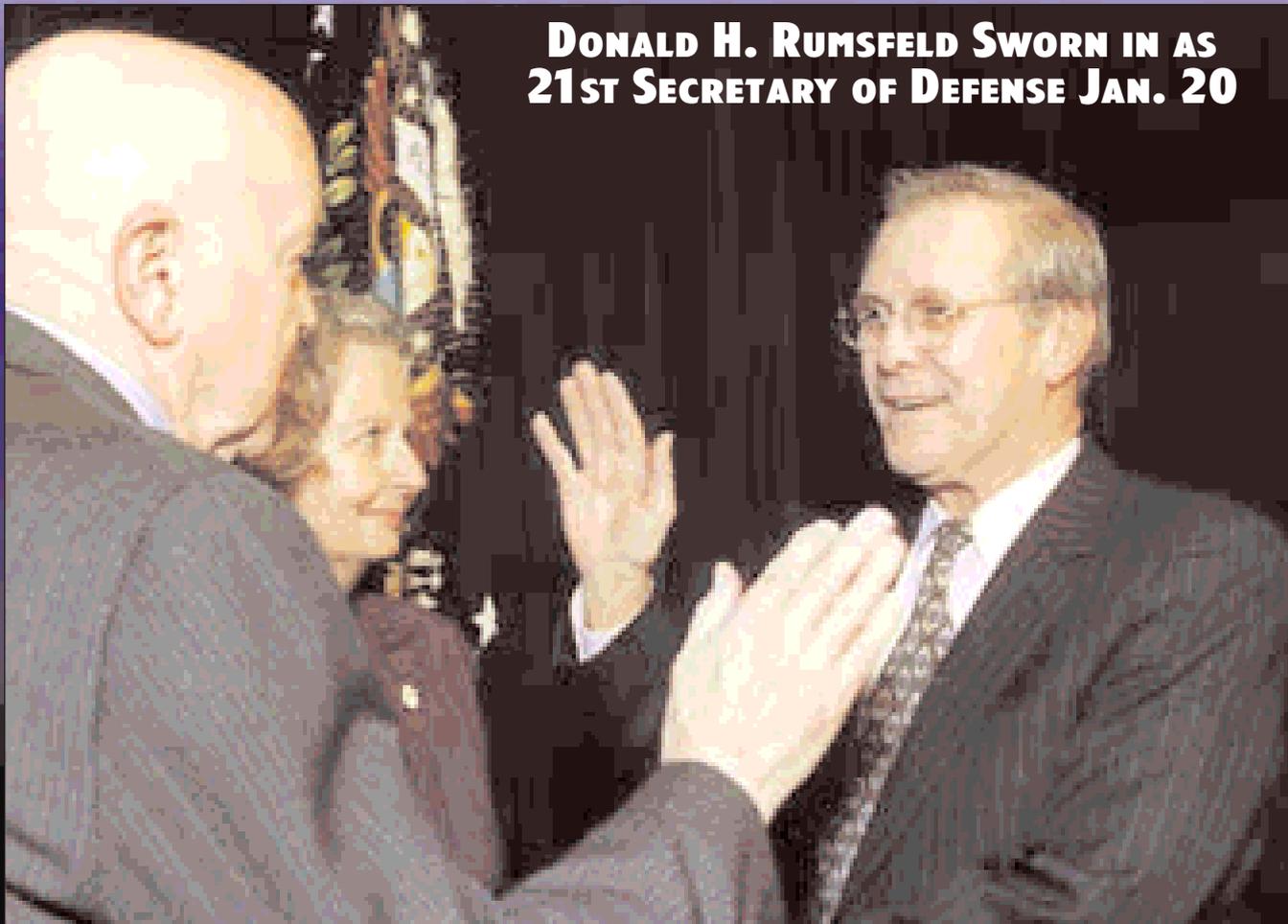
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**Educating the DoD Civilian Workforce**

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**DONALD H. RUMSFELD SWORN IN AS 21ST SECRETARY OF DEFENSE JAN. 20**



# PROGRAM MANAGER

Vol XXX, No.1, DAU 160

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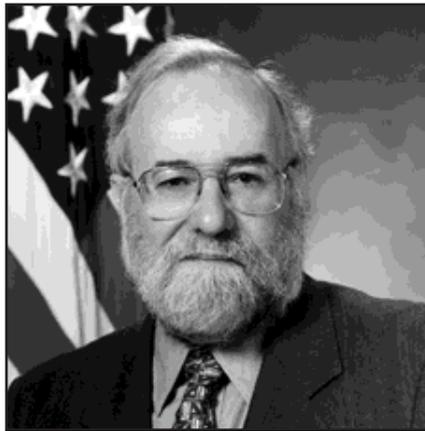


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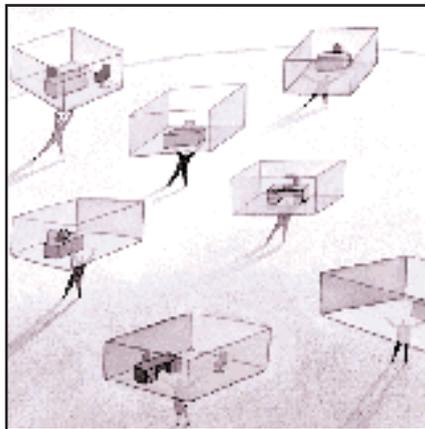


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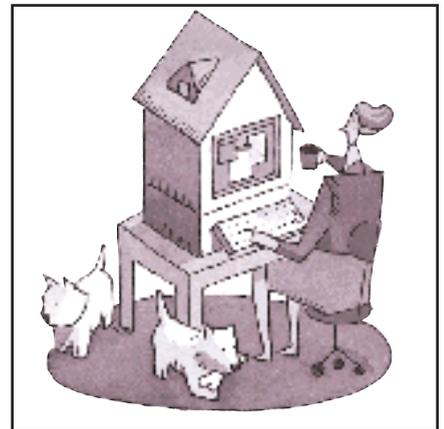


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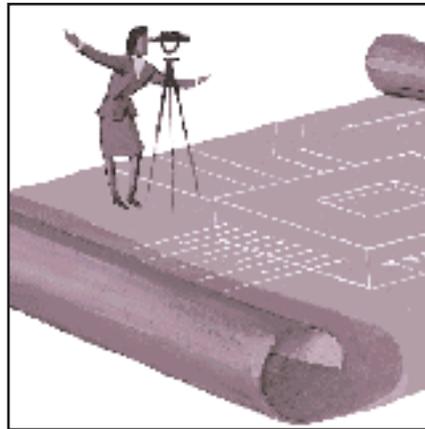


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# Rumsfeld Details DoD Goals, Objectives in Testimony

## Speeding Up Research, Development and Acquisition One of Rumsfeld's Five Key Objectives

JIM GARAMONE

**D**onald Rumsfeld testified before the Senate Armed Services Committee Jan. 11 during his confirmation hearing to be the next Secretary of Defense. This was Rumsfeld's second set of confirmation hearings. (He previously served as Secretary of Defense from 1975 to 1977.)

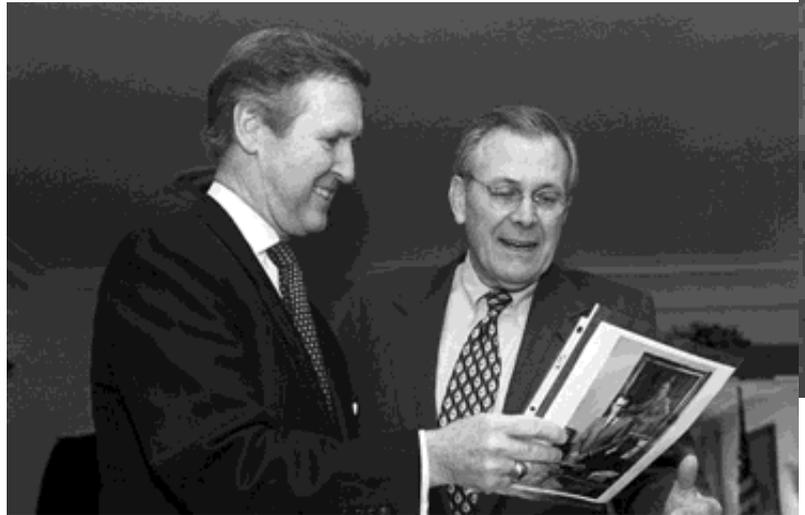
"Weakness invites people into doing things they wouldn't otherwise think of," Rumsfeld said.

This goes to the heart of Rumsfeld's view of defense. President George W. Bush nominated Rumsfeld as Defense Secretary Dec. 28.

He told the senators that the world is a different and more peaceful one with the Soviet Union gone, "but it is nonetheless a dangerous and untidy world.

"We also know that the power of weapons today is vastly greater than it was in earlier eras, and we know that with the relaxation of tension at the end of the Cold War the proliferation of these capabilities is pervasive," he said.

Rumsfeld said the world is entering the "era of globalization." He said while it is a hopeful time, it is also full of challenges. One main challenge he needs to address, he said, is "the challenge of bringing the American military successfully into the 21<sup>st</sup> century so that it can continue to play its truly vital role in preserving and extending peace as far into the future as is possible."



Former Defense Secretary William S. Cohen (left) meets with Secretary of Defense Donald H. Rumsfeld in Cohen's Pentagon office prior to Rumsfeld's confirmation Jan. 20. DoD Photo

He called the struggle today not as obvious as the one against the Soviet Union, but "just as noble." He said the U.S. goal is "to turn these years of influence into decades of peace.

"And the foundation of that peace is a strong, capable, modern military. Let there be no doubt." The nominee said he will follow Bush's three over-arching goals for bringing U.S. armed forces into the 21<sup>st</sup> century.

### Strengthen Bond of Trust

"First, we must strengthen the bond of trust with the American military," Rumsfeld said.

"The brave and dedicated men and women who serve in our country's uniform – active, Guard, and Reserve – must get the best support their country can possibly provide them so that we can continue to call on the best people in the decades to come."

### Develop Defense Capabilities

Second, the United States must develop capabilities to defend against missiles and terrorism, and newer threats aimed against space assets and information systems. "The American people, our forces abroad and our friends and allies, must be protected against the threats [with] which modern technology and its proliferation confront us," he said.

*Garamone is a public affairs specialist with the Armed Forces Press Service.*



Donald H. Rumsfeld takes the oath of office as the 21st Secretary of Defense from David O. Cooke (left) as his wife, Joyce, holds the Bible. The Jan. 20 ceremony in the Eisenhower Executive Office Building marks Rumsfeld's return to the Pentagon, where he was Secretary of Defense from 1975 to 1977. Cooke is the Director of Administration and Management at the Department of Defense.

White House Photo by Hyungwon Kang

of the new century and for maintaining stability in our new national security environment."

Rumsfeld told the senators he will pursue five key objectives to reach Bush's goals for DoD.

### **Exploit Advanced Technology**

Third, DoD must take advantage of the new possibilities that the ongoing technological revolution offers to create the military of the next century.

Rumsfeld said one of his first duties, if confirmed, would be to order a comprehensive review of U.S. defense policy. This would be in addition to the congressionally mandated *Quadrennial Defense Review*.

"This review will be aimed at making certain that we have a sound understanding of the state of the U.S. forces and their readiness to meet the 21<sup>st</sup> century security environment," he said. "We need to ensure that we will be able to develop and deploy and operate and support a highly effective force capable of deterring and defending against new threats.

This will require a re-fashioning of deterrence and defense capabilities.

"The old deterrence of the Cold War era is imperfect for dissuading the threats

**"In certain respects, it could be said that we are in a sense disarming or 'underarming' by our failure to reform the acquisition process and to shed unneeded organization and facilities."**

**—Donald Rumsfeld  
Secretary of Defense**

### **Change Deterrence Policy**

"First, we need to fashion and sustain deterrence appropriate to the new national security environment," he said.

The proliferation of weapons of mass destruction and their means of delivery must be acknowledged and recognized and then must be managed, he said. The United States should still strive to slow proliferation, but "a determined state may nonetheless succeed in acquiring weapons of mass destruction" and missiles. This means there must be a change in the policy governing deterrence, he said.

"Credible deterrence no longer can be based solely on the prospect of punishment through massive retaliation," Rumsfeld said. "It must be based on a combination of offensive nuclear and non-nuclear defensive capabilities working together to deny potential adversaries the opportunity and the benefits that come from the threat or the use of weapons of mass destruction against our forces, our homeland, as well as those of our allies."

## Assure Readiness, Sustainability of Deployed Forces

The second objective is to assure the readiness and sustainability of deployed forces.

“The price of inadequate readiness is paid in unnecessary risks to American interests and in unnecessary risks to the lives of American servicemen and -women,” he said.

“Our armed forces today are all volunteers,” he continued. “They are men and women who have willingly answered the call to serve our country and accept the burdens and dangers that go with that service. As President Bush has said, even the highest morale is eventually undermined by back-to-back deployments, poor pay, shortages of spare parts and equipment, and declining readiness.”

He said a volunteer military has only two paths to follow to fill its ranks: One is to lower standards, while the other is to “inspire the best and brightest to join and stay,” he said. “... I look forward to working with the president and this committee that has been so interested in the subject, to make sure that our country’s [Services are] able to attract and retain the best of our country.”

## Modernize C3I and Space Capabilities

The third objective is to modernize U.S. command, control, communications, intelligence, and space capabilities. “A modern command, control, communications, and intelligence infrastructure is the foundation upon which U.S. military power is employed,” Rumsfeld said.

He said he is committed to strengthening U.S. intelligence for both short-term and long-term national security needs. “I will personally make establishing a strong spirit of cooperation between the Department of Defense and the rest of the intelligence community, under the leadership of a director of central intelligence, one of my top priorities,” he said. “We simply must strengthen our intelligence capabilities and our space capabilities, along with the ability to protect those assets against various forms of attack.”

## Speed Up Research, Development, and Acquisition

The fourth objective looks to speeding research, development, and acquisition. “The need to swiftly introduce new weapons systems is clear,” Rumsfeld said. “The transformation of U.S. military power to take full advantage of commercially created information technology may require undertaking near-term investment to acquire modern capabilities derived from U.S. scientific and industrial pre-eminence, rather than simply upgrading some existing systems.”

He said the present weapon system acquisition process is not well suited to meet the demands posed by an expansion of unconventional and asymmetrical threats. The current cycle time from program start to initial operational capability is generally over eight years.

“Such processes are not capable of harnessing the remarkable genius and productivity of the modern information-based commercial and industrial sectors that have done so much to revolutionize our civilian economy,” he said.

## Reform DoD Structures, Processes, Organization

The fifth objective is the reform of DoD structures, processes, and organization. “The legacy of obsolete institutional structures and processes and organizations does not merely create unnecessary cost, which of course it does; it also imposes an unacceptable burden on national defense,” he said. “In certain respects, it could be said that we are in a sense disarming or ‘underarming’ by our failure to reform the acquisition process and to shed unneeded organization and facilities. If confirmed, we will examine, in consultation with the Congress, omnibus approaches to changing the statutory and regulatory basis for the most significant obstacles to reform.”

**Editor’s Note:** Rumsfeld was confirmed by the Senate and sworn in as the 21st Secretary of Defense Jan. 20, 2001.

## Signing and Retention Bonuses Available for High-Technology Workers!

**A** proposed change to the Federal Acquisition Regulation (FAR), published Dec. 28, 2000, is designed to aid government contractors in hiring and retaining the talent they need in certain technical areas. The proposed change makes it clear that the government will reimburse contractors for signing and retention bonuses needed to recruit and retain workers with critical technical skills.

Increasingly, the government is contracting for services, particularly those of scientists and engineers in fields such as software and systems integration. This trend is driven by the need to use technology to improve the efficiency and effectiveness of government performance. Deidre A. Lee, the Director of Defense Procurement, stated that “Contractors have told me of their difficulties in competing with predominantly non-government firms to attract and retain personnel with critical technical skills. While signing bonuses for difficult-to-fill positions and retention allowances for essential employees are already allowable costs on government contracts, this rule will make that allowability explicit in the FAR.”

A copy of the proposed change can be found at [http://www.arnet.gov/far/ProposedRules \(FAR case 2000-014\)](http://www.arnet.gov/far/ProposedRules(FAR%20case%2000-014)). Comments are due Feb. 26, 2001.

## Yim Speaks at DSMC's APMC 01-1 Convocation



**R**andall A. Yim (center), Deputy Under Secretary of Defense for Installations, was the featured guest speaker at the Class 01-1 Advanced Program Management Course Convocation, held at Scott Hall, Defense Systems Management College (DSMC), Fort Belvoir, Va., on Jan. 8. Pictured from left: Rich Reed, Defense Acquisition University Provost and Acting Commandant, DSMC; Yim; and Donna Richbourg, Acting Deputy Under Secretary of Defense (Acquisition Reform).

## Navy Releases New Contracting Guide

**C**ontracting for the Rest of Us: Some Basic Guidelines, October 2000, is now online. Released by the Office of the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN[RD&A]), Acquisition and Business Management, the Guide supports the four goals set forth in the ASN(RD&A) Strategic Plan: improve warfighter satisfaction; shape and train an efficient and effective acquisition workforce; lower the total ownership cost of equipment and services; and reduce cost and cycle time for delivering equipment and services.

According to Navy Rear Adm. Gwilym H. Jenkins Jr., Deputy for Acquisition and Business Management, "This Guide represents an initiative to reach these goals by improving the acquisition process through a simplified understanding of the contracting process. It provides non-contracting personnel with a better understanding of the fundamentals of the contracting process. Developed by engineers and contracting personnel with a significant amount of experience in DoD acquisitions, it provides the contracting fundamentals, lessons learned, and tools that are used daily by this office to support Navy acquisitions."

The Guide can be downloaded from the Defense Acquisition Reform Web site at: [www.acq.osd.mil/ar/#contract](http://www.acq.osd.mil/ar/#contract).

## DoD INTERAGENCY PROGRAM OFFICE OPENS

**T**he Department of Defense today in a ribbon-cutting ceremony opened its U.S. Export Systems Interagency Program Management Office (USXPORTS IPMO). Principal [Deputy] Under Secretary of Defense for Policy James Bodner; [Acting] Under Secretary of Defense for Acquisition, Technology, and Logistics David Oliver; Under Secretary of Commerce for Export Administration William Reinsch; and Assistant Secretary of State for Political-Military Affairs Gregory Suchan participated in the event.

USXPORTS is a major acquisition program to design, develop, and deploy a modern electronic export license review system that will be interoperable among the Departments of Commerce, State, Defense, and other interested government agencies. Its objective is to modernize the export control process by ensuring easy and timely electronic access to pertinent export data, while protecting national security interests and industry proprietary data.

To view a fact sheet and an organizational diagram go to <http://www.defenselink.mil/news/Jan2001/d20010116exportfacts.html> and <http://www.defenselink.mil/news/Jan2001/d20010116exportchart.html>.

**Editor's Note:** This DoD News Release, dated Jan. 16, 2001, is in the public domain at <http://www.defenselink.mil/news>.

# Is DoD Bringing Everything to the Table in Educating Its Civilian Workforce?

## A Look at DoD's Current Array of Professional Education Tools

MAJ. BRENT CALDERWOOD, USAF

Is the Department of Defense (DoD) leveraging every opportunity for our civilian workforce to excel? Are we bringing into our offices the knowledge necessary to carry out viable operations or programs that will move us into the 21<sup>st</sup> century? Many organizations have no plan for fostering leadership development, nor is a Service college education for civilian personnel always made readily available. What really needs to be brought to the table for the government, the military, and defense agencies, Service colleges, and universities to ensure the professional training, education, and career development of DoD's future civilian leaders?

No one can doubt the necessity for training on a new equipment system, for example, in telecommunications or manufacturing, but what about the development and fostering of our management teams? Typically, the future of an organization is vested in the junior supervisor or manager to ensure that operations continue well into the programmed life cycle of a system. Likewise, equal attention needs to be given DoD civilian employees in the area of leadership development.

### Investing in Professionals

In October 1998, John Hamre, former Deputy Secretary of Defense, administered the oath of office to the first DoD

Chancellor of Education, Dr. Jerome Smith. Hamre said:

"DoD has to invest more in our professionals. How we do that – what ways and how much – is still an open question. It's going to be Dr. Smith's responsibility to guide us on that."

In a later interview, Smith reflects, "We cannot attract and keep quality people if we bring them in with the view they have learned everything they [will] ever need to know, and from then on it's a matter of being a practitioner. We have to engage in what is called continuing education."<sup>1</sup> He adds, "If you look at our system for the civilian workforce, it is not remotely equivalent to what we provide our military members or military dependents. Our civilian workforce is trained and educated in a variety of ways or not at all."

The DoD Professional Military Education (PME) system is world-class, and participation is prescribed by specific grade or rate structure. The Military Services as well as Defense Agencies support the components of the process. In reflecting on our education programs for the military, William S. Cohen, Secretary of Defense, said: "Over the years we've put a lot of focus on training our servicemembers and officers, and the rewards have been immeasurable. We

now have to put the same emphasis on developing the skills of the 730,000 civilians who serve this Department."

With reductions in military authorizations and the need for military personnel to focus on warfighting missions, DoD recognizes an increased urgency to properly equip the Department's civilian employees to fulfill key roles of leadership within their organizations.

Even though organizations can provide more schooling, education, and training experience throughout a career, it really becomes the responsibility of the individual to harbor new ideas for job performance and growth. Making educational, training, and career development tools available to civilian personnel by developing career assessment and career development plans, provides the baseline for advances in our organizations.

### Technological Direction

In a presentation before the Naval Postgraduate School Conference on "Military Education for the 21<sup>st</sup> Century Warrior," Jack Reed, Senator from Rhode Island, said:

"We all understand that we are in the midst of a tremendous revolution in technology – information technology in particular. This is an intellectual idea we can all grasp. But when you go out and visit some of the more exciting places around here, particularly Hewlett-Packard Laboratories, and all the companies I have been going to these last few days, you realize what they're doing is investing

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*Calderwood is currently assigned to the Project Management Office, Defense Travel System, as an Outreach Communications/Media Relations Officer, The Pentagon, Washington, D.C. He holds a B.A. in Health Services from Governors State University, and an M.S. in Management and Human Resources from National-Lewis University.*

dramatically in the education of their workforce. In fact, their whole approach to the future is investing in the human capital of their employees. It's transcended any other resource that they command as business leaders."<sup>2</sup>

Reed points directly to the need to develop leaders who understand technology, systems, and the history of the nation they work in. These are poignant reminders for any organization. Looking to the development of leaders gives us a sound basis from which to build a strong and viable structure of civilian personnel; in fact, highly trained civilian personnel, working alongside their military counterparts, will inevitably become the building blocks to DoD's future direction.

In that vein, DoD needs to be prepared to meet the challenges that lie ahead for the next decade – the challenges that are sent forward to the DoD and its organizations as they move into this new century. How will the future needs of the workforce be articulated? This question led to the mandate to provide world-class educational programs for civilian employees. When organizations take the standard and recognize what is required to develop successful leaders, they position themselves to adapt to changing environments. This builds the framework for a cadre of highly trained professional supervisors, managers, and executives.

### Looking for Options

The Government Employees Training Act (5 U.S.C. 4100) provides a broad definition of training to assist DoD members, Agencies, and Services in understanding requirements.

"Training means the process of providing for, and making available to an employee, and placing and enrolling the employee in a planned, prepared, and coordinated program, course, curriculum, subject system, or routine of instruction or education in scientific, professional, technical, mechanical, trade, clerical, fiscal, administrative, or other fields, which will improve individual and organizational performance and assist



**“We cannot attract and keep quality people if we bring them in with the view they have learned everything they [will] ever need to know, and from then on it’s a matter of being a practitioner. We have to engage in what is called continuing education ... If you look at our system for the civilian workforce, it is not remotely equivalent to what we provide our military members or military dependents. Our civilian workforce is trained and educated in a variety of ways or not at all.”**

**—Dr. Jerome Smith  
DoD Chancellor for Education and Professional Development**

**in achieving the agency’s mission and performance goals.”**

In simple terms, organizations provide individuals, regardless of their rank or position, the ability to gain knowledge with professional development, and enable them to better perform their jobs with a greater impact on the mission. A training process that has no limits is not constrained by a standard model of education.

The inability of individuals to adapt to change has been a real hindrance in advancing education programs. Organizational bureaucracies have grown – many times specializing in lacking the leadership and the freedom to change with time. Vice President Al Gore, in his address on “Transforming Governments in the 21<sup>st</sup> Century,” reminds us that a common phrase in government used to be “good enough for government work.”<sup>3</sup> He says, “Clearly, all of us face the challenge of changing this culture and leading and empowering employees to make innovations we need.” Therefore, we no longer can operate in America, and in DoD, the way we used to. We have to move toward securing a higher standard for our organizations and for our staff.

The leadership within DoD has recognized the necessity to provide solid career development programs for their civilian employees. These programs are crucial to the emergence of future leaders within DoD. The commitment for this starts at the GS-09 level and ensures that personnel obtain a strong knowledge base as they progress in their careers. Future civilian leaders are now being educated with our future military leaders in greater numbers thanks to the recognition of these past failures and the realization that this need must be met.

In 1997, the Office of the Secretary of Defense (OSD) developed a DoD-wide leader development program in response to recommendations of the Commission on Roles and Missions. It called for changes to train senior civilians. The Defense Leadership and Management Pro-

gram (DLAMP) was the result of that commission, which stemmed from the need for a systematic program of leader development that provided significant benefits to participants and their sponsoring organizations. The program is a part of what is required to give civilian personnel a leadership role in all Services and Agencies. Through DLAMP, the number of civilians that receive senior-level professional military education at the various War Colleges has been greatly increased.

So, what should each of us be looking at regarding educational development? Dr. John Dill, the DoD Deputy Chancellor for Education and Professional Development, reflects on the long-term implications of educational development.

“We learn the importance of education when we go through the downsizing, when we look at retirements and other pertinent issues,” he said. “What we have to do is to track folks early in their careers, so they do not look at government service as a way station to another job in industry, but rather as a long-term career as a DoD employee.”<sup>4</sup>

This is a valuable goal that is becoming a way of life. DoD is realizing that even though career planning is a requirement, an effort must be made to ensure that supervisors are providing the proper evaluation and development tools for their employees.

### Army’s Training Commitment

The Department of the Army (DA) training vision is to support total force readiness and mission accomplishment by empowering commanders and managers with the authority to train and develop a technically competent and performance-oriented civilian workforce. To ensure that the newest techniques, tools, and equipment are mastered, DA expanded their Human Resources Development Vision for the civilian workforce based on six general principles:

- The function of development relies on a system, which measures the gap between the requirements of jobs and



**“We learn the importance of education when we go through the downsizing, when we look at retirements, and other pertinent issues ... What we have to do is to track folks early in their careers, so they do not look at government service as a way station to another job in industry, but rather as a long-term career as a DoD employee.”**

**—Dr. John Dill  
DoD Deputy Chancellor for Education and Professional Development**

the capabilities of the people who perform the work.

- Development is an investment by the organization in its performance and mission accomplishment. Successful workforce development programs are linked directly to the Army installation and activity strategic planning purposes.

- Funding for the development of the workforce must be addressed and supported at all levels.
- Development is accomplished by the most cost-efficient and effective methods.
- Information on development requirements, job opportunities, and progression paths is available to all managers and employees throughout their employment.
- Development is a lifelong process.

The Army has made a commitment to move ahead with the development of a diverse education program across all civilian grades. The core of this program is the use of alternative-based instruction focusing on Distance Learning programs, and the construction of interactive support programs with interactive software. With a call for increased participation in interactive courses, the Army has developed Computer Based Training on over 800 different software programs. The emphasis on interactive participation brings personnel the ability to use the resources of many other organizations, like the courses available through the Defense Acquisition University.

Consequently, these efforts advance Army employees on the move toward a lifelong learning experience. The robust suite of basic civilian leadership training takes Army employees progressively through training at four levels: intern/entry, supervisory, managerial, and executive. The process that the Army has developed parallels the formal training structure of its officer leader development system and imprints the Army’s vision to the competencies required for future Army civilian leaders.

### Blowing Away the “Traditional System”

Educational institutions have realized that the use of new technology and opportunities sets the standards for growth and excellence as they move into new markets. Indeed, the traditional classroom is being changed with the advent of new informational systems with communications and in computer technology – compounded by the need to provide the maximum benefit for every dollar spent.

One such organization is National Technological University (NTU), which offers a wide range of academic courses through academic alliances with more than 50 universities. These universities become partners in the overall curriculum of NTU. The universities produce noncredit courses, tutorials, and research teleconferences. NTU contracts with the institutions and faculty to develop additional curricula and courses, as necessary.

NTU realized that they could not be the best in every curriculum or specialty, and they contracted with the universities known as producers. This process allowed them to draw on the expertise from these top universities. Using the knowledge of these universities allowed NTU to offer organizations a unique scope of knowledge, as well as a strong portfolio for professional development.

The NTU portfolio of over 1,400 graduate-level courses gives a rich mix of theory, applications courses, and hands-on training. This broad scope of resources allows a tailoring of programs to meet the requirements of organizations worldwide. Organizations sponsor NTU courses via satellite programs at one or more suitable sites for employees or their client employees. Programs can be brought to organizations, statewide networks, interconnected networks, and international distributors by linking to satellite transmissions. Being innovative and open to the many customers' needs has made this organization a leading provider of advanced technical education and training from a distance.

### **DFAS — A Professional Development Success Story**

The Defense Finance and Accounting Service (DFAS) was created in 1991 to reduce the cost and improve the overall quality of DoD financial management through consolidation, standardization and integration of finance and accounting operations, procedures, and systems. DFAS processes a monthly average of 9.8 million payments to DoD personnel; 1.2 million commercial invoices; 450,000 travel vouchers/settlements; issuance of 500,000 savings bonds; and 122,000

transportation bills of lading. The agency's monthly disbursements total approximately \$24 billion.

The corporate vision of DFAS is to be a world-class provider of finance and accounting services. Their goals include being an "employer of choice" by providing a progressive and professional work environment. This organization clearly recognizes that employees are key to the agency's success. Fostering that atmosphere has led them to develop what they call the "Road Map to Growth and Development." With almost 18,000 personnel in over 25 locations, they not only have a commitment, but also an urgency to provide quality educational experiences for their workforce.

In 1995, the organization was moving to consolidate accounting functions within the DoD, while simultaneously building their own corporate identity. Executive management at DFAS realized that the agency had no road maps or evaluation mechanisms to see where they were spending money to develop their leaders. They knew that something had to be done.

Since the mandate of the organization is to be a trusted, innovative financial advisor and ensure proper stewardship of DoD resources, they worked to develop a systematic plan that enhanced employees' skill development — resulting in a program that will bring about the vision of being a world-class provider of financial services.

### **Developing Leaders for a High-Performance Organization**

Undeniably, there are distinct differences in the job performance standards, career knowledge, and education of a GS-07 and a GS-15. More difficult to define accurately are the competencies required at each of the two grade levels.

DFAS set about developing a series of Career Development Plans in book form for every career field, career ladder, and job classification within their organization.

This road map enhances the development of a professional and highly skilled

workforce. For example, the Financial Management Career plan encompasses four distinct job classes: Accounting, Auditing, Financial Administration, and Program/Budget Analysis. By following the structure of this plan, individuals and supervisors can not only look at specific skills and qualifications for a job classification, but also see how these positions are distributed through the organization.

By grouping skills, leveling job requirements, and identifying the competencies required to maintain proficiency, DFAS was able to integrate core competencies and objectives to lay out a road map. Of course, the program had to be valid. DFAS recognized that they had to build a program with credibility. Toward that end, they worked directly with the Office of Personnel Management (OPM) to write and build the career development plans. This partnership between DFAS, in-house subject matter experts, and OPM classification experts provided a certification of the development process, and became the earmark for quality in providing knowledge and growth for employees. Because OPM certified the materials, they also set the rules for executive development. This presented a unique opportunity to work with unions and professional organizations in an unequalled manner. There are no losers in this process.

The validation of these standards also provided support for the selection process for hires, promotions, and career changes. Furthermore, supervisors had tools available to tie career management to the organizational goals as well as the employee. The DFAS program of career development plans became the core of partnering the individual employee, the supervisor, and the Human Resources Department. This brought the business objectives, values, and corporate goals of DFAS directly in line with its people: to develop a highly trained, competent Agency workforce, with continual emphasis on taking care of DFAS employees.

The difficulty facing any organization is the necessity to provide quality oppor-

tunities for learning and development, yet not allow these to hamper the mission. Stephen E. Freeman, the DFAS Director for Human Resources, explains the Agency's development activities this way: "We have mandated individual development plans for our employees that concentrate on two things — the job they are in and their career aspirations. Obviously, the supervisors concentrate mostly on the job they are in and the employees their aspirations." He further adds, "The bulk of our training is targeted to help employees do their job better. This is in large part driven by how much their current job is changing, new technology, and even changes in the laws and regulations."<sup>5</sup>

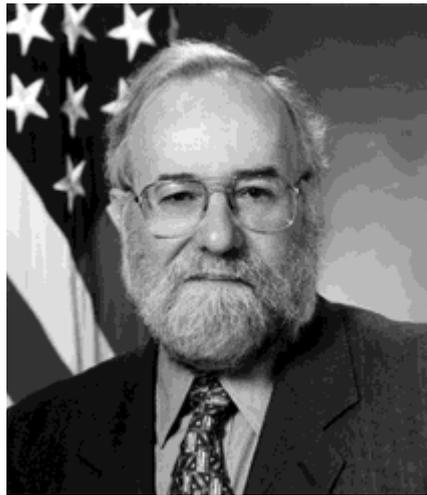
### **W. Edwards Deming Award**

Those who see the results of success recognize innovation. In 1992, DFAS developed the Learning Center concept. The broad goal of the learning centers was to provide the right mission-related training at the right time, at the right cost, and at the right place — the work site.

This initiative established a network of multimedia learning centers at almost every location where DFAS personnel were assigned. The centers provide employees multiple development opportunities using multimedia, satellite, and other distance learning technologies. These one-stop shops provide a customer service area; self-paced multimedia workstations; career counseling and mentoring; multi-purpose training rooms; and centralized training libraries.

Freeman explains their progress this way: "Tremendous options are available, especially with the delivery of training. By the use of CD-ROM or any kind of distance learning capability built into our sites, much of the training is cheaper now. Not only is it cheaper, but it is also readily available to individual employees." This enables the organization to provide training to any number of personnel in potentially all locations at completely different times.

Through distance education programs, DFAS financial managers and accountants have access to top-notch speakers and seminars that will keep them on the



**“We have mandated individual development plans for our employees that concentrate on two things — the job they are in and their career aspirations. Obviously, the supervisors concentrate mostly on the job they are in and the employees their aspirations. The bulk of our training is targeted to help employees do their job better. This is in large part driven by how much their current job is changing, new technology, and even changes in the laws and regulations.”**

**—Stephen E. Freeman  
DFAS Director for Human Resources**

cutting edge of their profession. The flexibility of the learning centers allows DFAS to provide programs on adaptable schedules. This reduces time lost due to travel and time off from work.

The learning centers were not developed in a vacuum. Setting up the learning centers was a joint effort by all of the DFAS directorates. This ranged from the information managers to the financial managers to the human resources specialists. Everyone's opinion mattered. All had roles in designing the learning centers to meet the needs of employees as well as other patrons.

The development of the learning centers resulted in the ability to offer up-to-date, technology-based methods for training, while avoiding costs associated with leased space, repetitious classes, and services from outside sources. Moreover, it gained for employees the availability of one-stop shopping for training services.

Among the many benefits provided through learning centers, four are worth noting:

- Increased timeliness of training.
- Decreased employee time away from work for training.
- Expanded service hours to meet schedules of employees.
- Ability to offer employees the opportunity to receive both courses and degrees via satellite.

In addition, learning centers foster the improvement of employees and managers. Because of multiple locations (expected to be at all major DFAS locations worldwide by 2001), learning centers are able to offer and provide partnerships with other DoD and government organizations. In fact, DFAS has formed partnerships with the Veterans Administration in Cleveland, Ohio; the Defense Mega-Center in Denver, which already offers satellite courses from NTU; as well as local Army, Air Force and Naval Reserve groups.

Although more remains to be accomplished, DFAS has realized substantial savings. The agency benefited from a bet-

ter-equipped, confident workforce that was able to not only realize its potential, but also take advantage of expanded opportunities, thus empowering the entire civilian workforce to take charge of their careers. The intangible benefits have been realized through providing adaptive equipment, thereby increasing training opportunities for physically challenged employees, and by providing consolidation of training resources and information for employees.

The U.S. Department of Agriculture (USDA) Graduate School is an innovative institution for continuing education that offers courses to help government employees improve job performance and further their careers. In 1997, DFAS became the recipient of USDA's coveted W. Edwards Deming Award for Outstanding Training for the Learning Centers. The award is presented annually to a federal organization or civilian branch in the military in recognition of the completion of an innovative and impressive employee development and training program. Its presentation to DFAS represented and recognized the significant impact the learning centers' training initiative had on DFAS and its entire civilian workforce.

DoD managers continue to rely on DFAS for finance and accounting services, and information. A world-class provider with a strong identity, DFAS remains committed to providing the best service to its customers at the lowest possible cost.

### **Quantifiable Measurements (or the Lack Thereof)**

In any organization, whether it be corporate, not-for-profit, or government, certain expenses exist for education. One of the difficult issues most managers face is weighing the relative merits of education programs. Their effects on the budget of an organization reflect not only the costs of education but also personnel costs.

Congressman Sam Farr of California explains the value of cost by saying, "With the current military [education] process, there has to be a cost-reimbursable expense, and nobody can afford to pay \$22,000 a year to send people to the De-

fense Language Institute. If there were an exchange between the University of California and the California University system, you would just exchange credits—you'd send a student over here this year who gets six, seven, twelve units of credit, and you'd send one there next year or the year thereafter. We ought to be banking on that. We need to find better tools to meet the mission we've outlined here through better collaborations."

We can intuitively agree that education has its merits, but quantifiable measurements to employee development programs are not only justifiable, but also necessary. Needs are obvious, but the merits are not always readily apparent. There needs to be a solid evaluation of the Return on Investment (ROI) for education, training, and career development. Corporate education becomes a buzzword, and training functions more as a cost center rather than a business center. Although no quantifiable measurements may exist, we need to look at the ROI of our employee development programs.

### **So What About the Return on Investment?**

A textbook definition for Return on Investment is easily found, but educational programs present a differing perspective. When we think of ROI, we usually look at dollars in and out of a program. Trying to evaluate a specific return on investment can be difficult. DFAS went one step beyond. Freeman puts it this way:

"DFAS is wrestling with the issue of ROI in large part because it is a top priority to our agency director. We are doing interviews with all top agency management to make sure we understand what they want their employees to have in terms of competencies and skill levels. This is the state of the art today—how do you measure the ROI?"

"In career development, executive, or supervisory training the hardest part is to determine ROI. Because when you send someone out to learn how to motivate employees and they come back, how do you determine what they've learned? It is very difficult, and you are always coming up with what is, in reality, an esti-

mate. You can't really quantify it nearly as close as anyone would like to, but you can continually make efforts to change the methods of delivery, content, or even the course itself."

When we look at ROI, many other factors can be important, according to Dill. "In order to get measures you have to look in terms of goals. If you want to develop a 20-year career path, and you have a staff turn over every three years, you will fall short of a long-term goal measure if you have to hire new people and keep people moving between opportunities with a bottom-up progression.

"The question is about policy. Our focus is operations. PME programs are about operations but derive from policy. What we are doing about knowledge is not for the sake of developing scholarship but for the sake of teaching contributions to DoD policy in this area. The whole issue of civilian education—the quality and cost effectiveness—is related to *policy*. Policy has implications in decisions made in terms of time lost and dollars spent."

So what is the classic definition of ROI? It is a *value*, and Webster defines value as:

- A fair return or equivalent in goods, services, or money for something exchanged.
- The monetary worth of something: marketable price.
- Relative worth, utility, or importance: a good value at the price.

If we were to ask five organizations whether they measure the ROI on a particular program, they all will respond with either yes or no, but defining it can place it into as many variables as there are questions asked. ROI is a breakdown of benefits and costs. Valuations without identification of benefits and costs can be misleading. Valuations are commonly thought of as profit, advantage, or gain attained.<sup>6</sup>

We know that the measure of ROI is the measurement of monetary benefits from an investment divided by the costs asso-

ciated with that investment. The ratio gives us a number, but it does not portray the total picture. Since the return is also subject to other factors such as risk, feasibility, and the long-term goals of an organization, managers can have a difficult time developing an analysis of any program.

Much of the measurement for ROI is subjective. If the data for a measure are collected from 12 differing individuals or organizations, we will probably have 12 different answers. We also need to be able to provide the same comparison for every process or program measured. Comparing dissimilar characteristics is perhaps the biggest obstacle to a good measure.

A number can be manipulated to make a case for any side. For example, with investments we can compare the rate of return; if it is high risk, we usually have high return; low risk—low return. When looking at education programs, we need to know specific quantifiable measurements. What are we measuring, and how do we state the measurement? The problem lies in quantifying non-quantifiable items.

So, at this point there really is no easy way of measuring the ROI. If we have a quantifiable value like salary, time lost, or productivity, we can use that to compare it to other factors like the cost of an instructional program. We can evaluate alternatives using net present value (NPV) because it recognizes the time value of money by discounting monetary cost and benefits over a period of time. This could be a life cycle or any selected period. But again, generating a meaningful NPV requires a sound estimate of the costs and benefits of a project.

The measurement of ROI will continue to be a concern in professional development. As managers, the only values we can realistically measure may be looking at the changes in job performance or growth in a particular task. This will be the challenge set before us.

## A Future Look

Are senior managers articulating everything they would like their employees to be or encouraging their individual devel-



**We all understand that we are in the midst of a tremendous revolution in technology ... But when you go out and visit some of the more exciting places around here, particularly Hewlett-Packard Laboratories ... you realize what they're doing is investing dramatically in the education of their workforce. In fact, their whole approach to the future is investing in the human capital of their employees. It's transcended any other resource that they command as business leaders.**

**—Jack Reed  
Senator from Rhode Island**

opment? That seems to be an issue that needs to be declared. We need to build an individualized audit of educational activities for our civilian employees with a goal of understanding exactly where pro-

fessional development is within DoD. With the right professional education tools, this “whole universe” perspective will enable and empower organizations to adapt to technological advances. However, even the right tools can not compensate for lack of communication.

Clearly, professional development programs need credibility. As the Army puts it, “Development is a lifelong process.” We need to realize as an organization that we maintain a commitment to excellence and continually look for new ways of providing education. It is not enough to have a career development program or a certification plan; what is needed goes far beyond a program or plan. We need to build the future, with the right tools such as learning centers, quantifiable measurements, awards and recognition, and increased emphasis on individual commitment to continuing education.

What we see now is the movement toward a “virtual university.” Providing effective educational programs and professional development within our organizations is critical to our mission. Performing that mission, with minimal time lost due to seminars, schools, and travel, increases the impact of our civilian personnel on our operations.

Future technology and fiscal constraints will continue to play a part in the education of our workforce. Motivating individuals to follow a vision that has no boundaries involves every organization. As Tom Peters states in his book, *Thriving on Chaos*,<sup>7</sup> we must:

- Invest in human capital as much as in hardware.
- Train entry-level people and then retrain as necessary.
- Train everyone in problem-solving techniques to contribute to quality improvement.
- Train extensively following promotion to the first managerial job; then train managers again.
- Use training as a vehicle for instilling strategic thrust.

Reflecting on the challenges that face civilian development programs, Dill re-

minds us, "We do not want to use a wrench to pound in a nail. We could use a wrench, but a hammer is the right instrument, so that's something we are struggling with. Part of the struggle is caused by the historical organization of DoD civilian education. There are structural impediments in many of our programs that do not exist in PME. It is two different worlds."

Our goal within DoD is to bridge the gaps in the programs and develop a new concept of professional education that is derived from the virtual reality, telepresence concepts of today – for tomorrow.

The professional development of civilian personnel is dependent on linkage to the mission of each Service or Agency. The top-down ownership of the career development process is critical to the positioning of DoD organizations in the future. The work does not always get easier, but we get smarter in the process.

The examples shown here lend credibility to the success of professional de-

velopment. The future lies in the hands of our new junior managers and supervisors. The push by DoD for greater access for DoD civilians to attend Service colleges, coupled with the commitment for better career development and education, has provided a critical link to bridging gaps in the education process. As DA has continually affirmed, *Learning is a lifelong process*.

**Editor's Note:** The author welcomes questions or comments on this article. Contact him at [Calderwoodb@osd.pentagon.mil](mailto:Calderwoodb@osd.pentagon.mil).

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## PACKAGING PILOT PROGRAM OFFERS MODEL APPROACH FOR MORE RAPID CMI EXPERIMENTATION/INSTITUTIONALIZATION

The Packaging Pilot Program is being conducted by a joint industry/government working group — the Packaging Integrated Product Team (IPT)— under the sponsorship of the Deputy Under Secretary of Defense (Acquisition Reform) and the Deputy Under Secretary of Defense (Logistics). The program's overall objectives are to:

- Provide industry flexibility to quickly find and try innovative packaging practices.
- Use best practices from both military and commercial environments.
- Deliver quality products that will go into the military distribution system.
- Operate in a collaborative environment.
- Accelerate identification and application of best practices.

Special contract provisions were established for the pilot contractors — the aircraft en-

gine segments of General Electric and Honeywell (formerly AlliedSignal) — through the Single Process Initiatives (SPI) program in order to streamline packaging processes and to facilitate experimentation with innovative packaging practices and materials.

The Packaging Pilot Program is an element of DoD's goal to foster Civil-Military Integration (CMI) and, where practical, to eliminate the distinction between doing business with the government and other buyers for the purpose of meeting future military, economic, and policy objectives in support of DoD and the warfighter. The Packaging Pilot Program offers a model approach for more rapid experimentation and institutionalization of CMI.

Acting Under Secretary of Defense (Acquisition, Technology and Logistics) Dave Oliver recently signed two memos on Packaging.

The first memo directed unlimited expansion of the Packaging Pilot Authority; and the second memo requested that military components consider proposed revisions to MIL-STD-2073. The new language makes Military Packaging (MilPack) the *exception* and commercial packaging the *default*.

Sponsors of the DoD Packaging Pilot Program now have a Web site at <http://www.acq.osd.mil/ar/package.htm#intro> that provides information from the participating contractors and the IPT. Program managers, contracting officers, packaging specialists, contractors, and warfighters are encouraged to make use of the Web site to share experiences or obtain up-to-date information on the Pilot Program. The overall point of contact is Craig Curtis, (703) 697-6399 or contact him by E-mail at [craig.curtis@osd.mil](mailto:craig.curtis@osd.mil).



# Army Knowledge Online Reaches Milestone

## Soldier in Bosnia Using Internet Technology Becomes 100,000th Customer

In just 18 months, the number of Army Knowledge Online (AKO) users has soared to 100,000. Sgt. Dewayne C. Dodson Jr., a mechanic currently serving in Bosnia with the Army's 3<sup>rd</sup> Infantry Division, became AKO's 100,000th user earlier this month.

AKO enables customers like Dodson to gain quick online access to important Army information, news, education and training opportunities, as well as knowledge centers and e-mail. In addition to processing personnel applications and finding information pertinent to military jobs through AKO, Dodson and other soldiers can communicate with families and stay in contact with peers throughout the world using the Army's Web-based service.

AKO is a leading component in the Army's commitment to knowledge management and becoming an information-centric organization.

"We're creating an integrated, personalized Intranet capability for the Army enterprise that is better than anything they have at home or in the commercial marketplace. Not only is AKO the 'one stop' for Army information – including a career lifetime e-mail address, customizable portal, and online transaction processing capabilities – but AKO is also accessible to its customers anywhere in the world," said Miriam Browning, the Army's Director of Information Management.

AKO offers powerful technologies to share information more effectively and make work more efficient – literally changing the way the Army conducts business. Recognizing that an organization's most important asset is its members' intellectual capital, knowledge management is a systematic process for

acquiring, creating, synthesizing, sharing, and using information, insights, and experience to achieve organizational goals.

AKO is part of the Army's Transformation into the 21<sup>st</sup> century.

"The Army is not just transforming 'heavy metal,' it's transforming infrastructure – Web-enabling processes – and looking at a future where people will rely on Internet technology like it's second nature," said Col. Robert L. Coxe, Director of the Strategic and Advanced Computing Center at Fort Belvoir, Va.

The Strategic and Advanced Computing Center put its energy behind building the most dominant Internet communications, information sharing, and decision support enabler available to the Army today. Knowledge management continues to reap significant cost savings and efficiency rewards for the Army.

AKO also offers appealing recruitment and retention incentives for increasingly computer-literate young people and motivates soldiers to take responsibility for their own time and information, enabling the Army to do more for less cost and to better anticipate future requirements.

For more information contact Miriam Browning, Director for Information Management, 703-695-5489, [Miriam.browning@us.army.mil](mailto:Miriam.browning@us.army.mil); or Lt. Col. Roderick Wade, 703-704-3727, [roderick.wade@us.army.mil](mailto:roderick.wade@us.army.mil). Internet availability for AKO program: [www.us.army.mil](http://www.us.army.mil).

**Editor's Note:** This information is in the public domain at [www.dtic.mil/armylink/news](http://www.dtic.mil/armylink/news).

# USD(AT&L) Honors Dr. Gertrude McBride-Eaton

CHAIRPERSON, DAU BOARD OF VISITORS



**D**r. Jacques S. Gansler, former Under Secretary of Defense (Acquisition, Technology and Logistics) (USD[AT&L]) presents a plaque to Dr. Gertrude McBride-Eaton, Associate Vice Chancellor for Academic Affairs, University of Maryland System Administration, and Chairperson of the Defense Acquisition University Board of Visitors (DAU BOV). McBride-Eaton was cited for her outstanding lead-

ership of the BOV, a DoD advisory committee of 11 members who advise the USD(AT&L) and the President of DAU on such matters as organization management, curricula, methods of instruction, facilities, and other matters of interest to the DAU. McBride-Eaton resigned as Chairperson effective December 2000.

## IMPORTANT NOTICE!

The 2001 Acquisition Research Symposium (ARS), originally scheduled for June 18-20, 2001, in Rockville, Md., has been postponed so that major policy changes in the new administration can be addressed. We will be updating the DAU Home Page ([www.dau.mil](http://www.dau.mil)) as information becomes available.

# Outsourcing Base Operations Support Functions

## The Laughlin Experience

LT. COL. RENE G. RENDON, USAF

In a recent DoD Acquisition Reform satellite broadcast, Stan Soloway, Deputy Under Secretary of Defense (Acquisition Reform), and Director, Defense Reform Initiative, stated that the A-76 cost comparison process and competitive sourcing is “a critical management tool ... and relies on the benefits of competition to determine the most effective and cost-efficient means to provide a wide range of services to support DoD’s mission.”

He went on to say that “A-76 cost comparisons have consistently concluded the obvious – competition drives better efficiency and higher performance and saves taxpayer dollars.”<sup>1</sup> Indeed, as DoD continues down the right-sizing path, more and more base functions, normally performed by government personnel, are now being outsourced to industry. Inevitably, the effectiveness of the acquisition tools and processes used by the base in the outsourcing effort will have a direct effect on the success of the resulting contract and the accomplishment of the base’s mission.

This article will describe the Air Force outsourcing program, focus on one base’s experience with outsourcing, and then provide some lessons learned on outsourcing base operations support functions.

### Outsourcing — AF Takes the Lead

Outsourcing, or “contracting out” is defined as the transferring of the performance of a function, previously accom-

plished in-house, to an outside provider.<sup>2</sup> An example of outsourcing is accomplishing an Air Force Base’s airfield management function through a contractor rather than using Air Force personnel. Outsourcing entails competing a function currently performed in-house with an outside provider. When that competition shows outsourcing to be more ef-



T-38 aircraft.

DoD photo



At Northrop/Grumman (the contractor for most support functions at Vance AFB, Okla.), a worker is performing maintenance on a T-37 engine.

DoD Photo by Terry Wasson

*Rendon is Director of Contracts, Space-Based Infrared System Contracting (SBIRS), Los Angeles AFB, Calif. He previously served as Contracting Squadron Commander, Laughlin AFB, Texas. A graduate of APMC 00-02, he is a Certified Professional Contracts Manager (CPCM) and a Project Management Professional (PMP).*

Gilbert Auilar, an aircraft attendant on the T-38 Talon for the 47<sup>th</sup> Flying Training Wing at Laughlin AFB, Del Rio, Texas, connects the liquid oxygen hose to the aircraft prior to takeoff for another mission at Roswell Industrial Air Center during Exercise Roving Sands, Roswell, N.M.

DoD Photo by Senior Airman Andy Dunaway



formance and reduce costs of commercial activities; generating savings for Air Force modernization priorities; and shifting more attention, personnel, and assets from non-core to core activities.<sup>4</sup>

While all of the DoD agencies have been implementing an outsourcing strategy to some extent, the Air Force has taken the lead. Over the past 20 years, the Service has netted annual savings of about \$500 million.<sup>5</sup> Currently, the Air Force is focusing on outsourcing depot maintenance, military family housing, and base operations support. Recently, the Air Force has outsourced base-level functions such as aircraft and engine maintenance, grounds maintenance, civil engineering operations, supply, and transportation.

### The Laughlin Experience

Laughlin Air Force Base, located in Del Rio, Texas, about 150 miles west of San Antonio, is an Air Education and Training Command (AETC) base with a Specialized Undergraduate Pilot Training (SUPT) mission. The base provides pilot training to Air Force and international



T-37 aircraft.

DoD photo

ficient and effective, the Air Force contracts with a commercial provider.<sup>3</sup>

The Air Force outsourcing program is aimed at accomplishing one goal: institutionalizing the optimum use of public and private resources in support of the Air Force mission. The Air Force Outsourcing and Privatization (O&P) program, however, is focused on accomplishing four goals: sustaining readiness; finding opportunities to improve per-

**Depending on the extent of outsourcing conducted on an Air Force base and the unique characteristics of the base, the outsourcing results may have some “ripple effects” on the base demographics and infrastructure ... especially if the outsourcing results in the displacement of a significant number of military “blue-suiters,” or if the resultant contracts interface with other current base service contracts.**

students in the T-37, T-38, and T-1 aircraft. Laughlin is also the site of AETC's regionalized jet engine intermediate maintenance facility, which provides engine maintenance on J69 and J85 engines for Laughlin, Randolph, Sheppard, and Vance Air Force Bases.

Laughlin began outsourcing in 1980 when its vehicle operations and maintenance (VOM) function was contracted out. Since then, five additional A-76 cost studies have been completed on the following functions: transient aircraft alert; grounds maintenance; aircraft maintenance; Base Operations Support (BOS), which includes civil engineering operations, supply, fuels, and transportation; and jet engine maintenance.

Currently Laughlin manages over 20 major service contracts ranging from airfield management to food service management. One of Laughlin's two most recent outsourcing efforts is the multimillion dollar BOS contract. This contract is for civil engineering operations (facilities management, pest management, plumbing, utilities), supply, transportation, fuels, and vehicle operations and maintenance. The contract, awarded in 1996, is a firm-fixed price contract for one basic year with four additional option years.

Laughlin's other recent major outsourcing project is the AETC Engine Regionalization Repair Contract (ERRC). This is a command-managed contract for the intermediate maintenance of engines for the T-37 and T-38 trainer aircraft of Laughlin, Randolph, Sheppard, and Vance Air Force Bases. This contract, awarded in 1997, is a fixed-priced incentive contract with an award fee.

### **Lessons Learned**

Laughlin's experiences with the BOS and ERRC contracts have provided AETC and the rest of the Air Force with some valuable lessons learned on outsourcing major services. These lessons learned deal not only with the obvious contracting processes, but also with the not-so-obvious indirect impact of outsourcing base functions. The remainder of this article will discuss some of Laughlin's experi-

ences and the more significant lessons learned.

### **THE PERFORMANCE WORK STATEMENT IS CRITICAL**

The core of the outsourcing process involves the development of the Performance Work Statement, or PWS. The PWS defines the work and level of effort to be accomplished in the contract. It should be noted that the PWS does not tell the contractor *how* to do the work; rather, it tells the contractor *what* needs to be done, and it provides a means for determining whether the work has been acceptably performed.

The PWS is one of the most critical documents in the outsourcing process. Since this document identifies the work to be performed and is the basis for the contractor's proposal, it is extremely important that it be as complete and accurate as possible. The success of the outsourcing effort and the Air Force's contract management process is determined by the validity of the PWS. An incomplete or inaccurate PWS may result in failure to perform the mission, as well as increased contract administration costs.

In addition to the PWS, the contract should also contain a Quality Assurance Plan, which provides the Quality Assurance Evaluator (QAE) with an effective tool for surveying the contractor's performance. These tools include various surveillance techniques such as random sampling, 100 percent inspection, and periodic surveillance. The Quality Assurance Plan is used to ensure that the government receives acceptable contractor performance as compared against the technical requirements of the contract. Thus, the PWS describes the work in terms of objective, measurable performance standards, and the Quality Assurance Plan determines if the contractor's performance meets the PWS requirements.

The use of the PWS and Quality Assurance Plan leads to more cost-effective contracts, which shift some of the manageable performance risk from the government to the contractor. In addition, the PWS allows contractors more lati-

tude for determining performance methods, with more responsibility for performance quality.

Developing the PWS and Quality Assurance Plan requires close coordination between the functional offices to be outsourced (civil engineering, supply, fuels, transportation, among others) and the contracting office to ensure that they completely and accurately define the Air Force's functional requirements. The PWS must be developed in conjunction with the Quality Assurance Plan, to ensure that the method of surveillance is proper for the type of work to be accomplished in the contract.

Frequent communication and coordination between the functional offices and the contracting office are critical. In addition, continuous review of the PWS during contract performance is essential for the success of the contract. The acquisition team, made up of functional managers, QAEs, and contracting officers, must take into consideration any changes in requirements, technology, contract standards, as well as any problem areas caused by ambiguous contract language or ineffective surveillance procedures.

### **QUALITY ASSURANCE SHOULD FOCUS ON PERFORMANCE MEASUREMENT**

The trend in outsourcing base services has put a new emphasis on the role of the QAE. The QAE function has evolved from a part-time job to one of the most critical positions on the acquisition team. With the Quality Assurance Plan as its primary tool, the QAE is responsible for ensuring that the contractor performs in accordance with the PWS requirements, thus ensuring that the Air Force receives full value for the increasing dollars spent for these base services. Thus, the QAE needs to be technically competent in the functional area of surveillance, proficient in contract surveillance procedures, and of course, well versed in the requirements of the PWS.

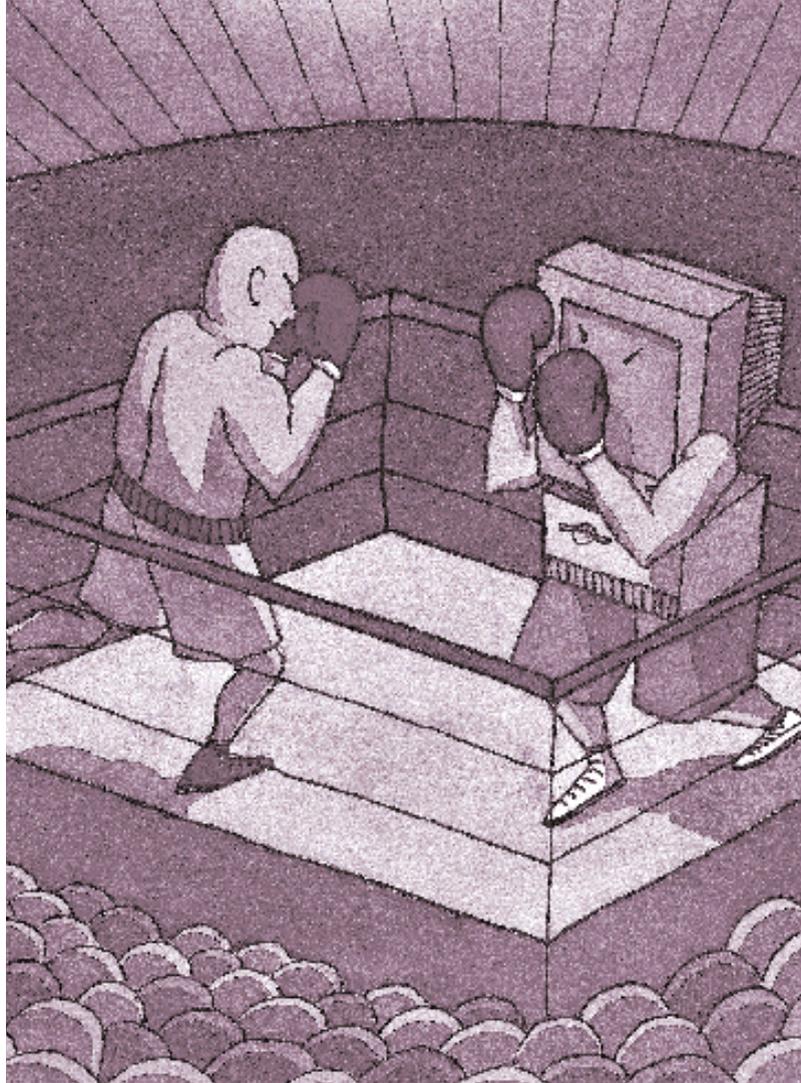
The QAE is an integral part of the acquisition team and must interact continuously with the contracting officer.

Once the contract is awarded, the QAE is in the best position to determine if the Quality Assurance Plan adequately covers all elements of the PWS. For example, if the contract performance requirements do not accurately represent the criticality of each service, and its payment percentages do not accurately represent the work hours for each task, the QAE will realize that the deductions aren't worth the costs of the time it takes to process them.

To reiterate, the PWS does not tell the contractor *how* to do the work; rather, it spells out for the contractor *what* needs to be done, and it provides a means for determining whether the work has been acceptably performed. The QAE should be focused on whether the contractor's performance meets the objective measurements of the PWS. This new focus on performance measurement is intended to allow the contractor to determine the "how" of the contract requirements, and enables the government to focus on the result, or the "what" of the contract requirement. Contracting officers are in a pivotal position as they interact with QAEs to determine contractor performance evaluation, and with the contractors to administer the contractual requirements of the contract.

#### AIR FORCE AND CONTRACTORS MUST BE TEAM PARTNERS

The rising trend in outsourcing base services has put a different perspective on



**In the traditional government-contractor relationship at an operational base, the government and contractor typically operated in a less-than-cooperative nature, believing that the only way to manage a contract was at the other's expense.**

these major service contractors. This perspective is changing to reflect a transition from a tactical focus to a more strategic focus on the value of these contractors. With long-term, performance-based service contracts in place, these major service contractors are being viewed as extensions of the Air Force's internal mission capability. This is especially true for contractors performing

mission-critical functions such as civil engineering operations, fuels, supply, aircraft/engine maintenance, and airfield management.

Because of this new strategic view of service contractors and the need for increased communication and cooperation, the Air Force is implementing partnering arrangements with its major service contractors. These partnering relationships are not legal entities, but rather a *change in attitude* from that of being adversarial and at arms-length to one based on teamwork, cooperation, and good faith performance.

The traditional government-contractor relationship at an operational base was more *tactical* in nature, with a short-term relationship focus. In this traditional environment, the government and contractor typically operated in a less-than-cooperative nature, believing that the only way to manage a contract was at the other's expense. However, with the contractor now performing long-term, mission-critical functions and the government more dependent on contractors for

mission accomplishment, both parties are now motivated to work in a more collaborative mode. The partnering relationship constitutes a mutual commitment by the parties on how they will interact during the period of performance, with the primary goal of facilitating improved contract performance through enhanced communications.

The partnering relationship requires a mutual commitment to work together to the benefit of both parties, sharing relevant information and the risks and rewards of the relationship. The partnering relationship also requires a clear understanding from both parties of expectations, open communications and information exchange, mutual trust, and a common direction of the future.

Most partnering programs involve frequent meetings between the program manager, contracting officers, and contractor management personnel. These meetings are for discussing and resolving any technical or contractual issues pertaining to the contract. The objective is to identify, analyze, and resolve performance issues before they become detrimental to the organization's mission. As the partnering relationship matures and both parties become comfortable with the arrangement, contract performance should improve, with problems and deficiencies becoming less common.

The contracting officer must be consistently and constantly vigilant with the management of the partnership to ensure that the relationship does not deteriorate.<sup>6</sup> The contracting officer must also continue to monitor the relationship through appraisal and feedback mechanisms to facilitate any changes or problems that may arise during the contract performance period.

#### AWARD FEES MOTIVATE CONTRACTORS

Once the contract is awarded, the PWS is pretty much baselined with the contract price, that is, any additional requirements added to the PWS will usually require an equitable adjustment to the contract price. The time required to negotiate a modification to the contract may result in the loss of flexibility for the Air Force to quickly react to any mission changes or required surges in level of effort. The use of award fee contracts is one way of incentivizing the contractor to provide superior performance in such areas as quality, timeliness, and responsiveness, which are over-and-above the standards of the contract. The

amount of the award fee to be paid is based upon a subjective evaluation by the Air Force of the quality of the contractor's performance, judged in light of the criteria set forth in the contract. The award fee criteria should be flexible enough to motivate the contractor in a positive way to improve performance.

The award fee decision is based on the reports of performance made by Air Force personnel knowledgeable with respect to the contract requirements. It should be noted that this decision is a unilateral determination made by the government not subject to the Contract Disputes clause.

#### BEWARE OF THE "RIPPLE EFFECT"

Depending on the extent of outsourcing conducted on an Air Force Base and the unique characteristics of the base, the outsourcing results may have some "ripple effects" on the base demographics and infrastructure. This will be especially true if the outsourcing results in the displacement of a significant number of military "blue-suiters," or if the resultant contracts interface with other current base service contracts.

Most base functions do not operate in a vacuum. Every base service will have an effect on, or be affected by, another base service. This is especially true in the base operations support area, and will be significantly magnified when these functions are contracted out. For example, when the airfield management and grounds maintenance functions are contracted out, there must be extensive coordination between these two functional managers (operations and civil engineering) when developing the performance work statements. Once these contracts are awarded, any PWS deficiencies may result in holes in the operations or loss of mission capability such as clear responsibility for airfield grass height monitoring and bird/pest management.

In addition, if the outsourcing of base functions results in a significant reduction of military personnel on base, this may also result in a decreased demand for such base activities as officer/enlisted clubs, base theater and bowling alley, en-

listed dormitories and dining halls, and off-duty education programs. The base leadership may decide that it would not be cost-effective to continue to operate these facilities with the reduced demand for these services.

#### Reshaping for the Future

Competitive sourcing and privatization is one initiative the Air Force is using to find the most efficient means of providing some of our non-military essential functions. The Air Force's emphasis on contracting out its base operations support functions is reshaping how the Air Force will function in the future. The lessons learned on proper development and use of performance work statements, quality assurance plans, partnerships, and award fees discussed in this article are instrumental in ensuring a successful contract and mission accomplishment.

**Editor's Note:** The author welcomes questions or comments on this article. Contact him at [Rene.Rendon@losangeles.af.mil](mailto:Rene.Rendon@losangeles.af.mil).

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## When: NOW

# Electronic Proving Ground Successfully Launches 'Starship'

## Supporting the Testing of Developing Army Technologies

MIKE CAST

Innovative software developed by computer programmers at the Army's Electronic Proving Ground (EPG) at Fort Huachuca, Ariz., is saving manpower, resources, and money. It does this by remotely and efficiently controlling test instrumentation and receipt of data at numerous sites during exercises and tests of state-of-the-art military systems.

### "Starship"

For the past year-and-a-half, the EPG has been using an exercise or test simulation "engine" called Starship to help the Army conduct live and virtual tests of command, control, communications, computers, and intelligence equipment such as the Army's Enhanced Position Location Reporting System and the Unmanned Ground Vehicle (UGV).

Operating on a Windows NT platform, Starship allows EPG test officers to direct and monitor a variety of sophisticated test instrumentation for EPG. It not only allows for remote control of test instrumentation, but continually provides information about their status, alerting testers to problems if instrumentation is not functioning properly.

Three programmers at EPG worked jointly to develop the program, a Windows-type software that requires very little in the way of unique hardware, said Daniel Searls, chief of EPG's Test Support Branch.

*Cast is a public affairs specialist with the U.S. Army Developmental Test Command Public Affairs Office, Aberdeen Proving Ground, Md.*



*Starship was developed using a "plug and play" approach that makes it relatively simple to add new "controllable entities" such as test instrumentation and alarms, or alter them.*

*Daniel Searls, Chief of EPG's Test Support Branch*

"You can control anything you can define," Searls said, explaining that the program enables EPG to have "smart" test instrumentation. "Star-

ship has become a very valuable tool, not only for the testers, but for the people in the field," he said. "It offers another example of how to col-

lect more and better-quality data with fewer people.”

In addition to its role in supporting tests at EPG, Starship has been used to support UGV analysis and simulations via the Developmental Test Command's Virtual Proving Ground. It was used in that exercise to link various UGV components at Fort Huachuca, the Redstone Technical Test Center at Redstone Arsenal in Alabama, and Dugway Proving Ground in Utah, and to display the sta-

ulations, said Janet McDonald, Virtual Electronic Proving Ground program manager at EPG.

Searls said the program was developed using a “plug and play” approach that makes it relatively simple to add new “controllable entities” such as test instrumentation and alarms, or alter them. Starship is extensible and adaptable, he said, so it can be expanded or customized to accommodate added instrumentation and types of data input. It is

Starship was developed so that its components can be distributed across separate networked computers, to reduce the data load on a single computer and meet the ever-growing processing demands of future tests and exercises. It also allows variable user settings that can accommodate changing test or exercise conditions and scenarios.

Searls said the program's user interface is very flexible and configurable, much like the Windows-based software familiar to today's computer users.

Starship users can also easily group test instruments to respond to the needs of a particular test or exercise scenario. The program includes a scenario recorder and player that can log and replay any part of a test or exercise in real, or multiples of real time.

Starship can communicate over different network types and network protocols. It is designed to interface with other programs via two communication protocols in use by the military for modeling and simulation: Distributed Interactive Simulation (DIS) and High Level Architecture (HLA). DIS, a protocol that enables separate modeling and simulation programs to cooperate and process interactive input from various sources in real time, has been replaced by HLA as a Defense Department and NATO standard. HLA is an internationally used software architecture for modeling and simulation programs and is designed to support interoperability and reuse of simulations.

Members of the Army's test team at EPG hope to provide greater capability to customers in less time and at a lower cost by using and further developing project management technologies such as Starship. The intent is to support testing, training, and military acquisition through continued innovation, adaptability, and cost-effectiveness.

**Editor's Note:** The author welcomes questions and comments on this article. Contact him at [castm@dtc.army.mil](mailto:castm@dtc.army.mil).



tus of the exercise rather than control equipment. It will be used in future UGV exercises to start and control “entities” such as test instruments, UGVs, or sim-

scalable, allowing the system to expand in size and configuration, not only to accommodate a greater number of instruments, but also a larger number of users.

# DAU Executive Board Replaces Defense Acquisition Career Development Council



**T**he newly designated Defense Acquisition University (DAU) Executive Board met at the Pentagon Dec. 8, 2000. The Executive Board replaces the Defense Acquisition Career Development Council, and serves as the senior policy oversight body for DAU.

Seated from left: Stan Soloway, former Deputy Under Secretary of Defense (Acquisition Reform); Donna Richbourg, Acting Deputy Under Secretary of Defense (Acquisition Reform)/Chairperson, DAU Executive Board; and retired Air Force Brig. Gen. Frank Anderson Jr., DAU President.

Standing from left: Rich Reed, DAU Provost and Acting DSMC Commandant; Eric Levi, Consul-

tant; Marty Evans, Air Force Service Acquisition Executive; Dr. Diane Disney, Deputy Assistant Secretary of Defense (Civilian Personnel Policy); Navy Rear Adm. Raymond A. Archer, Vice Director, Defense Logistics Agency; Dr. J. Ronald Fox, Consultant; Dr. Jerome Smith, Chancellor for DoD Education and Professional Development; and William Hauenstein, Director of Acquisition Career Management (Department of the Navy).

Not shown:

Darleen Druyun, Principal Deputy Assistant Secretary of the Air Force (Acquisition and Management), and Ed Elgart, Office of the Deputy Assistant Secretary of the Army (Procurement).

# Thirteenth Annual International Acquisition/Procurement Seminar — Atlantic (IAPS-A)



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Those eligible to attend are Ministries, Departments of Defense, and supporting Defense Industries from the four IDEA nations who are actively engaged in international defense acquisition programs.

This year's seminar will be held June 25, 2001, at the BAKWVT facility in Mannheim, Germany. The theme for this year's seminar will be Information Technology. The last day of the seminar, June 29, will be dedicated to the educational aspects of international acquisition.

The IAPS-A is by invitation only. Those desiring an invitation who have not attended past international seminars should submit a letter of request, on government or business letterhead, to DSMC by fax.

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To register, visit the seminar Internet Web site at <http://www.dsmc.dsm.mil/international/international.htm>.

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# Dual Mount Stinger

## Designed, Produced, and Fielded in Three Years

GEORGE E. VINSON JR.

**W**hat happens when a potential Foreign Military Sales (FMS) customer has a requirement for military hardware that is not in the inventory of any branch of the U.S. military? In the case of the Dual Mount Stinger (DMS), the Short Range Air Defense (SHORAD) Project Office obtained necessary approvals and built the customer a Stinger Missile Launcher that ultimately met their requirements in a timely and cost-effective manner.

### DMS System Description

DMS is a tripod-mounted launch platform for the Stinger Missile developed by Hughes Missile Systems Company (HMSC) for the SHORAD Project Office. (HMSC was later sold to Raytheon Corporation and is currently operating as Raytheon Missile Systems Corporation [RMSC].) Tripod-mounted missile launch devices are not a new concept. Over the years, France, England, and Sweden developed tripod-mounted launchers for their Mistral, Starstreak, and RBS-70 Missile Systems. Given the proliferation of tripod-based, short-range air defense missiles, it was a natural evolution for Stinger to develop a tripod launcher.

The Stinger missile is the premier short-range, two-color, heat-seeking, fire-and-forget weapon in the world today. The DMS launcher assembly was designed as an integrating fixture such that a single operator could fire two Stinger missiles against aerial targets. The DMS System provides not only the tactical hardware but also the training and support equipment to prepare military per-



### Dual Mount Stinger

sonnel to operate the system proficiently and ensure equipment readiness.

Developed for FMS customers, the DMS Weapon System consists of the DMS launcher with two Stinger tactical missiles (Guided Missile, Intercept Aerial). This system provides air defense capability from a fixed ground position. A self-contained system, the DMS includes its own electrical power system, argon coolant, and sighting units. Easily disassembled into portable components

that require minimal set-up time, the DMS can be operated autonomously or in conjunction with an external early warning command and cueing/control system.

The DMS launcher has provisions to receive Forward Area Air Defense Data Link or Ground Based Data Link cueing data, which can be from either two-dimensional (2D) or three-dimensional (3D) sensors. Cueing data from a 2D system give the approach direction (az-

*Vinson is a retired Army lieutenant colonel. He works for CAS Inc., Huntsville, Ala., and provides Systems Engineering and Technical Analysis support to the Short Range Air Defense Project Office, Redstone Arsenal, Ala.*

imuth) and range of the target aircraft, while cueing data from a 3D system give the approach direction (azimuth), range of the target aircraft, and elevation angle.

### **DMS Development to Fielding**

Since the United States had no requirement for this system back in 1997, its development and fielding presented a unique set of challenges. A current FMS customer approached the SHORAD Project Office with the requirement for a tripod launcher, and we immediately started the research necessary to meet the requirement. In the course of our research we found that the sale of this system, even though it technically did not exist at the time, required the same U.S. Department of State approval as any other FMS case. Raytheon had already performed some preliminary design work on a tripod-mounted Stinger launch platform cooperatively with Per Udsen, a Danish company. A modified version of the Raytheon-Per Udsen launcher resulted in the DSM System that we see today. Upon approval of an FMS case to deliver over 50 systems to the customer and to oversee the management, development, and production of the DMS, the SHORAD Project Office initiated development of the DMS.

Great challenges often have great rewards. Such was the situation with DMS. One of the biggest rewards experienced was developing, producing, and fielding the DMS system within three years after approval of the FMS case. At the beginning, the timeline seemed to be almost impossible (even with acquisition streamlining) for a typical Department of Defense system. The signing of an additional FMS case, however, has emerged as a major benefit from this effort. Another benefit is that four more countries have expressed interest by requesting price and availability data.

### **DMS Integrated Product Team (IPT)**

Following our research, we established a joint DMS IPT between the SHORAD Project Office and RMSC. Consisting of members with cross-functional backgrounds and expertise from the government, RMSC, and major vendors, the

# **The DMS launcher has provisions to receive Forward Area Air Defense Data Link or Ground Based Data Link cueing data, which can be from either two-dimensional (2D) or three-dimensional (3D) sensors.**

DMS IPT goal was to collaborate as a team to develop, produce, and field the DMS system and associated equipment. Our efforts were focused on meeting the requirements defined by the customer, while at the same time ensuring no degradation to the overall effectiveness of the Stinger missile. To achieve our goal, we structured a team charter that laid out the most important project requirements:

- Prepare the Statement of Work.
- Review qualification/requalification requirements for vendors and consider acquisition reform when making recommendations.
- Monitor Master Integrated Program Schedule (MIPS).

- Work to achieve a proper balance between cost and schedule.
- Ensure that the DMS System is supportable.
- Ensure that the customer (U.S. or FMS) is satisfied with DMS.

The DMS IPT was key to executing this program on schedule and within cost. To work through problems or to head off potential problems, the team scheduled monthly meetings and occasionally met before the scheduled meeting. Under the joint leadership of the SHORAD Project Manager and the Raytheon Program Manager, the team executed the program flawlessly and fielded the first production units three years from the date that the FMS case was signed.

### **Alpha Contracting Procedures Used**

In August 1997, the SHORAD Project Office began to prepare a Contract Requirements Package for procurement of DMS Launchers, test set, publications, and training for the FMS customer. The procurement would include options for the same supplies and services for five other potential customers that had FMS Letters of Offer & Acceptance in process. This would be the first procurement of the DMS launcher system by the government and the first production of this system by the contractor, RMSC, in Tucson, Ariz.

The total estimated value of the procurement was \$49.2 million, and award of the contract was required by Dec. 31, 1997, to meet the customer's fielding schedule. We considered a letter contract, but ultimately selected the Alpha contracting approach. Further, we discussed the approach with the contractor, and on Oct. 22, 1997, after joint discussions about our requirements and objectives, both parties committed to the program with a target for contract award of Dec. 17, 1997.

Alpha contracting is the term that has been given to an innovative technique that takes the contracting process and converts it from a consecutive process into a concurrent process. The approach concurrently develops a statement of

## Stinger Weapon System



work, prices that scope, and prepares the contract to execute the scope instead of the most commonly used procedure, which is to sequentially develop the solicitation, prepare the proposal, evaluate the proposal, negotiate the contract, and then finally, award the contract. Used in sole-source negotiated situations, Alpha contracting has allowed requirements for major systems, subsystems, and components to be under contract in a matter of days or weeks rather than months or even years.

The SHORAD Project Office, along with RMSC and the Defense Contract Audit Agency, established a procurement team that consisted of core members who would coordinate technical, audit, and pricing functions and additional key members who would support the core members in various fields. The procurement team, which functioned as part of the DMS IPT, began the process by defining its objectives, establishing ground-rules, and structuring databases to capture proposed and negotiated data as they became available. Because of time constraints, neither a traditional Request for Proposal nor proposal was developed. Between Oct. 10-21, 1997, at the RMSC facility in Tucson, the procurement team jointly generated and evaluated data to develop the probable cost. Besides the negotiation of probable cost, the team also addressed statement of work and performance specification issues, while simultaneously developing and partially evaluating a spare requirement to be procured as a follow-on to this new production contract.

When the procurement team encountered an unexpected obstacle in that the probable cost developed was beyond the budgeted funding, they functioned as a team to resolve these issues and reached final agreement on Dec. 4, 1997. The procurement team would have met its goal of contract award by Dec. 17, 1997, except that complete FMS funding was not available until Jan. 12, 1998. On that date, the contract was awarded for the basic requirement and priced options. For the basic requirement, the contractor had proposed \$30.3 million; the negotiated contract price was \$21.8 million. Price range options were established at a value of \$29.1 million.

The Alpha contracting approach worked very well for this procurement. We encountered some unexpected delays in award, but they were outside the Alpha process itself. For this action, process time was reduced significantly for the contractor and the government. The contractor estimated its savings from reduced proposal preparation time and audit, fact-finding, and negotiation support to be \$25 thousand. Further, the contractor incurred no expense for preparing formal proposal brochures, travel to the U.S. Army Aviation and Missile Acquisition Center (AMCOM) for fact-finding and negotiation, or certain internal audit processes (estimated savings \$7 thousand). AMCOM's activity, which encompassed several technical and requirements issues in addition to contracting, took less than three months (from Oct. 22, 1997, to Jan. 12, 1998).

In the traditional process, a procurement of this complexity and dollar value would take six months at a minimum, and some recent comparable actions have taken longer. In addition, the customer's spares' requirement was procured on Feb. 20, 1998, as a follow-on to the hardware contract, based primarily on data development and evaluation, which had begun during the initial Alpha process. Estimates reflect that the concurrent spares buy resulted in savings of 30 percent when compared to recent stand-alone procurements.

### Fielded DMS

If there is a lesson to be learned from our experiences with the DMS, it is this: when approached to do something that on the surface appears *impossible*, it may, in fact, be *possible*. Two of the most significant factors enabling the SHORAD Project Office and RMSC to successfully provide the DMS to our customer, in such a short timeframe, were proven acquisition reform initiatives:

- We used the IPT approach for program management.
- Alpha contracting allowed us to contract in time to meet the customer's fielding schedule, which was a critical element of this requirement.

The dedicated individuals that made up our DMS IPT, including the Alpha Contracting Team, worked extremely hard and were totally committed to the project. The team's superb effort resulted in the production of a quality product (not in the U.S. inventory), that was delivered and fielded on time, resulting in a totally satisfied customer.

**Editor's Note:** The author welcomes questions or comments on this article. Contact him at [george.vinson@redstone.army.mil](mailto:george.vinson@redstone.army.mil).

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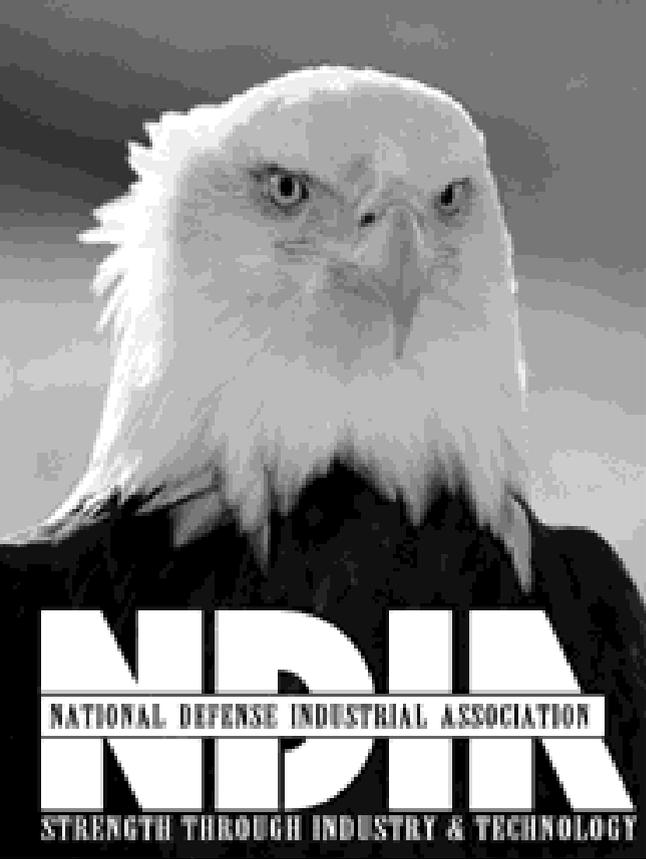
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# National Summit on U.S. Defense Policy: Acquisition, Research, Test and Evaluation

March 26 - 29, 2001 • Hyatt Regency Long Beach  
Long Beach, Calif.

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## YOU ARE INVITED

This Symposium will feature presentations by nationally and internationally recognized leaders from government, industry, and academia. They will examine policy issues facing the defense industry, share visions of the future, and scrutinize defense acquisition problems and mistakes that have occurred, issues to be addressed, technologies to be exploited, facilities to be built or shared, and methods to meet emerging threats.

## OBJECTIVE

This timely summit will serve as a national forum for nationally recognized leaders to examine the policies of the test and evaluation, acquisition, and defense environment during a period of Presidential transition. This will allow opportunity for dynamic approaches, new ideas, and cutting-edge solutions to emerge, be recommended to, and acted upon, by a new Administration. Tutorials on Test and Evaluation and Acquisition policy will be part of this Summit as well as a town meeting in which important and controversial subjects will be debated.

Top Defense officials, past and present, will be participating to share their insights and experience. Summit speakers include former Secretaries of Defense, political appointees, Industry executives, members of Defense policy think tanks, senior military leaders, and other national leaders.

## TOPICS TO BE INCLUDED

- Defense Policy: The Past, Present, and Future
- The Changing Geopolitical Landscape
- Opportunities of Changing Administrations
- State of Readiness of Our Armed Forces
- The Global Defense Marketplace
- Coping with Declining Defense Resources
- Modeling and Simulation in Research, Development, Test and Evaluation (RDT&E)
- Commercial Off-the-Shelf (COTS) in the Military Acquisition Process
- Addressing Emerging Threats
- Environmental Awareness and Constraints
- Modeling and Simulation in Support of Acquisition
- The Role of Industry in Defense Policy

To register online, visit the NDIA Web site at  
<http://register.ndia.org/interview/register.ndia>.



# Defense Honors Manufacturing Technology Achievements

The second annual Defense Manufacturing Technology Achievement Award was presented yesterday at the Defense Manufacturing Conference in Tampa, Fla. Award recipients included government, industry, and university technologists from the Army's Advanced Optics Manufacturing program and the Joint-Service Flexible Manufacture of Microwave Vacuum Devices initiative.

The award recognizes Defense and private sector individuals responsible for developing innovative manufacturing processes that improve the affordability, cycle time, or readiness of Defense weapon systems or components. Delores M. Etter, Deputy Under Secretary of Defense for Science and Technology, presented the award.

The Advanced Optics Manufacturing program developed a multi-axis, computer-controlled optical finishing technology, known as Magnetorheological Finishing (MRF), that provides significant cost savings in the manufacture of precision optical surfaces. Compared to conventional, labor-intensive processing methods, MRF reduces the typical cost of spherical optics from \$100 to \$60, and reduces system weight up to 30 percent. A cost avoidance of more than \$100 million is forecast for application to multiple defense systems (e.g., Stinger, Comanche Daylight Targeting System, Low Cost Precision Kill Missile, Joint Stand Off Weapon, Objective Individual Crew Served Weapon, and Precision Guided Mortar Munition) that use precision optics in target acquisition, identification, surveillance, and communication devices.

The MRF finishing machine is commercially available, and has received industry-wide acclaim, winning two of the optical industry's most prestigious awards for technology innovation and achievement:

the Photonics Circle Excellence Award and the Laser Focus World (LFW) Commercial Technology Achievement Award. Manufacturers of photolithographic optics and several major optics shops in the United States have already installed multiple MRF machines to produce ultra-high precision optics. The program is funded by the Army Manufacturing Technology Program and is managed by the Center for Optics Manufacturing in Rochester, N.Y.

The Flexible Manufacture of Microwave Vacuum Devices program has resulted in significant cost reductions and increased yield in traveling wave tube devices for critical military applications, and improvement of on-shore domestic sources for devices previously imported from Europe.

Microwave devices are used in over half of the current Defense weapon systems. With less than 20 percent overlap between the Defense and commercial markets, there is little opportunity for the Department of Defense to leverage means for commercial-off-the-shelf suppliers to provide cost-effective, state-of-the-art devices.

A government/industry team consisting of representatives from the Army, Navy, Air Force, the American Competitiveness Institute, Communications and Power industries, Northrop Grumman, and Teledyne Electronic Technologies led the initiative. The team worked on manufacturing improvements for devices in critical segments of the power/frequency spectrum.

**Editor's Note:** This information is in the public domain at [www.defenselink.mil/news](http://www.defenselink.mil/news).

# Effective Speaking and Presentation

## Selling Ideas, Gathering Support, Motivating Audiences

CAROLYN J. LEE

**E**ffective communication skills are essential for program managers – most of their activities involve the selling of ideas, gathering of support, or motivation of the program office staff and contractors, and often include speaking opportunities with the Department of Defense (DoD), other Services, or Congress and its staffers. Certainly, public speaking is entirely in the realm of possibility for today's program managers in carrying out their day-to-day activities and responsibilities.

To be effective, program managers must be masters of the three skill areas that most affect delivery and acceptance of ideas: audio, visual, and the feelings of both the speaker and the audience.<sup>1</sup> Given today's business environment of accelerated time management and minimal opportunities for actual contact, delivery of information in the most effective and efficient means possible helps to ensure the correct message is delivered, understood, and appropriate feedback obtained. Additionally, it minimizes confusion and wasted effort due to misinterpretation of the data when both parties are *succinct* and are able to feed back the message transmitted.

### PROFILOR Assessment Reveals Strengths, Weaknesses

PROFILOR is a teaching tool that affords students the opportunity to receive 360-degree feedback from supervisors and peers on 24 critical skills required of program managers. It is administered to all students attending the Advanced Program Management Course, Defense Sys-

tems Management College (DSMC). When properly administered and acted upon, PROFILOR allows students to focus and target some of their learning on those activities that can have enormous benefit back in the workplace.

Revealingly, my PROFILOR results indicated that effective speaking was an area for personal improvement judged by my peers as well as my supervisor.<sup>2</sup> This deficiency in my professional bearing is a hindrance to my career and a detriment to any acquisition effort that I may encounter in my future career. The PROFILOR suggested two primary areas upon which to focus my efforts in correcting this shortfall:

- Speaking with enthusiasm and expressiveness.
- Speaking effectively in front of a group.

In the time allotted for the Program Management and Leadership curriculum of the Advanced Program Management Course, I worked to improve those areas by employing materials available in DSMC's Learning Resource Center (LRC), outside reading, suggested "practicing" techniques during class exercises, and while teaching a graduate-level college course part-time.

### Speaking and the Use of Language

According to Broadcaster Earl Nightengale, "When a person doesn't know how to use the language, he or she will be forever barred from entering the sizeable and enjoyable world of privilege ... Poor speech cannot be hidden away. It's

there continually, as obvious as a cigar butt in the punchbowl."<sup>3</sup>

Dr J. Mitchell Perry, a consultant for effective communications, states that if our voice is an instrument, then language is the music.<sup>4</sup> Accordingly, we must practice with our voice just as we would any musical instrument, and then master the language we put through that instrument. While most of us consider ourselves articulate and comfortable with our mother tongue, it is readily apparent that in professional speaking the rules change somewhat and we are judged as an authority based on our use of language.<sup>5</sup>

### Tone, Inflection, Volume, Pace

The first thing an audience will notice when the speaker begins is the tone and inflection of the speaker's voice. While most people understand that a monotone dialogue is disastrous to a message, few of us consciously vary the volume and pace of our speech to preclude such a delivery. However, in a formal setting the importance of voice is amplified and every aspect placed under scrutiny either intentionally or unintentionally. By increasing and decreasing volume on important words, speeding up or slowing down the tempo of our conversation, and effective use of pausing, a speaker can force the audience to adjust their listening skills to match the new pace, thus preventing listeners from becoming too comfortable with what's happening and from going into automatic listening mode. An added advantage is that it requires the listeners to remain more attentive, which, in turn, improves the

*Lee is a career communications-computer specialist assigned as technical advisor to the Office of the Air Force Deputy Assistant Secretary (Contracting) staff. She is currently participating in the Defense Leadership and Management Program.*

chances that they'll actually hear and understand what is being said.

### The Message

What is being said is equally important as how it's being said. Several authors suggested reading as the best way to broaden one's vocabulary and to become comfortable with a variety of words. Another suggestion was to read aloud not only to synchronize the brain and the tongue, but also to become comfortable saying the new words as well as understanding what they mean. A broader vocabulary obviously does not mean attempting to astound the audience with verbiage

and verbosity, but an articulate and eloquent speaker commands more respect than one who appears to be stuck in middle-school English class.

### Fillers

Most of us have phrases or words with which we are comfortable and use without realizing how distracting they can be to our message. Most of us easily recognize the "you know" and "umm" space fillers, but other words such as "always" and "never" may evoke subconscious negative responses and torpedo the idea we are trying to convey. Other phrases such as "why don't you," which implies someone isn't doing something correctly now and requires action on their part, and "to be hon-

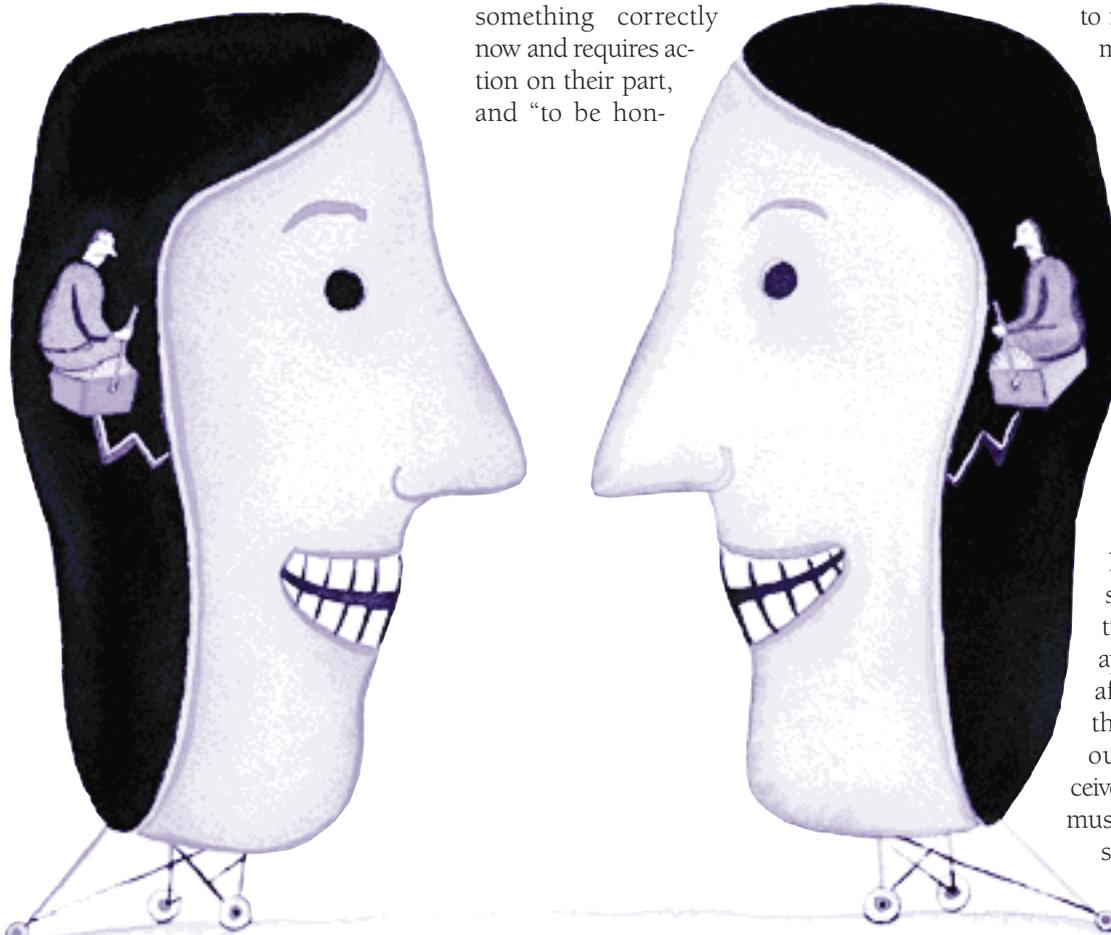
est," which implies the speaker hasn't been honest up to this point, can evoke the same reaction.

By becoming more aware of what is being said and changing to words that engender support and understanding or deflect hostility, effective speakers will make the audience feel more responsive and eager to listen to their message rather than retreating while they form a defensive response.

### Image

Although I've concentrated on the speaking skills in the first part of the article, due to its immediate relevancy to my PROFILOR assessment, a speaker's physical appearance — audience's first impression — is of equal importance. While some aspects of our appearance such as skin color, gender, and height cannot be changed, we can make the most of the first impression — overall image and projection of that image.<sup>6</sup>

Physical appearance such as clothing selection, hair, and even the appearance of our hands affects how we, and thereby the authority of our message, are perceived. The type of clothing must be appropriate to the setting and the audience,



**When a person doesn't know how to use the language, he or she will be forever barred from entering the sizeable and enjoyable world of privilege ... Poor speech cannot be hidden away. It's there continually, as obvious as a cigar butt in the punchbowl.**

**—Earl Nightingale**

fit appropriately, and demonstrate awareness of basic grooming requirements (neat, clean, and in good repair). These elements are obvious. To address a congressional staff, one's dress should be conservative and professional in keeping with the institution. Conversely, if addressing a student research group on a field day to a museum, the attire should reflect the more casual aspect of the environment. Often program managers will be required to engage an audience with which they are unfamiliar.

A little research is required to make the most of the image projected. Speakers should inquire as to what is considered normal dress for the audience, especially in today's environment of business casual. By dressing inappropriately, speakers can inadvertently "advertise" that they are not "one of them" (intended audience) or are obviously out of touch with who and what the audience is as an organization. Doing so immediately establishes a negative image the moment such speakers appear on stage.

### **Leadership Skills and Business Etiquette**

Also included in my research were lessons on today's business etiquette and necessary overall skills for leaders. Commanding respect as program managers is even more difficult if we are not recognizable as leaders. Even if our speech is brilliant, our appearance impeccable, and our command of the language truly impressive, our message will be lost if we have already offended the audience and placed ourselves in an unconstructive light. Hence, the ability to garner respect and operate in the realms of upper management is an important skill for the aspiring PM.

### **Leading is Not Inborn**

While we intuitively understand that even leaders at the highest organizational levels were not born knowing how to conduct themselves in the upper echelons of business, it is reassuring to know that no one is born knowing how to be an executive. Although learning the skills necessary to lead varies in degree of difficulty, depending on personality and environment, each of today's leaders had

to analyze their own behavior and study, integrate, and internalize new skills commensurate with their rising level of responsibility and authority. Especially helpful to me was the realization that although my peers believed I needed improvement, so did every other leader who came before me — and if they could learn leadership skills, then I could as well.

### **Women in the Workplace**

The review of etiquette and modern leadership was particularly illuminating as it pointed out how the changes in our society have affected the way we conduct business.<sup>7</sup> The advent of women (especially) into the workforce has required changes in how we greet each other, how we interact on a professional level, and even how we address our business correspondence.

### **Workforce Diversity, Conflict Management**

Leadership skills have changed to include working with a diverse workforce based not only on gender but also on race, ethnicity, beliefs, and in some instances educational backgrounds. Conflict management has become an important skill, especially the ability to discuss conflicts without inflaming the issue, to achieve a mutually acceptable solution to a contentious issue, and to preserve group cohesiveness in order to achieve maximum effectiveness. Again, the use and application of language appropriate to the situation assists a leader in negating the conflict.

### **International Environment**

Operating effectively within the international environment is becoming increasingly important in today's environment. As the global economy progresses, defense contractors merge and employ various subcontractors that may not be American. Successful program managers must be able to maneuver effectively in this culturally and ethically challenging environment.

In my review, I identified several key areas as potential pitfalls, especially for a woman interfacing with male counterparts from a different country, such as the proper way to greet a customer or

peer both physically and verbally, acceptance of gifts, and appropriate dinner etiquette. The primary lesson that emerged from my review, however, is simple: use good judgment and common courtesy before engaging in international business relations. Be sure to do some informal research on foreign nations being visited; conversely, become familiar with the customs and culture of any foreign visitors or dignitaries before their arrival.

### **Bottom Line — Communications is an Absolutely Essential Skill**

The ability to speak in a group setting and convey a message is an essential skill in the business environment. As a technical advisor to an acquisition (contracting) organization at the Air Staff level, I often must convey technical ideas and concepts in easily understandable terms. To obtain support for the various electronic commerce activities of the Air Force, I must make the transition from "techno-geek-speak" to "understanding" in a manner that encourages support and buy-in from the audience. The audience may range from a base-level organization all the way through to DoD or congressional staffers. I must adjust my image and speaking skills to match the audience without either insulting them or losing the message.

### **Practical Application**

For immediate feedback on my progress toward this effort, I used a representative sampling of 16 students from a course on Information Technology that I teach to graduate students at the Joint Military Intelligence College. These students are not information technologists and are not familiar with the terms and concepts that I address during the 10-week course.

To evaluate the students' level of understanding, on the first day of class I gave them a pre-test. As the class progressed, I obtained feedback each class period by conducting a review of the previous class meeting — this provided information on the effectiveness of my teaching techniques. As the course progressed, it appeared I became more effective in conveying complex ideas, as more of the stu-

dents were able to answer the review questions. Additionally, their enthusiasm for the course increased, as I was able to convey the importance and possibilities of information technology relative to their profession. Student presentations on emerging technologies from this group were significantly more encompassing, more drastic (“ethereal” technologies), and more thorough than those from previous classes.<sup>8</sup>

The review of books, tapes, and audio CDs during the time allotted for the Advanced Program Management Course provided significant food for thought as well as valuable suggestions on ways to more effectively communicate with my audience – and hopefully correct the professional shortfall identified by my peers in the PROFILOR assessment.

**Editor’s Note:** The author welcomes questions or comments on this article. Contact her at [carolyn.lee@pentagon.af.mil](mailto:carolyn.lee@pentagon.af.mil).

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## Dr. Mark E. Nissen Named Winner of Naval Postgraduate School 2000 Menneken Faculty Award

**D**r. Mark E. Nissen, Manager of the DAU External Acquisition Research Program, was named Winner of the 2000 Menneken Faculty Award for Excellence in Scientific Research. Nissen's award was announced Dec. 15, 2000, at Monterey, Calif., during a ceremony honoring the graduates at the Naval Postgraduate School (NPS). The Menneken represents the highest research award given at NPS, and competition is campus-wide. Nissen's selection as this year's winner is particularly significant, given that the award has never before gone to an acquisition faculty member.



The Menneken Award recognizes recent, highly meritorious research having identifiable impact on Navy or other DoD technology. The award is open to all faculty professor positions. Each year, a committee of distinguished faculty members solicits nominations for the Menneken. Nissen was cited for his “outstanding contribution to knowledge systems, for his ability to demonstrate to DoD and Department of Navy the applicability of his theoretical work in military settings, and for enlisting student involvement in his research work.”

Professor Shu Liao, Associated Chair for Research in the Systems Management Department, NPS, nominated Nissen for the award:

“Despite his relatively junior status at the Naval Postgraduate School (NPS), Professor Nissen is a very promising academic with an already-impressive record of research and publication that directly benefits the Navy and DoD ... [Dr. Nissen] was the first to develop and employ measurement-driven inference for intelligent, automated reasoning about process innovation. His Knowledge-based Organizational Process Redesign system was demonstrated through application to redesign key procurement and contracting processes in a major aviation command of the Navy ... Professor Nissen then further defined the state of the art through research and development of the Intelligent Mall, a multi-agent system to automate and support supply chain processes for the military ... Professor Nissen then adapted this agent technology and integrated his research with novel economics work from Game Theory and Market Theory ... focused on developing agent-based markets for automatically matching sailors with jobs through a Web environment ... Professor Nissen is currently extending his research to focus on the Navy's new concept of knowledge-centric warfare.”

As manager of the DAU External Acquisition Research Program, Nissen is a researcher first and bureaucrat third. This helps the program attract some of the best researchers in the world. Relevant information about Nissen's research is available online at <http://web.nps.navy.mil/~menissen/>.



# Chemical Weapons Destruction Complete on Johnston Atoll

**T**oday, the U.S. Army took a major step in safely eliminating the U.S. chemical weapons stockpile by demilitarizing the last of the chemical munitions stockpiled on Johnston Atoll in the Pacific.

The operators of the Johnston Atoll Chemical Agent Disposal System (JACADS) completed destruction on Nov. 29 of more than 13,000 land mines that were filled with nerve agent VX. These land mines were the last of the chemical munitions stored on Johnston Atoll to be destroyed. The facility, located 825 miles southwest of Hawaii, is the nation's first fully integrated facility designed specifically for the disposal of chemical weapons.

"The soldiers and contractors who have safely destroyed the chemical weapons on Johnston Island should be extremely proud of their accomplishment," said Army Lt. Gen. Paul Kern, Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology. "This is an historical event, which will improve the security of the United States and provide hope for the rest of the world that the 21<sup>st</sup> century will be safer for our children and grandchildren."

"Completion of the VX land mine campaign, the last of the Johnston Island chemical weapons stockpile, paves the way for the Army to close its doors at JACADS," said James Bacon, the Army's Program Manager for Chemical Demilitarization (PMCD). "JACADS is a model of safe and successful operations for the Army's eight other disposal sites, as well as for other countries that are looking to safely destroy their stockpiles of chemical weapons."

"Over the past 10 years, JACADS has safely destroyed more than 400,000 rockets, projectiles, bombs, mortars, ton containers, and mines," said JACADS Project Manager Gary McCloskey. "JACADS also has destroyed more than 2,000 tons of chemical agent in the form of nerve agent (GB, also known as Sarin, and VX) and blister agent (HD). Our 100 percent destruction of Johnston Island's stockpile adds up to six percent of the nation's original total stockpile."

During the JACADS disposal campaigns, the Army tracked the process to continuously improve and enhance safety for workers, the community, and the environment. This knowledge and experience is being applied to the Army's other disposal facilities to ensure that safe destruction of chemical weapons continues. The Army also will share information with other countries that are researching technologies to destroy their chemical weapons stockpiles.

Washington Demilitarization Co., formerly the Raytheon Demilitarization Co., has been involved in JACADS since its inception, and has provided the design support, equipment procurement and installation, acceptance testing, and operations and maintenance of the facility.

"We have been looking forward to this day since JACADS started operating in June 1990," said Robert Love Jr., Vice President for Washington Demilitarization Co. and JACADS Program Director. "I am proud to be a member of the team that is doing its part in safely ridding our country and the world of chemical weapons."

Working in cooperation with several federal oversight agencies, including the U.S. Environmental Protection Agency (EPA) Region IX and the U.S. Fish and Wildlife Service, PMCD is now preparing to close JACADS. Part of the process leading to closure will include disposing of secondary waste that was produced during disposal operations. In addition, Chemical Agent Identification Sets that were shipped from Guam remain to be destroyed. The Army is currently working with the EPA to refine the procedures for safe and environmentally sound destruction of these sets. Closure is scheduled to take up to 33 months.

VX land mines were manufactured in the late 1950s and early 1960s and were designed to disperse lethal agent upon detonation. They are filled with VX nerve agent, a clear, odorless, and tasteless liquid that affects the nervous system. More than 100,000 VX land mines were manufactured in the United States, and 13,302 were stored on Johnston Island.

Since 1971, the Commander, U.S. Army, Pacific (USARPAC) has been charged with the mission of safely

storing these munitions. For almost 30 years, USARPAC provided soldiers who spent yearlong tours on this small island, away from their families, to ensure that the weapons were safely stored until they were destroyed. This long, dedicated, and successful service is a testimony to the professionalism of thousands of USARPAC soldiers of several generations.

Construction of JACADS began in 1985 after years of research into safe destruction procedures. Operations began in 1990. Former and present USARPAC commanders and U.S. Army program managers for Chemical Demilitarization have worked together closely to complete the mission safely and efficiently.

PMCD plans to commemorate the end of successful disposal operations at JACADS with a series of events scheduled for next year, culminating in a ceremony on Johnston Island in the fall of 2001.

**Editor's Note:** This information is in the public domain at [www.defenselink.mil/news](http://www.defenselink.mil/news).

# Navy Develops Product Oriented Design and Construction Cost Model

## PODAC Emerges as Critical Element in Achieving Operationally Superior, Affordable Naval Forces

DR. SCOTT C. TRUVER

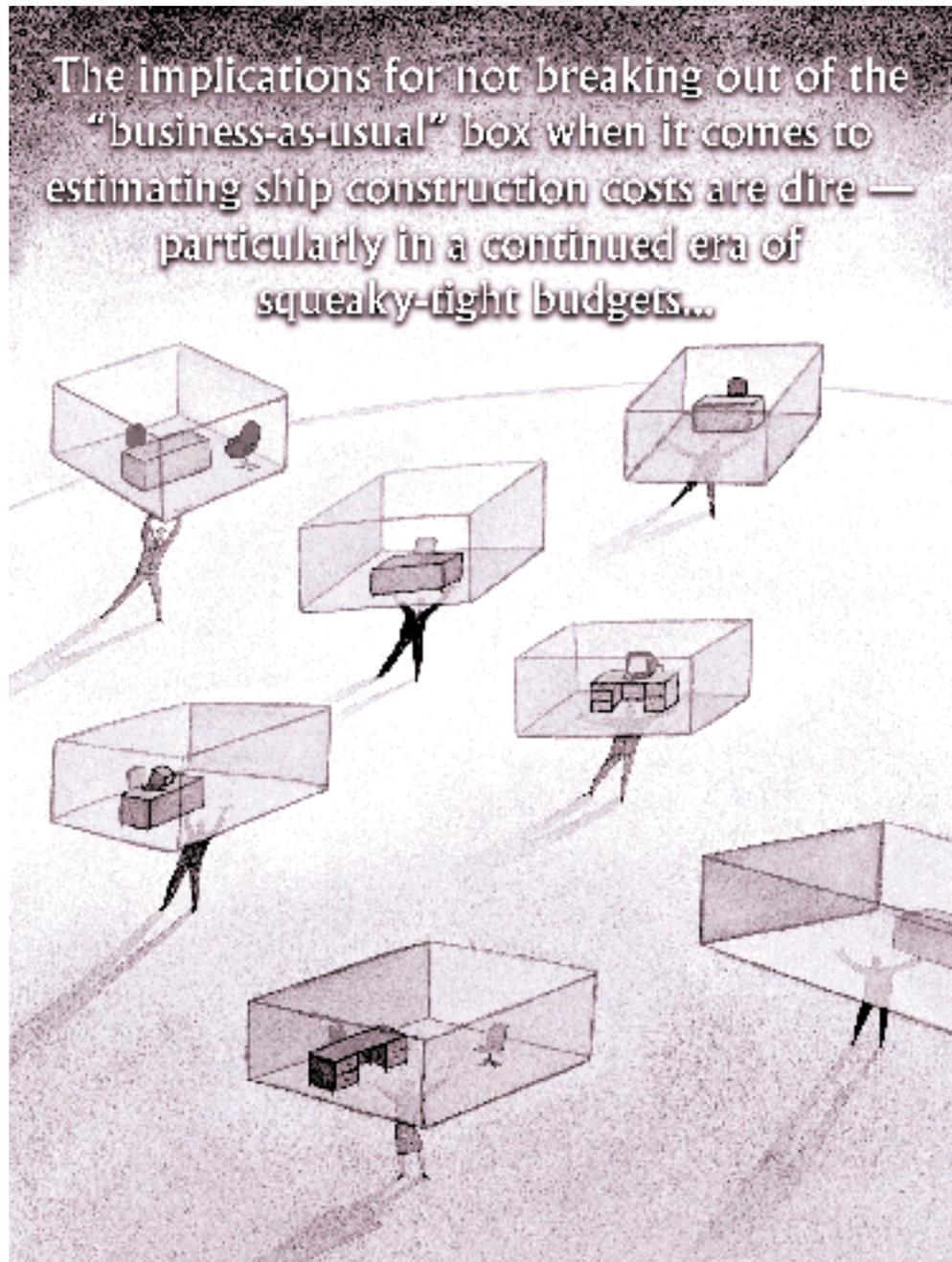
**T**he “Revolution in Business Affairs” is just a catchy slogan unless the tools are available to make it happen. With innovation and change hard upon the U.S. Navy — and all of the Armed Services — in the new millennium, it is more critical than ever to use technology to reshape the business — from cradle to grave ... from the keel to the mast — of building the Navy-After-Next.

### Estimating Ship Construction Costs Behind the Times

In one highly critical area of naval analysis, the Navy seems to be bogged down in the early years of the *last* century. The Navy's traditional approach and methodology for estimating the construction and life cycle costs of new ships is out of step with the Revolution in Business Affairs. The implications for not breaking out of the “business-as-usual” box when it comes to estimating ship construction costs are dire — particularly in a continued era of squeaky-tight budgets. Getting it “wrong” at the outset dooms a program to delays, cost overruns, incessant oversight and realignment, accusations of mismanagement, and perhaps even program cancellation ... and indictment.

### PODAC — Taking the Lead

Fortunately, the Carderock Division of the Naval Surface Warfare Center (NSWC) is rethinking the current paradigm of ship cost estimating, and they have a solution. Taking the lead in a joint Navy-industry initiative to reinvent the



*Truver is Vice President, National Security Studies, Anteon Corporation.*

way ship costs are determined, Carderock and its teammates – Avondale Industries, Bath Iron Works, Ingalls Shipbuilding, National Shipbuilding and Steel Company, Newport News Shipbuilding, University of Michigan Transportation Research Institute, Designers and Planners, SPAR Associates, and the Naval Sea Systems Command (NAVSEA) – have developed the Product Oriented Design and Construction (PODAC) Cost Model.

Up and running since 1997, the prototype PODAC model has already proven itself to be a highly effective, accurate, and precise tool to assess the costs of ships being built in modern shipyards and production facilities. And, once ongoing ship upgrades are in place, PODAC will be the “leading-edge, off-the-shelf” tool for both commercial and governmental ship cost-estimation applications.

**But “We’ve Always Done It This Way...”**

The demands for innovation and change are well recognized at the highest levels of the Navy. According to Secretary of the Navy Richard Danzig, writing in his 2000 *Posture Statement*, “... the Naval Services continue to lay the groundwork for the transition to the naval forces of the future.” Not only are the Navy and Marine Corps addressing the strategic, technological, and operational implications of today’s and tomorrow’s security environments, Secretary Danzig explained that “We are working systematically to take advantage of the latest advances in information technologies ... Both Services are significantly invested in organizations and processes dedicated to fostering innovation and successful transformation on an ongoing basis. All these efforts help drive the Department’s modernization and recapitalization efforts.”

The Navy’s Revolution in Business Affairs and Acquisition Reform initiatives are now being embraced by several new warship acquisition programs, including the *San Antonio* (LPD-17)-class amphibious warships, the *Zumwalt* (DD-21) Land-Attack Destroyer class, and the next-generation CVNX nuclear-propelled aircraft carriers. To varying degrees, these

and other programs are focusing on the following Acquisition Reform initiatives:

- General performance statements that replace or streamline the highly detailed Military Specifications (“MIL-SPECS”) of the past.
- Commercial-Off-The-Shelf (“COTS”) technologies and systems that replace Service-unique equipment.
- “Total Ship Engineering” approaches that address the design, engineering, and construction of new ships as an integrated “system-of-systems” facilitated by advanced modular construction techniques.
- The introduction of “Full-Service Contracting” that promises far-reaching changes in program management structures, organizations, processes, and relationships.
- “Total Ownership Costs” and “Best Business Practices” that shape research and development, acquisition, and life cycle strategies, plans, and programs.

Unfortunately, the Navy’s traditional ship cost-estimating methodologies and tools are incapable of keeping up with the new requirements – potentially creating major road blocks for effective program

management and budget projections. The traditional, outmoded approach focuses on specific systems and ship contract design packages that are often thousands of pages long, include hundreds of drawings, and include even more ubiquitous Military Standards and Specifications, or “MILSPECs” – all of which frustrate innovation and proposals for cost-savings.

The current Navy system is, moreover, an inefficient “stove-pipe” method that uses pounds or tons of product – e.g., “a pound of computer systems” – aggregated throughout the entire ship to arrive at a cost estimate. In this awkward and archaic manner, the Navy’s engineers estimate the weight on a system-by-system basis for Hull, Mechanical and Electrical Systems (HM&E), Combat Systems, and Supporting Systems. These weights are then translated – using closely held, arcane data that are not transparent to program managers and resource sponsors – into a total construction cost on an approximate-at-best “per-pound-of-system” basis. The result can be severe disconnects between the original estimate and reality once the ship is under construction.

**FIGURE 1. PODAC Work Stage/Type Labor Cost Estimating Relationships**

Work Stage	Work Type
Designing	Administration
Planning	Engineering
Procurement	Hull Outfitting
Purchasing	HVAC
Material Management	Joiner
Fabricating	Materials
Sub-Assembly/Assembly	Machinery
On-Unit/On-Block Outfitting	Material Handling
Grand Block Construction	Operations Control
Erecting	Paint
Onboard Outfitting	Pipe
Set-Up	Production Services
Clean-Up	Quality Assurance
Finishing	Structure
Delivery/Post-Delivery	Unit Construction
Test & Trials	

Innovation and change at the shipyards have exacerbated the inefficiencies and potential inaccuracies of the current Navy approach. For example, industry's Production Work Breakdown Structures are increasingly incompatible with the Navy's Work Breakdown Structures (WBS) and approach. Also, not only do specific shipyard-developed detail designs and cost estimates reflect the yard's unique WBS, the data relating to the yard's build strategies, facilities, and processes tend to be proprietary. The result is lack of consistency from shipyard to shipyard, and lack of transparency of how costs are derived. Thus the current system has an aura of mystery that in the long run is not good for shipbuilders and the Navy, and certainly does not support a positive team-building relationship between the two.

Today's technology will enable the entire system to be overhauled and brought into the 21<sup>st</sup> century – to the benefit of the Navy and its ability to control ship costs and to the benefit of our nation that is stressed with ever-increasing demands on its naval forces. There has been a growing potential for cost “overruns” that become apparent only after Congress approves funding, thereby creating “challenges” for Navy resource sponsors and managers.

The Carderock-led PODAC development team directly addresses these shortcomings. The PODAC cost model has proven its ability to determine costs accurately and precisely and thereby to support critical program decisions early in the acquisition process. An important tool for maximizing cost efficiency and management flexibility from the start, it has also been valuable in assessing the cost impacts of ship design and construction concepts and alternatives, including alternative construction methods. Upgrades in the PODAC system are already focusing on life cycle and total ownership costs. This flexible, adaptable, and responsive program can be used for all surface ship types and classes, from auxiliaries to nuclear-powered aircraft carriers. Some “PODAC apostles” also believe that the model

could be modified for submarines and other weapons systems and platforms.

The PODAC model will thus enable the Navy to achieve DoD's Acquisition Goal No. 10 in shipbuilding, as outlined in the *Secretary of Defense Annual Report to the President and Congress, 2000*:

**“Provide improved visibility of Total Ownership Costs. The system must deliver timely, integrated data ... to: permit understanding of total weapon costs; provide a basis for estimating costs of future systems; and feed other tools for life cycle cost management.”**

In short, PODAC will be a critical element in achieving the government's objective to develop, test, acquire, and maintain modern, operationally superior, and affordable naval forces.

### Cost-Estimating Innovation

PODAC is meeting the challenge of accurately and precisely estimating all elements of a ship's cost by approaching the problem as an integrated “system-of-systems” and on a “total ship engineering” basis. The model uses a Product-oriented Work Breakdown Structure (PWBS) that is congruent with those used in modern ship design, engineering, and modular construction as well as ship modification/repair/upgrade programs. Reflecting the way that ships are constructed today – and sufficiently flex-

ible to adapt to tomorrow's shipbuilding innovations – the PODAC PWBS focuses on specific products that go into the ship, the stage of construction, and the specific type of work being performed.

The principal distinction between the PODAC approach and the traditional Navy methodology is the reliance by PODAC on explicit Cost Estimating Relationships (CER). The focus is on process-driven Labor and Material CERs generated from actual return-cost data – not the weight-derived systems estimates that have been the basis for ship estimating for a century, if not longer. These empirical CERs relate the cost of an item to its physical or functional characteristics, for example:

- 25 manhours-per-ton for a specific type of steel block assembly.
- \$25-per-foot for pipe material.
- 10 percent of construction hours for shipyard support services.

Unlike traditional methods, these Labor and Material CERs are focused on specific “products” that relate to “levels” of construction, from individual parts assembly to the ship as a whole. The model explicitly addresses eight levels of “products”:

- Level 1 – Ship
- Level 2 – Construction Zone
- Level 3 – Outfitting Zone

FIGURE 2. **PODAC Users, 2000**

Shipyards	Ship Programs
Avondale	Auxiliary Oiler (T-AO)
Bath Iron Works	Arleigh Burke (DDG-51) Aegis Guided Missile Destroyer
Ingalls Shipbuilding	Wasp (LHD-1) Amphibious Assault Ship
National Steel and Shipbuilding Company	Fast Combat Support Ship (AOE), Large Medium-Speed RO/RO (LMSR)
Newport News Shipbuilding	Nimitz (CVN-68) Aircraft Carrier
<b>Navy Activities</b>	
NSWC Carderock Division	
NAVSEA (SEA-017)	

- Level 4 – Block and Unit
- Level 5 – Assemblies
- Level 6 – Sub-assemblies
- Level 7 – Manufactured parts
- Level 8 – Component

In a similar fashion, the model takes into clear account the work stages and the type of work being performed at each stage and each level, a highly complex yet rigorous matrix of empirical data (Figure 1).

For example, at Level 4-Block and Unit Products, Labor CERs can be calculated for the entire spectrum of work type – from steel fabrication and assembly through on-block outfit and erection – and the various stages of construction – from Design through Test and Trials. For the Material CERs, PODAC focuses on most specific measures for individual products, for example, the actual cost of tons of steel for a hull section, the total number of fasteners for overhead wiring in a compartment, and gallons of intumescent paint for bulkheads and passageways.

Moreover, specific CERs can be developed to determine the following spectrum of costs and cost-related parameters:

- Labor hours
- Material costs
- Overhead, General and Administrative costs
- Productivity and learning-curve enhancements
- Design and complexity factors
- Economic inflation factors
- Multi-ship contract economies of scale

By focusing on specific labor and material elements, the PODAC model accommodates multiple units of measure, resulting in much better cost estimates than previously possible.

Experimentation by the shipyard and Navy users of the model has already realized numerous benefits for several ship types (Figure 2). Experience has shown that the model delivers comprehensive and accurate data, and has allowed design and engineering trade-offs to be

made quickly and effectively. The technical, material, and process innovations to date have included the ability to do risk assessments and schedule impact-analysis of design and production alternatives.

Unlike the traditional Navy way, the PODAC model's integrated relational database of empirical CERs offers transparent visibility for cost estimating and program planning for numerous uses, yet safeguards business-sensitive proprietary data. The model has shown the capability to pinpoint design, engineering, and construction cost “drivers” – controllable design characteristics or manufacturing processes that have a predominant effect on cost. And, once these drivers have been identified, the model has been used to analyze cost impacts of engineering trade-offs, new technologies, and innovative production processes, which include the cost of intermediate products and processes, as well as the cost impacts of design alternatives and technology insertion, of production processes and facility changes, and of program instability relating to quantities, acceleration, or stretch-out.

From a financial-management perspective, moreover, the shipyards' experience with PODAC indicates that it can support a variety of commercial and government cost strategies and approaches:

- Return on Investment Alternatives
- Cost as an Independent Variable
- Design-to-Cost
- Negotiated Production Rates
- Affordability through Commonality

### **The Real Bottom Line**

The PODAC cost model is the one precision cost-estimating instrument that belongs in every program manager's toolbox. Accurate and precise, PODAC provides the Navy and its industry partners with invaluable data, information, and knowledge of important cost “drivers” of critical shipbuilding programs.

Real-world use through the summer of 2000 has identified several valuable enhancements to the model. These include the capability to derive estimates and un-

## **PLAN NOW TO ATTEND!**

### **17th Annual DoD Logistics Conference**

**T**he 17th Annual DoD Logistics Conference, sponsored by the National Defense Industrial Association (NDIA) will be held March 5-8, 2001, in San Antonio, Texas. This annual event, focusing on a trilogy of logistics, acquisition, and financial reform, has become the premier national-level forum for exchanging ideas and sharing insights into supportability of our nation's warfighters. To register online, visit the NDIA Web site at <http://register.ndia.org/interview/register.ndia>.

dertake alternative analyses of “cradle-to-grave” life cycle costs and total ownership costs – life cycle costs plus related training and support infrastructures' estimates.

When these are in place, and the model is routinely used throughout the Navy – and the Coast Guard, too, under the National Fleet concept, for its Deepwater Maritime Security Cutter project – the PODAC cost model will almost certainly, as Secretary Danzig has called out, “... fundamentally improve the supporting business practices of the Department,” achieving the Service's goal “to deliver state-of-the-art capability from equally modern and creative acquisition and support organizations.”

**Editor's Note:** The author welcomes questions or comments on this article. Contact him at [struver@anteon.com](mailto:struver@anteon.com).

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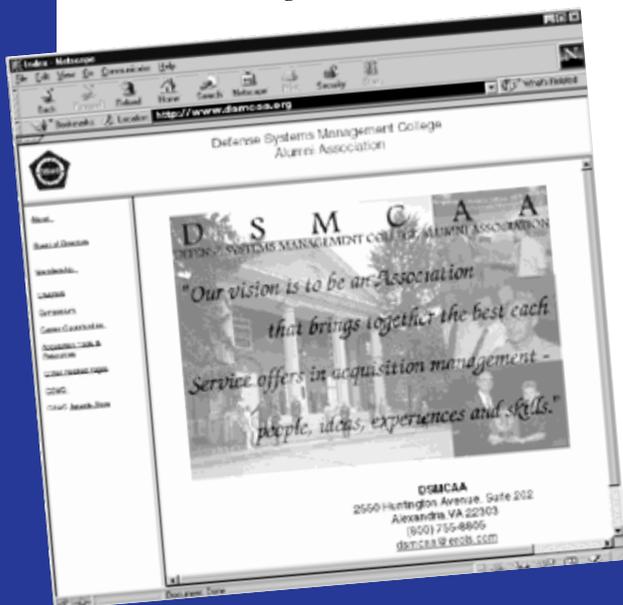
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# DoD Awards \$45 Million To Universities for Research Equipment

**T**he Department of Defense (DoD) plans to award \$45 million to academic institutions to support the purchase of research instrumentation. The 242 awards to 99 academic institutions are expected to range from about \$50,000 to \$1,000,000 and average \$186,000.

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

The awards, announced by Delores Etter, Deputy Under Secretary of Defense for Science and Technology, are being made under the Defense University Research Instrumentation Program (DURIP). The DURIP supports the purchase of state-of-the-art equipment that augments current or develops new university capabilities to perform cutting-edge defense research.

The DURIP meets a critical need by enabling DoD-supported university researchers to purchase scientific equipment costing \$50,000 or more. The researchers generally have difficulty purchasing instruments costing that much under their research contracts and grants.

This announcement is the result of a merit competition for DURIP funding conducted by four research offices: the Army Research Office, Office of Naval Research, Air Force Office of Scientific Research, and Research and Engineering Directorate of the Ballistic Missile Defense Organization.

The offices solicited proposals from university investigators working in areas of importance to the DoD such as information technology, remote sensing, propulsion, electronics and electro-optics, advanced materials, and ocean science and engineering. In response to the solicitation, the research offices received 533 proposals requesting \$115 million in support for research equipment.

**Editor's Note:** This information is in the public domain at <http://www.defenselink.mil/news>. More information on the DoD science and technology partnership with universities may be found on the World Wide Web at <http://www.dtic.mil/dusdst/news.html>.

# Telecommuting Program — Is “Flexplace” Suited to Your Organization?

## Next Logical Step in Saving Money Throughout DoD

WILLIAM N. WASHINGTON

**T**he implementation of a telecommuting (flexplace) program offers numerous benefits for organizations that dare to venture into this innovative, cost-efficient, but largely untapped workforce management program. Wherever implemented, it has benefitted not only the employees who participate, but also the quality of the surrounding environment.

For organizations, it has the potential for both cost savings and productivity improvements. For employees who participate, it affords them extra time to spend with their families, as well as a reduction in the costs associated with commuting. For the environment, it can reduce the amount of carbon emissions in the local environment, and lessens the wear-and-tear on area roads, bridges, and highway systems. These are but a few of the benefits that could be derived from implementing a telecommuting program.

### Telecommuting — Working From Afar

As the Services look for continuing ways to save money, we may be reaching the point where modifications to existing programs have achieved all that we can expect. If we are to continue to look for ways to achieve additional savings, we need to look to paradigm shifts where we completely change the way we do business. One of the shifts in the way of performing business is the shift to telecommuting, by both industry and government.

What is telecommuting? Telecommuting is the process whereby individuals

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perform their normal “office work” at home or at a remote site using computers and other telecommunications equipment to interface with their office. This can either take the form of totally performing one’s work outside the office, or working outside the office for two or three days a week.

environment. To the workplace, it offers reduced costs and increased productivity; to the workers it offers the elimination or reduction of stressful commutes and more time with their families; to the environment and society it reduces the number of vehicles on

**To the workplace, telecommuting offers reduced costs and increased productivity; to the workers, it offers the elimination or reduction of stressful commutes and more time with their families; to the environment and society, it reduces the number of vehicles on the road and their carbon emissions.**

Depending upon what is considered, the cost and benefits vary, but perhaps the most important benefit for an organization is the increased productivity from workers who participate in telecommuting. As a result of the numerous benefits that workers and employers are finding from telecommuting, this work concept continues to expand, with an estimated 8,000 employees per day joining the telecommuting ranks. (Interesting to note is that as far back as 1989, all the Fortune 500 firms were using telecommuting technology.)

The advantages from telecommuting touch upon three sectors of life: the workplace, the individual, and the



the road and their carbon emissions. Thus, for all the participants in such a program, significant benefits are to be gleaned from maximizing the use of telecommuting.

### **Opposition? Of Course.**

Opposing this way of doing business is the argument that supervisors will not have their workers directly under visual inspection. This has been the biggest stumbling block when implementing telecommuting programs, for it seems to be common nature that managers, unless they can readily see their people working, feel that they will be less productive, or will reduce their work effort. To this ar-

gument, telecommuting advocates answer that employees are measured in a telecommuting environment by their results, rather than "face time" on the job.

In addition to the main benefits from telecommuting, several side benefits have also been mentioned such as improved supervisor/worker relationships, improved morale and job attitude, and reduced employee turnover. Other side benefits may include reducing recruitment costs through lower turnover rates, and reducing relocation costs when managers do not have to move employees to new locations.

Lastly, as the Services continue to look at a sizable modernization bill for buildings and base infrastructures, telecommuting could offer a way of reducing the anticipated, budgeted costs. Currently each of the

Services has various ongoing modernization programs to either upgrade existing buildings

so they can be used for additional office space, or to build additional buildings for office space. In

addition, the base infrastructure of roads and wiring (telephone, power, and local area network lines) are also slated to be upgraded or expanded over the next 20 years. To the extent that these programs can be reduced, there would be actual cost savings from the existing budgets.

### **Telecommuting's Financial Benefits to the Organization**

The first benefit in the use of telecommuting is the reduction in floor space used in offices, which also means fewer desks and copiers, along with a smaller budget for heating and cooling. For instance, in Indiana alone, IBM realized annual savings of \$3 million due to implementing

telecommuting, and GE Medical Systems of Milwaukee has achieved yearly savings of \$1.75 million. Telecommute America estimates that 60 percent of a company's real estate costs can be saved annually by using telecommuting.

Next is the reduction in absenteeism. An important finding of a survey taken by the Telework America Organization found that employees are often absent due to family or personal obligations during the business day, for such matters as doctor appointments, banking, legal, car repair, family events, and/or household emergencies. Telecommuters who blend them into their daily routines can work around these types of activities. This is exemplified by Montgomery County, Va., where county telecommuting employees have reported improved morale and decreased leave usage. Tim Kane, President and CEO of Kinetic Workplace Consulting Group in Pittsburgh, found that absenteeism can drop by 25 percent when employees telecommute.

Lastly, increases in productivity and quality of work may derive from a number of changes in employee work practices when they are able to structure their time to individual needs and optimum work cycles. During snow days or bad weather periods, telecommuters can continue to work and be productive as well as on days when they may be convalescing from illness or accident. Employees can also stay home and work in the event they contract or would expose others to a contagious illness.

Another finding of the Telework America Organization was that 47 percent of the respondents felt they were more productive when they worked at home, with only 10 percent saying that they were not as productive. The State of Texas has also found benefits from telecommuting, reporting that their productivity increased by 20 to 25 percent since they implemented their program; likewise, the State of California found productivity increases from 15 to 30 percent, and a Telework America Survey in 1999 found similar increases averaging 22 percent. An additional benefit of telecom-



muting is for women on maternity leave, for it would afford them the opportunity to continue to do part-time work from home while they take care of their children, and requires less retraining when they return to work full time.

### **Employee Benefits**

The Telework America survey also found that 55 percent of the respondents were more satisfied with their jobs after starting to work at home, with only 7 percent of the workers less satisfied working at home. One of the reasons for this increased satisfaction is that employees are saving an average of 53 minutes each workday by not commuting. Another advantage is that it allows employees to use a flexible approach to work, so as to match their individual rhythm of when they are most productive with their work hours. IBM, in a survey of their employees participating in telecommuting, found 83 percent reporting that they would never want to return to their old office environment, with some saying they would rather quit than go back to the old work environment.

Some of the financial benefits to employees include:

- Reduced car operating costs (gas, oil, tires, maintenance, and insurance).
- Reduced tolls.
- Reduced parking fees.
- Reduced expenses for “work” clothing.

For instance, the Telework America survey found that telecommuting decreased round-trip commuting by roughly 1,800 miles per year for each telecommuter.

Telecommuting can also enable access to work for people who have specific problems (i.e., those with disabilities, or who need to care for their children or elderly parents). President Clinton recognized this issue by signing an executive order, July 26, 2000, directing agencies to use information technology to allow disabled workers to telecommute from home. It can also allow employees to remain with an organization if their spouses must relocate, so the organization can retain skilled, experienced

people along with corporate knowledge of programs.

### **Environmental, Safety and Health Benefits**

The positive impact on the environment is also substantial. With fewer cars on the road, less air pollution, less traffic, and less highway, road, and bridge repair costs are the result. Some safety benefits could also occur from the reduced risk of traffic-related injuries and deaths for both the employees and individuals they may encounter on the road such as children, pedestrians, highway workers, and other commuters. Official estimates reflect that 40,000 people die in car crashes every year in the United States, and many hundreds of thousands more are injured. Telecommuting could possibly reduce some of these injuries, both directly by reducing the number of cars on the road, and indirectly by removing commuters who may suffer from fatigue due to long commutes and/or long hours. On a darker scenario, other safety benefits might occur by reducing the potential impact of terrorist bombings, because fewer employees would be in centralized locations.

### **Implementing a Telecommuting Program**

While telecommuting can be beneficial, it certainly is not for everyone, nor for every job. It works best for self-starters and independent thinkers, and for people who possess more than minimal enthusiasm for the job. In addition, these employees should be people who do not require a lot of communication and supervision about the projects on which they are working. The paramount reason for these criteria is that under a telecommuting arrangement, employees will not be monitored regarding how much time they spend working per day. Rather, employees will be evaluated on the basis of their output.

Ideally, those who participate in a telecommuting program should be volunteers, so they have a committed attitude toward making it work. Another important consideration is that each employee have proper space in the home that can serve as an office. Locations such as

small apartments with children underfoot, or where noisy neighbors are on the other side of the wall, would not be conducive environments for telecommuters. Thus, telecommuting should *not* be considered a *right* in those organizations that implement it, but rather, a *privilege*.

Another consideration that will become important as people telecommute is “esprit de corps.” With employees rarely coming into the office (perhaps one or two days a week) except for specific functions, there could be a problem with keeping a sense of unity instilled in the group. To that end, it may be important to have frequent informal get-togethers to keep a sense of community such as picnics, weekly pizza parties, social hours, or any other function that would allow people to have contact with their co-workers. These gatherings could address the feelings of isolation, lack of interaction with colleagues, and out-of-sight, out-of-mind fears that these employees might harbor.

On the technical side of implementing a telecommuting program, the telecommuters will, at a bare minimum, need a computer, printer, software, and high-speed connections to their office. They may also need office furniture, supplies, and telephone cards to function. These items can either be provided by the government or can be considered an employee expense, rather like a car is now. Current estimates reveal that 68 percent of companies pay for these expenses, so the normal practice is for them to be covered for employees.

Equipment at a home office may fail at some time during the life of the hardware – so backup laptops/computers will be needed to fill in while the employee’s hardware is being repaired. There will also be a need for a “help desk” where telecommuters can call to work through both hardware and software problems as they arise. In addition, employees may need special training on telecommuting hardware and software needed to execute the program.

Another consideration with telecommuting is the security of the data sent

within the organization. This is likewise a concern in a normal office, but is potentially more visible in a telecommuting environment. One way this could be addressed in a telecommuting program would be through the use of virtual private networks (VPN) — a collection of data security software and/or hardware that tie Internet access together at all locations. Besides providing security for information traveling between locations, this system could also provide additional cost savings by replacing existing local networking costs with cheaper Internet user costs.

As a guideline for how a telecommuting program might be formalized, the University of Central Florida has developed an outline that provides information on how they select their employees and their procedures for implementing a telecommuter program. The program was predicated upon lessons learned from the State of California, the federal government, and many private employer programs. It includes the legal contract agreement their employees sign, describes the limits and conditions of participating in such a program, and outlines the responsibilities of the participants.

### **Management Considerations**

The following guidelines represent the principal lessons learned from several telecommuting programs. They are given as points to consider for managers in framing a new telecommuting program. Previous programs suggest that managers need to change their perspective from evaluating employees on the basis of visual orientation, to one that evaluates them on the basis of output. In addition, managers need to trust employees as professionals, without intensive supervision. Historically, it may take some time (several months to a year) for both employees and managers to work into a successful telecommuting process, for it will require a change of mind-set and work habits for all the participants. Before proceeding, however, those contemplating implementation of, or participation in, a telecommuting program should review the following basic considerations:

### **Suitability**

The first step in this process is to determine which types of functions are suited for telecommuting. Generally, most positions seem to benefit from some form of telecommuting, but jobs that require the constant presence of the employee or special equipment/facilities would not be good candidates.

### **Benchmarking**

After deciding what types of jobs within your organization are suited for telecommuting, the next step for a manager is to benchmark the work standards for those jobs, determining what constitutes quality work, and what quantity of work should be expected per week. These general benchmarks can then serve as a starting point for project milestones on each new assignment. These milestones should then be agreed upon by both the manager and the employee before a project starts, so that both have a frame of reference to gauge the progress on the project.

### **Development of Basic Guidelines**

Also, before the program starts, management needs to develop a detailed set of guidelines for both employees and managers on how the program would work. These guidelines, in turn, should also be agreed upon by the local union(s), and reviewed by the legal department for local, regional, and national regulations relating to employee guidelines such as Clean Air, Labor-Management Relations, Occupational Safety and Health, Fair Labor Standards, and Equal Employment Opportunity. These work standards should focus on objective, output-oriented metrics, and be the same for both telecommuters and non-telecommuters. The equality aspect is important, so that both types of employees feel that they are being evaluated and treated fairly. For without a common set of standards, both groups might resent the other, feeling that they are not being given the same opportunities.

For instance, telecommuters could feel that they run the risk of being passed over for promotions because they are less visible and do not have the networking opportunities of office em-

ployees. Likewise, people who are not participating in the telecommuting program could feel that only the privileged individuals had been selected to participate. These guidelines should be made public and accessible to all employees, perhaps by posting them on the office Web site or computer system.

### **Training**

Next, training should be considered for both the telecommuters and their supervisors, for both groups need to develop new skills on how to work and communicate with one another. The workers need to learn new work procedures, and become more self-reliant on operating their hardware and software, so they can perform nominal repairs and solve networking problems on their own. Supervisors need to learn new skills in managing workers from afar. The repair/diagnostic training for the telecommuters is important, as these workers will be semiautonomous from the office and its support staff; and, while the support staff will have an expanded mission to support these employees, they will not be able to provide the degree of hands-on support that office workers receive. Contractors who have experience with telecommuting would optimally conduct this training on site at the workers' day-to-day workstations or at the contractor's own training facility.

As part of this training package, there should be discussions on how the work will be coordinated on projects, both between the employees and their supervisors, and between employees working on joint projects. One tool that might be used for this process would be the color-coded [tracking] function in Microsoft Word, which highlights changes to documents. Another, more sophisticated technology, would be to use whiteboards, which allow participants to see on their computer screens the same documents and the live changes that are made by co-workers. Whiteboard is available in Microsoft's NetMeeting software, and can be downloaded free from Microsoft's site ([www.microsoft.com/netmeeting](http://www.microsoft.com/netmeeting)). Another tool that could be used would be teleconferencing cameras, which provide live images of participants in meetings.

## Site Review

Each telecommuting site should be reviewed to make sure that it meets all requirements, both in terms of materials to operate and in terms of environmental considerations. Environmental concerns are considered primary to several telecommuting programs, as managers inevitably want their employees' home working environments to be both safe and ergonomically well-designed.

## Frequent Communication

In order to keep employees active members of a coherent team, scheduled office visits and frequent communications with both office and fellow telecommuter should be encouraged. As part of this process, employees should frequently update their supervisors on how their time is being spent. Further, they should also communicate their work-hour schedules with their supervisors and any other employees with whom they are working on joint projects, by distributing timesheets and providing weekly progress reports to all other workers involved in a project.

## Security

As part of this overall process, thought should be given to how the organization's data will be secured. One technique that would go a long way to achieve this would be management providing home computers for the telecommuting program. Doing this establishes that the computer is only to be used by the "designated employee" for office functions and should only contain office files. This also strengthens the use of sign-on and authentication procedures for the computer. In addition, there should be a plan in place for data storage and recovery before the telecommuting program is implemented, so that if files are lost on the home computer, they would be retrievable from the office computer.

## Underestimating

Lastly, it should be stressed again that supervisors and employees should not underestimate what it will take to implement a telecommuting program. While the evidence has shown that telecommuting programs generally save

money overall, those considering implementing or participating in a telecommuting program should expect telecommuting budgets to increase for equipment (hardware and software) and technical support. Telecommuting can also stretch demands on the organization's support structure, not only by the requirement for offsite maintenance, but also by the longer working hours seen in telecommuting (outside normal business hours).

## Final Thoughts

The expanded use of telecommuting would seem to be the next logical step in saving money for the Services. It offers not only benefits to the Services themselves, in terms of cost savings and increased productivity, but also substantial benefits to their employees and to the environment. The biggest drawback to implementing a telecommuting program is overcoming management concerns that workers might be less diligent if they are not visually supervised. While this has not been the case where telecommuting has been implemented, it remains a principal impediment for most organizations in accepting a telecommuting program. To address this concern, managers need to adopt a broader work ethic where employees are evaluated on the basis of their *output*, rather than time spent at the office.

**Editor's Note:** The author welcomes questions and comments on this article. Contact him at [William.Washington2@mail1.monmouth.army.mil](mailto:William.Washington2@mail1.monmouth.army.mil)

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## DoD ESTABLISHES CONTRACTING-OUT WEB SITE

The Defense Department, struggling to meet its goal of considering more than 200,000 of its civilian federal jobs for possible conversion to contractor performance, has set up a site with information on the contracting-out process for both agency officials involved in the cost comparisons and employees potentially affected. The agency also hopes to use the site to share "best practices" and improve the process Department-wide. The site is at <http://emissary.acq.osd.mil>.

# Fourth Annual International Acquisition/Procurement Seminar – Pacific (IAPS-P)

# IAPS-P



**September 17-20, 2001**

**Sponsored jointly by the  
Defense Acquisition University/Defense Systems  
Management College (DAU/DSMC)  
New Zealand Ministry of Defence  
Australian Defence Force Academy (ADFA)  
Korea Institute for Defense Analyses (KIDA)  
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at the  
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## **Topics**

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## **Seminar Registration Information**

The Fourth Annual International Acquisition/Procurement Seminar—Pacific (IAPS-P) focuses on international acquisition practices and cooperative programs. The seminar is sponsored by defense educational and related institutions in the United States, New Zealand, Australia, South Korea, and Singapore.

The seminar will be held Sept. 17-20, 2001, at DAU/DSMC, Fort Belvoir, Va.

Those eligible to attend are Defense Department/Ministry and defense industry employees from the five sponsoring nations who are actively engaged in international defense acquisition programs. Other nations may participate by invitation. PACRIM nations participating in previous seminars were Canada, Japan, and Thailand.

The IAPS-P is by invitation only. Those desiring an invitation who have not attended past seminars should submit a letter of request, on government or business letterhead, to DAU/DSMC by fax.

Visit the seminar registration Internet Web site at <http://www.dsmc.dsm.mil/international/international.htm> for additional seminar information. Qualified participants pay no seminar fee. Invitations, confirmations, and joining instructions will be issued after June 1, 2001.

### **In the United States, contact:**

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# DoD Releases Selected Acquisition Reports

The Department of Defense has released details on major defense acquisition program cost and schedule changes since the June 2000 reporting period. This information is based on the Selected Acquisition Reports (SAR) submitted to the Congress for the Sept. 30, 2000, reporting period.

- Plus one new program, CVNX (Future Aircraft Carrier): + \$3,587.6 million
- Adjusted estimate for June 2000 Adjusted (71 programs): \$782,232.7 million
- Net Cost Change: + \$239.5 million
- September 2000 (71 programs): \$782,472.2 million

SARs summarize the latest estimates of cost, schedule, and technical 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 changes since the last report (+\$239.5 million) are summarized as follows:

- Economic: + \$68.8 million
- Quantity: - \$21.1 million
- Schedule: + \$17.7 million
- Engineering: + \$344.5 million
- Estimating: - \$227.0 million
- Other: + \$7.2 million
- Support: + \$49.4 million

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operation and maintenance. Total program costs reflect actual costs to date as well as anticipated costs for future efforts. All estimates include allowances for anticipated inflation.

For the September 2000 reporting period, there were eight quarterly exception reports submitted. SARs for six of these programs – FBCB2, AV-8B, CH-60S, SH-60R, B-1 CMUP, and GBS – were submitted because of schedule slips of more than six months. SARs for the two remaining programs – JS-TARS CGS and F/A-18E/F – were submitted to rebaseline from a Development to a Production Baseline, following recent decisions to proceed into full-rate production. Overall, there was a net increase of \$239.5 million (+0.03 percent), due primarily to hardware enhancements for the Army's JSTARS CGS program.

The current estimate of program acquisition costs for programs covered by SARs for the prior reporting period (June 2000) was \$778,645.1 million. After adding costs for a new program (CVNX Future Aircraft Carrier) from June 2000, the adjusted current estimate of program acquisition costs was \$782,232.7 million. There was a net cost increase of \$239.5 million during the current reporting period (September 2000).

The SAR Program Acquisition Cost Summary as of Sept. 30, 2000, is available online at <http://www.defenselink.mil/news/Dec2000/sar20000930.pdf>.

The cost changes between June 2000 and September 2000 are summarized as follows:

**Editor's Note:** This information is in the public domain at [www.defenselink.mil/news](http://www.defenselink.mil/news).

- Current estimate for June 2000 (70 programs): \$778,645.1 million

## UNDER SECRETARY GANSLER TO HEAD NEW INITIATIVE AT THE UNIVERSITY OF MARYLAND SCHOOL OF PUBLIC AFFAIRS

COLLEGE PARK, Md. — Jacques S. Gansler, former Under Secretary of Defense for Acquisition, Technology and Logistics, joined the University of Maryland School of Public Affairs (MSPA) in January 2001 as the first holder of the Roger C. Lipitz Chair in Public Policy and Private Enterprise.

The endowed chair was established with a major gift from Roger C. Lipitz, chairman of the quasi-public Baltimore Development Corporation, and grew from his interest in preparing policymakers for a new age where the lines between public, private, and non-profit are increasingly blurred.

As the Lipitz Chair, Dr. Gansler will both teach in, and lead the Center for Public Policy and Private Enterprise, the cornerstone of a major initiative at the Maryland School of Public Affairs designed to help “reinvent” the relationships among business, government, and the non-profit sector in the United States. The Center will focus on research, teaching, and education that builds mutual understanding and reciprocal learning among current and future leaders in public service and private endeavors.

“We are very excited about the future of this center under Dr. Gansler’s leadership,” said University of Maryland President C. D. Mote Jr. “He brings considerable experience in both public service and private enterprise to help shape an education and research program that explores, and ultimately redefines, the complex relationships across these sectors.”

Dr. Gansler brings to the Maryland School of Public Affairs demonstrated entrepreneurial and leadership skills, national and international involvement in the defense and management communities, strong academic credentials, and a wealth of experience at high levels of government and business.

“With his reputation for thinking ‘outside the box,’ Dr. Gansler is particularly well suited to lead this new center,” said MSPA Dean Susan C. Schwab. “We expect his work here will have a profound impact on how government, business, and non-profit agencies work together in the future to address the nation’s biggest problems.”

As the third ranking civilian at the Pentagon from 1997 to 2001, Gansler oversaw all research and development, acquisition reform, logistics, and advanced technology programs, in addition to the defense technology and industrial base. He was responsible for an annual budget of about \$180 billion of the



approximately \$290 total Department of Defense budget.

Before joining the Clinton Administration, Gansler served as Executive Vice President and Director for TASC, Inc., an applied information technology company in Arlington, Va. that grew from a small business to a multi-million dollar enterprise during his tenure.

Before 1977, Dr. Gansler held a variety of positions in government and the private sector, including Deputy Assistant Secretary of Defense, Assistant Director of Defense Research and Engineering, Vice President of ITT, and positions with Singer and Raytheon corporations.

During his time at TASC, Dr. Gansler served on a variety of special commissions and blue ribbon panels, including as Vice Chairman of the Defense Science Board, and on several government commissions studying acquisition reform. He also served on the School’s Board of Visitors, which he chaired until 1996.

Throughout his career, Dr. Gansler has written, published, and taught on subjects related to his work. He has served as a Visiting Scholar at the Kennedy School of Government at Harvard University from 1984 to 1999, and earlier as a Visiting Professor at the University of Virginia. He has taught classes and lectured on subjects ranging from government budgeting to government and industry management of high technology at the Maryland School of Public Affairs, the Jerusalem Institute of Management, and the Industrial College of the Armed Forces. He is the author of *Defense Conversion: Transforming the Arsenal of Democracy*, MIT Press, 1995; *Affording Defense*, MIT Press, 1989; and *The Defense Industry*, MIT Press, 1990. He has testified in congressional hearings and has published numerous articles in *Foreign Affairs*, *Harvard Business Review*, *International Security*, *Public Affairs*, and other journals and newspapers.

Along with his Ph.D. in economics from American University, Gansler holds a Master of Arts in Political Economy from the New School for Social Research, a Master of Science from Northeastern University in Electrical Engineering, and a Bachelor’s from Yale University in Electrical Engineering.

**Editor’s Note:** This information was released by the University of Maryland School of Public Affairs ([www.puaf.umd.edu/news/jgansler.html](http://www.puaf.umd.edu/news/jgansler.html)).



# DAU Conference Focuses on Beyond 2000

**Excelling @ the Speed of Change**

SYLWIA GASIOREK

*"We are being e-challenged and no one is safe anymore ... wiring of the globe is changing everything"*

—Patrick Lynch  
Chairman of POTENTIAL  
Management Consulting Firm  
Scottsdale, Ariz.



From left: Stan Z. Soloway, former Deputy Under Secretary of Defense (Acquisition Reform), and retired Air Force Brig. Gen. Frank Anderson Jr., DAU President.

**R**epresentatives of the Defense Acquisition University (DAU), acquisition and industry professionals joined their colleagues Nov. 14-16, 2000, at the DAU Beyond 2000 Conference. Designed as a forum to exchange ideas on current acquisition and technology, educational, and organizational issues, the conference was held at the University of Maryland Conference Center, College Park, Md.

Participants took the opportunity to learn more about the University mission, education and training of DoD (Department of Defense) workforce, and the changes in acquisition over the years. The theme, "Excelling @ the Speed of Change" highlighted the evolving capabilities of technology and the importance of achieving excellence in today's changing environment.

Throughout the three-day event, participants had the opportunity to select from more than 30 breakout sessions tied to the conference theme.

*Gasiorek, is a full-time contract editor for Program Manager magazine. A native of Poland, she holds an M.B.A. from Strayer University, where she graduated Who's Who Among Students in American Universities and Colleges.*

## Welcoming Remarks

First-day activities began with administrative announcements by Rich Reed, DAU Provost, followed by welcoming remarks from retired Air Force Brig. Gen. Frank Anderson Jr., DAU President.

"I'm excited about being here today, being back as a part of DAU, being the new President of DAU," Anderson said. "What we are starting and continuing is very important; it's important to us, as an institution, and it's important to the acquisition community. We [DAU] are a very important part of the success of the Defense acquisition community," he continued.

Anderson also emphasized that just as sport teams have to go out and win their games, the DAU community also has to

go out, renew, and rebuild every day, every season. "We have great people on the team; we've got a great organization but we will only be recognized if we deliver every day when we're in the classroom," he said.

"As we start this morning, it's important to start thinking, acting, and behaving as world-class winners because it all starts with the image; it all starts with attitude. That's a part of what we want to work on here today – and the key to success is all of you. Have a great conference," he concluded.

## Our Hardest Challenge

Reed told the conferees that the central issue and challenge today is change. "Change is becoming a part of us. If you don't change you lose," he said.



From left: Rich Reed, DAU Provost; Stan Z. Soloway, former Deputy Under Secretary of Defense, (Acquisition Reform); and Dr. Bob Ainsley, Director, Education Programs, DAU.

- Find a better way to change.
- Invent the future we want.
- Manage knowledge.
- Act, adjust, and act again.
- Take risks.

The solution for survival is simple, Lynch said. “Get real about what’s happening around [you], and grab the opportunities that change creates.”

### A Word from Stan Soloway

Following the morning breakout sessions, luncheon speaker Stan Z. Soloway, former Deputy Under Secretary of Defense (Acquisition Reform), spoke on the vision of DAU.

“I want to share my perceptions and discuss the vision of where we are going as an acquisition community, as a DAU team,” Soloway said. “In everything it does, DAU must be, must reflect the acquisition process we are trying to train our people to manage on behalf of the Department of Defense. It must have the same kind of agility and creativity; it must have the same kind of willingness to innovate; and it must focus on taking resources and using them wisely – in the broad acquisition process we’re faced [with] today,” he emphasized.

The environment has changed dramatically, Soloway added, and change needs to be reflected in training and program management education across the Department in order to prepare an entirely new generation of acquisition professionals.

The demographic fact, he stated, is that 50 percent of the acquisition workforce will be leaving the Department in the next five years due to retirement – meaning an urgent requirement to recruit and retain new people over the next couple of years. “I think DAU has to be part of the process of determining how we are going to go about preparing this next generation of acquisition professionals,” Soloway said.

Changes, technology challenges, and workforce issues – Soloway said that DAU is “inextricably linked to the success of all this, because how we keep that



Dr. Jerome Smith, DoD Chancellor for Education and Professional Development.

that change is happening faster than ever before, and we [the acquisition workforce] need to use change to be successful.

Change, according to Lynch, includes the following:

- Exploring opportunities.
- Battling for survival.
- Changing rules.

Lynch believes that as the rules break down, all opportunities open up, and the battle for survival starts. Everything is changing at once (living, working, banking, shopping, management, distribution, relationships, and getting information); the information revolution is driving change faster, creating new opportunities. “We are being *e-challenged* and no one is safe anymore ... wiring of the globe is changing everything,” he said.

According to Lynch, to be successful means to:

- Realize what’s really stopping us.
- See where we are and what’s coming next.

Reed introduced the keynote speaker, Pat Lynch, Chairman of POTENTIAL, a management consulting firm in Scottsdale, Ariz., who also spoke on change.

Lynch referred to what’s happening around us as “hyper change.” He noted

# Familiar Faces, New Contact

## DAU BEYOND 20

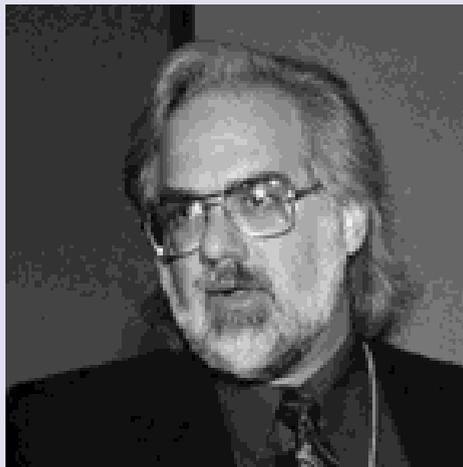
Dr. Karen Stephenson, Plenary Speaker.



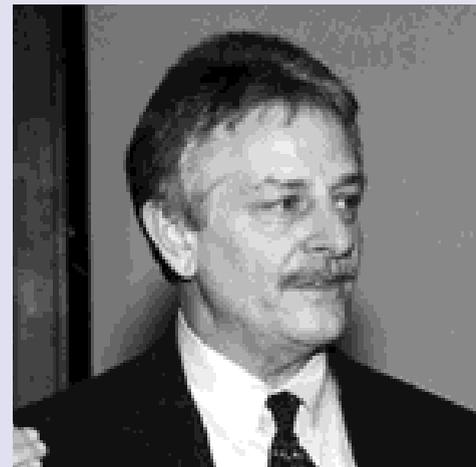
From left: Dr. Bob Ainsley, Director, Education Programs, DAU; Dr. Mary-jo Hall, DSMC Professor; and Phyllis Roberts, DAU Norfolk, Va., campus.



Judith Ward, breakout session on *Diversity in the Workforce*.



Dr. Doug Goetz, breakout session on *Platform Skills*.



Dr. Bob Hawkins, DAU Norfolk, Va., campus, breakout session on *Understanding Communication Apprehension*.

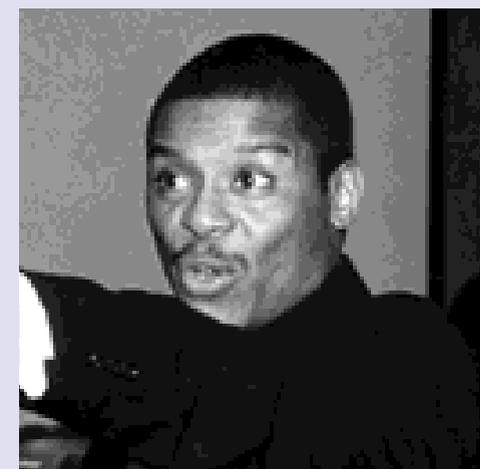
# s, Professional Dialogue at **00 CONFERENCE**



Cassandra Lancaster and Vanessa Mann, breakout session on *Corresponding in Cyberspace*.



From left: Dr. Gregory Kailian, DAU Port Hueneme Training Center, Calif.; Dr. Richard Murphy, Dean, DAU Wright Patterson AFB, Ohio, campus; and Richard Graham, Dean, DAU Norfolk, Va., campus.



Otis Williams, breakout session on *Staying Motivated in Challenging Times*.



Teresa Oritz, DAU Norfolk, Va., campus, breakout session on *Who Owns the Classroom*.



Dr. Katherine Loring, presentation on *Sustaining Faculty Vitality Over Time*.

cross-functional workforce, how we provide them a learning experience and the learning tools they need, is going to drive what happens five to 10 years from now.”

Soloway told the conferees that he believes in what DAU is about. “I am also a great believer in the fact that DAU, like much of the acquisition process, is undergoing — and has to undergo — a major change process. And I am exited by what I see in terms of the level of energy and commitment from the system to do that,” he said.

Referring to Charles Darwin’s lessons of survival, Soloway concluded that those who survive are those who are most adaptable to change.

### Conference Activities

The conference was packed with concurrent sessions for DAU faculty, with a wide variety of presentations and academic papers researched and written especially for the conference participants.

Theme tracks included a “Bootcamp” category as well as themes that addressed contemporary issues in Educational Methodology, Educational Technology, and Faculty Professional Development. Non-faculty personnel attended a variety of sessions such as Understanding Communication Apprehension, Customer Service, and Diversity in the Workplace.

The conference also featured professional speakers such as Dr. Karen Stephenson, who specializes in organizational networking theory and practice; Michael McKinley, one of America’s foremost speakers on maximizing personnel performance through his “Moving Forward ... Tools for Tomorrow” programs; as well as Dr. Jerome Smith, the DoD Chancellor for Education and Professional Development.

**Editor’s Note:** For more information on the conference, visit <http://www.westoverconferences.com>

## FEDERAL ACQUISITION REGULATION

### APPLICABILITY, THRESHOLDS, AND WAIVER OF COST ACCOUNTING STANDARDS COVERAGE

The Federal Acquisition Regulation (FAR) has been changed to revise dollar thresholds and waiver requirements related to the application of cost accounting standards (CAS) to negotiated government contracts. This change is one of a series of acquisition reform measures to remove government-unique contracting requirements. Deidre A. Lee, the Director of Defense Procurement, stated, “This policy change will enhance DoD’s ability to take advantage of the technology found in commercial companies and, at the same time, will help to increase competition for the products and services that DoD buys.”

The changes to the FAR include implementation of a “trigger contract,” whereby a business unit must receive at least one CAS-covered contract in excess of \$7.5 million before CAS is applied to any contract of that business unit. In addition, for those business units where CAS is applied, the change to the FAR increases the dollar threshold at which companies must comply with full CAS coverage requirements to \$50 million. Prior

to this change, contractors who received \$25 million or more in awards of CAS-covered prime contracts and subcontracts were subject to full CAS coverage. The change also permits agency heads to waive the applicability of CAS under certain conditions. These changes were required by Section 802 of the National Defense Authorization Act for Fiscal Year 2000.

Cost accounting standards are rules and regulations designed to ensure uniformity and consistency in the measurement, assignment, and allocation of costs under government contracts. These changes permit a greater reliance on commercial practices where the government’s interests are adequately protected. Today’s action [Jan. 10, 2001] finalizes changes to the FAR that were published on an interim basis on June 6, 2000.

The General Services Administration (GSA) posts FAR changes to its Web site. Search for FAC 97-22, Item II, at <http://www.arnet.gov/far/>.

## FEDERAL ACQUISITION REGULATION DEFINITIONS

The Federal Acquisition Regulation (FAR) will be changed to clarify the applicability of definitions, eliminate redundant or conflicting definitions, and make definitions easier to find. The changes, published Jan. 10, 2001, with an effective date of March 12, 2001, move the definitions of over 110 common terms to central locations in the FAR.

In some cases, multiple definitions of terms will still be required because of multiple definitions in the underlying statutes. For these cases, the FAR is being modified to include convenient cross-references. Also, the FAR Index is being modified to identify definitions and indicate the location of each definition.

Deidre A. Lee, the Director of Defense Procurement, believes these changes will “make the FAR more user-friendly by making definitions easier to find and apply.”

The changes are part of the ongoing efforts of the Defense Acquisition Regulations Council and the Civilian Agency Acquisition Council to implement the President’s direction to write regulations in plain language.

The General Services Administration (GSA) posts FAR changes to its Web site. Search for FAC 97-22, Item I, at <http://www.arnet.gov/far/>.



# Science and Engineering Augmentation Awards Announced

The Department of Defense announced today that it will award \$4.5 million in fiscal 2001 to enhance the capability of universities to perform basic research and related education in science and engineering fields critical to the protection of our national information infrastructure. The awards will be presented through the DoD Critical Infrastructure Protection and Information Assurance Fellows (CIPIAF) program.

The awards are being presented to the following 12 investigators: Bir Bhanu at University of California at Riverside, one Fellow in Multimodal Human Identification for Computer Security; Peter Chen at Louisiana State University, three Fellows in Cyberforensics; George Cybenko at Dartmouth College, N.H., two Sylvanus Thayer Fellows in Critical Infrastructure Protection; Yu-Chi Ho at Harvard University, Mass., one Fellow in Modeling and Analysis of Information Attack in Computer Networks; Joseph Johnson at University of South Carolina, one Advanced Solutions Group Fellow; Pradeep Khosla at Carnegie Mellon University, Pa., two Fellows in Survivable Information Systems; David Meyer at University of Calif., San Diego, one Fellow in Game Theoretic Approaches to Information Assurance and Intrusion Response; Fred Schneider at Cornell University, N.Y., two Fellows at the Information Assurance Institute; R.C. Sekar at State University of New York, one Fellow in Specification Based Techniques for Information Assurance; Edward Wegman at George Mason University, Va., two Fellows in Intrusion Detection using Data Mining Techniques; James Whittaker at Florida Institute of Technology, two Fellows in Information Assurance Research; and Alexander Wolf at University of Colorado, one Faculty

Fellowship in Support of Tolerating Intrusions Through Secure System.

The awards are intended to increase the number of postdoctoral and faculty scientists and engineers conducting high-quality research in the areas of critical infrastructure protection and information assurance.

Today's announcement by Deputy Under Secretary of Defense for Science and Technology Delores Etter is the result of a highly competitive review of the submitted proposals. After thorough evaluation by a team of joint technical experts comprised of individuals from the DoD, its Services, and agencies, a total of 12 proposals were selected for awards.

The CIPIAF program is designed to introduce new scientists and engineers to these fields by linking the Fellows with DoD-funded scientists and engineers who are already well established in the topic area. These grants will be made for the first time as part of the DoD-sponsored University Research Initiative.

Subject to the successful completion of negotiations between DoD and the academic institutions, the awards will provide up to two years of support funding to 19 Fellows for research and training-related expenses in fields related to critical infrastructure protection and information assurance.

**Editor's Note:** This information is in the public domain at <http://www.dtic.mil/ddre/univ.html> on the World Wide Web.



# High Energy Laser Research Awards Announced

The Department of Defense announced today that it would award \$8.6 million in fiscal 2001 funds to support research into technologies that will advance the development of high energy laser weapons. The recipients were selected by the High Energy Laser Joint Technology Office, a new organization formed in June 2000 to manage a DoD-wide program to revitalize high energy laser science and technology research.

Today's announcement by Deputy Under Secretary of Defense for Science and Technology Delores Etter is the result of a highly competitive review of 56 proposals submitted by a diverse set of contractor organizations and academic institutions. The proposals were evaluated by a U.S. government team comprising technical experts from the Office of the Secretary of Defense, the military Services, and Defense agencies. The team selected 19 proposals for funding.

Project awards are being presented to the following investigators and organizations:

- Alexander A. Betin from Raytheon, El Segundo, Calif.
- Gon-Yen Shen from Raytheon, Danbury, Conn. (2 projects).
- Lloyd C. Brown from General Atomics, San Diego, Calif.
- Charles Clendening from TRW, Redondo Beach, Calif.
- Stephen C. Gottschalk from STI Optronics, Bellevue, Wash.
- Olga Kocharovskaya from Texas Engineering Experiment Station, College Station, Texas.
- George R. Neil from the Department of Energy's Jefferson Laboratory, Newport News, Va.
- Rodney Petr from Science Research Laboratory, Somerville, Mass.
- David N. Plummer from Logicon, Albuquerque, N.M.
- Thomas Price from Xinetics, Devens, Mass.
- Fred Rigby from SAIC, Albuquerque, N.M.
- Wolfgang Rudolf from the University of New Mexico, Albuquerque, N.M.
- John Russell from the Directed Energy Professional Society, Albuquerque, N.M.
- Richard Schlecht from Lasergenics, San Jose, Calif.
- Peter Vorobieff from the University of New Mexico, Albuquerque, N.M.
- Robert E. Waldo from TRW, Redondo Beach, Calif.
- Michael Wickham from TRW, Redondo Beach, Calif.
- Luis E. Zapata from Lawrence Livermore National Laboratory, Livermore, Calif.

The selected projects will explore physics and technology in a wide range of areas relevant to high energy laser weapons, including chemical lasers, solid-state lasers, free-electron lasers, adaptive optics, and the interaction of laser beams with target materials.

**Editor's Note:** This information is in the public domain at <http://www.defenselink.mil>. More information on the High Energy Laser program is available at [http://www.dtic.mil/dusdst/JTO\\_newsletter.html](http://www.dtic.mil/dusdst/JTO_newsletter.html) on the World Wide Web.

# NEXT GENERATION MANUFACTURING: METHODS AND TECHNIQUES

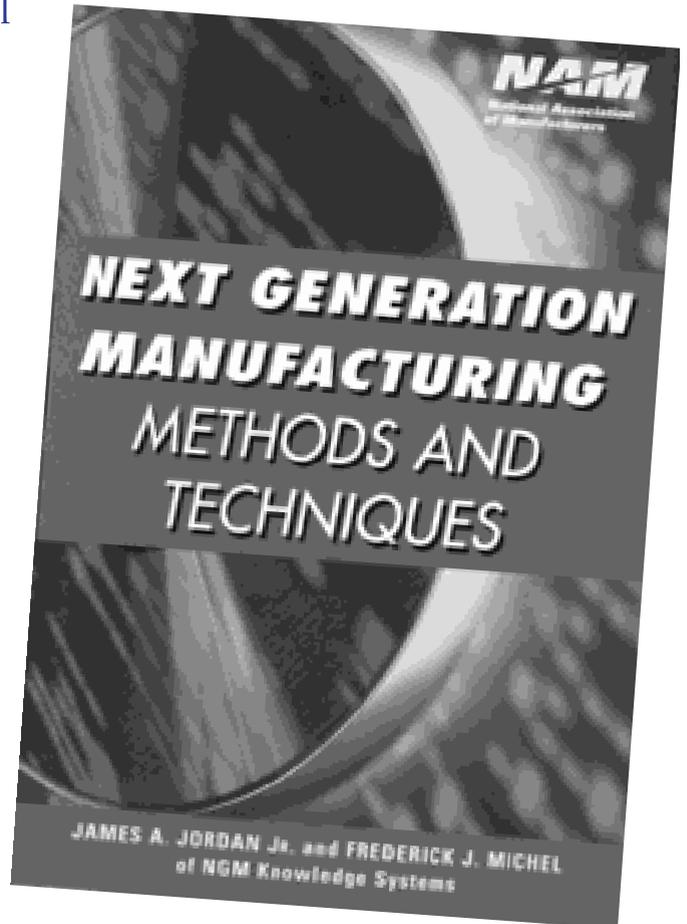
James A. Jordan Jr. and Frederick J. Michel  
New York: John Wiley & Sons, 2000

The federal government in 1995, helped organize and fund the Next Generation Manufacturing (NGM) Project, an elaborate effort to forecast manufacturing business conditions for the next 10 to 15 years. A blue-ribbon team of nearly 500 experts from industry, government, academia, and trade and professional associations and consortia was assembled to put forth a vision of the future-manufacturing environment. This three-year research program identified the steps manufacturing companies must take to become globally competitive. The NGM initiative aims to take a holistic view of the manufacturing enterprise and looks at future issues and challenges that must be addressed by the manufacturing enterprise.

We trade today in a global world economy. As trade barriers are removed and as leading companies all over the world are developing their export potential, each business needs to reach the capability of the most sophisticated and experienced international player. In order to meet diverse customer requirements and maintain manufacturing competitiveness in a global market, next-generation manufacturing systems must exhibit such features as rapid development and deployment, flexibility with respect to product quantity and variety, and reusability of manufacturing equipment and systems.

*Next Generation Manufacturing: Methods and Techniques* is the first book to cover the NGM Project and its recommendations for creating and maintaining a successful manufacturing endeavor. It describes how manufacturing is continuing to evolve and the significant transformation companies must make to remain competitive in the next decade.

Jordan and Michel, participants on the NGM Project and now consultants to the manufacturing industry, have brought together the Project's ideas for achieving success through an understanding of the roles of innovation, knowledge, and people in competitive readiness. They frame their presentation around the story of a fictional manufacturing firm, but also provide authentic company examples, as well as exercises and manufacturing methodologies. Product development decisions are driven by the need for lower cost, faster cycle time, and higher quality in engineering design. Jordan and Michel, define the emergence of the collaborative enterprise, as well as cross-industry collaboration, by linking management and financial goals to technology management principles and supply chain strategies such as quick response, agile manufacturing, and mass customization.



The impact of the NGM phenomenon is a kind of organizational utopia, where everyone will be working on an optimal level. This will result in more efficient processes, less waste, innovative products coming to market faster, and a better bottom line for all involved.

The NGM Project, now referred to as the Integrated Manufacturing Technology Initiative, is an ongoing effort. The Manufacturing Management Department of the Defense Acquisition University (DAU) has been invited to participate as an academic member. *Next Generation Manufacturing: Methods and Techniques* is being used as a student reference in DAU's PQM 301, Advanced Production and Quality Management Course.

Reviewer:

**Lt. Col. John Manning**  
Director, Acquisition Reform  
Communications Center  
Defense Acquisition University

# PROGRAM MANAGER MAGAZINE A QUICK REFERENCE FOR LAST YEAR'S ARTICLES

## JANUARY – FEBRUARY

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# Army Awards Distance Education Contract

## PricewaterhouseCoopers to Form Army University Access Online

Secretary of the Army Louis Caldera announced today the Army has awarded a \$453 million contract to PricewaterhouseCoopers to provide distance education for an estimated 80,000 soldiers over the next five years, equipping them as students with the latest technologies and quality online learning experiences. This initiative places the Army at the leading edge in distance education.

Sen. Bob Kerrey of Nebraska, the chairman of the congressional Web-based Education Commission; James J. Schiro, the chief executive officer of PricewaterhouseCoopers; and Vice Chief of Staff of the Army Gen. John M. Keane joined Secretary Caldera for the announcement of this historic online Web portal, scheduled to open in mid-January 2001 at three Army posts in Georgia, Kentucky, and Texas. The contract unites an impressive group of more than a dozen technology providers and an initial set of 29 accredited higher education partners to create a customized, complete online university: Army University Access Online.

"This cutting edge, cyberspace program will provide unprecedented educational opportunities for our soldiers," said Caldera. "It reinforces the Army's long-term commitment to investing in its people. This strategic alliance with PricewaterhouseCoopers and its unique team opens a new doorway to per-

sonal growth — allowing America's soldiers to earn post-secondary degrees or technical certifications online anytime, anywhere, anyplace, while they serve.

"PricewaterhouseCoopers brings unequalled experience in managing large, global and complex programs as well as acknowledged expertise in technology development and in e-Learning strategies," Caldera said. "Together, we will inspire educated, Information Age-savvy soldiers to succeed in the high-technology missions the Army will be asked to perform in the 21<sup>st</sup> century."

"This is a monumental step for both the Army and our e-Learning Network of partners," said Schiro. "This educational services solution provides the Army, its soldier-students, and the Army Continuing Education Service administrators best-in-class online education programs, technology components, and experienced project management that will ensure the Army's success in delivering distance education programs to its soldiers."

PricewaterhouseCoopers is the world's largest professional services organization. Drawing on the knowledge and skills of more than 150,000 people in 150 countries, it helps clients solve complex business problems and measurably enhances their ability to build value, manage risk, and improve

performance in an Internet-enabled world. The Management Consulting Services practice of PricewaterhouseCoopers helps clients maximize their business performance by integrating strategic change, process improvements, and technology solutions.

The Army first announced its program vision for Army University Access Online July 10 [2000]. This initiative empowers eligible soldiers to obtain college degrees or professional technical certifications using notebook computers and vastly expanded learning opportunities while they serve in the Army.

The Army University Access Online technology package announced today includes a Compaq laptop computer and printer distributed by TurboTek Computers, a standard suite of software and Internet browser, Internet connectivity by Fiberlink, and 24-hour call center support by Precision Response Corporation. Saba will provide online course management and online evaluations while PeopleSoft will develop and integrate the student administration system. Blackboard will provide the virtual classroom environment.

This e-Learning Network features an initial set of accredited higher-education institutions. These schools include members of

the Servicemembers Opportunity Colleges – Army Degrees program as well as Historically Black Colleges and Tribal Colleges. These institutions, which reflect the diversity of America, will offer an extensive range of online course offerings, programs, and available degrees to soldier-students. Other schools desiring to enter teaming agreements as part of Army University Online should contact PricewaterhouseCoopers.

Army University Access Online is the latest in a series of dynamic changes to the Army's recruiting and marketing programs designed to enhance and communicate the wide range of opportunities and skills the Army offers potential recruits. The Army is also continuing its efforts to better train and deploy its recruiting force, and communicate Army opportunities as well as by offering innovative new educational programs to recruits. The educational opportunities include the GED Plus, the Army's high school completion program, College First, and Partnership for Youth Success programs.

For more information, call Army Public Affairs, Paul Boyce at 703-697-3447.

**Editor's Note:** This information is in the public domain at [www.dtic.mil/armylink/news/](http://www.dtic.mil/armylink/news/).

# How Can DoD Benefit from the New ISO 9000?

## ISO 9000 — Promoting Standards for Acceptable Performance Throughout the World

JACK MCGOVERN • NINA BROKAW

### A Word From the Author

Comments in this article are based on the Final International Draft Standards, ISO/FDIS 9001:2000 and ISO/FDIS 9004:2000. This final and official standard was released Dec. 28, 2000.

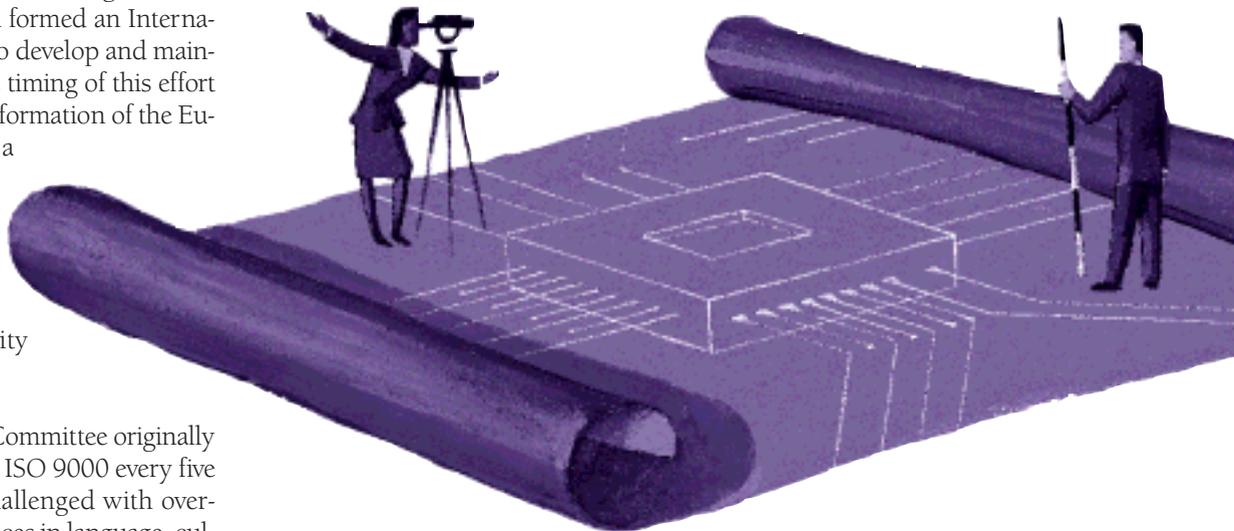
**T**he International Organization for Standardization, based in Geneva, Switzerland, has been developing, distributing, and maintaining ISO (Greek for equal) standards since 1947. There are over 10,000 ISO standards, covering everything from manufacturing processes and materials, to medical devices and photo film speed. These standards, which are directives for acceptable performance, are in use throughout the world.

### A Single Quality Standard

In 1987, the International Organization for Standardization formed an International Committee to develop and maintain ISO 9000. The timing of this effort coincided with the formation of the European Union, and a key goal was to harmonize the many different quality standards of these countries into a single quality standard.

The International Committee originally intended to update ISO 9000 every five years. However, challenged with overcoming the differences in language, cul-

The ISO 9001:1994, "Model for Quality Assurance in Design, Development, Production, Installation and Servicing," describes the requirements for a Quality Assurance System. It contains 20 clauses that cover all aspects of an organization from contract review, to purchasing, design, process controls, and inspection and test.



**McGovern** recently retired from his position as professor of Manufacturing Management, at the Defense Systems Management College (DSMC), Fort Belvoir, Va. **Brokaw** is a retired Army lieutenant colonel and former course codirector of the Advanced Production and Quality Management Course (PQM 301), DSMC.

ture, and levels of industrial development, the member nations took seven years to reach agreement on the first update, the 1994 version of the ISO 9000 standards. (The 1987 and 1994 ISO International Quality Standards consisted of three requirements standards, along with a large array of supporting and guideline standards.)

By July 2000, the International Organization for Standardization had issued over 340,000 certifications of registrations for ISO 9000. These certifications (registrations) document that an International Organization for Standardization-certified third party Registrar has conducted an audit and found the organization in compliance with the requirements of the applicable ISO 9000 standard.

Companies ranging from large manufacturing organizations to small service offices such as a doctor's office, have achieved ISO 9000 registration. Numerous additional organizations throughout the world use the standard as a guide to quality, without applying for registration. The United States has approximately 40,000 companies with certificates of registration. Since the first ISO 9000 standard was published in 1987, many Department of Defense contractors have used the international quality standards for managing their quality systems, both with and without formal registration. In 1994, when DoD cancelled the military quality and inspection specifications, many defense contractors who previously used the military standard filled the vacuum with the adoption of ISO 9000.

### **The Present Version**

The ISO 9001:1994, "Model for Quality Assurance in Design, Development, Production, Installation and Servicing," describes the requirements for a Quality Assurance System. It contains 20 clauses that cover all aspects of an organization from contract review, to purchasing, design, process controls, and inspection and test. It requires users to document their quality assurance system and implement the activities that, when followed, should

ensure appropriate management of quality assurance.

How well adherence to the ISO 9000 standard results in "quality" has been a matter of debate. One major company observed that documenting one's processes and ensuring that the documented processes are followed, as required by the ISO standard, could result in an ISO-certified company producing excellent but useless concrete life jackets. That company went on to develop its own quality system that placed emphasis on continuous process improvement and customer satisfaction, areas in which many felt the ISO standard was lacking.

Students coming through the Defense Systems Management College's Program Management and Manufacturing Management courses have made similar observations about ISO 9000 implementation since the standard was first distributed in 1987:

**"What good is ISO 9000 certification? I see the banner in the lobby that says they are ISO-certified, yet every pump they install on my ship is defective."**

**"The contractor says I cannot audit their facility; they are ISO 9000-registered, and they feel that should be good enough. However, I continue to have major quality problems — three aircraft were grounded due to defective jet engine parts."**

This concern about the quality performance of registered companies has some foundation. The depth and completeness of audits can vary from Registrar to Registrar. Many of us with audit experience have encountered significant non-conformances with registered companies, sometimes immediately after the company has passed a Registrar's audit. Many students from Defense Contract Management Agency (DCMA), charged with the responsibility to perform compliance audits of defense contractors, have also noted this lack of consistency in the standard among registered quality systems.

Under the 1994 version of ISO, companies were often evaluated for the quality of their Quality Manual, the documentation of their required procedures, their implementation of internal audits, and demonstration of management responsibility. While this version of the standard contained corrective and preventive action and quality status clauses, these clauses were seldom used to measure defect levels and product conformity.

However, it is, and has always been, top management's responsibility to commit and lead an organization to achieve excellence. Those companies not committed to or capable of achieving continuous improvement could approach ISO certification not as the basis for a sound quality management approach, but as a paperwork drill. The chart on the next page depicts the latest version of the ISO standard, which seeks to establish a basis for continuous improvement, with a fundamental shift in how the standard requires a company to approach higher levels of quality management.

The most obvious indicator of a shift in the ISO approach is the change in the title of the standard. While the ISO 9000:1994 series was entitled "Quality Assurance," the new version is called "Quality Management." The International Organization for Standardization released the new standard as a "consistent pair" of quality management standards: ISO 9001:2000, "Quality Management Systems — Requirements" and ISO 9004:2000, "Quality Management System — Guideline for Performance Improvement."

The first standard, ISO 9001:2000, describes the required processes and procedures a company must have in place to be registered as meeting the quality system. The second, ISO 9004:2000, describes how the company should go about achieving those requirements. This "consistent pair" of standards work together to provide both the requirements and guidelines for improvement to ensure the company achieves and maintains quality. These standards are also

compatible with the International Environmental Management Standards, ISO 14000. Previously, attainment of both ISO 9000 and ISO 14000 required two complete and separate audits. The new standard will require only one audit of those requirements that overlap the two standards, reducing costs associated with certification.

The scope of the new ISO 9000:2000 can be seen below in the Model for Continual Improvement of the Quality Management System. The revised standard covers product realization (from concept, through production, to delivery to the customer), along with measurement, analysis, and improvement.

The intent of the revised standard is to require companies to manage quality as a fundamental focus of their business. To achieve this, ISO 9001:2000 organizations will be required to emphasize and demonstrate quality in four overlapping focus areas:

#### Customer Focus

The new version of the standard requires the company to have a customer satisfaction feedback system in place, to show

corrective actions taken, and to document the implemented improvements. This area is a mandated topic for management reviews, ensuring management involvement.

#### Product Realization and Conformity

Under the revised standard, a company must understand and describe the sequence of processes and sub-processes required to achieve a product, and identify the required verification, validation, acceptance criteria, and records related to product realization and conformity.

#### Process Management

This focus area covers the identification, sequence, and interaction of the quality management system. It includes monitoring, measuring, and analyzing processes and actions for continual improvement. Process Management extends into the product realization processes.

#### Resource Management

This area encompasses ensuring employee competence to produce quality product based on education, training, skills, and experience. It covers how the company is organized to identify and

manage the facilities and work environment to achieve conformity of product.

ISO 9000:2000 has other format and substantive changes. However, the four major areas of emphasis cited will improve confidence of stakeholders of organizations that adopt ISO 9001:2000. A company will need more than just a well-documented quality system to provide a basis for product quality. It will have to demonstrate process performance and product conformance and show evidence of customer satisfaction and continual improvement.

The new ISO 9001:2000 and 9004:2000 consistent pair focuses on eight principles:

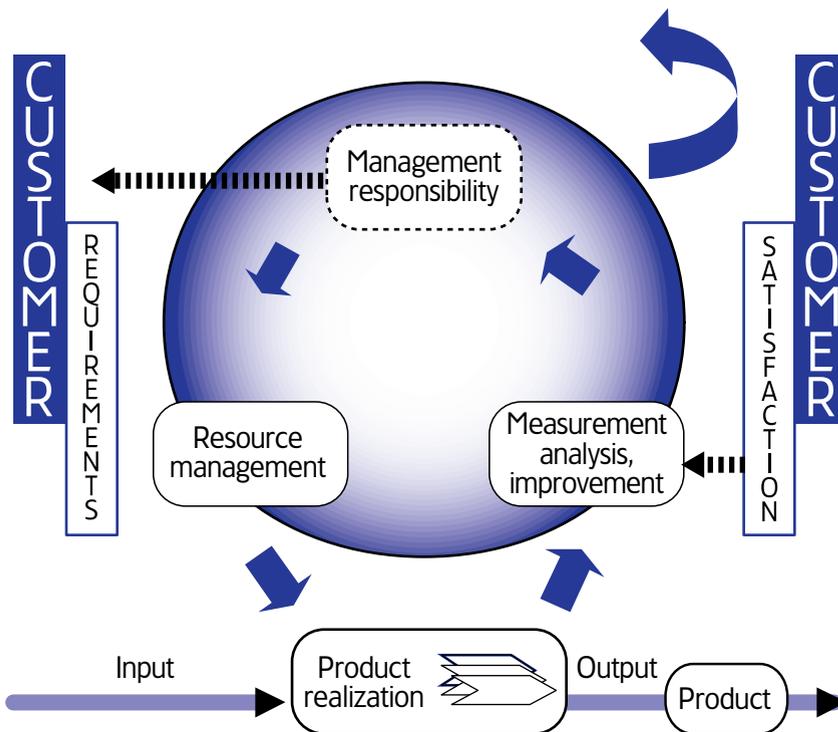
- Customer focus
- Leadership
- Involvement of people
- Process approach
- Systems approach to management
- Continual improvement
- Factual approach to decision making
- Mutually beneficial supplier relationships

These principles broaden the depth with which a company must approach quality to achieve certification.

#### How Can DoD Better Use the New Standards?

What does this all mean to the DoD and our contractors? The organizations that adopt ISO 9001:2000 will have to demonstrate that their product realization processes are effective and producing quality product. They will have to demonstrate that product conformity or critical characteristics, in terms of defect levels (defects-per-million opportunities, etc.), are acceptable; that plans are in place for improvement; and, as time goes on, that improvements are actually demonstrated.

To make the most of the new version, the Department of Defense should use ISO 9001:2000, or other similar non-governmental quality standards, to the maximum extent practical for contracts requiring higher-level quality assurance provisions. The appropriate implemen-



### Model for Continual Improvement of the Quality Management System

tation of Quality Management System Requirements should result in overall improvement of all parts, materials, and components going into our weapon systems. Contractual acquisitions for commercial and non-complex items would not normally require higher-level quality assurance requirements such as ISO 9001:2000. However, buying activities should work closely with DCMA to ensure a systematic approach for determining when and how higher-level quality requirements will be contractually implemented.

If the requirements of the quality management system are being fully met – processes are in control, product conformity levels are at acceptable levels, and substantial plans for continual im-

provements are in place – DCMA should continue its current practice of issuing a Statement of Qualification to contractors found in compliance with higher-level contract quality system standards, e.g., ISO 9001:2000.

DCMA should work closely with buying activities and the defense industry via management councils to address contract quality system requirements. DCMA should also continue participating in key quality-focused councils, boards, and associations to promote consistent enforcement of contractual quality requirements. Interpretation of ISO 9001:2000 language should also be addressed through internal DCMA guidance and DSMC training venues.

It will take some time for the new ISO International Quality Management Standards to “shake out.” There will be different interpretations of the requirements by consultants, auditors, and ISO Registrars.

It may take years for some companies to realize that a well-documented quality system is not all that is required. However, the organizations that use the “consistent pair” of standards, with a process approach by committed management, should achieve excellence in product and service performance.

**Editor’s Note:** The authors welcome questions or comments on this article. Contact McGovern at [mcgov@erols.com](mailto:mcgov@erols.com).

## DSMCAA 2001 Symposium to Feature Golf Tournament, Anniversary Celebrations

**T**he Defense Acquisition University (DAU), in partnership with the Defense Systems Management College Alumni Association (DSMCAA), is sponsoring the first ever DAU-DSMCAA Golf Tournament. Anticipated as a future annual event, the Tournament will be held in conjunction with the DSMCAA 18th Annual Symposium, June 4-7, 2001. The 2001 Symposium also marks two major milestones: DAU's 10th Anniversary as a DoD institution of acquisition education and training; and DSMC's 30th Anniversary as an educational institution promoting systems management excellence through education, research, consulting, and information dissemination.

In addition, DAU-DSMC will host an Open House of the main Fort Belvoir, Va., campus. Mark your calendars now and look for more information on the Golf Tournament and Symposium in future issues of *Program Manager*. Future updates on the Golf Tournament and Symposium will also be added to the DAU and DSMC Web sites at:

<http://www.dau.mil>  
<http://www.dsmc.dsm.mil>

The Golf Tournament and Symposium will be held at Fort Belvoir, Va., on the following dates:

### **June 4**

First Annual DAU-DSMCAA Golf Tournament

### **June 5**

Anniversary events, workshops, speakers, panels on current acquisition issues

### **June 6**

Defense Acquisition Workforce Improvement Act (DAWIA) Segmentation Day and Dinner (DAWIA segments will be reviewed by a panel and speakers)

### **June 7**

“Strategic Partnerships in Progress” Presentations – Developing Partnerships with DoD, Industry, and Legislative Branch

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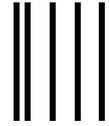
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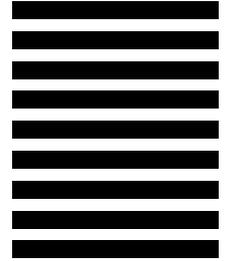
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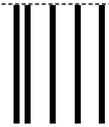
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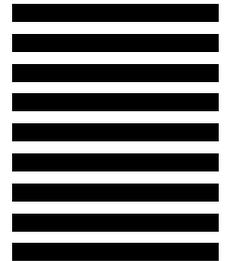
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In fiscal 2000, the Defense Acquisition University (DAU) developed a plan to offer all Web-enabled (online) courses to students who work for corporations in the Defense Industry. The program began at the start of the new fiscal year in October 2000.

A nominal fee will be charged to students for the online courses. This should encourage defense industry students to enroll in the courses, thereby building upon and enhancing the skills of the Defense Industry professional acquisition workforce. Students will find application for enrollment very easy, since the program will

use the same online application form that is currently used by industry students who apply for DAU resident courses – available at [http://www.dsmc.dsm.mil/registrar/industry\\_applic.htm](http://www.dsmc.dsm.mil/registrar/industry_applic.htm).

The following courses are available to industry students online:

- Fundamentals of Systems Acquisition Management (ACQ 101)
- Fundamentals of Earned Value Management (BCF 102)
- Basic Information Systems Acquisition (IRM 101)
- Basic Software Acquisition Management (SAM 201)

- Acquisition Business Management (BCF 211)
- Simplified Acquisition Procedures (CON 237)
- Acquisition Logistics Fundamentals (LOG 101)
- Introduction to Acquisition Workforce Test and Evaluation (TST 101)

DAU has put together a high-quality program, and the University is confident the program not only has long-term growth potential, but will also be of great benefit to the Defense Industry as well as the students.

For more information, contact Art McCormick, Registrar for Industry Students:

Phone: 703-805-4498 Fax: 703-805-3709 E-mail: [arthur.mccormick@dau.mil](mailto:arthur.mccormick@dau.mil)

Defense  
Resources  
Management  
Institute

## Defense Resources Management Course

### Course Objectives

Develop an understanding of resource management concepts, principles, and techniques

### Who Should Attend?

Managers working in all fields concerned with resource allocation

### Who is Eligible?

- Military Officers (active or reserve) O-4 and above
- Civilian DoD, GS-11 and above
- Equivalent ranking military & civilian officials of other nations



Naval Postgraduate School

Monterey, California

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Comm 831 656-2104/2307

[mandrews@nps.navy.mil](mailto:mandrews@nps.navy.mil)

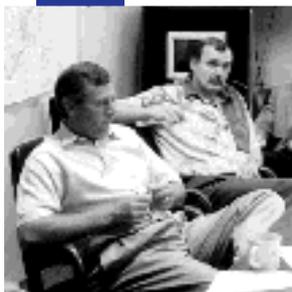
### Calendar Year 2001

Four-week Sessions

April 23-May 17

May 21-June 15

August 20-September 14



For more information

[www.nps.navy.mil/drmi/](http://www.nps.navy.mil/drmi/)

# TRANSATLANTIC ARMAMENTS COOPERATION

## Report of the Military Research Fellows DSMC 1999-2000

The latest Defense Systems Management College (DSMC) Military Research Fellows Report, *Transatlantic Armaments Cooperation*, is now available in hard copy as well as on-line. Dated August 2000, the report focuses on transatlantic cooperative programs. Cooperation with Europe was chosen because of the important political, military, economic, and historical transatlantic ties, but most importantly, because Amer-

ica's relationship with Europe is rapidly evolving. There is substantial concern about a "Fortress America – Fortress Europe" syndrome. Political leaders and the public both here and in Europe are attempting to come to terms with the meaning of the NATO alliance in the post-Cold War era. European assertiveness and unity are clashing with dated perceptions about Europe held by Americans. The intended audience is both the U.S. defense acquisition

workforce and policy makers. For the former, the Fellows' intent was to produce a useful guide that will make the defense acquisition workforce more effective as members of a cooperative team. For the latter, they sought to provide an updated comprehensive view of the salient features of transatlantic armaments cooperation and some ways in which the context is changing.

The Report may be downloaded from the DSMC Web site at [http://www.dsmc.dsm.mil/pubs/mfrpts/mrfr\\_2000.htm](http://www.dsmc.dsm.mil/pubs/mfrpts/mrfr_2000.htm) on the Internet. Non-government personnel may purchase hard copies of DSMC publications for a nominal charge by calling the Government Printing Office at (202) 512-1800 or fax (202) 512-2250. Government personnel may obtain single copies of DSMC publications at no cost by writing or faxing a request, on official stationery, to the address shown below:

**DEFENSE ACQUISITION UNIVERSITY  
ATTN AS-CI  
9820 BELVOIR ROAD STE 3  
FT BELVOIR VA 22060-5565**

**Comm:** (703) 805-2743  
**Fax:** (703) 805-3726

*Authors*  
*Lt. Col. Richard C. Catington, USAF*  
*Lt. Col. Ole A. Knudson, USA*  
*Cmdr. Joseph B. Yodzis, USN*



## YOU ARE INVITED!

### Interested DoD–Industry Personnel, DSMC Graduates, Faculty, Staff

The Capital Area Chapter, Defense Systems Management College Alumni Association (DSMCAA) sponsors monthly "brown bag" acquisition seminars on timely acquisition subjects, featuring experts in the subject area. Seminars are open to interested DoD personnel; DSMC graduates/alumni and faculty; and DoD contractor personnel, subject to prior notification of attendance. Seminars are normally scheduled on the fourth Monday

of each month from 11:30 a.m. to 12:45 p.m., and are held at the following *new* location:

**ANSER, Inc.**  
**Conference and Innovation Center**  
**Suite 700**  
**1550 Wilson Blvd.**  
**Rosslyn, Va. 22209**

Individuals planning to attend a seminar should E-mail Tod Beatrice at [beatrice@anser.org](mailto:beatrice@anser.org) or call (703) 588-7747

no later than one work day prior to the seminar. If replying by voice mail, please provide your name, company/organization, and phone number.

To learn more about the great benefits of DSMCAA membership, visit the DSMCAA Web site at <http://www.dsm-caa.org>.

# DAU / DSMC H INTERNATI

**O**n Dec. 5, the DAU/DSMC Fort Belvoir campus hosted its first International Day – French Day – organized to promote Department of Defense engagement in international policies as well as increasing cultural awareness.

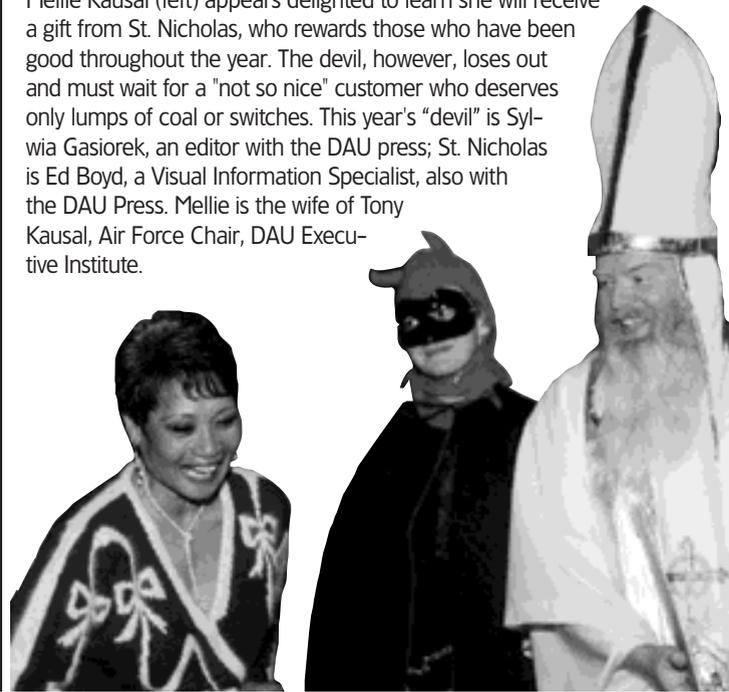
Maj. Gen. Jean Charles Gaudillet, Defense Cooperation Attaché, and his Defense Cooperation team at the French Embassy began the day's events with a presentation on French acquisition, followed by a presentation on the European Defense Perspective from Maj. Gen. Daniel Bastien, Defense Attaché.

Dr. Gertrud Humily, DAU International Chair, representing the French Procurement Agency, rounded out the presentations with a speech on "Franco-American Intercultural Hurdles: How to Overcome Them Rapidly." Humily spoke on promoting, encouraging, and understanding cultural differences as well as constructive interchange with our allies.

Other highlights of the day included a French lunch with traditional homemade dishes, French music, and the presentation of gifts by St. Nicholas. After lunch, the participants were invited to the Essayons Theatre to watch movies on French acquisition and the culture, land, and traditions of France.

DAU/DSMC has hosted and participated in a variety of international events, and since October 2000, the University has offered language classes for faculty and staff as a part of an increased international presence.

Mellie Kausal (left) appears delighted to learn she will receive a gift from St. Nicholas, who rewards those who have been good throughout the year. The devil, however, loses out and must wait for a "not so nice" customer who deserves only lumps of coal or switches. This year's "devil" is Sylvia Gasiorek, an editor with the DAU press; St. Nicholas is Ed Boyd, a Visual Information Specialist, also with the DAU Press. Mellie is the wife of Tony Kausal, Air Force Chair, DAU Executive Institute.



Retired Air Force Brig. Gen. Frank Anderson Jr., DAU President.



Tony Kausal, Air Force Chair, DAU Executive Institute.



Defense Attaché Maj. Gen. Daniel Bastien, French Embassy.



Dr. Gertrud Humily, International Chair, DAU Executive Institute.



From left: French teachers Carole Schmidt and Patricia Lescerret receiving gifts from St. Nicholas (aka Ed Boyd, DAU Visual Arts and Press).



From left: Joann Langston, Army Chair, DAU Executive Institute; Kausal; Josiane Saueressig; and Jürgen Saueressig, German Liaison Office.



# O S T S F I R S T O N A L D A Y

From left: Bastien; Frank Swofford, Holder of Forrestal-Richardson Memorial Industry Chair, DAU Executive Institute.



From left: Anderson; Maj. Gen. Jean-Charles Gaudillet, Defense Cooperation Attaché, Defense Cooperation Office, French Embassy.



From left: Anderson.; Humily; Gaudillet.



From left: Anderson; and Col. Jacques Roujansky, Deputy Defense Cooperation Attaché.



From left: Mellie Kausal; Gilles de France, Vice President Auxit Rol; and Arlette Lion, CHEAR Conference Center, France.



From left: Roujansky; Kausal; and Humily.



Seated from left: Bastien; Anderson; Gaudillet; and Jürgen Sauerrressig. Standing from left: Schmidt; de France; Josiane Saueressig; Langston; Tony Kausal; Lescarret; Don Hood, DSMC Professor; Humily; Swofford; Roujansky; and Mellie Kausal.

# DoD Change Acceleration and K Highlighted at D

Former Deputy Under Secretary of Defense (Acquisition Reform) Stan Soloway, flanked by senior Department and industry officials, announces the successes of the Change Management Center at a special Pentagon press conference on Dec. 15, 2000.



Change Agent Leaders from across the Defense Department's acquisition, technology and logistics community, as well as other federal agencies and commercial industry converged on Fort Belvoir, Va., Dec. 15, 2000, for the first DoD Change Management Summit and Training Session. The Summit demonstrated how the adoption of commercial best practices and knowledge management techniques, accessible through the Department's Commercial Business Environment (CBE) portal, are changing the way the Department does business and accelerating actions in support of DoD's Revolution in Business Affairs.

First of its kind, the Summit provided an opportunity for 150 acquisition professionals to learn about the activities and successes of the Department's Change Management Center (CMC) and consider ways to use the CMC capabilities to achieve similar results in their own organizations.

Beginning with a press conference "simulcast" from the Pentagon, former Deputy Under Secretary of Defense (Acquisition Reform) Stan Z. Soloway announced the findings of a recent Inspector General's report highlighting the suc-

cess of the CMC's Strategic Supplier Alliances (SSA) initiative. SSAs are revolutionizing the way organizations such as the Defense Logistics Agency (DLA) are contracting with their key suppliers by bringing commercial best practices to defense procurement efforts. Navy Rear Adm. Daniel Stone, Defense Logistics Agency, and senior executives from participating companies were on hand to answer questions from the press. SSAs are providing a significant "Win-Win" opportunity and will provide support to the Warfighter "Better-Faster-Cheaper."

Following the press conference, Summit participants were introduced to the CBE portal, which offers an integrated portfolio of resources to effect change across the Department, including the commercially proven CMC Rapid Improvement Team (RIT) process, knowledge management tools to create effective communities of practice, and innovative Action Learning Workshop programs. Each of the summit sessions showcased successes achieved by the CMC over the past year and provided opportunities for participants to apply these case studies to their own organizations.

The Summit concluded with a Senior Leadership Panel, including Soloway, CMC Lead William Mounts, and Defense Reform Initiative (DRI) Deputy Director Mary Margaret Evans. The panel outlined a vision for the CMC that includes a partnership with the Defense Acquisition University to create a corporate university approach to education, as well as future efforts through DRI to maintain and expand Department-wide access to the CMC.

One participant, Margaret Proctor, a contracting officer with the Army, commented, "The summit gave me a new way of looking at the issues we face on a daily basis and how positive change can be completed in less time. I have already recommended the Change Management Summit to my co-workers."

Attendance at the Summit qualified defense acquisition professionals for continuing education credit. Because of overwhelming response to the first Summit, a second event will be repeated at Fort Belvoir Feb. 13, 2001. For more information about the upcoming summit, and how to receive your continuing education credits, contact [cbefinfo@meridianksi](mailto:cbefinfo@meridianksi) or visit [www.acq.osd.mil/ar/cbe](http://www.acq.osd.mil/ar/cbe).

# Knowledge Management Efforts December Summit



Mary Margaret Evans, Defense Reform Initiative, Dr. James Edgar, Department of the Army, and former Deputy Under Secretary of Defense (Acquisition Reform) Stan Soloway discuss the future of change initiatives in the Department at the closing Senior Leadership Panel.



The active sharing of best practices and lessons learned was a primary goal for Summit organizers. Pictured: Participants in a breakout session discuss ways to streamline contracting procedures using the tools provided by the Change Management Center.

# Price-Based Acquisition Throughout DoD



ACQUISITION,  
TECHNOLOGY AND  
LOGISTICS

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

NOV 29, 2000

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
ATTENTION: SERVICE ACQUISITION EXECUTIVES  
BALLISTIC MISSILE DEFENSE ORGANIZATION  
ATTENTION: ACQUISITION EXECUTIVE

SUBJECT: Price-Based Acquisition

Section 912c of the National Defense Authorization Act for FY 1998 resulted in chartering a study team to look at implementing price-based acquisition (PBA) within the Department. The study team did an excellent job fleshing out the issues and addressing literally hundreds of questions and comments. Although a consensus among the team was not achieved, the final report adds significantly to the body of knowledge in this area. I accept their report and thank them for their outstanding work. I believe PBA offers great potential, and I endorse its use throughout the Department of Defense (DoD).

PBA is one of a number of strategies that we are pursuing to move toward greater access to commercial technologies, products, and processes, as well as to achieve far greater efficiency and effectiveness from our traditional defense suppliers. These objectives are vital to our ability to support the Revolution in Military Affairs and to keep pace with the accelerating advances in technologies worldwide. Various other strategies are being developed to complement PBA. Other strategies will be based on the work of the Lean Aircraft Initiative's work on incentives, and on civil-military industrial integration.

The recommendations made by the PBA report cover a broad spectrum — from early program planning and requirements definition through contact execution. Understanding that the Department could not reach consensus on many of the report's recommendations, but to continue investigating PBA concepts, I request that each Service Acquisition Executive designate at least three programs, and the Ballistic Missile Defense Organization Acquisition Executive designate at least one program, to use as test beds for gaining more insight into the application of PBA in research and development and life cycle support contracts.

Many of the recommendations made by the PBA team can be used today. Others may require regulatory or statutory changes. The DUSD(AR), in consultation with the Office of General Counsel, will work with the program manager of each designated program to identify regulatory and statutory barriers to implementing PBA. Such regulatory barriers will be reviewed to determine if they can be waived for the affected test program. These barriers should not affect the selection of the programs for purposes of implementing the recommendations.

In undertaking this initial effort, I believe we can demonstrate the efficacy of PBA and lay the foundation for its further implementation throughout the Department's acquisition process. An implementation team, made up of representatives from OSD and the Services, will be established to provide assistance, define metrics, and report on the progress of each program. These results and lessons learned from each program will provide the framework for a PBA guidebook and knowledge management community available throughout DoD. This will allow the Department to expand the use of these concepts into more programs and identify and justify any needed policy, regulatory, and statutory changes. Centers of Excellence for market research will also be established from lessons learned.

The final report, available at <http://www.acq.osd.mil/ar/doc/pbarpt.pdf>, provides examples of various PBA techniques. The PBA definition and several recommendations from the report, including those that may require statutory to regulatory changes, are located in the attachment. Additionally, the DUSD(AR) is developing distance learning-based training on PBA, and DAU is adapting its curriculum to include PBA principles and techniques.

Please provide the name of your designated programs and the name of the program managers to the DUSD(AR). The Deputy Under Secretary's point-of-contact for this request is Mr. Richard Sylvester, phone number 703-697-6399 or e-mail [sylvesr@acq.osd.mil](mailto:sylvesr@acq.osd.mil).

Working together, we can move DoD closer to our goal of giving our warfighters the best available technology faster and, with the use of PBA, at a better price.

Attachment:  
As Stated

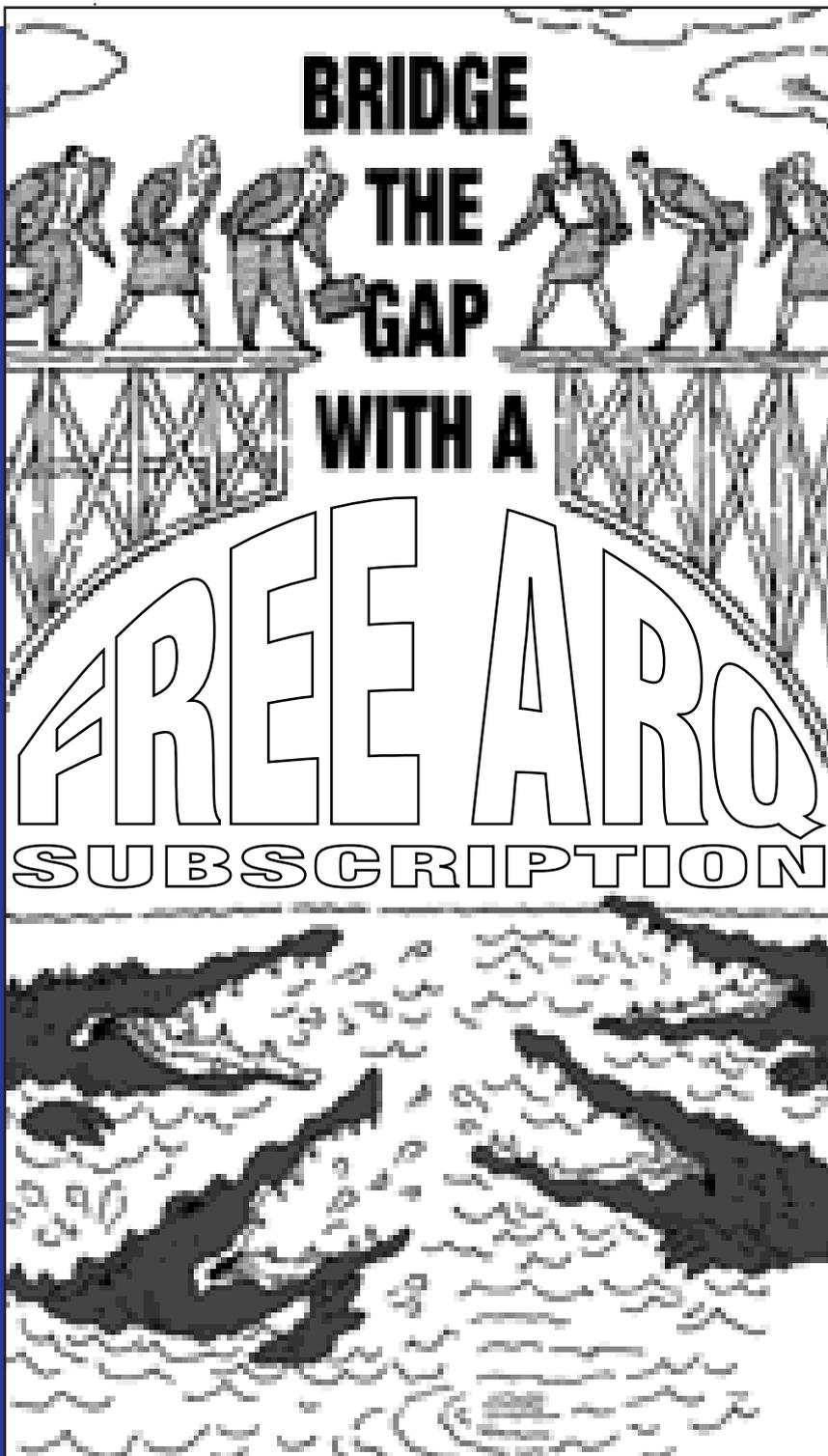
cc:  
Under Secretary of Defense (Comptroller)  
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)  
General Counsel of the Department of Defense  
Inspector General of the Department of Defense  
Director, Operational Test and Evaluation  
Directors, Defense Agencies

  
J.S. Gansler



**Editor's Note:** This information is in the public domain. To download the attachment to Gansler's memorandum, go to the Defense Acquisition Reform Web site at [www.acq.osd.mil/ar/#pba](http://www.acq.osd.mil/ar/#pba).

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# ACQUISITION REFORM

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

### DEPARTMENT OF DEFENSE

#### **Under Secretary of Defense (Acquisition, Technology and Logistics) (USD(AT&L))**

<http://www.acq.osd.mil/>

ACQWeb offers a library of USD(A&T) documents, a means to view streaming videos, and jump points to many other valuable sites.

#### **Deputy Under Secretary of Defense (Acquisition Reform) (DUSD(AR))**

<http://www.acq.osd.mil/ar>

AR news and events; reference library; DUSD(AR) organizational breakout; acquisition education and training policy and guidance.

#### **DoD Inspector General**

<http://www.dodig.osd.mil/pubs/index.html>

Search for audit and evaluation reports, Inspector General testimony, and planned and ongoing audit projects of interest to the acquisition community.

#### **Deputy Director, Systems Engineering, USD(AT&L/IO/SE)**

<http://www.acq.osd.mil/io/se>

Systems engineering mission; Defense Acquisition Workforce Improvement Act information, training, and related sites; information on key areas of systems engineering responsibility.

#### **Defense Acquisition Deskbook**

<http://www.deskbook.osd.mil>

Automated acquisition reference tool covering mandatory and discretionary practices.

#### **Defense Acquisition University (DAU)**

<http://www.dau.mil>

DAU Course Catalog, *Program Manager Magazine*, and *Acquisition Review Quarterly* journal; course schedule; policy documents; and training news from the Defense Acquisition Workforce.

#### **Defense Acquisition University Virtual Campus**

<https://dau.fedworld.gov>

Take DAU courses online at your desk, at home, at your convenience!

#### **Acquisition Reform Communications Center (ARCC)**

<http://www.dau.mil/arcc>

Acquisition Reform training opportunities and materials; announcements of upcoming Acquisition Reform events, and Issues Forum for discussion.

#### **Army Acquisition Corps (AAC)**

<http://dacm.sarda.army.mil>

News; policy; publications; personnel demo; contacts; training opportunities.

#### **Army Acquisition**

<http://acqnet.sarda.army.mil>

A-MART; documents library; training and business opportunities; past performance; paperless contracting; labor rates.

#### **Navy Acquisition Reform**

<http://www.acq-ref.navy.mil/>

Acquisition policy and guidance; World-Class Practices; Acquisition Center of Excellence; training opportunities.

#### **Navy Acquisition, Research and Development Information Center**

<http://nardic.onr.navy.mil>

News and announcements; acronyms; publications and regulations; technical reports; "How to Do Business with the Navy"; much more!

#### **Naval Sea Systems Command**

<http://www.navsea.navy.mil/sea017/toc.htm>

Total Ownership Cost (TOC); documentation and policy; Reduction Plan; Implementation Timeline; TOC reporting templates; Frequently Asked Questions (FAQs).

#### **Navy Acquisition and Business Management**

<http://www.abm.rda.hq.navy.mil>

Policy documents; training opportunities; guides on areas such as risk management, acquisition environmental issues, past performance, and more; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

#### **Space and Naval Warfare Systems Command (SPAWAR)**

<https://e-commerce.spawar.navy.mil>

Your source for SPAWAR business opportunities, acquisition news, solicitations, and small business information.

#### **Air Force (Acquisition)**

<http://www.safaq.hq.af.mil/>

Policy; career development and training opportunities; reducing TOC; library; links.

#### **Air Force Materiel Command (AFMC) Contracting Laboratory's Federal Acquisition Regulation (FAR) Site**

<http://farsite.hill.af.mil/>

FAR search tool; *Commerce Business Daily* Announcements (CBDNet); *Federal Register*; Electronic Forms Library.

#### **Defense Systems Management College (DSMC)**

<http://www.dsmc.dsm.mil>

DSMC educational products and services; course schedules; job opportunities.

#### **Defense Advanced Research Projects Agency (DARPA)**

<http://www.darpa.mil>

News releases; current solicitations; "Doing Business with DARPA."

#### **Defense Information Systems Agency (DISA)**

<http://www.disa.mil>

Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System; much more!

#### **National Imagery and Mapping Agency [Formerly Defense Mapping Agency (DMA)]**

<http://www.nima.mil>

Imagery; maps and geodata; Freedom of Information Act resources; publications.

#### **Defense Modeling and Simulation Office (DMSO)**

<http://www.dmsomil>

DoD Modeling and Simulation Master Plan; document library; events; services.

#### **Defense Technical Information Center (DTIC)**

<http://www.dtic.mil/>

Technical reports; products and services; registration with DTIC; special programs; acronyms; DTIC FAQs.

#### **Joint Electronic Commerce Program Office (JECPO)**

<http://www.acq.osd.mil/jecpo/>

Policy; newsletters; Central Contractor Registration; assistance centers; DoD Electronic Commerce Partners.

#### **Open Systems Joint Task Force**

<http://www.acq.osd.mil/osjtf>

Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

#### **Government Education and Training Network (GETN) (For Department of Defense Only)**

<http://atn.afit.af.mil>

Schedule of distance learning opportunities.

#### **Government-Industry Data Exchange Program (GIDEP)**

<http://www.gidep.corona.navy.mil>

Federally funded co-op of government and industry participants that provides an electronic forum to exchange technical information essential during research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.



# ACQUISITION REFORM

An Internet Listing Tailored to the Professional Acquisition Workforce

## Surfing the Net

### FEDERAL CIVILIAN AGENCIES

#### Acquisition Reform Network (ARNET)

<http://www.arnet.gov/>

Virtual library; federal acquisition and procurement opportunities; best practices; electronic forums; business opportunities; acquisition training; Excluded Parties List.

#### Federal Acquisition Institute (FAI)

<http://www.faionline.com>

Virtual campus for learning opportunities as well as information access and performance support.

#### Federal Acquisition Jump Station

<http://nais.nasa.gov/fedproc/home.html>

Procurement and acquisition servers by contracting activity; CBDNet; Reference Library.

#### Federal Aviation Administration (FAA)

<http://www.asu.faa.gov>

Online policy and guidance for all aspects of the acquisition process.

#### General Accounting Office (GAO)

<http://www.gao.gov>

Access to GAO reports, policy and guidance, and FAQs.

#### General Services Administration (GSA)

<http://www.gsa.gov>

Online shopping for commercial items to support government interests.

#### Library of Congress

<http://www.loc.gov>

Research services; Congress at Work; Copyright Office; FAQs.

#### National Partnership for Reinventing Government (NPR)

<http://www.npr.gov/>

NPR accomplishments and initiatives; "how to" tools; library.

#### National Technical Information Service (NTIS)

<http://chaos.fedworld.gov/onow/>

Online service for purchasing technical reports, computer products, videotapes, audiocassettes, and more!

#### Small Business Administration (SBA)

<http://www.SBAonline.SBA.gov>

Communications network for small businesses.

#### U.S. Coast Guard

<http://www.uscg.mil>

News and current events; services; points of contact; FAQs.

### TOPICAL LISTINGS

#### MANPRINT

<http://www.MANPRINT.army.mil>

Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; as well as briefings on the MANPRINT program.

#### DoD Specifications and Standards Home Page

<http://www.dsp.dia.mil>

All about DoD standardization; key Points of Contact; FAQs; Military Specifications and Standards Reform; newsletters; training; nongovernment standards; links to related sites.

#### Joint Advanced Distributed Simulation (JADS) Joint Test Force

<http://www.jads.abq.com>

JADS is a one-stop shop for complete information on distributed simulation and its applicability to test and evaluation and acquisition.

#### Risk Management

[http://www.acq.osd.mil/ose/risk\\_management/index.htm](http://www.acq.osd.mil/ose/risk_management/index.htm)

Risk policies and procedures; risk tools and products; events and ongoing efforts; related papers, speeches, publications, and Web sites.

#### Earned Value Management

<http://www.acq.osd.mil/pm>

Implementation of Earned Value Management; latest policy changes; standards; international developments; active noteboard.

#### Fedworld Information

<http://www.fedworld.gov>

Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

#### GSA Federal Supply Service

<http://pub.fss.gsa.gov>

The No. 1 resource for the latest services and products industry has to offer.

#### Commerce Business Daily

<http://www.govcon.com/>

Access to current and back issues with search capabilities; business opportunities; interactive yellow pages.

### INDUSTRY AND PROFESSIONAL ORGANIZATIONS

#### DSMC Alumni Association

<http://www.dsmcaa.org>

Acquisition tools and resources; government and related links; career opportunities; member forums.

#### Electronic Industries Alliance (EIA)

<http://www.eia.org>

Government Relations Department; includes links to issue councils; market research assistance.

#### National Contract Management Association (NCMA)

<http://www.ncmahq.org>

"What's New in Contracting?"; educational products catalog; career center.

#### National Defense Industrial Association (NDIA)

<http://www.ndia.org>

Association news; events; government policy; *National Defense Magazine*.

#### International Society of Logistics

<http://www.sole.org/>

Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

#### Computer Assisted Technology Transfer (CATT) Program

<http://catt.bus.okstate.edu>

Collaborative effort between government, industry, and academia. Learn about CATT and how to participate.

#### Software Program Managers Network

<http://www.spmn.com>

Site supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

#### Association of Old Crows (AOC)

<http://www.crows.org>

Association news; conventions, conferences and courses; *Journal of Electronic Defense* magazine.



If you would like to add your acquisition or acquisition reform-related Web site to this list, please call the Acquisition Reform Communications Center (ARCC) at 1-888-747-ARCC. DAU encourages the reciprocal linking of its Home Page to other interested agencies. Contact the DAU Webmaster at [dau\\_webmaster@acq.osd.mil](mailto:dau_webmaster@acq.osd.mil)

# KEITH CHARLES

*Director, Acquisition, Technology,  
and Logistics Workforce Management and  
Leader, Acquisition Workforce 2005 Task Force*

## *“Acquisition Workforce 2005 Task Force Begins Implementation Efforts”*

**D**espite 12 years of downsizing and an impending retirement surge, the Acquisition Workforce 2005 Task Force believes DoD is currently presented with a unique window of opportunity to reshape its talented civilian acquisition workforce to meet future challenges. This reshaping process is long overdue, and will require leadership commitment, new authorities and, most importantly, a cultural change in DoD's management of people.



Representing the joint efforts of DoD's acquisition and personnel communities, the task force released its final report in October 2000 entitled, "Shaping the Civilian Acquisition Workforce of the Future." In completing this report, we relied on input from the acquisition workforce, employee unions, industry, academia, and other federal agencies, the acquisition workforce, and employee unions.

Our report provides recommendations for acquisition career management tools to assist managers in the orderly transition of the aging DoD civilian acquisition workforce to one that will meet national security requirements of the 21<sup>st</sup> century. As leader of the task force, I believe DoD must begin to recognize its employee assets and then plan, develop, and manage the civilian acquisition workforce as carefully as it does those in uniform. This requires that DoD treat recruitment and development as investments — rather than costs.

Our report identifies new initiatives, ongoing initiatives, and best practices. The proposals fall into five broad themes: strategic planning, recruiting/hiring, career development, workforce management, and quality of life. Of the 31 recommended initiatives, 27 can be implemented, in whole

or in part, using existing legal authorities. The principal foundation of many of the initiatives is laid out in the first initiative, "Develop and Implement Comprehensive, Needs-based Human Resource Performance Plans for the Civilian Acquisition Workforce." Therefore, we believe this initiative should receive the highest priority.

With the report completed, we are now in the process of coordinating and overseeing the implementation of approved initiatives. Implementation results will be evaluated to determine whether desired effects are being

achieved. By continuing our outreach efforts, we will not only seek to educate DoD and non-DoD acquisition-related organizations on the initiatives, but also draw attention to, and support for, their implementation. We invite the acquisition community to review the completed report at <http://www.acq.osd.mil/yourfuture/story.htm#reports>.

In addition, we are currently developing:

- A Rapid Improvement Team (RIT) to define and establish a program to share best practices.
- A mechanism for acquisition certification of private-sector personnel accessions.
- A preliminary investigation into industry practices on conducting entrance and exit interviews to determine a reasonable approach to use within the acquisition community.

America's security will depend — as it always has — upon an acquisition workforce that has the education, training, and broad experience necessary to function effectively in the demanding new business environment of the 21<sup>st</sup> century. This program has got to deliver. At this we cannot fail.



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