# New Region Open for Business

July-August 1997

# PROGRAM MANAGER

14th Annual Program Managers Symposium

Fifth PEO/SysCom Commanders/PM Conference

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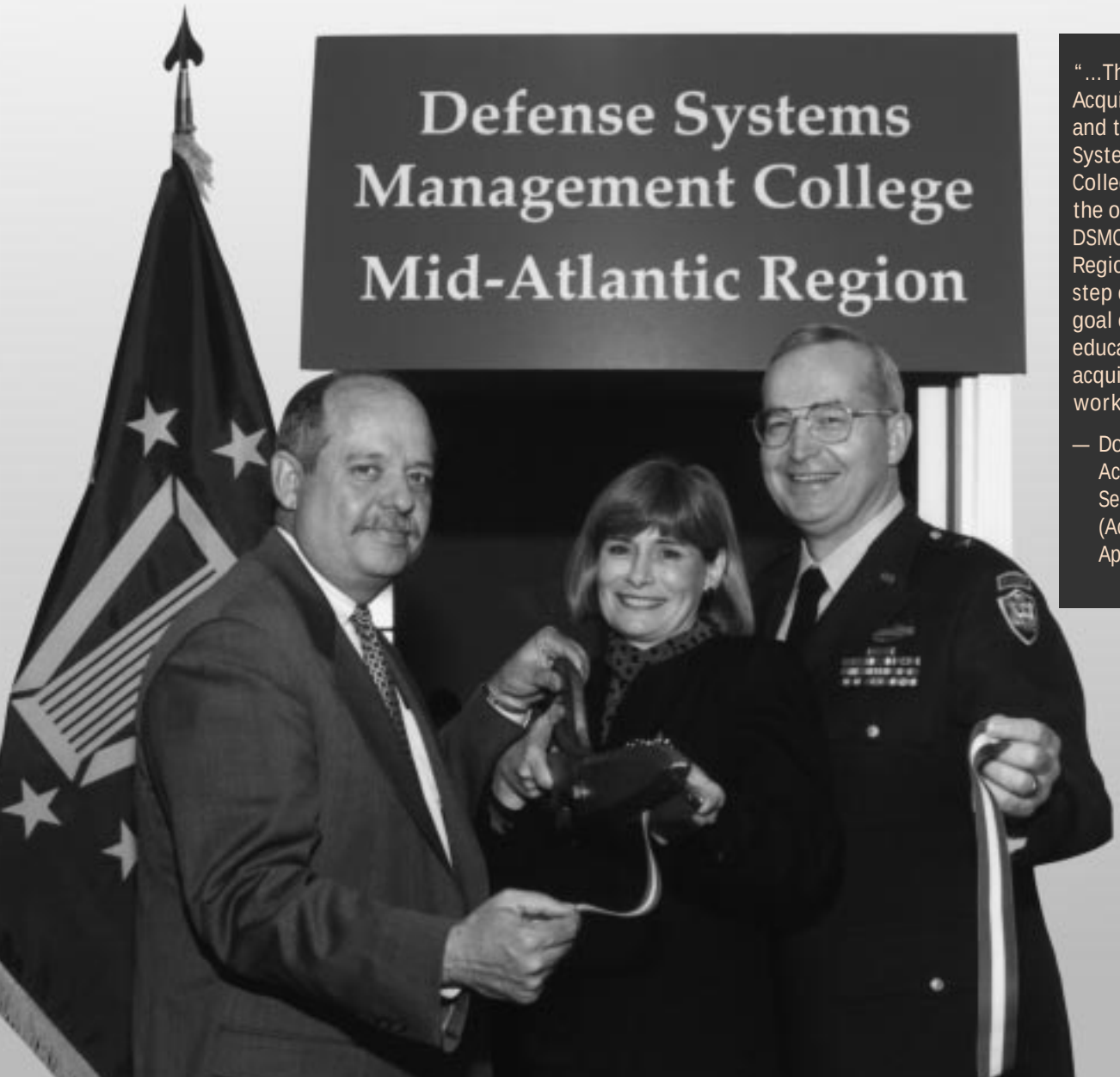


"...The Defense Acquisition University and the Defense Systems Management College (DSMC), with the opening of the DSMC Mid-Atlantic Region, bring us one step closer to our goal of taking education to the acquisition workforce."

— Donna Richbourg
Acting Deputy Under Secretary of Defense (Acquisition Reform)
April 11, 1997

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# PROGRAM MANAGER

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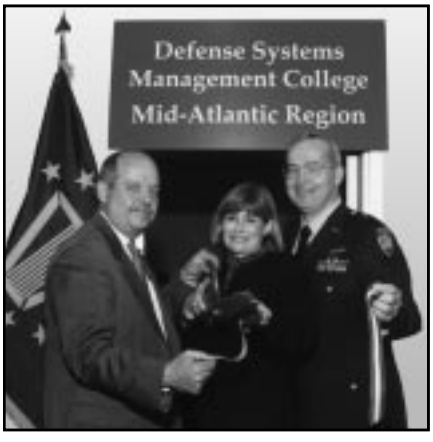


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Cover: A traditional ribbon-cutting ceremony at Fort Monmouth, N.J., on April 11 marked the opening of DSMC's new Mid-Atlantic Region. From left: Victor Ferlise, Deputy to the Commanding General, U.S. Army Communications and Electronics Command; Donna Richbourg, Acting Deputy Under Secretary of Defense (Acquisition Reform); Army Brig. Gen. Richard A. Black, DSMC Commandant.

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# DAU, DSMC Open Fort Monmouth Mid-Atlantic Region

## Taking Acquisition Education Directly to the Workforce

NORENE L. BLANCH

The Defense Systems Management College (DSMC), in collaboration with the Defense Acquisition University (DAU), took one step forward toward their goal of taking education to the Acquisition Workforce with the opening of the DSMC Mid-Atlantic Region at Fort Monmouth, N.J., April 11, 1997.

This permanent classroom provides DSMC, and other DAU consortium schools that teach courses at Monmouth, a quality teaching environ-

PICTURED FROM LEFT: AIR FORCE COL. SAM BROWN, DEAN, ACADEMIC PROGRAMS DIVISION, DSMC; VICTOR FERLISE, DEPUTY TO THE COMMANDING GENERAL, U.S. ARMY COMMUNICATIONS AND ELECTRONICS COMMAND, FORT MONMOUTH; DONNA RICHBOURG, ACTING DEPUTY UNDER SECRETARY OF DEFENSE FOR ACQUISITION REFORM; ARMY BRIG. GEN. RICHARD A. BLACK, DSMC COMMANDANT; SUELLEN PHAIR-BACK, DIRECTOR, DSMC MID-ATLANTIC REGION; AND RICHARD KELLY, DIRECTOR OF PERSONNEL AND TRAINING, FORT MONMOUTH.

*Blanch is an Editorial Assistant and contributing Editor,* Program Manager *magazine. She also supports the Acquisition Review Quarterly journal. A 1996 graduate with honors of the Defense Information School's Basic Journalism Course, Blanch works in the Visual Arts and Press Department, Division of College Administration and Services, DSMC.*



Photos by Richard Mattox

ment for the large acquisition workforce population in this area. This is also the first step in the DSMC Corporate Plan to take more acquisition education and training to the workforce.

### Closing One Door, Opening Another

Base Realignment and Closure initiatives resulting in population shifts within the acquisition workforce, led to a decision to close DSMC's Central Region in St. Louis, Mo., slated for August 1997, and select another site in order to meet the increasing demand for acquisition courses and make them more accessible to acquisition professionals.

The DSMC Mid-Atlantic Region, under the leadership of Director, Suellen Phair-Back, was officially opened after a ribbon cutting ceremony held at Fort Monmouth's Armstrong Hall.

Victor Ferlise, Deputy to the Commanding General, U.S. Army Communications and Electronics Command, Fort Monmouth; Donna Richbourg, Acting Deputy Under Secretary of Defense for Acquisition Reform; and Army Brig. Gen. Richard A. Black, DSMC Commandant; addressed the students and guests in attendance at the Mid-Atlantic Region's first course offering—the Intermediate Systems Acquisition Course (ISAC).

In her keynote address, Richbourg cited Fort Monmouth as a logical choice for the location of the Mid-Atlantic Region because the area is internationally known for its defense industry.

"With the opening of the Mid-Atlantic Region," said Richbourg, "it now becomes the hub for over 10,000 DAWIA [Defense Acquisition Workforce Improvement Act] personnel located nearby at Picatinny Arsenal, Lakehurst Naval Air Warfare Center, and the Defense Personnel Support Center in Philadelphia."

FORT MONMOUTH, N.J.—HOME OF THE ARMY'S COMMUNICATIONS AND ELECTRONICS COMMAND AND DSMC'S NEW MID-ATLANTIC REGION.

### Support From Our Senior Leaders

She continued by sharing several key acquisition issues discussed by Dr. Paul G. Kaminski, Under Secretary of Defense for Acquisition and Technology, during his testimony before a House Armed Services acquisition subcommittee, March 14, 1997. Among other issues, she referred to a specific concern that surfaced during his testimony, which reiterates a primary concern of our OSD senior leadership, DAU, DSMC, and the other consortium schools—that because our DAWIA acquisition workforce is getting smaller, we need to improve their training.

"Today's opening of the DSMC Mid-Atlantic Region means we're paying attention and achieving results. We're going to not only meet increased demand for acquisition courses in this region," she affirmed, "but also save TDY costs for the large segment of the acquisition workforce located in close proximity."

"DAU and DSMC are heavily involved in the move toward distance learning and continuing education. They're working hard to put in place the delivery systems and technology that will drive distance learning and computer-based training," she continued.

"DSMC plans to package continuing education into modules appropriate to distance learning. The College will use infrastructures already established at hubs and satellites, like the new Mid-Atlantic Region, to provide continuing education vital to the efforts of the professional acquisition workforce."

### Region Opening a Team Effort

Black, DSMC's Commandant, closed the ceremony by describing how courses like ISAC give members of the acquisition workforce from various functional areas the opportunity to add to the learning environment by

sharing their expertise with other class members. This concept impacts the students by giving them a more complete perspective of the acquisition process and results in them becoming a more rounded acquisition professional.

As the workforce population shifts, the idea of being more knowledgeable in different functional areas becomes vital as the requirement for the acquisition professional to take on added responsibilities increases in an effort to work *better, faster, and cheaper.*

But this thinking does not stop in the classroom. The concept of groups of people coming together for a common goal was demonstrated by key personnel, such as David Scibetta, Deputy Dean, Division of Administration and Services, DSMC; Wilson (Chip) Summers, Associate Dean, Academic Programs Division, DSMC; and Richard Kelly, Director of Personnel and Training, Fort Monmouth.

This team effort made the successful establishment of the DSMC Mid-Atlantic Region possible as this group of individuals worked together to develop the appropriate memoranda of agreement, course infrastructure, and facilities.

In addition, Black recognized the efforts of Myrna Bass who heads the DSMC Learning Resource Center at the main Fort Belvoir campus, in transferring more than $12,000 worth of training material to the MOS library at Fort Monmouth.

In the face of a constantly changing and evolving acquisition workforce, DAU and DSMC are extending the classroom beyond tradition through the establishment of hubs, such as the DSMC's Mid-Atlantic Region. These two organizations are willing to step forward and take full advantage of new technology to provide distance learning and continuing education that meets the immediate needs of the acquisition professional where they need it most—*in the workplace.*

## Suellen Phair-Back, Director, DSMC Mid-Atlantic Region

Suellen Phair-Back has over 17 years' experience as a Department of Army civilian. The majority of her assisgnments were spent in two program management offices.

During her assignment with the Program Management Office for Mobile Subscriber Equipment, she was part of the team that developed the acquisition documents, part of the evaluation process, and played a major part in fielding the system generally held to be the most successful Army acquisition ever. She concluded her eight-year assisgnment as the Chief of the Logistics Management Division.

At the Program Management Office for MILSATCOM, Phair-Back served as the Chief of the Readiness Management Division, the organization responsible for acquiring satellite systems for the Army. During this period, she was a member of the Overarching Integrated Product Team for the Secure Mobile Anti-Jam Reliable Satellite Terminal (SMART-T), which received the Packard Award for acquisition excellence.

In addition to her employment with the Federal Government, she has been an adjunct intructor in the Business Management and Marketing Department of Monmouth University for over 12 years.

Prior to her government service, Phair-Back held positions with major defense contractors: Bell Telephone Laboratories, ITT (Europe), and LTV Aerospace.

She holds a Bachelor of Science degree in Management Science from Kean College of New Jersey, graduating summa cum laude, and an MBA from Monmouth University, where she was awarded membership in the Delta Mu Delta Honors Fraternity.

She is married to retired Army Col. John Back, who is now a program manager with a contractor supporting CECOM.

# Fort Monmouth, N.J.

## — Home of DSMC's New Mid-Atlantic Region

April 11, 1997

"Today's opening of the DSMC Mid-Atlantic Region means we're paying attention and achieving results. We're going to not only meet increased demand for acquisition courses in this region, but also save TDY costs for the large segment of the acquisition workforce located in close proximity."

—Donna Richbourg
Acting Deputy Under Secretary of Defense (Acquisition Reform)

Pictured from left: Army Col. Joseph P. Murray, Military Assistant to the DUSD(AR); Donna Richbourg, Acting DUSD(AR); Army Brig. Gen. Richard A. Black, DSMC Commandant; Air Force Col. Sam Brown, Dean, Academic Programs Division, DSMC; Wilson (Chip) Summers, Associate Dean, Academic Programs Division, DSMC; Navy Capt. Bob Vernon, Dean, School of Program Management Division, DSMC.

The first course offering at DSMC's new Mid-Atlantic Region is the Intermediate Systems Advanced Course (ISAC). Pictured are the first class of ISAC students, members of the DSMC staff and faculty, and CECOM representatives.

# ...DSMC's New Mid-Atlantic Region

Prior to the Mid-Atlantic Region Opening, CECOM presented an overview briefing of U.S. Army CECOM and the C4IEWS Acquisition Community. Pictured from left: Donna Richbourg, Acting DUSD(AR); Victor Ferlise, Deputy to the Commanding General, U.S. Army CECOM; Army Brig. Gen. Richard A. Black, DSMC Commandant; Kathryn Szymanski, General Counsel, U.S. Army CECOM.

Edward Thomas, Director, Program Analysis and evaluation, Team C4IEWS, Fort Monmouth, N.J.

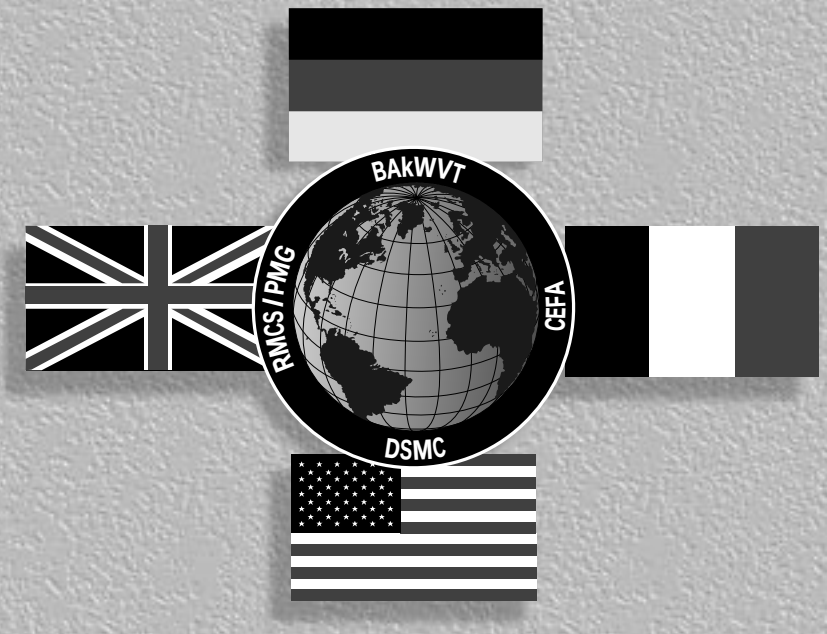
*"Courses like ISAC give members of the acquisition workforce the opportunity to add to the learning environment by sharing their expertise with other class members."*

—Brig. Gen. Richard A. Black
U.S. Army
DSMC Commandant

Donna Richbourg, Acting DUSD(AR), delivers keynote address.

Photos by Richard Mattox

# NINTH ANNUAL INTERNATIONAL ACQUISITION/PROCUREMENT SEMINAR

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# Consolidation and Value in the U.S. Defense Industry

## Bulls in the DoD China Shop

MAJ. CONRAD CICCOTELLO, USAF • MAJ. STEVE GREEN, USAF • TIM LYNCH

Should today's program managers study stock markets for clues to the future of the acquisition environment? In this article, we argue that they should. Using Wall Street parlance, many program managers may actually be "dancing with bulls" and not even know it. Awareness of market signals is a necessary addition to the program manager's already bulging tool kit. Let us explain by examining the plight of management in the U.S. defense industry.

### The Customer and the Stockholder

Defense contractor management must answer to two powerful stakeholders—the customer and the stockholder. The acquisition community, as customer, has had a significant role managing and supervising the procurement of weapon systems. Arguably, the customer has been fairly satisfied in the past decade. The technical performance of our weapon systems has been outstanding, with operations such as Desert Storm validating years of successful program management decisions. But what about the stock performance of defense contractors during the same period? Have defense contractors' stockholders been as happy as their customers? Or, are shrinking budgets and fewer programs harming industry shareholders? The answers might surprise even the most savvy program managers and may

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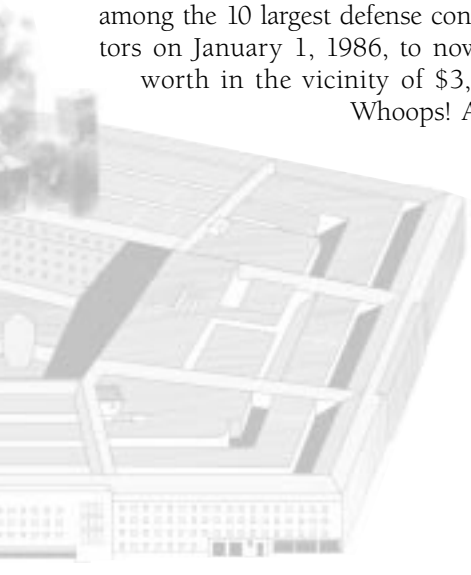
*Green is an Associate Professor of Management at the USAFA and holds a D.B.A.*
*Lynch is a Financial Analyst for Northwest Airlines and holds an M.B.A. Prior to joining Northwest, he spent three years teaching at USAFA.*

prove to be invaluable information for making future decisions.

By historical measure, the last 10 years have been a superb decade for investors in the U.S. stock market. From 1986 through 1995, the widely followed Standard and Poor's (S&P) 500 Index rose a cumulative total of 287 percent–an average rate of 14.5 percent a year. An investment of $10,000 in the index on January 1, 1986, would thus have been worth about $38,700 on December 31, 1995. But as many industries grew and prospered in the last decade, others appeared to be in serious decline. Surely defense industry stocks, for example, must have withered as the defense procurement budget declined by almost two-thirds in real terms during this same period. Pity the unlucky investors in defense company stocks for missing one of the greatest bull markets in history. One would expect a $10,000 investment spread equally among the 10 largest defense contractors on January 1, 1986, to now be worth in the vicinity of $3,333. Whoops! As of



December 31, 1995, this $10,000 investment would be worth not $3,333, not $10,000, not $20,000, but $43,900! This is $5,200 more than an investor would have earned from buying and holding the S&P 500 index during the same period. These 10 large defense stocks have returned an average of 15.9 percent a year over the last decade, easily outstripping the S&P 500. Given the downward defense budget spiral, how could this be? In this article, we offer our perspective.

**What has happened (even very recently) is not as relevant as what will happen. If the market prices of defense stocks are rising now, then the market anticipates prosperity for these firms in the future.**

### Are the Markets Crazy?

How can we understand the explosive performance of the stocks of large defense firms during an era where defense procurements have nosedived? One way is to suggest that markets behave irrationally, and that the defense stock run-up is a mistake. But irrational behavior is difficult to predict and interpret. Could there be a rational explanation? Try this one: Stock markets look forward. What has happened (even very recently) is not as relevant as what will happen. If the market prices of defense stocks are rising now, then the market anticipates prosperity for these firms in the future. Is this a reasonable explanation? Let's examine the performance of defense stocks in the past decade more closely (Figure 1).

Defense stocks lagged the S&P 500 index for most of the 1980s. But during the five-year period from 1991 through 1995, the market has become very bullish on defense stocks. Could this rosy view be tied to defense industry merger-mania? Maybe, but why? Merger activity began rising soon after the defense budget peaked in the mid-1980s. But since 1990, the

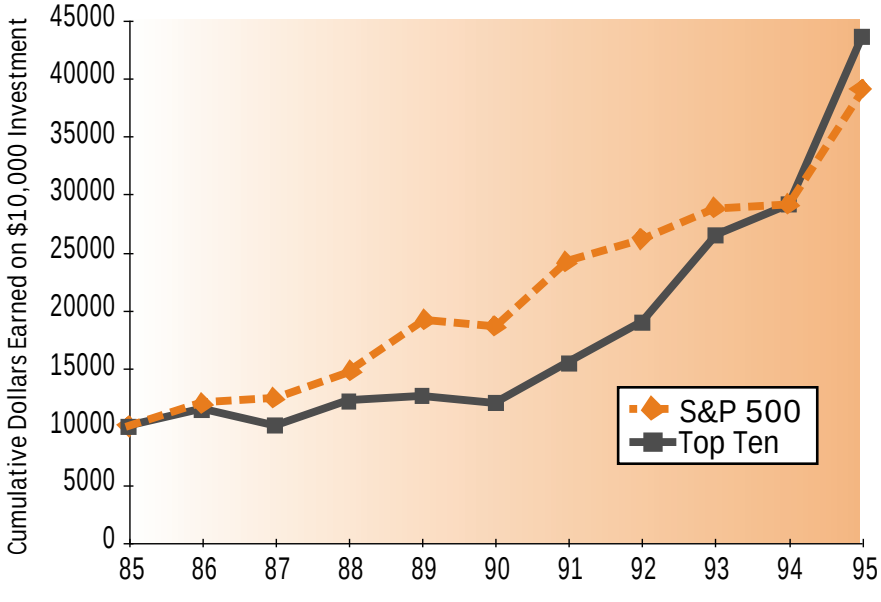



Figure 1. $10,000 Invested in Either S&P 500 or Top 10 Defense Stocks

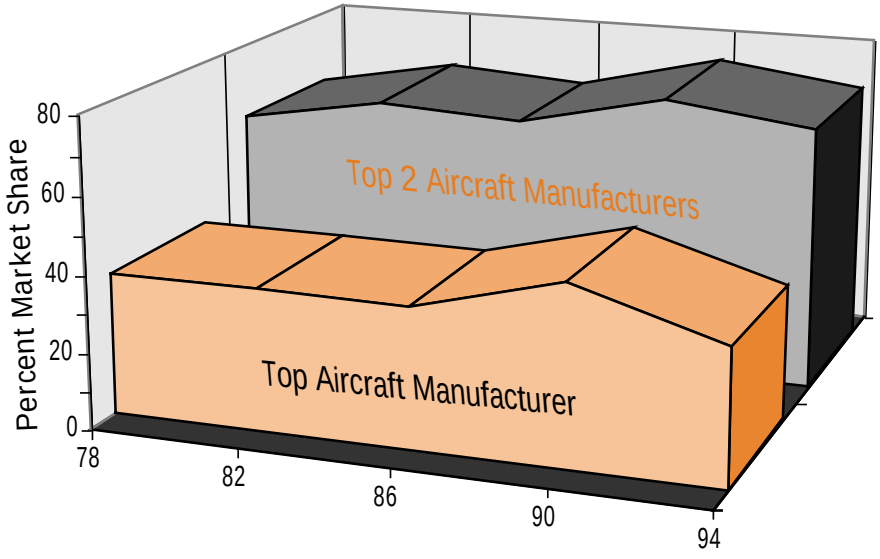



Figure 2. Standard Industry Classification 3721: Aircraft

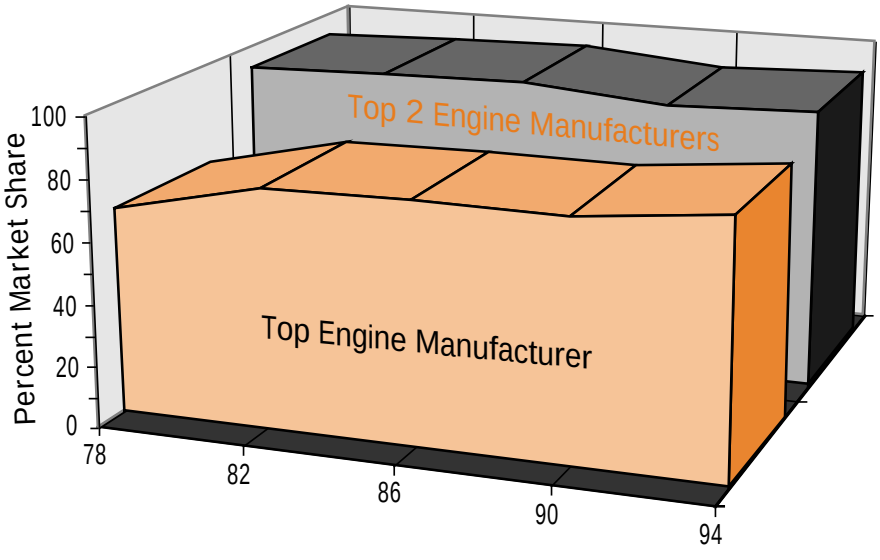



Figure 3. Standard Industry Classification 3724: Aircraft

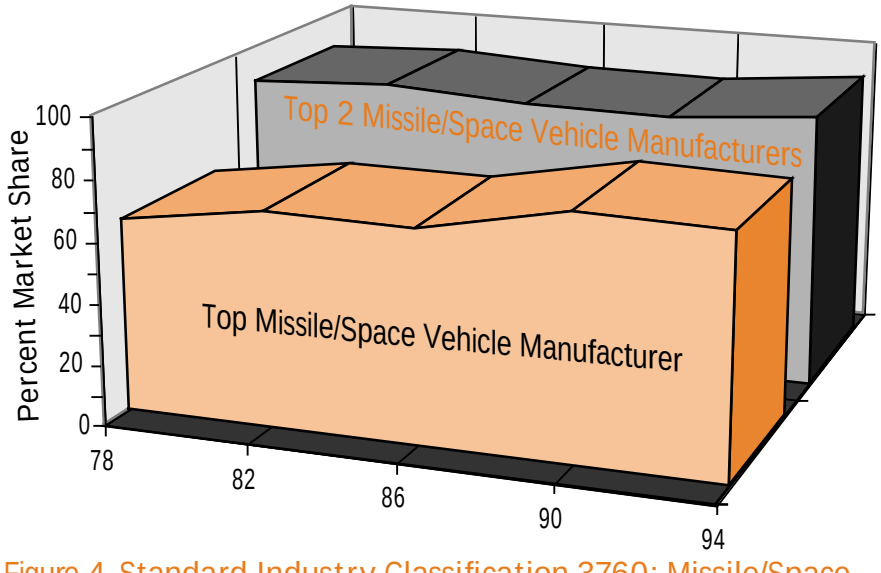



Figure 4. Standard Industry Classification 3760: Missile/Space Vehicle Engines

rate of consolidation has accelerated, dominated by mega-mergers such as Lockheed Martin and Northrop Grumman. The average return for the top 10 defense firms in this period is in excess of 29 percent a year, compared to 16 percent for the S&P 500. Is this market behavior rational, given the continuing decline in defense budgets, or are the markets crazy? We suggest that the former explanation is the one that program managers ought to consider.

## Industry Changes

We have observed that during this period when merger activity within the defense industry has skyrocketed, so have defense firms' stock prices. Is this pure coincidence? Look at the structure of the defense industry—it has been very concentrated for a long period of time. The last few years have marked an acceleration in consolidation as many firms have sought to exit defense businesses due to declining budgets and alleged difficulties in dealing with federal procurement policies. Those firms interested in remaining in defense have acquired businesses at a rapid pace.

One example is Martin Marietta, led by Norman R. Augustine. Over the past few years, Martin has grown significantly through acquisitions, including the purchase of General Dynamics Space Systems. In 1995, Lockheed and Martin agreed to merge, thereby creating the largest defense company in the United States. Consolidation shows no signs of abating. Lockheed Martin recently went public with its attempt to buy portions of Loral for $10B. This bid was less than one week after fellow industry behemoth Northrop Grumman offered to buy Westinghouse Electric's defense-electronics business for $3B. Finally, showing that even the Federally Funded Research and Development Centers (FFRDC) were not immune, Science Applications International Corporation recently proposed to combine operations with The Aerospace Corporation. Based on this recent activity, it appears that defense industry consolidation will continue

into the foreseeable future (Figures 2, 3, and 4).

Because many defense lines of business are currently dominated by one or two large contractors (examples include aircraft, electronic systems, missiles and space systems, and aircraft engines), any additional mergers in some of these industries may create pure monopolies. How could the government let this happen, and how is it going to affect future program managers?

The truth is that the government has not only let this happen, but has been a vocal supporter of defense industry consolidation. According to a letter written by then Assistant Secretary of Defense John M. Deutch to the Federal Trade Commission in December 1994, "Consolidation among defense suppliers is both inevitable and necessary... The Department supports the merger of [defense industry] corporations. It represents a step toward a stronger, robust industry that will result in savings for the U.S. Government." In fact, much political debate has centered around a DoD policy allowing cost sharing for defense contractor consolidation. This "payoff for layoffs" strategy is one example of how policy is having trouble keeping up with the rapid changing defense industrial-base environment.

**The Department supports the merger of [defense industry] corporations. It represents a step toward a stronger, robust industry that will result in savings for the U.S. Government."**

## Value Creation

When does it make sense to combine two firms into one? Conventional wisdom in the 1970s and early 1980s was, "...it always made sense." The result was the creation of conglomerate organizations comprised of many different businesses. Critics of the conglomerate mergers came to describe this strategy as "Di-Worse-Ification." The conglomerate merger or acquisition, perhaps best exemplified by the widely studied Mobil-Montgomery Ward marriage, often led to disaster. Executives in one line of business (such as crude oil) frequently had no idea how to run diverse businesses (like a retailer) under the conglomerate umbrella. Responding to decreased profits, the stock market grew increasingly pessimistic about conglomerates, assigning them far less value as one entity than would be assigned if the organization were to split up and trade separately.

So what about the frenzy in the defense industry to merge and acquire? How is this industry phenomenon different from value-destroying conglomerate mergers? Big difference. Defense firms are not merging as conglomerates—they are generally consolidating within a single industry that is already highly concentrated. Unlike conglomerate mergers, defense industry marriages, both horizontally and vertically, often create synergies that enhance value. One example is E-Systems and Raytheon. The acquisition of E-Systems by Raytheon gave E-Systems a needed boost with regard to reaching overseas markets and gave Raytheon more muscle to complement its line of defense electronic systems. These "within-industry" combinations may create value by giving the firm added pricing power (i.e., the ability to influence the price they will receive for their goods or services in the future).

In addition, within-industry combinations facilitate cost reduction. When two firms in the defense industry combine, they can eliminate many of the administrative and support functions that each had performed separately. Government initiatives such as Overhead Should-Cost Reviews have been champions of this type of savings for years. While eliminating redundancy results in a number of lost jobs, it dramatically improves the bottom line by reducing expenses. As a result of the Lockheed Martin merger, for example, a recent *Standard and Poor's Stock Report* states that the combined firm will eliminate redundant expenses totaling over $1.9B a year. Synergies also result as larger firms take advantage of scale economies obtained from buying materials in larger quantities.

## Reason for Concern

So how can program managers use this information to their advantage? If a program manager has an appreciation for the operating environment, he or she will be better able to be proactive. Consider the U.S. defense industry of the future. Increased contractor revenues will come from enhanced pricing power. Decreased contractor costs will come from eliminating redundant functions and taking advantage of scale economies. Both of these phenomena increase the cash flows that will be available to the firm's owners—the stockholders. These predicted additional cash flows are the basis for value creation, and are reflected in the climbing stock prices. But should the program manager assume that some of the benefits of consolidation be passed along to the government in the form of savings on procurement contracts? The DoD hierarchy apparently thinks so. For

example, *Business Week* reports, "The Pentagon has actively encouraged such deals in an effort to reduce overcapacity and to lower its own costs, adopting what wags dub a Noah's Ark approach to industrial policy: Two makers of everything the Defense Department needs." It could be argued that similar policy manifested itself in missile procurement during the 1980s in what was called Dual-Sourcing.

But to date, there appears to be no evidence that the government will share in the benefits of the industry's consolidation. Rising defense stock prices suggest that the defense industry in the United States is headed for a golden era. Unless program managers act, much of this "gold" may unfortunately come at the expense of the Department of Defense, and ultimately the taxpayer. Consider the evidence.

Recent defense industry cost cutting has been severe. But many defense firms are in their best financial position ever. Some sit on large sums of cash that could fund their operations for long periods of time. As contractors join forces and become more efficient by reducing costs, it seems logical to expect some of these cost savings will be passed along to the government. But this expectation assumes competitive forces influence contractor behavior. As consolidation is taken to its extreme, however, contractors obtain monopolistic pricing power and become less interested in passing along cost savings. For many future major weapon systems procurements, there will be only one (or at most two) contractors able to do the job. The acquisition community's long enjoyed monopsonistic honeymoon may be over. When the government needs to upgrade or replace one of its many aging defense systems, or requires a surge production capability, it may face a large, well-financed, sole-source provider. A contractor in this position has a great deal of leverage against a customer in a hurry, especially when that contractor knows they are the only game in town. In the words of *Business Week*, "The Pentagon might end up with just two animals—a pair of 800-pound gorillas."

## The Bottom Line for Program Managers

Given that the stock market is correct in predicting a golden era for defense companies, the issue is how the program manager can use this information to the government's advantage. We outline three possible approaches:

- Change the industry structure.
- Improve cost visibility.
- Change the contracting environment.

While clearly out of the scope of any individual program manager, changing the defense industry structure could include various options, such as the DoD not supporting any future mergers. More aggressive actions, such as breaking up the industry, seem to be a long shot. The stock market sure doesn't believe the government would attempt it. With the concerns about the health of the defense industrial base and fears of overseas domination, forcing divestiture would be politically and economically risky.

Promulgating policy that enables more scrutiny and cost accountability in the government-contractor relationship is another option. The rationale is that if contractors have more market power, the government needs more cost insight in order to be better able to defend its negotiating position. While cost insights are valuable, this alternative may be inconsistent with current efforts to streamline and shorten the contracting process.

The third approach involves implementing changes in the federal contracting environment. This alternative may involve a shift from fixed-price-type contracts to cost-type contracting, where the contractor may feel that a more equitable sharing of risk has occurred. In addition, program managers could intensify the ongoing efforts to streamline the acquisition process—increased use of Commercial Off-the-Shelf (COTS) products, business practices, less standardization—which may attract new suppliers who have previously avoided contracting with the government due to cumbersome procurement procedures. For example, Microsoft Corporation may be willing to be a supplier for the government should we make the contractual process similar to the way Microsoft conducts business with its current customers. Obviously attracting suppliers like Microsoft will not hurt competition nor the industrial base.

In any case, the market has sounded the warning bell for the DoD, and it is up to program managers to heed the call. The late 1990s and the early 21st Century will mark a difficult and expensive procurement era. Creative approaches to risk sharing and new ways to avoid win-lose scenarios in contracting need to be developed now for the government-industry partnership to prosper in this changing environment. If program managers don't use valuable financial information to their best advantage, they may as well let the "Wall Street bulls run through the DoD china shop."

Editor's Note: This research was conducted in conjunction with the Joint USAFA/ Defense Systems Management College Acquisition Research Group.

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# DSMC Professor Appointed Examiner for 1997 Malcolm Baldrige National Quality Award

Dr. Mary-jo Hall of the Defense Systems Management College (DSMC), located at Ft. Belvoir, Va., has been appointed by the director of the National Institute of Standards and Technology (NIST) to the 1997 Board of Examiners of the Malcolm Baldrige National Quality Award, effective March 21, 1997. The award is offered annually to American companies that demonstrate the highest levels of quality management and performance excellence.

As an Examiner, Hall is responsible for reviewing and evaluating applications submitted for the award. The board is comprised of about 350 leading quality experts selected from industry, professional and trade organizations, health care and education organizations, and government.

Those selected meet the highest standards of qualification and peer recognition. All members of the board must take part in a preparation course based on the examination items, the scoring criteria, and the examination process.

Hall was co-chair of the DSMC Malcolm Baldrige Site Visit in 1995. She also served as an Examiner in 1996.

The Malcolm Baldrige National Quality Award was established by law in 1987. Awards have been presented to 28 companies, including 1996 award winners ADAC Laboratories, Dana Commercial Credit Corporation, Custom Research Inc., and Trident Precision Manufacturing Inc.

Information about the award program and the application process is available from the following office and website:

**Baldrige Award Program Office**
**A537 Administration Bldg.**
**National Institute of Standards and Technology**
**Gaithersburg, Md. 20899**
**Comm: (301) 975-2036**
**E-mail: http://www/mbnqa.nist.gov**

The award program is managed by NIST in close cooperation with the private sector. The American Society for Quality Control (ASQC) in Milwaukee, Wis., administers the program.

Dr. Mary-jo Hall (right), a professor in the Managerial Development Department, Faculty Division, DSMC, receives her certification as a member of the 1997 Malcolm Baldrige National Quality Award (MBNQA) Board of Examiners. Presenting the certificate is Dr. Harry Hertz, Team Leader, MBNQA.

Photo courtesy Dr. Mary-jo Hall

# Logistics—A Core DoD Competency?

## Training, Reorganization, Representation Key to Future of DoD Logistics

JEFFREY A. JONES

The Department of Defense (DoD) has been cutting logistics funding for years and is now seeking to privatize logistics operations to pay for recapitalization. As a result, the future of logistics as a core DoD competency could be on the line. To support the deployment and sustainment of an armed force, DoD needs certain skills, including those necessary to define outsourcing strategies and measure results. This article recommends, as a minimum, that DoD—

- expand the training of the logistics workforce, or alternatively redefine the composition and training requirements of the acquisition workforce;
- ensure that future logisticians have the skills needed to manage core logistics tasks in a changing environment;
- reorganize some logistics structures; and
- elevate logistics representation at the most senior Defense Department levels to a status commensurate with its cost and impact.

SOLDIERS OFF-LOAD LARGE FRONT-END LOADERS FROM A C-17 GLOBEMASTER III AIRLIFTER, TUZLA AIR BASE, BOSNIA.

### The Resource War

The DoD has sparred with itself for decades over how to spend its money. Should it acquire the new weapon systems its warriors want to build, or modernize the aging infrastructure that supports weapon systems but never goes to war at all. During peacetime, the resource planning, programming and budgeting cycle favors funding of weapon system acquisition to leverage new technology as a force multiplier. When the shooting starts, however, the priorities change from investment to support. Given the (thankful) infrequency of major conflicts, acquisition usually holds sway as the more significant economic engine. As a result, DoD has struggled to balance its resource allocations for the modernization of both the primary instruments of combat power and the infrastructure that supports the delivery of that combat power. Can this pattern continue indefinitely?

### Unkept Promises

Logistics has been a "bill payer" for over 20 years. In recent years we have seen—

- projections of huge logistics productivity

*Jones is the Executive Director, Logistics Management, Defense Logistics Agency, Fort Belvoir, Va.*

U.S. Air Force photos

**Improvements and innovations—some dramatic—have mushroomed throughout the logistics establishment, and overall head counts have dropped by 25 to 50 percent (about the same as force structure).**

gains without new productivity tools or training;

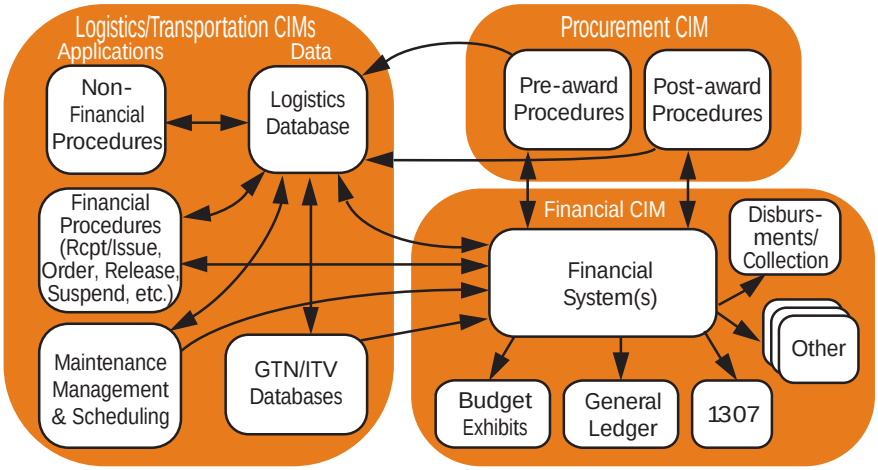
- savings from base closures that, while critical, are still too few and take too long to complete; and
- costly information system projects that never quite work out.

Previous Secretaries of Defense have promised many real economies in logistics operations, but, after six years of continual infrastructure downsizing, it is not clear what economies DoD has actually achieved.[1] Improvements and innovations—some dramatic—have mushroomed throughout the logistics establishment, and overall head counts have dropped by 25 to 50 percent (about the same as force structure). Yet many of the basic processes remain about the same, and the level of process integration—one measure of progress—has hardly changed at all.

Media exposés about inventories out of control, astronomical parts prices, and inferior quality fed public perceptions of DoD inefficiency and waste in the late 1980s and early 1990s. While some data were selective, there was enough truth to create a resonance with the taxpayers. What the public was not able to reflect on was that DoD designed

In falling snow, U.S. Air Force personnel, using a K-loader, off-load cargo that arrived from Rhein-Main Air Base, Germany, from a C-17 Globemaster III at Tuzla Air Base, Bosnia. C-17s flew more passengers and cargo into Bosnia than any other airlifter.

## Figure 1. Relationships Between Major CIM Areas That Need or Remain to be Integrated




its logistics system to support a massive force with mass of its own. Each Service traditionally insists its congressional mandate to support and train its own forces, leads necessarily to independent and duplicative infrastructures. There was no reward—only risk—for giving up authority or resources in favor of system-wide benefits. Even the vendors had grown comfortable with a situation where DoD largely shielded them from the market forces that were shaping commercial companies in similar lines of industrial work.

The Bush Administration made a new commitment to cut excess in the support system. A series of Defense Management Review Decisions (DMRD) cut Service funding for supplies and services by more than $30 billion over five years, lowering the future years' baselines accordingly. Many of these reforms appeared justifiable using models vaguely based on private-sector business practices. Often, however, the reformed processes changed only superficially from the input-focused processes they supplanted. Reasons for the lack of real change include the following:

*Defense cannot resize as readily as private sector organizations can in response to market changes.*
The Department characterized much of the reformed infrastructure as a group of defense "businesses" that would be self-scaling because their budget authority would come from customer sales. As force structure reduced workload, logistics organizations would earn less budget authority and shrink. Unfortunately, the business paradigm did not fit where DoD (1) had not established cost baselines; (2) centrally controlled pricing one to two years' lead time away; (3) treated some businesses as monopolies, while expecting others to compete; and (4) gave no authority to reshape the workforce or to relocate to lower cost areas.

*Much of the savings came from negative budget wedges, not business case analyses.*
The DoD assumed productivity savings with only a veneer of rationale and seldom with any true plan for achieving them. Also, DoD seldom included reorganization costs in the cost and savings streams. Often the conversion to "business" operations cried out for cost management systems, yet to appear.

*Centralization of the Department's information services functions combined with "Corporate Information Management" (CIM) cost the Department discretionary funds while producing little improvement.*
Logistics information systems still employ fundamentally the same early-1980s technology level despite five years' effort and hundreds of millions of dollars in outlays.

The CIM program was one of the spectacular failures of the Defense Management Review process. The DoD fashioned CIM after Office of the Secretary of Defense (OSD) organizational stovepipes, including finance, medical, supply, maintenance, transportation, procurement, and environment. While industry had begun to successfully integrate these functions in the 1980s, the DoD continued to rely on batch transaction interfaces. CIM brought no new management commitment to break down the stovepipes, despite the fact that integration was key to productivity improvement. Figure 1 shows some of the relationships between major CIM areas that need to be (and mostly remain to be) integrated.

The business enterprise exists only as the sum of the production in each of the large and small blocks of this schematic. But at no time was there a serious attempt at "enterprise integration." In fact, true integration could not be successful, given the CIM program's focus on standardization of applications. Now with CIM having mostly unraveled, and a significant logistics opportunity having been squandered, what remains important is insistence on implementing a principle of information sharing throughout logistics. Integration of procedures follows later as the business needs dictate.

Now that the years of maximum promised DMRD logistics reform savings are upon us, DoD cannot pay the negative budget wedges of the past Administration without consequences. The Department has reduced inventory levels by billions of dollars. The Services are already reutilizing more "excess" property than in years past.

### The Evolution of DoD and Private Sector

DoD led the nation from 1945 to 1970 in developing logistics capabilities. The huge size of the pre-1990s force structure and the breadth and depth of potential U.S. force commitments

demanded a logistics system with massive structure, redundancy, and inventory. The cost of such a system was large, but gave DoD the ability to respond rapidly to any challenge anywhere in the world.

U.S. industry adopted many DoD logistics systems methods during that same time period. After the mid-1970s, however, economic competition drove industry to look for improvements. By the early 1980s, large U.S. manufacturers had moved quickly to adopt just-in-time support methods for their production lines. Other companies—including many in the retail catalogue trade—began looking for ways to dump costly internal support organizations in favor of third-party logistics service companies.

Often new industry solutions to supply and distribution problems centered on tight integration of business processes and broader sharing of corporate information. Key elements of the new solutions included a focus on—

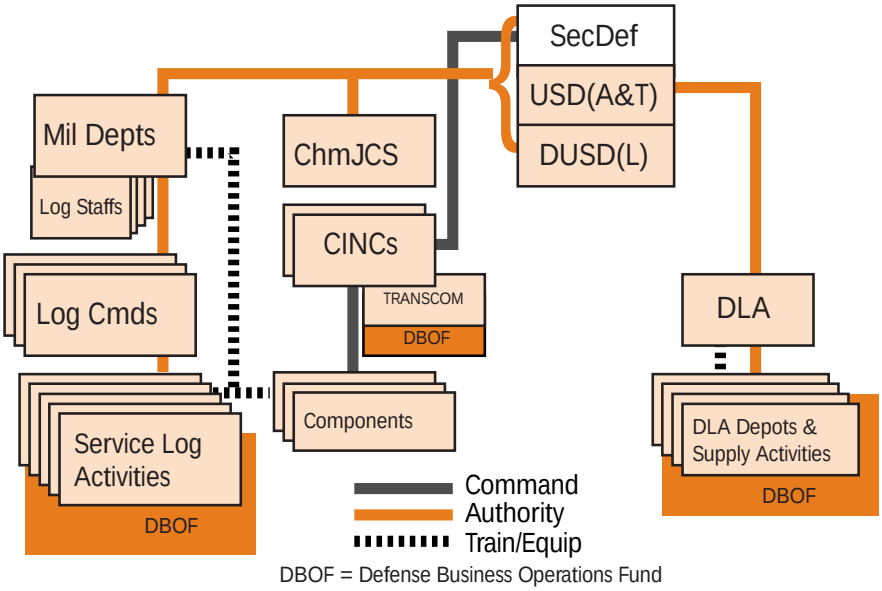
- customer support of large, market-dominating customers;
- just-in-time principles to maximize efficiency at every stage of each process; and
- results rather than process.

In peacetime, the DoD's primary business is acquisition followed by training, while in wartime the primary mission is combat and combat support. During the Cold War, when hostilities were perceived as near at hand, the DoD focused on its wartime support needs and built its system more nearly on "wartime" priorities. Although "mission" came first, the concepts of "customer" needs, choice, and market forces never influenced the design or execution of logistics processes—another reason that the DoD system compared poorly against emerging private-sector business. Unfortunately, the Department's leadership lacked the patience and insight to go after fundamental problems and see fixes to their conclusion.

## DoD Logistics Organization and the Commission on Roles and Missions of the Armed Forces

DoD's logistics system may be the most complex industrial enterprise on earth. The total annual DoD budget authority in support functions exceeds $100 billion; and about 800,000 people engage in support functions at one of the logistics system's many echelons. One might think that logistics would be high on the Department's organizational chart, with both senior civilian and military officials having direct responsibility for operations.

Figure 2. Logistics Dispersion of Authority




DBOF = Defense Business Operations Fund

This is, of course, not the case. Following the earlier discussion of Title X responsibilities, logistics "happens" within tens of organizations under many different commands. Figure 2 depicts this dispersion of authority. At the OSD level, the senior official has been, since the late 1980s, a political appointee (presently titled the Deputy Under Secretary of Defense for Logistics—DUSD[L]). Some appointees to the position have had logistics experience, but not all.

In addition, the senior DoD logistics official is subordinate to the acquisition organization within OSD. The DUSD(L) reports to the Under Secretary of Defense for Acquisition and Technology (USD[A&T]) along with 18 peers concerned primarily with acquisition and industrial-base issues. These other organizations dominate the business of the USD(A&T).

As a result of this fragmentation and subordination, the Comptroller actually sizes, manages, and directs much of the logistics system.

The Commission on Roles and Missions of the Armed Forces (CORM) tried to grapple with analytical approaches to modernizing and streamlining the complex DoD logistics infrastructure. In the end, however, the CORM found itself unable to unravel the conflicting viewpoints given by the numerous military logisticians who spoke to and before it. The CORM's final report devolved to an exhortation to outsource and privatize. The CORM based its recommendations on a small sample of companies who had shed their organic support structures for purchased services. From that it concluded that DoD could achieve at least 20-percent reductions in infrastructure costs by doing the same thing. A Defense Science Board (DSB) "Summer Study" confirmed this view, arguing (with little analysis) that between 20-40 percent of the cost of infrastructure could be taken to fund modernization. Subsequently, the Quadrennial Defense Review set targets for reductions of up

to $30 billion per year across the accounts that could be identified as "infrastructure accounts."

As I wrote last year in the spring, 1995 edition of *Spectrum*, outsourcing has an almost irresistible appeal. DoD would appear to gain billions more in near-term savings. At the same time, some defense companies that are facing major revenue decreases in acquisition contracts see the opportunity to recoup some of that lost revenue by offering logistics services.

During the current Administration, therefore, the question has become less whether, than how to outsource the non-combat structure of the Department as much and as quickly as possible. But what does DoD actually need to do to make a successful and historic transition from building logistics systems to managing logistics providers?

## What is the Department's Logistics Mission?

In recent years, the Department of Defense has found itself committed to missions in which either the primary action, or a very large component of the mission, was logistics. For example:

*Rwanda*

The U.S. humanitarian mission to Rwanda was manifest primarily in DoD's ability to mount an international effort to provide the civilian population with desperately needed food, shelter, medicine, and clean water. The mission involved organization and execution of a difficult transportation link bringing complex equipment and common supplies a long distance to an underdeveloped place. It also involved the expertise to organize the missions, control the delivery of services at the deployment end, and maintain security of the operation until its completion.

*Somalia and Haiti*

When the President called on the Department to undertake "police" actions in these countries, a great deal of stress fell on logistics. The DoD had to perform airlift, supply management, demilitarization, and other logistics functions in an environment with almost no usable infrastructure. These conditions were challenging, but well within the capabilities of Defense logisticians. Although the support structure worked, it worked with some of the same stress symptoms seen in prior conflicts: limited communications, limited availability of information technology, and lack of process integration. Particularly lacking was the flow of information across the supply and transportation processes, leading to mix-ups in the delivery and return of matériel, and excessive waste.

*Operation Desert Storm*

With Operation Desert Storm, DoD began to employ more private-sector support within the theater of operations. It was a change driven by necessity: the immediacy of support needs overwhelmed the organic logistics system's ability to deploy. Thankfully, Saudi Arabia could provide accessibility to outside commercial entities and had resources of its own. It was difficult to arrange all the necessary support, but it did become available.

*Bosnia*

In Bosnia, DoD found itself in close proximity to the fully modern European economy, yet far enough away to put significant demands on both military and commercial providers. Although the initial support planning involved large amounts of military direct support, DoD components quickly began to explore the potential of using commercial services. Ultimately these played a significant role, making clear that commercial *support of some types* (and I emphasize this point) is not limited to behind the lines.

A number of factors drove the shift to commercial support, including the inability of the organic logistics structure to deploy quickly and sufficiently to do the job.[2] Both the Defense Logistics Agency (DLA) and the Army quickly sought commercial sources of support. DLA looked to commercial distributors for food and fuel, and increased the use of commercial airlift to move matériel overseas. The Army contracted for much more comprehensive services, including contractor-provided support equipment and vehicles. Commercial companies may provide the largest percentage of logistics support in Bosnia of any military operation yet. Whether commercial support proves to be cost-effective is already being audited. If future use of commercial support continues on such a large scale, DoD will need to develop specialized capabilities to acquire it.

## The Indisputable Need for Acquisition Excellence

The National Defense Authorization Act of 1987 created the post of Under Secretary of Defense for Acquisition. Subsequently, and after considerable internal discussion, the Under Secretary established the Defense Acquisition Workforce as a professional cadre of better-trained people able to match wits with industry across the negotiating table.

Much of the logistics support community accepted—in fact promoted—its exclusion from the cadre. The community did so for a number of reasons:

- There was, initially, no clear benefit from inclusion and potentially significant cost associated with inclusion.
- Some perceived that the Acquisition Workforce would prove to be either a passing fancy or, as is now proving true, a leverage point for reducing the size of the workforce.
- The full logistics spectrum was not well represented in discussions with the Under Secretaries for Acquisition as the matter evolved.

The Acquisition Workforce, while a step forward, did not become fully representative of the broad range of specialized functions that deliver logistics support. In addition, under the Defense Acquisition Workforce Improvement Act (DAWIA), it became a somewhat elite group, compared

with many of the other support disciplines. This DAWIA evolution, while largely positive, changed the resource balance available for development and maintenance of critical skills in other logistics specialties. In an unintended way, the advent of DAWIA reversed the traditional view of acquisition as an element of logistics.

No one questions the need for a professional acquisition workforce. But is it enough as we have defined it? For example, maintenance manpower costs alone account for over two-thirds of vehicle support costs. Designing supportability into a system costs more up front, but pays off in the long run. Yet, despite decades of acquisition reform efforts, little has changed to train non-logisticians on why and how to make life-cycle cost a more prominent concern in the program review process. The inference to be drawn is that, to be successful, acquisition must work as a life-cycle process, and its execution must include the breadth of skills that bear on improving life-cycle supportability.

## What is the Future of DoD Logistics?

There is little doubt that the private sector offers enormous capacity to improve the delivery of logistics services to the Department, if DoD intelligently employs that capacity—for example, by using existing world-class capabilities, not spawning new Defense-unique/dependent firms. There are a number of points to consider in employing private-sector logistics services.

*DoD will need to bring some elements of competition to the performance of those logistics functions it retains internally.*
The lack of a competitive environment within the government contributes to its inefficiency. At the same time, regulatory relief is imperative to create a "level playing field" for government entities.

*DoD faces a dilemma in selecting outsourcing partners.*
Many of the companies dependent on DoD that have been pressing for privatization have been doing so as a way to keep cash flowing to support a defense weapons skill base. These are not necessarily the companies with world-class logistics skills.

*Obtaining excellence in outsourced functions requires an expert understanding of the processes being performed.*
Without this expertise, it is impossible to understand the qualitative differences in potential service providers.

*There will always be jobs no one will want to do because they are not profitable or do not remain profitable.*
Many tasks from engineering support to property reutilization involve processes that do not make money. Whoever remains to do these tasks must be part of the combined public-private system that delivers logistics support.

*Any outsourcing of logistics must achieve substantial gains in process and information integration to be worth the trouble of implementation.*
The primary inefficiencies in the existing system occur at the boundaries where processes do not properly integrate, and information does not flow freely.

*There is a continuing need to invest in training and technology for the shrinking organic logistics infrastructure.*
This residual infrastructure will play a key role in acquiring and effectively using commercial logistics services, and providing the balance of services that remain in house. Failure to make this investment will increase the risk of DoD mission failure.

## What is Needed?

The DoD should define the Logistics workforce as a professional workforce to include all functions having skills that bear on the life-cycle support process. Along with more comprehensive (broader) basic training, refresher training and industry experience should be part of career development programs, starting at mid-level. An alternative is to redefine the Acquisition Workforce in a way that requires broad logistics training along with purely acquisition-oriented skills.

In addition to upgrading the workforce, there is a long-standing need for a streamlined organization to deliver logistics support in joint- and combined-force environments. If DoD does not find a way to streamline the logistics structure, then it cannot resolve integration problems, and internal competition for scarce resources will continue to undermine improvements.

Last, an official at the Under Secretary level needs to be in charge of the entire $100 billion DoD logistics operation, with direct line authority over the delivery system. This official should not have a primary concern for new technology and weapons system acquisition programs. It has long been the case that the combination of logistics and acquisition responsibilities—regardless of the intentions or talents of the official in charge—does not actually integrate the underlying processes.

These changes will not be easy, or DoD might have made them years ago. If DoD does not make them, however, unkept promises and notions that have little underpinning will continue to erode the support our forces deserve and need. Taxpayers would not tolerate such a casual approach to the acquisition of major weapon systems. They should not tolerate it any longer in the acquisition of life-sustaining support capabilities.

## Endnotes

1. Defense Science Board Task Force Report on "FY 1994-99 Future Year Defense Plan," chaired by Philip Odeen, May 1993.

2. In part, the organic logistics structure was hampered by a relatively small callup of reserve forces, which comprise a large portion of Army's logistics capability.

# Competition in Procurement

## Have We Gone Too Far?

WING COMMANDER M J G WILES, ROYAL AIR FORCE

The United Kingdom Ministry of Defence (MoD) has been downsizing since 1946. They have also been downsizing their procurement (Acquisition) system. They are now, by conservative estimates, 10 to 15 years ahead of the Department of Defense (DoD) with their downsizing efforts.

The MoD, which currently has a single civilian procurement corps (acquisition corps), is moving toward a single service academy, has outsourced many support activities, and has privatized ordnance factories and naval shipyards.

Recognizing that their system is different from ours in many respects, our DoD procurement budget is 10 times larger than theirs. However, their procurement corps is only 4,000 strong. Even if DoD manages 10 times more budget, then DoD's acquisition corps should only need 40,000 people in comparison. DoD's current strength, by some estimates, is between 106,000 and 120,000.

Other studies indicate that the MoD, through the use of Commercial Off-the-Shelf (COTS) procurement and commercial contracting, cannot justify the employment of military personnel in the procurement function. Further, COTS procurement and commercial contracting may ultimately negate the requirement for unique budgeting and contracting rules. (In other words, scrap the Planning, Programming, and Budgeting System and the Federal Acquisition Regulation?)

Just how far DoD can reform its acquisition process is not known. However, by observing the MoD model, we can hopefully take advantage of their lessons learned.

In five more years, if DoD has the same experiences as the MoD, will we be asking the same questions and raising the same issues discussed in the following article? Will we also be forced to pick winners and losers? Will we have a civilian acquisition corps that outsources all functions except for the warfighters?

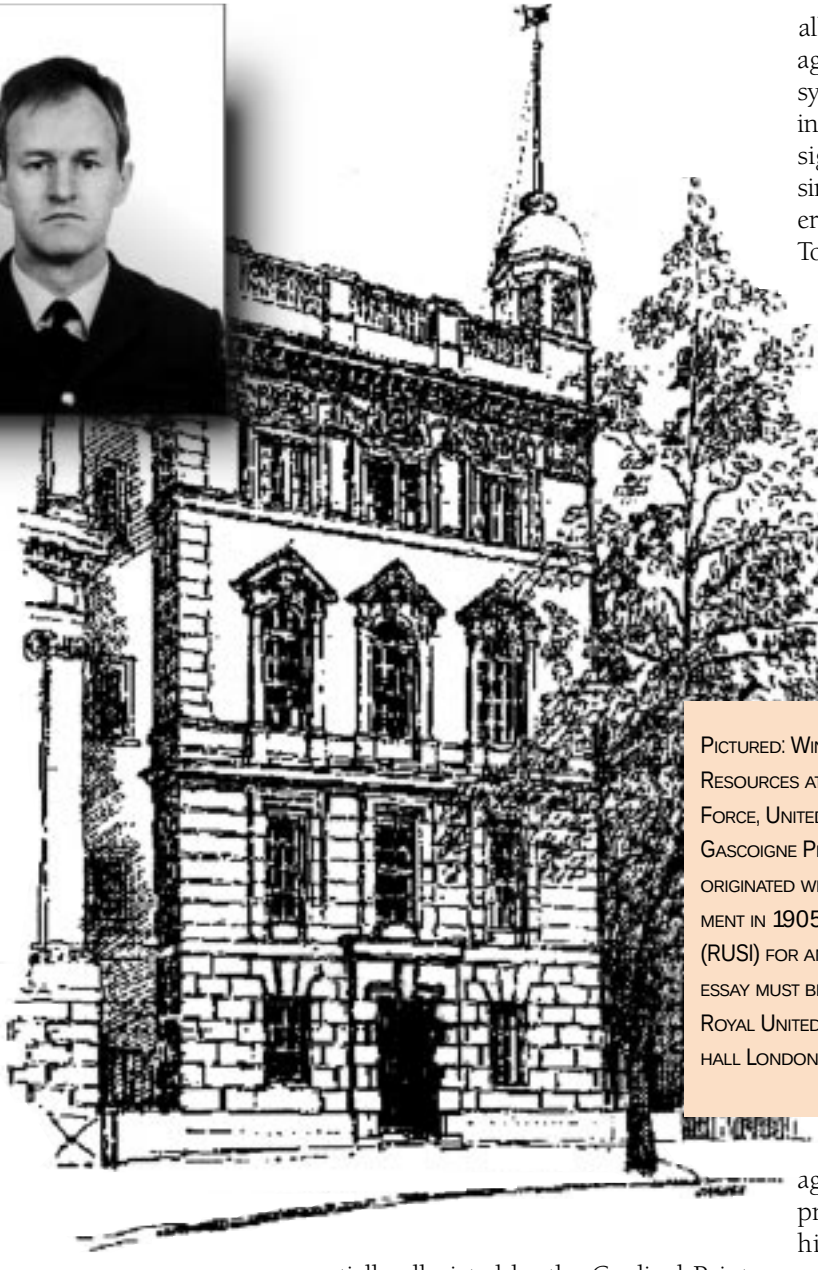
**— DSMC Professor Donald Hood**
**Director, International Security & TechnologyTransfer/Control Course**

Competition in procurement was the key initiative of the MoD in the 1980s and remains the central pillar of defence purchasing today. It has undoubtedly proved to be a successful strategy since costs of procurement are estimated to have been reduced by up to £1 billion per year since its inception.[1] Additionally, the British defence industry has been revitalised by the need to improve performance, enabling it to win export orders which are now in the region of £5 billion per annum. Nevertheless, the policy is not perfect. The philosophy of competition was developed by the commercial sector and adopted by the MoD to replace its own inefficient procurement practices; however, the commercial market has now moved on to new ground, further developing and refining its procurement strategy. Meanwhile, the MoD has maintained a dogmatic use of open competition which has eroded the UK industrial defence base, jeopardising the UK's independent ability to sustain its fighting forces during lengthy intensive operations.[2]

This article takes a historical look at the decisions which resulted in the MoD's current competitive procurement policy, analyses the merits of the procurement strategy for the UK defence forces and British industry, and also considers the inherent weaknesses of competition. After a review of other available and modal procurement philosophies, the article reviews the British Government's approach to the UK defence industry, and looks at ways in which the MoD's defence procurement strategy could be improved for the future.

*Winner of the Trench Gascoigne Prize Essay Competition 1996, Wing Commander M J G Wiles is Wing Commander Resources at Headquarters Strike Command, Royal Air Force, United Kingdom.*

*Article first appeared in © RUSI Journal, October 1996. Reprinted with permission of the Royal United Services Institute for Defence Studies, Whitehall London, United Kingdom, February 1997. (Editor's Note: This article is reprinted verbatim, and retains the British style and spelling.)*



Pictured: Wing Commander M J G Wiles, Wing Commander Resources at Headquarters Strike Command, Royal Air Force, United Kingdom, and winner of the 1996 Trench Gascoigne Prize Essay. The Trench Gascoigne Prize Essay originated with a military historian who set up an endowment in 1905 with the Royal United Services Institute (RUSI) for an annual essay competition. The subject of the essay must be related to military science.
Royal United Services Institute for Defence Studies, Whitehall London, United Kingdom.

## The History of MoD Procurement

Modern procurement within the MoD has been dominated by the ideas expounded by Mr W G Downey, a civil servant who, in the late 1940s, proposed a method of project procurement which divided the project cycle into a number of distinct stages. Each of these had to be completed satisfactorily before money was committed to the next stage. The project method brought much needed order and regulation to the MoD's procurement process, but the formality of the system resulted in longer procurement timescales and thus higher cost. The problem of long timescales was partially alleviated by the Cardinal Points specification technique, whereby the performance of the system to be procured could be defined to industry. This offered industry the opportunity to tender for the contract at a fixed price and against demanding fixed timescales.[3]

Utilising Mr Downey's project cycle, the MoD has experimented, with varying degrees of success, with a number of pricing mechanisms. The Cost-Plus system was the favoured option until the early 1980s and entailed agreeing contracts that would recompense the selected contractor for the cost of providing the service or product, and allowed the contractor to be paid an agreed profit margin. The Cost-Plus system was fully supported by British industry, but did little to generate any significant efficiency improvements, since profitability was assured whatever the cost or quality of the product. Today, the Cost-Plus arrangement has been replaced largely by the rules of open competition. However, two other methods of non-competitive contracts continue to be used by the MoD: 'No Acceptable Price, No Contract' (NAPNOC) and Target Cost Incentive (TCI). NAPNOC is a method of managing contracts where competition is impossible or inappropriate, and requires an acceptable price to be agreed before a contract is let. The price is formulated by an analysis of historical financial data by MoD's accountants, and a detailed costing strategy from those companies selected to tender for the contract. NAPNOC contracts present no risk to the MoD; effectively, once a price has been agreed, it remains fixed.

TCI allows the contractor to share both risks and any savings against an agreed price with the MoD. Any overruns in cost are shared, up to a maximum agreed figure, with the contractor accepting any subsequent losses. Both of these two options require the contractor to make details of actual costings available to the MoD prior to, and throughout, the period of the contract.[4]

Etching and photo reprinted by permission of © *RUSI Journal*, February 1997.

Before looking in detail at the MoD's competition policy, one final procurement philosophy is worthy of mention. In recent years, the MoD has increasingly used international collaboration for defence procurement in an attempt to share risk and to reduce research and development (R&D) and production costs. Whilst this is a laudable aim, the reality is somewhat different. A comparison of existing data shows that the R&D costs for each contributing nation are greater overall than if the R&D costs were borne by a single nation, mainly as a result of the need to integrate separately developed systems into a single cohesive package; furthermore, production cost savings are as little as 5 per cent.[5] Whilst there will undoubtedly be savings to the individual contributing nations, the final design of the end product will inevitably be a compromise between the partners; thus defence capability is almost certainly weakened in the search for savings. However, whilst collaboration may be considered very expensive and inefficient, it has the major advantage of enabling credible competition with international industrial bases, particularly those of the United States and Japan. Nevertheless, the arrangements for collaborative projects which have involved the MoD have been so poor that the House of Commons Defence Committee has felt moved to comment that 'the current arrangements adopted in many collaborative programmes are unsatisfactory in several respects'.[6]

## Competition

In 1981, the MoD Procurement Executive under the management of Sir Peter Levene, introduced a policy of seeking, wherever possible, to place contracts through competition, in a bid to introduce market forces into the UK defence industry. There can be no doubt that this policy has been outstandingly successful, with dramatic savings to the equipment budget.[7] Just as important for the defence industry, it has provided the catalyst for efficiency improvements, thus driving down prices and permitting greater opportunities for export.

Even though the MoD's competition policy is an open one, in that tendering for contracts is open to other countries, in practice 90 per cent by value of all contracts are won by UK companies.[8] Nevertheless, this approach is not without its drawbacks. Competition has the effect of reducing prices; this has helped to stabilise the dramatic increase in defence expenditure costs over the last decade, and has enabled the MoD to maintain a high-technology armed force in the short term. However, as international competitive pressure increases and prices continue to fall to attract business, the profitability of defence suppliers will reduce and fewer key British high-technology defence companies will have sufficient resources to invest in R&D to maintain their technological edge. Indeed, this is arguably the scenario which now exists in the UK; existing relatively healthy profit margins, created some 10 years ago by R&D investment in systems which are currently selling well, are clouding a very precarious future for the now lean British defence industry.[9]

Concerns over the availability to the UK of a shrinking defence market is not an issue of concern to the commercial sector. If competition in the defence field has been so successful in the past, why is the commercial sector now abandoning it in favour of new techniques? Competition is undoubtedly a useful way of driving the market to produce low-cost solutions to procurement requirements. Nevertheless, unless contracts are lengthy, it promotes a short-term approach by selected contractors and precludes their investment in the business, other than that required to secure the contract in the first place.[10] Additionally, the costs of running effective regular competitions are very expensive, an effect felt by those seeking MoD contracts where an average of 6.4 tenders per contract have been invited in the past. Indeed, the MoD tendering process has often required tendering companies to spend up to 5 per cent of the value of the contract, merely to stand a reasonable chance of success.[11] Competition can also act as a barrier against the focusing of all the parties' activities towards the aims of the customer's business. This is not surprising since if competition is run efficiently, it should represent maximum exploitation, in value for money terms, of the supplier base (comprising at least two suppliers) by the customer; this will often lead to a tension between customer and supplier as they both seek to maximise their profitability. Thus, although competition has proved to be a useful aid to procurement in the commercial sector, it has some potentially serious drawbacks, and other procurement solutions have been sought.

## Other Forms of Procurement

*Partnership Sourcing.* The commercial sector has turned away from pure competition as a procurement strategy and is, instead, now predominantly looking at partnership sourcing as a more effective technique. This involves two or more companies recognising that they have much to gain from efficient work processes, and that each has a right to profit from the venture. Thus, a customer/supplier relationship is built with agreements on each one's contribution, and these agreements are continually developed and evolved to maximise efficiency.

Over 80 per cent of the UK's profitable industries now procure services and products through Partnership Sourcing, and the number is growing.[12] It is logical to deduce that as long as a taut agreement is made between the contributing parties, this can be a more effective method of procurement than competition. It reduces costs, aligns the aims of the businesses and recognises the impact of one party's success upon another. However, it fundamentally fails to recognise the moral dilemma facing a democratic open government, namely allowing fair competition to all potential suppliers of a given product. The last Chief of Defence Procurement (CDP), Dr Malcolm McIntosh, has identified that Partnership Sourcing carries a significant risk of forcing other similar suppliers out of the defence market, sup-

pliers who presumably could find no other markets for their products.[13] However, Dr McIntosh's approach fails to recognise the true frailties of the UK defence industry, hoping instead to maintain a wide range of defence competitors within the UK for similar products. This view is pure wishful thinking, and lacks an appreciation of the fact that the MoD can no longer afford to sustain or promote open competition in the vain hope that market forces will continue to generate the equipments and technologies that the modern UK forces demand.

*Industrial Collaboration.* The use of collaboration as a technique for retaining a market, sharing risk and maximising R&D potential is attractive to those companies who need assistance to exploit a particular opportunity. It is a technique which has been developed by the commercial sector over a number of years, and can be achieved by a form of partnership, or through merger or takeover. The defence industry has already recognised the benefits of this scheme, especially in a dwindling defence market, and there is evidence of an increasing number of partnerships being developed to meet specific contracts.[14] Recent examples include those competing for the RAF's C130 transport aircraft replacement and the British Army's new attack helicopter. Whilst in the short term a form of collaboration will aid the UK defence industry to compete effectively, in the longer term it is likely to result in further reductions in their sphere of activity, as they will hand over functions previously performed by them to their partners as part of the work share. Perhaps even more importantly, in the absence of a clear government policy, the increase in collaboration may well lead to the shape of the UK defence industry being defined by market forces, irrespective of the needs of the MoD, or the desires of the UK Government.

*National Protectionism.* The willingness, or lack of it, of a country to purchase equipment through open competition rather than to procurement only from its own defence industry is effectively a procurement strategy. Protectionism is not a strategy that the UK has adopted but others do. Most notable of these is France which, until very recently, had a policy of supporting an industrial philosophy which maximises the spin-offs for the wider economy, rather than concentrating only on immediate value for money returns.[15] Such protectionist policies, which are not limited to France and include countries worldwide, reduce the ability of the UK defence industry to compete on even terms in the international market and thus maintain its capabilities and profit.

The use of collaboration as a technique for retaining a market, sharing risk and maximising R&D potential is attractive to those companies who need assistance to exploit a particular opportunity.

## British Government's Policy on UK Industry

The UK defence industry is a shadow of its former self. It employs some 400,000 people and represents some 9 per cent of UK manufacturing output, a 33 per cent reduction in capacity since 1987.[16] The British Government's approach to this industry is to expose it fully to free market principles and open competition. This policy has had two main effects: it has acted as a spur to the industry to become more competitive but latterly, and of significant concern, it has led to the slow inexorable decay of companies like Ferranti, Swan Hunter, Singer Link Miles and others through having to compete with companies in countries where built-in advantages exist, or where the market has severely diminished.

*R&D.* A review of Long Term Costing (LTC) 94 indicates that, whilst the overall expenditure on defence by the UK will rise over the next 10 years, the investment in development will fall by some 50 per cent. In comparative terms, the USA has an R&D to procurement ratio of 1 to 2, compared to a ratio of 1 to 5 in the UK.[17] The implications of this are stark and uncompromising. Without significant additional investment the only way that the UK can meet its equipment programme for the future is to buy off-the-shelf (OTS). Indeed, the UK may not have to wait for 10 years time to see the results of its policy of reducing R&D expenditure. Already the UK is spending some 20 per cent less than 10 years ago, and the major equipments it is seeing into service are effectively a product of buoyant R&D budgets in the 1980s.[18] Thus, the UK is faced with the prospect of being unable to sustain within its forecast budgets the prime contractor capability which currently exists within the UK, and it will need to look for other ways to meet its Armed Forces' requirements.

*Exports.* The UK defence export market remains sound. In 1994 it exported some £5 billion of goods and services,[19] and the imminent arrival of Challenger II and Eurofighter should help to maintain this level for some time to come. However, as the Government's expenditure patterns move away from development and production contracts towards increased OTS procurement, this impressive income generator will reduce dramatically,

some analysts argue by as much as 50 per cent.[20]

*Collaboration.* Inter-governmental collaboration is not new to the UK; it has been recent British Government policy to seek collaboration for major projects to help to control and reduce budgets, and to tackle the spiralling costs of developing major weapons systems. The 1994 Statement on Defence Estimates[21] recorded that the UK's participation can generate up to a six-fold return on investment, as well as increased commonality and interoperability. Nevertheless, whilst overall costs are reduced, there are compromises. Costs are increased through duplication of effort; development and production times are often elongated, and performance is often compromised to meet all the partner's basic requirements. Additionally, there remains the danger of losing further capability; furthermore, the principle of *juste retour* sharing of work with less efficient partners, often slows and compromises the drive for quality, and thus potentially increases life cycle costs.

## Off the Shelf

The LTC 94 presumption that the UK will follow the OTS route has profound implications. The inability of the weakened UK defence industry to develop high technology products would effectively drive OTS procurement towards strong overseas defence industries such as those in the USA or possibly Russia. Whilst this may well increase the volume of sub-contracted work flowing into the UK under the 'Industry Participation' or 'offset' scheme, the work would almost certainly contain predominantly lower technology activities; this would preclude UK industry from retaining the ability to perform as a prime contractor in the future. The UK would also be forced to accept a system developed for another nation's military requirements. If the producing country was unwilling to share all technologies, the UK's version of the system might be less effective than the version for the producing country. Furthermore, access to resupply might pose a difficulty, especially given the MoD's decision to reduce its own stockpiles in a bid to reduce overheads. During periods of crisis, in-theatre support from the contractor may similarly cause problems if the contractor's nation is not represented in-theatre. Without the ability to provide and sustain high technology capability, the UK would be unable to maintain its political influence on military affairs, and would, in effect, become a second rate military nation. Finally, for certain projects the UK may be forced into a non-competitive route through the lack of available contractors for a given weapon system, with a commensurate threat of inflated prices. In short, pursuance of an OTS route would consign the UK's military capability to second-string support of other more influential, international companies, with the commensurate effects that this would have on Britain's international military and political standing.

## European Integration

Given the natural and obvious desire of the UK Government to avoid the OTS solution, there appears to be only one remaining logical avenue for the UK to follow; that is one of increased European collaboration at both political and industrial levels. In effect, European collaboration means the UK, Germany and France, since these three account for some 80 per cent of the European defence industry production.[22] Despite the problems associated with collaboration which have already been highlighted, the potential for selective collaboration remains considerable. France and Germany are already developing closer ties in the armaments field through the Mulhouse Accord. Furthermore, they are beginning to harmonise their planning and procurements systems, with the aim of making major procurement savings. The Mulhouse Accord has now been widened to offer membership to other Western European Armaments Group (WEAG) members, including the UK.[23] However, whilst this drive towards integration is laudable, there have not yet been any tangible signs of efficiency improvements in collaborative projects. Issues such as the questioning of traditional national workshare agreements, and the exposing of collaborative partners' industries to competition, perhaps in the form of sub-contract competition, must be addressed if true efficiency improvements are to be made.

The overriding benefit of European collaboration remains the prospect that some parts of the UK defence industry could be retained in one form or another, able to contribute as highly technological partners within prestigious and high value world-class projects. Additionally, the maintenance of a European defence industrial base would provide healthy competition between Europe and the US, thus avoiding effective monopoly supply. More importantly, a high degree of involvement in the development of the equipment of the European armed forces of the future would enable the UK to continue to play a major part in European defence issues. Nevertheless, European collaboration will not guarantee the survival of key UK defence manufacturing capabilities; until the issue of governmental investment funding of R&D is addressed, world beating weapon systems cannot be manufactured as European projects at competitive cost.

## MoD Procurement—A Strategy for the Future

We have seen that through an analysis of the development of the UK's procurement policy and the techniques employed by the commercial sector that there are effectively two ways to ensure a longer-term supply of high technology weapons systems to the UK's Armed Forces. These are OTS procurement, retaining where possible the principles of open competition, or collaboration either at industrial or governmental level to share the burden of cost. The fact that there appear to be only two avenues is a reflection of the well intentioned, but ultimately flawed judgements which litter the past, and the lack of national funds available to support major military

procurement projects for the future. The end result is a dilemma. Does the UK bite the bullet and accept OTS products, recognising that this would sound the death knell for the high technology aspects of the UK defence industry? Or does it take the inefficient route of European collaboration in the hope of retaining strategic UK capabilities and making collaboration more efficient? The optimum answer lies in a compromise between the two alternatives. The procurement of defence goods is excluded from the GATT and the Treaty of Rome;[24] thus, the UK is not obliged to compete for all contracts throughout the EU. Therefore, some degree of protectionism of the UK defence industry would not jeopardise existing agreements and treaties, and should permit the UK Government to distinguish between those capabilities it wished to secure and those it was content to leave to the pressures of the market.

The decision to secure elements of the industry requires the Government to be able to secure value for money so that it can avoid the return to inefficient and complacent work practices which undoubtedly existed before competition. However, in recognising the major improvements that have been made between the era of 'Cost-Plus' inefficiency and the practices of today, it is clear that the MoD now has the ability, the tools and the experience to accurately determine what it costs to run an efficient defence supply company. Armed with this knowledge, the MoD could safely return to a non-competitive, negotiated pricing agreement for core defence capabilities, along the lines of NAPNOC, which could be carefully monitored to ensure value for money. The arrangement could reasonably be described as a partnership between the appropriate components of the UK defence industrial base and the MoD.

Once these 'core' businesses have been identified, government development funding should be made available in the LTC programme, to ensure that the technology edge can be retained, and only then should negotiations for collaborative projects within Europe be developed to include these capabilities. The detailed considerations that must be applied when considering which capabilities should be retained are outside the scope of this article. However, it is vital that the strategic importance of particular systems and capabilities, recognising the need to provide complete life cycle support, must feature as a crucial factor in selecting projects for UK Government support. Once it has made the selection, to help defray development costs the Government should actively seek to exploit these new technologies, where appropriate, through the Defence Exports Sales Organisation.

The application of the rules of competition has significantly helped to drive down the cost of inefficient supplier bases and there can be no doubt that, for certain low technology items, it remains a logical way of controlling expenditure.

## Conclusion

The application of the rules of competition has significantly helped to drive down the cost of inefficient supplier bases and there can be no doubt that, for certain low technology items, it remains a logical way of controlling expenditure. However, for high cost, high technology items, for which the UK has a strategic capability requirement, the time has come to re-evaluate how their procurement takes place. The drive for efficiency through MoD competition has been a laudable one which has saved the UK Government as much as £15 billion[25] during its existence as the main procurement technique for the MoD. However, the cutting of overheads by the UK defence industry and the current and planned reductions in R&D expenditure now threaten the defence sector with extinction, or serious technological compromise. A decision to recognise our key capabilities which can be used to maintain and develop a technological and thus commercial edge is needed. A new form of procurement policy based on NAPNOC is required to form efficient partnerships with selected companies; this would allow them to develop new advanced products, and to market them efficiently worldwide within the limits of political acceptability.

This change in approach neither compromises existing treaties within Europe nor offends our US allies. Rather, it is sufficiently flexible to permit the chosen capabilities to enter into collaboration with any acceptable partner, with the UK's core capability providing a cutting edge to technological input in the development of new collaborative projects. What is essential is the need to identify and secure our essential capabilities without further delay, before key UK defence industrial capabilities are lost forever.

In short, the continuing dogmatic approach to competition is no longer valid in all cases; a more coherent and flexible policy on the UK's defence industry is not required if the UK is to avoid becoming a second-rate player in the world defence market, and thus, inevitably also in the political arena.

### Endnotes

For a complete list of all endnotes pertaining to this article, contact the managing editor, *Program Manager* magazine, DSMC Press, (703) 805-2892/DSN 655-2892.

# Program Managers and the Bargaining Process

## Program Managers' Ability to Solve Problems Directly Related to Their Ability to Negotiate Effectively

ANDRÉ E. LONG

Program managers have been compared to orchestra conductors. Both have overall responsibility for an often complicated finished product and customers who expect their "money's worth." Both are also entirely dependent on the cooperation and performance of others who have skills and expertise in areas they completely lack. They must be able to cut through a multitude of components to see and manage the big picture. In their never-ending attempt to reconcile the seemingly irreconcilable conflicts among funding limitations, organizational interests, and technical problems, program managers, like conductors, must be excellent problem solvers.

However, program managers' ability to problem-solve, more than anything else, is directly related to their ability to negotiate effectively with others within their company. As high-level decision makers, program managers do not usually see themselves as *negotiators*. That is the contracting manager or contracting officer's job. Program managers plan, execute, and control programs; yet, within the government and many companies, individuals and groups bargain with program managers all the time. Integrated Product Teams (IPT) is, at its very essence, participative management.

The collective decision making and shared responsibilities of an IPT in many ways limit the program manager's authority by what the IPT and other subordinates are willing to accept. In making the tradeoffs and reaching the right decisions, a typical program manager spends more time negotiating in their daily work than contract managers ever do. One could argue that successful program managers spend so much time harmonizing or reconciling needs that they have to be naturally gifted with an intuitive understanding of people and persuasion. This article explores the basic building blocks of the bargaining process and provides some practical advice on how program managers can be more effective in negotiating solutions to complex problems.

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**Program managers have been compared to orchestra conductors. Both have overall responsibility for an often complicated finished product and customers who expect their "money's worth."**

## Behavioral Science Aspects of Negotiation

Under Abraham Maslow's five-tiered hierarchy of needs, each lower need must be met before a higher need. Physiological needs such as hunger have a higher priority over safety, which ranks over social, then self-esteem, and finally self-actualization. As the needs are satisfied, their power to motivate is diminished. Motivation in negotiations is important since if one party is not motivated, an agreement can be reached only if the other party is willing to sacrifice its interest to the other. For example:

- Under level 1, "physiological," discussing the merits of an Engineering Change Proposal during Ramadan with a Muslim department head who is fasting during daylight hours may be very difficult since hunger and thirst needs have not been met.

- Under level 2, "safety," a systems engineer would probably agree to any design detail under threat of bodily injury or job loss.

- With level 3, "social," a manager from a matrix organization with a strong need of belonging to a "team" might be easily influenced by other team members or peers instead of insisting on a correct but unpopular position.

- In level 4, "self-esteem," a team leader who belittles an engineer during an IPT meeting may reduce the engineer's self-esteem and thus the overall bargaining power of their team when attempting to convince the program manager of the merits of the team's position.

- The last need, level 5, "self actualization," can be best exemplified by a program manager who desires to conclude a program on schedule and under budget.

Motivation plays a large part in any negotiation. It can be characterized by needs of achievement, affiliation, and power. While effective negotiators are motivated by different things, they usually do share a need for achievement. Individuals also have different needs for affiliation. Affiliation deals with socialization issues such as the loner who does not care how others perceive him. Effective program managers are often individuals who do not have a need to be liked by everyone nor are they loners but are frequently team players who are not afraid of exercising independence from the group in order to meet team objectives. Finally, there is the factor of power. The power motive can be attributed to someone who enjoys taking personal responsibility in problem solving and does not hesitate to exert influence in persuading others.

## Communication Skills and Styles

Program managers need to be good listeners. Good listening skills can be contagious since people tend to listen better when they feel they are understood. It is natural to feel that a person who understands you is intelligent and sympathetic and may themselves have opinions worth listening to. A genuine understanding of another's perspectives, feelings, opinions, and attitudes helps release the productive potential inherent in people.

In addition to good listening skills, program managers must also understand how to use and answer questions. Proper questions and well-prepared answers can provide much useful information. Improper questions can alienate and antagonize leading to a breakdown in communication. There are numerous types of questions that one should be familiar with. Controversial questions are asked to provoke an argument or emotional response and can be used to flush out hidden issues or put a party on the defensive. Ambiguous questions have two or more meanings and should not be answered until a clarification to the ambiguity is given. Leading questions can produce a desired answer irrespective of actual memory. Open-ended questions can open up an individual who is reluctant to talk while yes/no questions can shut down someone who wants to argue or is rambling. If a question was important enough to ask, it should be important enough to allow a complete answer without interruption. An interruption can disrupt a respondent's thought pattern and prevent the disclosure of valuable information.

A person's personality can be closely linked to their communications style. Attitude, which is a significant part of

one's personality, is connected to character traits, which can indicate that a person accepts power and authority or rejects it. Program managers should recognize attitudes among team members since they may pose as possible impediments to successful program management. Unlike attitudes, opinions are only a temporary way of perceiving something. Opinions can be more easily overcome with convincing arguments. Other personality characteristics that are important to recognize are strong and weak personalities and introverts versus extroverts. For example, during the give and take of any collaborative decision making, a strong personality might forcefully assert a position regardless of its relative merits, while introverts with a weak personality may direct their thoughts and interests toward themselves by pursuing a minor issue exhaustively. Understanding these personality characteristics can help a program manager not only better understand an organization's weaknesses but also assist in the selection of more effective team players.

## Strategic Considerations

An important step in any bargaining process is the identification of one's *Best Alternative to a Negotiated Agreement* (BATNA). Program managers can use BATNAs to protect themselves against bad decisions. For example, I plan on purchasing a new van of a particular make and model with particular features for no more than $20,000. After visiting numerous dealers, I enter in negotiations with one that offers me the lowest price yet of $23,000. Accepting it because it is the lowest available price may not be rational since I have already determined that $20,000 is all I want to spend. However, during my negotiations over a two-month period with several dealers, I have learned many things, including the possibility of tailor-making a lease plan to fit my financial limitations. If I stick to my bottom line, I become very rigid and inflexible. I also am less likely to explore the variables that could cause me to raise or lower my bottom line.

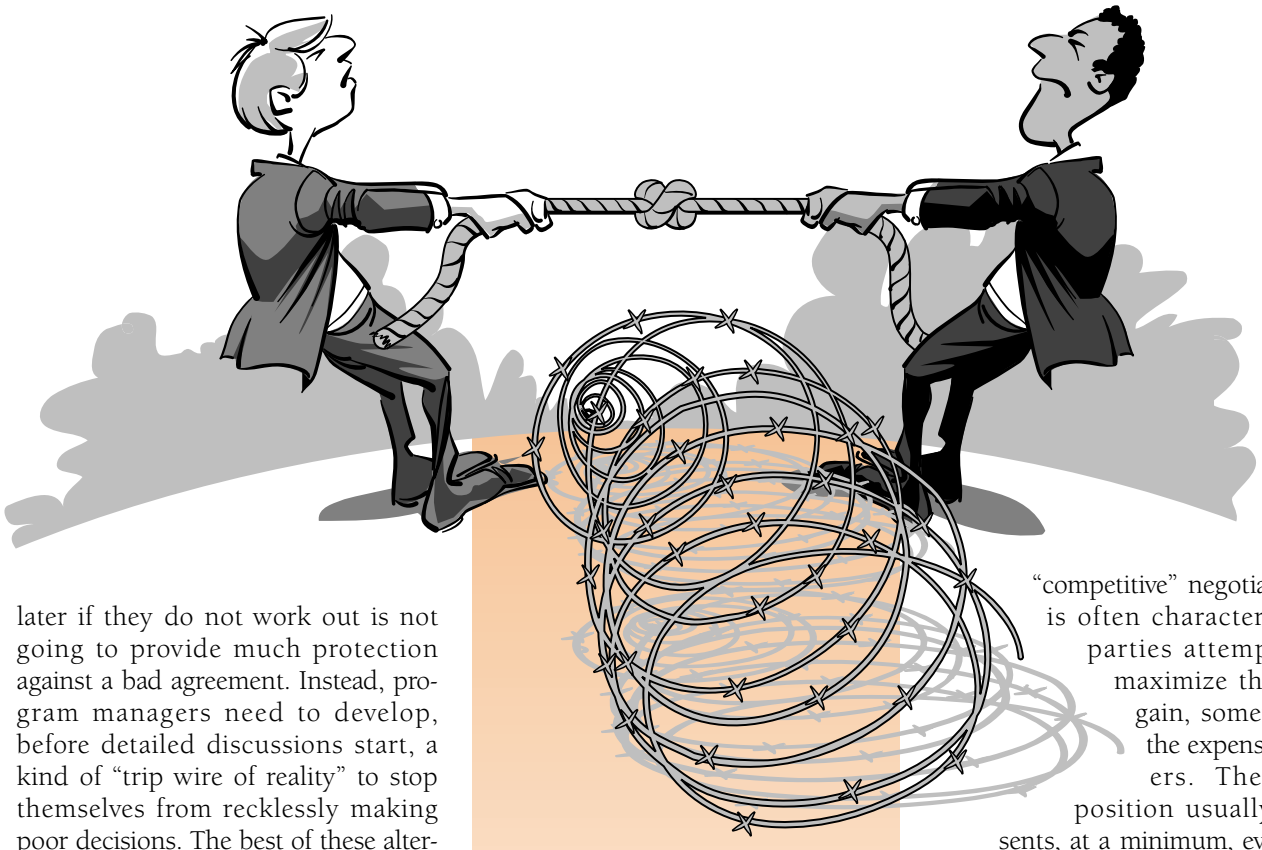
However, if I develop a BATNA, I will have a standard that I can use to compare any proposed agreement to, and determine whether it better satisfies my interests. In this example, if I cannot find a van for an affordable price before the engine in my existing car wears out, my BATNA might be to buy a demo or slightly used model, buy a station wagon, ride public transportation, or even replace or rebuild my old engine. Unfortunately, it is not uncommon for people to accept the lowest price they can get only to regret their decision later when they have come to the realization that they cannot afford it.

**An important step in any bargaining process is the identification of one's *Best Alternative to a Negotiated Agreement* (BATNA). Program managers can use BATNAs to protect themselves against bad decisions.**

In program management, there are always competing interests and stakeholders. For example, in the acquisition of an aircraft one functional area of an IPT may want a more powerful engine, while another in a conflicting functional area such as financial management may feel the extra time and cost involved in improving the air frame to accommodate the larger engine is not worth it. The two engage in a bargaining process, eventually including the program manager. A BATNA would help the program manager agree to an optimum solution by recognizing which tradeoffs are worth accepting.

The reason for negotiating is to get something better than we would have been able to get if we did not negotiate for it in the first place. Managers negotiate with their subordinates to secure their participation in executing whatever was agreed to. However, in some situations, reaching an agreement may not always be possible or in the program's best interest. If the ultimate tradeoffs and concessions demanded by a party are so substantial that they jeopardize the program's objective, no agreement should be made which, in turn, forces the program manager to impose the decision without any "buy-in."

There may be better options available, but negotiating first to see what happens and figuring out the alternatives



later if they do not work out is not going to provide much protection against a bad agreement. Instead, program managers need to develop, before detailed discussions start, a kind of "trip wire of reality" to stop themselves from recklessly making poor decisions. The best of these alternatives will be the standard against which any proposed decision should be measured. Unfortunately, developing and considering alternatives is no easy task, especially for large organizations and programs.

Developing your BATNA before the negotiation adds power to the negotiator because it gives an attractive option if an agreement is not reached. For example, a buyer is negotiating the purchase of a house from a seller who does not have a job and is close to having his home foreclosed. If the seller feels his only alternative is to sell the house and the housing market is weak, the buyer will probably have a tremendous advantage during negotiations. However, if the seller has developed a list of practical alternatives—such as lease the house and move into a less expensive apartment, keep the house but rent out several rooms, borrow on the equity to make the payments until he can find other work, or negotiate a grace period with the existing lender—and from this list selected the best alternative, the seller can walk away with confidence from any negotiation that does not meet the required price.

**During the negotiation, little information as possible is given to the opponent. An arsenal of tactics is used to get large concessions while giving as few concessions as possible.**

## Tactics

In addition to strategy, program managers should be knowledgeable about the use of tactics, why they work, and how to defend against them. Tactics are nothing more than procedures, some ethical and some not, which assist a negotiator in gaining an advantage. When bargaining, it is common for negotiators to take and argue for positions, use tactics to seek a competitive advantage, and make concessions to reach a compromise. This type of negotiation is often referred to as "positional" but is also known as "competitive" negotiations. It is often characterized by parties attempting to maximize their own gain, sometimes at the expense of others. The initial position usually represents, at a minimum, everything that the negotiator wants. During the negotiation, little information as possible is given to the opponent. An arsenal of tactics is used to get large concessions while giving as few concessions as possible. This methodology has been successfully applied for thousands of years and is typically used between the government and contractors.

However, positional bargaining would severely impede IPTs because the focus is on positions such as "I want a bigger engine" and not on meeting the underlying concerns such as "Why do you think you need a bigger engine?" Program managers are supposed to be searching for optimal solutions, but positional bargaining often results in a minimally acceptable compromise or mechanical splitting of the difference rather than a "win-win" solution.

"Interest-based" negotiations involve separating the underlying needs of the parties from their position. By knowing each other's interests, the negotiating parties can develop creative solutions that meet their legitimate needs. Instead of being a contest of wills and power, the process becomes a prob-

lem-solving endeavor where the give and take is done based on merit. The results are outcomes produced efficiently and amicably. The method involves four essential points:

- Separate the people from the problem.
- Focus on interests and not positions.
- Invent options for mutual gain.
- Use objective criteria or a "fair" standard to determine the outcome.

However, not all people communicate in such an open fashion. This is especially true for professional negotiators, who by their very nature, are competitive people. For example, contract negotiators are usually selected and driven to win. Opening up and "sharing their own personal or corporate interests" would be tantamount to suicide against another competitive negotiator.

Interest-based advocates argue that unless interests are discovered, the parties are only dividing up the pie instead of enlarging the pie before its cut. However, most experienced negotiators believe that the less they talk, the better off they are. Since negotiations usually consist of a mix of common and conflicting interests, competitive negotiators will look behind positions for the information and interests that are driving the positions being taken. This enables a negotiator to better meet their needs and also harmonize or reconcile the needs of the other party when necessary or appropriate.

For example, in a contract negotiation, the contractor will want to know when and how bad the government needs the product or service, the amount of competition, the time available to complete the negotiations, and the power and motivation of the government counterpart. On the other hand, the government negotiator will want to know how bad the contractor needs the contract, how much of its proposal contains "fat," and the power and motivation of the offerer's lead negotiator. Negotiators would not usually share this type of information with their opponent since it could be easily exploited to their disadvantage. For example, a seller of a house who lost a job and is about to have a home foreclosed would be almost assured of getting low offers if potential buyers knew the predicament. The seller could argue that the price should be based on objective criteria such as a recent real estate appraisal, but it is doubtful that any buyer would be persuaded to accept a higher price from an appraisal with knowledge of the seller's vulnerability.

While the purchase and sale of a home involves a short-term relationship with unrelated interests, IPTs present a different situation. A large system's procurement may span many years and requires cooperative problem solving at all levels within the government. Program managers and IPTs cannot afford to become polarized. Therefore, any tactics employed must be used carefully and judiciously. If poorly conceived or executed, they can be counter-productive and damaging. However, without trust and a good working relationship, it is unrealistic to expect participants to lay down their deck of cards and bare all. Interest-based negotiations will only occur naturally between program managers and IPT members who know and have confidence in each other, thereby eliminating any need for gamesmanship.

**...without trust and a good working relationship, it is unrealistic to expect participants to lay down their deck of cards and bare all.**

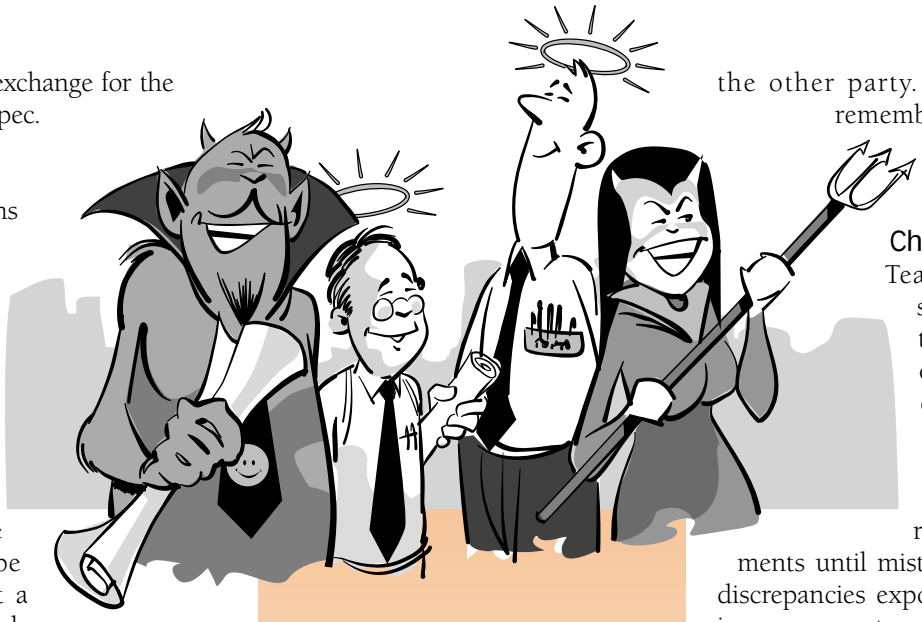
### Time

The amount of time available to each party is one of the most significant factors affecting a negotiation. Time tactics, when credible, can provide an enormous amount of leverage even when the time limitations are not real. However, if an IPT does not have enough time to plan, prepare, and negotiate, the negative effects can be absolutely disastrous. For example, program managers have been known to use funding and fiscal year deadlines as pressure tactics to push contracting officers and IPTs into making decisions, even though such deadlines may be artificial deadlines used to precipitate a decision.

### Straw Issues

It is not unusual during any bargaining to have items that are valuable to one side while unimportant to the other. For example, a system design engineer may intentionally include an additional requirement for increased verification testing in an item specification, even though it may not be important or necessary. The real intention behind the additional testing is to require a more rigorous design spec. The engineer may then argue at length to support the need for additional testing only to later con-

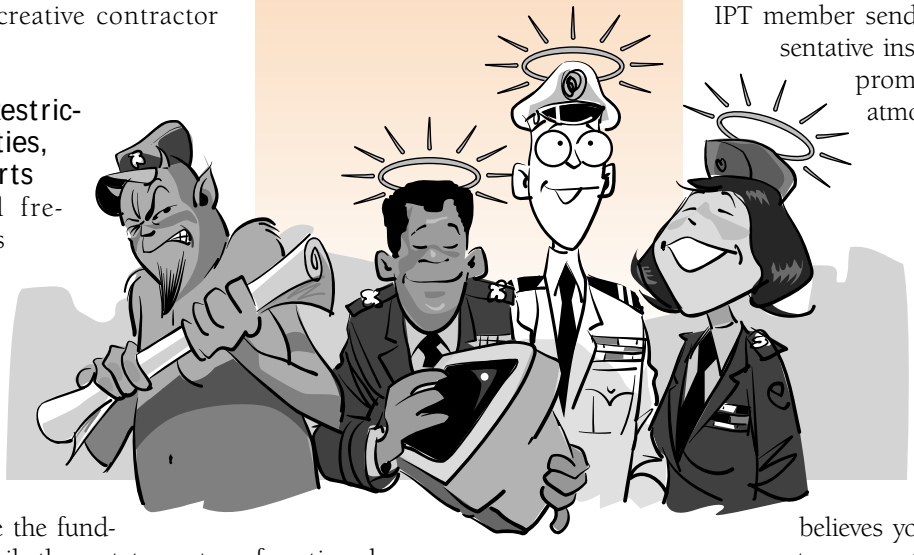
cede the issue in exchange for the improved design spec.



### Bogeys

Most major systems acquisitions have severe restrictions on what can be bought and how much can be spent. It is difficult to argue with "that's all I've got," but the premise should always be realistic. Always be prepared to test a bogey and explore other alternatives. For example, alternatives to current-year funding limitations could be extending a program over additional years, modifying specifications to trim away expensive features, and in commercial government contracts, creative contractor financing.

**Once identified, remember that both good and bad guys are on the same side.**



### Blaming Legal Restrictions, Third Parties, and Other Experts

Negotiators will frequently use items that appear to be out of their control as justification for not compromising on an issue. For example, "If we implement what you want, we may lose the funding altogether." While these statements may sometimes be *bluffs*, they may also be asserted with a genuine belief of their correctness. Even so, regulations and other items are often misinterpreted and can be refuted with logical persuasion as to why they are flawed.

### Misunderstanding

A deliberate misunderstanding can be used to get a person to defend their positions or elaborate further on issues. It can flush out reasoning and interests but also cause frustration, e.g., in the case of an engineer from a functional group on an IPT who has made repeated unsuccessful attempts to explain something to another person who appears incapable of comprehending the arguments.

### Good Guys—Bad Guys

In this tactic, people can take extreme positions that may be countered by someone who is more conciliatory and moderate but is actually advocating their side's true objective. Bad guys can be agency policies or people like engineers, lawyers, and auditors who use their "expert" opinions to frustrate the other party. Once identified, remember that both good and bad guys are on the same side.

### Change of Player

Team members are sometimes changed to wear down the other side. The opponent is forced to start the process all over with someone unfamiliar by repeating old arguments until mistakes are made and discrepancies exposed. Sometimes, it is necessary to replace individuals because of personality clashes or because they are unable to subordinate a personal agenda to the team objective. This may be a positive gesture such as when a program manager who has butted heads with an IPT member sends a technical representative instead which, in turn, promotes a conciliatory atmosphere.

### Threats

All threats are bluffs unless the negotiator doing the threat is prepared to carry it out. It makes no sense to use it unless you are reasonably sure that the other party believes you will use it. By its very nature, negotiations involve various degrees of threats. The simple possibility of a program manager imposing a decision on the team constitutes a type of threat. Usually, parties use mild and implied threats because direct threats can inflame a problem and invite retaliation. Countermeasures for threats can involve protesting to the highest management, showing that the threat will not affect you or that the person threatening has more to lose than you, or by demonstrating that you are prepared to take the consequences no matter what the price.

### Emotions

Emotions cause people to lose touch with reality. It has been called "a prostrating disease caused by a determination of the heart to the head." When people are emotional, they do not think clearly. The negotiation process can sometimes be a breeding ground for angry, fearful, depressed, frustrated, and hostile people with personal relationships entangling with substantive issues. While program managers can pay a huge price for losing their composure, the very sparing use of a staged outburst can test another person's resolve, question their self-confidence, and force them to reassess their position. Even if the person is genuinely upset, the best countermeasure is to separate the people from the problem, while not directly reacting to their outbursts.

### Opening Offers, Counteroffers, and Concessions

Those with higher aspirations in life often end up with better results, and it is the same in negotiations. Our personal level of aspiration is a yardstick by which we measure ourselves. The more successful we are, the more we aspire. In negotiations, high demands and hard-fought concessions can lower the other side's aspiration level and also give a team more room to negotiate. However, being unreasonable, unrealistic, and unconvincing is also a formula for deadlock.

While it is a common practice to give concessions on minor issues or in areas that are not important to you but are to the other party, demands and concessions are most effective when they are less predictable. Avoid tit-for-tat concessions. This does not mean that one should be arbitrary. Cooperation, not arbitrary behavior, will lead to better program decisions. Demands and concessions are only a product of your bargaining power, which is your ability to influence the behavior of the other party. Program managers may appear to have all the power, but IPTs often have more power than they realize. Successful negotiators know when to ignore an opponent's power and when to use both their real and perceived power to their advantage. This will dictate the appropriate use of demands and concessions within the confines of an IPT.

### Conclusion

Program managers have to deal with a variety of experienced and creative people. It is through negotiations that program managers secure team participation and successfully execute the acquisition process. Limited resources, diverse personalities, complicated issues, and other variables and constraints can make reaching the "right" decision a difficult challenge. While the tactics and strategies discussed in this article may or may not be appropriate in any given situation, thorough planning, logic, and persuasion will always be the program manager's best tools in reaching sound agreements.

## DSMC Home Page Survey

*Program Manager* magazine and the *Acquisition Review Quarterly* journal are now available on the DSMC Home Page. Users can access our website at the following URL:

http://www.dsmc.dsm.mil

Please take a few minutes to let us know what you think by answering the following questions:

1. Were the files easy to access? YES ◯ NO ◯ Explain . . . . . .

2. Are there other home pages that present similar information in a better/different way? YES ◯ NO ◯
   If YES, please list the URLs and indicate why you like or prefer the other home page formats.

3. What else would you like to see DSMC provide via our home page?

4. Please list your suggestions for improvement of the DSMC Home Page.

Thank you for your time. Please return either this survey form or a legible copy, to the following address or fax number:

DEFENSE SYST MGMT COLLEGE
ATTN RCID
9820 BELVOIR ROAD
SUITE G38
FT BELVOIR VA 22060-9989

FAX
Comm: (703) 805-3856
DSN: 655-3856

# DAU Convenes Board of Visitors

On March 4, 1997, the Defense Acquisition University Board of Visitors convened at the Packard Executive Conference Center, Defense Systems Management College (DSMC), Fort Belvoir, Va. As an official Department of Defense Federal Advisory Committee, the Board meets annually or at the call of the Chairman, to advise the Under Secretary of Defense (Acquisition and Technology) and the President, Defense Acquisition University, on "organization management, curricula, methods of instruction, facilities, and other matters of interest," as directed by title 10, U.S.C. 1746. The Defense Acquisition University Board of Visitors serves as the Board of Visitors for DSMC, and is responsive to requests to address specific issues unique to the College.

Standing from left: Dr. Lionel V. Baldwin, President, National Technological University; retired Air Force Lt. Gen. Thomas R. Ferguson, Jr.; James M. Gallagher, Director, The Dayton Group; Charles E. "Pete" Adolph, Senior Vice President, Science Applications International Corporation; Donald Lewis Campbell, President and Chief Executive Officer, Century Technologies, Inc.; Eric M. Levi, Consultant, Raytheon Company; Dr. Gertrude McBride Eaton, Associate Vice Chancellor for Academic Affairs, University of Maryland; Peter DeMayo, Vice President, Contract Policy, Lockheed Martin Corporation.

Seated from left: Dr. James S. McMichael, Director for Acquisition Education, Training, and Career Development, Office of the Deputy Under Secretary of Defense (Acquisition Reform); Thomas M. Crean, President, Defense Acquisition University; Dr. Jacques S. Gansler, Executive Vice President and Director, The Analytical Sciences Corporation and Chairman, Board of Visitors; Donna Richbourg, Acting Deputy Under Secretary of Defense (Acquisition Reform); Army Brig. Gen. Richard A. Black, Commandant, DSMC.

# Department of Defense Acquisition Reform Week, March 17-21, 1997

## Sustaining the Momentum While Moving Full Speed Ahead

DR. JOSEPH FERRARA

The Secretary of Defense declared March 17-21, 1997, as Acquisition Reform Week. The theme of AR Week was "Sustaining the Momentum While Moving Full Speed Ahead." The Department needs to sustain the momentum on all the reform efforts initiated since 1993, while moving forward to tackle new challenges to reinventing government. The Secretary and other Department leaders want to show their continued commitment to acquisition reform.

### Teamwork

One major focus of AR Week was on using *teamwork* as a catalyst to make AR initiatives the norm. As Vice President Gore said in his videotaped AR Week Message to the Department, "Teamwork is at the heart of successful reinvention."

During AR Week, the entire defense acquisition community—DoD acquisition workers, military users, auditors, financial analysts, legal counsel, and the defense industry—joined together in teams, discussed the state of acquisition reform, and focused on how to apply acquisition reform initiatives in their everyday work. Hundreds of thousands of people were involved, everybody from the Secretary of Defense to the GS-9 at Grand Forks Air Force Base who just won an award for streamlining the contracting process. To ensure maximum communication potential, DoD leaders also set up electronic "chat rooms" on the Internet to conduct online discussions with the acquisition community (see p. 40 of this issue, "Kaminski Conducts Acquisition Reform Week Online Chat Sessions").

### Where Are We?

As the Department observed Acquisition Reform Week, several themes emerged:

- The acquisition process is changing from a rules-driven bureaucratic system to an environment that encourages the application of *commonsense* business practices.

**"We have set aside this whole week to pull together government and industry teams throughout our defense acquisition system to look at the way we are doing business now, and to explore how we might improve the way we do business in the future, looking at fundamental approaches to doing this, but doing it with teamwork. Our success in pulling together and operating as a team with open communications and no surprises will in large part be the overall key to our success."**

**— Dr. Paul G. Kaminski**
**Under Secretary of Defense (Acquisition & Technology)**

*Ferrara is the Executive Secretary to the Board and Executive Committee, Civilian Career Development Program. He is a member of the OUSD(A&T) API staff.*

**"We have to commit more time and more resources for training in order to build a very solid cadre of people who know and understand the new systems we're building."**

**— William S. Cohen**
**Secretary of Defense**

- We have the *technology to streamline*, and we must exploit this technology to move reinvention efforts into the 21st Century.
- While streamlining is a key objective, government leaders will still continue to play the important and legitimate role of program oversight.
- The Department is *rightsizing* the acquisition workforce and expanding training and education to ensure a *smarter* workforce.
- Maintaining high levels of readiness in the acquisition system translates into high levels of *readiness* for the warfighter.
- Reform is a *continuous process* of improvement.

## We're At a Critical Juncture

Acquisition Reform is at a critical juncture; two key efforts must be pursued. The first is to sustain the momentum and ensure that ongoing reform initiatives are fully implemented. Since 1993, DoD has made substantial progress in several key areas, including the enactment of landmark acquisition reform legislation and a dramatic reduction in the regulatory burden associated with government acquisition. The second key effort is to move forward to tackle new challenges. These new challenges include:

- Enhancing the stability of defense acquisition programs to reduce schedule slippage and cost growth.
- Applying reform innovations to service contracting; contracting for services consumes almost 50 cents of every defense contract dollar.
- Expanding electronic commerce to prepare the acquisition community for the rapid pace of a global economy in an information age.
- Expanding education and training to ensure that DoD's acquisition professionals stay on the cutting edge of the latest in best business practices.

Our Defense Acquisition Executive summarized the spirit and intent of Acquisition Reform Week with a simple statement:

> "In this world, you're either moving ahead or you're falling behind. We can't stop where we are and rest on our laurels."
>
> — Dr. Paul G. Kaminski
> Under Secretary of Defense
> (Acquisition & Technology)
> March 17, 1997

**"As the Department's representative of the military user, I want to tell you why I believe acquisition reform is so absolutely critical to us—that reason is, quite simply, supporting the men and women in uniform who are doing the tough jobs around the world the Secretary of Defense has tasked them to do."**

**— Gen. Joseph Ralston**
**Vice Chairman, Joint Chiefs of Staff**

Photos by Richard Mattox

# DAVID PACKARD EXCEL AWARD WINNE

## March 17, 1997

Secretary of Defense William S. Cohen announced the presentation of four 1997 David Packard Excellence in Acquisition Awards at the Acquisition Reform Week Kick-Off Ceremony in the Pentagon. The 1997 awards recognize Department of Defense Integrated Product Teams from the Navy, Special Operations Command, Ballistic Missile Defense Organization, and Air Force that have achieved excellence in acquisition through acquisition reform practices.

The award winners were competitively selected from nominations made by the military services and defense agencies. Principal nomination criterion was the demonstrated use of innovative team techniques first advocated by Packard to achieve excellence in defense acquisition.

The award is named in honor of the late David Packard, founder and chairman of the Hewlett-Packard Company, former deputy secretary of defense under President Nixon, and chairman of a blue ribbon defense commission (the "Packard Commission") under President Reagan.

Editor's Note: The Defense Systems Management College Alumni Association (DSMCAA) shares and underwrites the Packard Award in collaboration with the Office of the Secretary of Defense (Acquisition and Technology)

Department of the Air Force Joint Strike fighter Program (JSF) (Program Management Integrated Product Team).

U.S. Special Operations Forces Intelligence Vehicle Program (SOF IV) (Program Management Integrated Product Team).



Photos courtesy OSD Public Affairs

# LENCE IN ACQUISITION
# RS NAMED

U.S. Navy Multifunctional Information Distribution System (MIDS) Program Office (Communications-Computer Systems Integrated Product Team).

U.S. Air Force Construction Flight Working Group formed from elements of the 319th Contracting and 319th Engineer Squadrons, Grand Forks Air Force Base, N.D.

# ACQUISITION RE

## One-day Standdown Focuses on Acquisit

On Wednesday, March 19, DSMC employees discontinued their normal operations, locked the doors, and attended a full day of briefings, discussions, and teamwork exercises in observance of Acquisition Reform Day II. Beginning with a video presentation by Vice President Gore, followed by a message from Under Secretary of Defense for Acquisition and Technology, Dr. Paul G. Kaminski, the College used the day as an opportunity to learn more about some of the issues that DSMC has a primary mission to teach. Pictured are staff, faculty, and several guest speakers from government and industry, which included project managers of some of the most successful systems acquisition programs in the Department of Defense.

DSMC Commandant, Army Brig. Gen. Richard A. Black kicks off the day's activities with an early morning presentation.

Navy Cmdr. James Dullea, PMS 450, Technical Director, NSSN Program.

Wender Cox, Deputy Program Director, C-130J Program, Lockheed Martin Corporation.

Robert Bruce, Director, Atlantic Armaments Cooperation, OUSD(A&T).

Photos by Richard Mattox

C I P A T E S  I N

# FORM WEEK 97

## ion Reform Discussions, Team Exercises

Will Lennon, Deputy Program Manager, New Attack Submarine Program, Electric Boat Division, General Dynamics Corporation.

Navy Capt. David Fitch, Program Manager, Multifunctional Information Distribution System (MIDS).

Ken Taylor, Chief, Contracting Division, Aerospace Control Strike Mission Group.

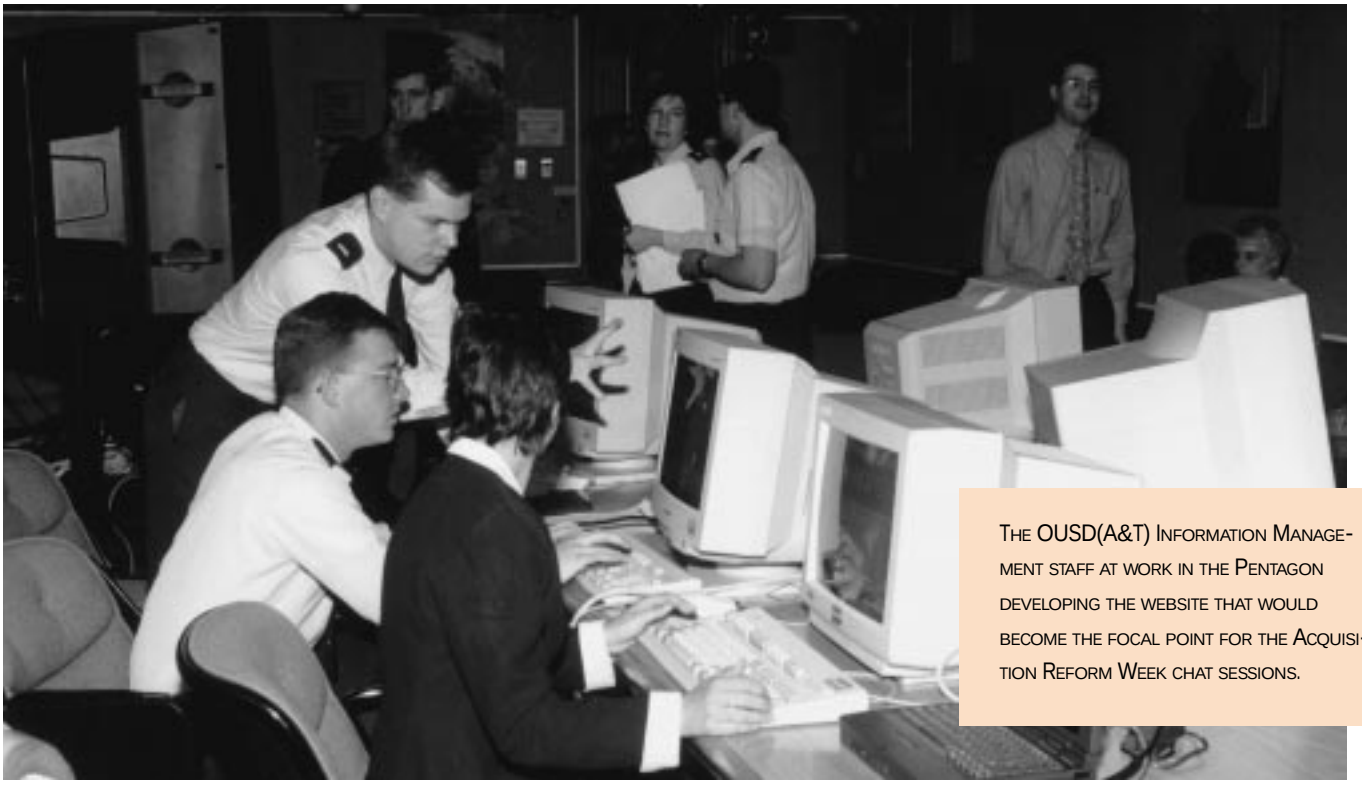
Air Force Lt. Col. Blaine Van Dam, C-130 Systems Manager.

From left: Navy Capt. David Fitch; DSMC professor Dr. Mary-Jo Hall; DSMC Commandant, Army Brig. Gen. Richard A. Black; Robert Bruce, OUSD(A&T); DSMC Industry Chair, George Krikorian.

# Kaminski Conducts Acquisition Reform Week Online Chat Sessions

## A Better Way for Practitioners in the Field to Communicate with Senior Decision Makers

ALAN B. THOMAS



THE OUSD(A&T) INFORMATION MANAGEMENT STAFF AT WORK IN THE PENTAGON DEVELOPING THE WEBSITE THAT WOULD BECOME THE FOCAL POINT FOR THE ACQUISITION REFORM WEEK CHAT SESSIONS.

Acquisition Reform Week posed several challenges for senior leaders of the Office of the Secretary of Defense staff. Foremost among these challenges was how to reach a vast and geographically diverse acquisition workforce without investing large amounts of time and money in travel. Given that the bulk of the acquisition community is able to connect to the Internet, one obvious solution to this problem was to leverage the global communications capability provided by this medium.

*Thomas is a Systems Analyst, Acquisition Systems Management, Office of the Director, Acquisition Program Integration, USD(A&T).*

### Acquisition Reform in Action

The decision to conduct a series of online chat sessions open to all members of the acquisition community was made roughly five weeks prior to the beginning of Acquisition Reform Week. Actual development and testing of the software that made the online chat sessions possible began approximately three weeks prior to the beginning of Acquisition Reform Week. Perhaps what is most notable about the development and implementation of this project is that, prior to the cultural change fostered by acquisition reform, an effort like this would not have been possible. More simply stated, this project was not just *about* acquisition reform, it *was* acquisition reform *in action.*

Without attempting to sound grandiose, the Acquisition Reform Week chat sessions ushered in a new means of communication for the Department. Extending the real-time chat capability will help the Department more fully realize several key acquisition reform goals, including—

- reducing cycle time;
- improving accessibility;

- reducing workload; and
- saving money.

On a somewhat larger scale, real-time communication over the Internet will help flatten organizational hierarchies and allow for more collaboration among members of the acquisition community.

There are three questions that most people ask when they learn that senior Department of Defense officials conducted a series of chat sessions over the Internet for Acquisition Reform Week. First, how were these sessions made possible? Second, how did the sessions actually go? And finally, are there going to be more online sessions in the future?

## What Made the Sessions Possible—Technology and Attitude

In order to conduct a chat session over the Internet, we needed to purchase a commercial-off-the-shelf software package that could be rapidly installed and tested. Once tasked, the Information Management staff within the Office of the Under Secretary of Defense (Acquisition and Technology), set out to find such a solution. After examining several alternatives, including a free solution that used the Java programming language, the decision was made to purchase a solution from *iChat*™—a small, high-technology start-up firm in Austin, Texas, which also happens to be on the cutting edge of Internet-based chat software. With the chat software in hand, the OUSD(A&T) Information Management staff began to develop the website that would become the focal point for the Acquisition Reform Week chat sessions.

In addition to commercially developed, cutting-edge technology, attitude was also an important ingredient in making the Acquisition Reform Week chat sessions happen. Senior leaders within OUSD(A&T) "walked the walk" with respect to trust, empowerment, and risktaking. As evidence of this, a GS-12 and two Air Force first lieutenants were given primary responsibility for the development and implementation of the project. Senior managers within OUSD(A&T) provided clear direction and guidance to keep the project on track and mitigate risk as much as possible.

## How the Sessions Went—Real Time Dialogue with the Field

A total of 12 senior DoD leaders participated in the chat sessions. Most notable among the participants was the USD(A&T), Dr. Paul Kaminski. As an example of the appetite that members of the acquisition community have for this type of communication, the number of people attempting to participate in Dr. Kaminski's chat session was overwhelming. At *any one time* that Dr. Kaminski was "on the air," anywhere between 500 and 800 people were attempting to connect and dialogue with the Under Secretary. This is clear evidence that practitioners in the field are extremely interested in communicating with senior decision makers.

The chat sessions were a primary vehicle for broadening the reach of Acquisition Reform Week. In addition to senior members of the USD(A&T) staff, senior members from the financial management, requirements generation, operational test and evaluation, and legislative affairs communities hosted chat sessions during the week. What these 12 chat sessions amounted to was an opportunity for unprecedented direct access to the policy makers who are helping shape the Department's acquisition reform initiatives.

Each chat session lasted for one hour and centered around a specific subject area. For example, John Phillips, the Deputy Under Secretary of Defense (Logistics) hosted a session on Reengineering Logistics Business Practices. While the topics helped to focus the discussion during each chat session, members of the acquisition community were encouraged to ask about whatever was on their mind. Again, using Phillips' chat session as an example, he was queried about everything from privatization of depots to the condition of military housing.

In planning for the chat sessions, the OUSD(A&T) staff originally envisioned two virtual rooms. One room would be moderated (meaning that the questions would be screened) and thus used exclusively for formal question and answer. A second virtual room would be a place where participants could chat freely. After the initial chat session on March 17, hosted by Eleanor Spector, Director, Defense Procurement, members of the acquisition community quickly expressed a desire to *directly* interact with the host senior leader. As a result, the remaining chat sessions were held with no buffer between host and participant. The dialogue sometimes became a little tricky to follow, but both the hosts and the participants relished the opportunity to engage each other directly.

A complete transcript of each chat session is available on the OUSD(A&T) Website:

**http://www.acq.osd.mil/interact**

## More Online Sessions—The Future

Positive response from both members of the acquisition community in the field and senior leaders within OUSD(A&T) will likely lead to more online chat sessions and an expansion of this capability. Using the Internet to link senior leaders with a vast and geographically diverse workforce fosters all three of the ways we communicate in the Department-top-down, bottom-up, and horizontally (peer to peer).

Members of the OUSD(A&T) staff are in the process of drafting a white paper on the strategic use of communications technology. This plan aims to build on the success of the Acquisition Reform Week chat sessions and to move toward multimedia solutions for communicating both intra-departmentally and extra-departmentally.

# Worldwide News Media "Chat" with Kaminski During Online Press Conference

## OUSD(A&T)'s New *InterACQt* Website Drawing Increasing User Interest

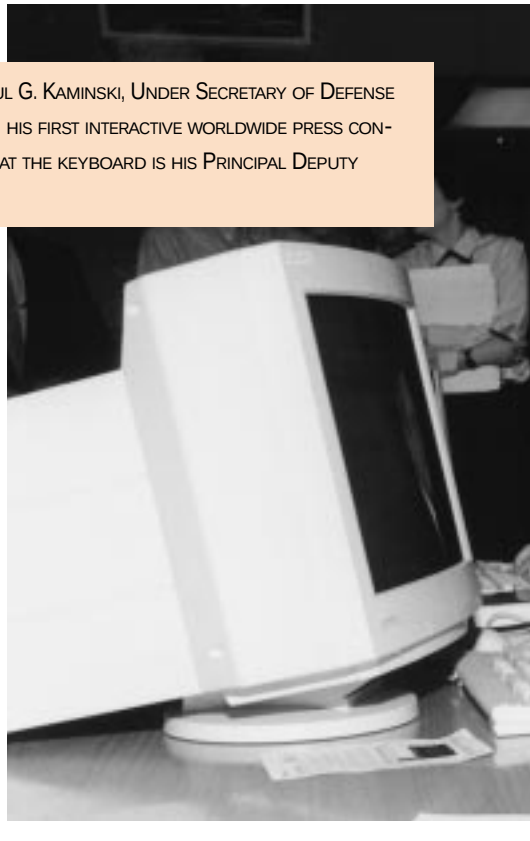
COLLIE J. JOHNSON

On April 24, following the success of his Acquisition Reform Week "Chat" sessions, Dr. Paul G. Kaminski, Under Secretary of Defense (Acquisition and Technology), again logged on the Internet for a worldwide online press conference with members of the news media. Not only did the media get to ask questions, but through use of an innovative, interactive software called *iChat*™, the whole world could listen in.

This was a unique opportunity for Kaminski to share his summary perspectives on defense acquisition and technology issues as he prepared to leave office. It was also a chance to promote his new *InterACQt* Website, located on the *ACQWeb* Home Page, and allow the worldwide media an opportunity to use Internet technology to electronically question him on a wide range of topics.

Prior to the online press conference, OSD Public Affairs extended invitations to journalists from various domestic and foreign media organizations. However, the only *active* participants were those reporters who registered ahead of time. All other interested media, government, military, and private users were able to *passively* view the session, but could not ask questions. The moderator of the session was Al Thomas, Office of the Director, Acquisition Program Integration. (Thomas will also moderate future *InterACQt* major events.) As moderator, he reviewed the questions first as they appeared on the screen, and then released each one to both Kaminski and the wider viewing audience.

*Program Manager* is pleased to present Kaminski's first and last online press conference with the worldwide news media while serving as Under Secretary of Defense (Acquisition and Technology).



FOREFRONT: OBVIOUSLY ENJOYING HIMSELF, DR. PAUL G. KAMINSKI, UNDER SECRETARY OF DEFENSE (ACQUISITION AND TECHNOLOGY) GOES ONLINE WITH HIS FIRST INTERACTIVE WORLDWIDE PRESS CONFERENCE AT THE PENTAGON, APRIL 24. JOINING HIM AT THE KEYBOARD IS HIS PRINCIPAL DEPUTY UNDER SECRETARY, R. NOEL LONGUEMARE.

Photo by Ed Boyd

**Q**

***Government Executive:*** *Program instability is one of the greatest challenges facing acquisition reformers. Even if DoD could implement a plan of fiscal guidance restraint and budget for contingencies and risk in programs, the funding process remains inherently political. To what extent do you really believe program stability can be achieved?*

**A**

First of all I agree with the premise of the question that part of the funding process remains inherently political. But there also is another part of the process that is not fundamentally political. We can work to improve that piece of the process. Some means to do that are to provide prudent reserves in individual programs, as well as reserves to deal with the kinds of patterns of external forcing events (for example contingencies) that we have seen in the past.

Our experience shows that for every dollar we have to take out of a pro-

*Johnson is Managing Editor,* Program Manager *magazine, Visual Arts and Press Department, Division of College Administration and Services, DSMC.*

gram for reasons of instability, we end up putting $3 back in. So the bottom line is, we are wasting money if we don't do our best to buffer those pieces of instability that are within our power to do so.

**Q**

***Straits Times Singapore:*** *Can you update us on the floating maritime projects in Northeast Asia?*

**A**

I cannot give you a complete update in that this is a project being carried out by the Japanese Government. We are interacting and observing as they explore alternatives to meet our requirements, but the fundamental decisions taken will be those of the Japanese Government.

**Q**

***Baltimore Sun:*** *We read so much about innovative steps being taken to cut costs and increase cooperation between the Pentagon and contractors on various programs, and yet costs continue to rise and every defense dollar continues to buy less hardware. The F-22 is a good example of this. With all the new reforms, why aren't taxpayers getting more for their money?*

**A**

I believe that the taxpayers are getting more for their dollar. The F-22 will be a more expensive aircraft than the F15-C, which it will replace. The F-22 will be a considerably more capable aircraft, which is worth the added cost.

We have taken numerous steps to streamline that program and have launched a whole number of initiatives to further reduce the cost of production. There has been discussion of difference in estimates for the cost to go in the program. There is not any fundamental difference in the cost for R&D or the initial production lots. The issues revolve around the long-term production costs.

And the Air Force has launched a very aggressive program to attack those costs, and the industry team has signed up to that program. The intent here is to make up-front investments to reduce the long-term production costs. We may not be successful with every one of those initiatives, but our intent goes to the heart of your question, which is to create incentives and push hard to produce the best value for the taxpayer.

**Q**

***Government Executive:*** *As a follow-up to [our previous question], are you concerned about the viability of pursuing three tactical fighter programs at this time, given current budget constraints and recent concerns about the cost of these programs, particularly the F-22?*

**A**

Yes we are concerned. We are having a careful look at this in the QDR. A key issue here has to do with the phasing of these programs. We are not in fact pursuing these programs in lockstep on the same schedule.

The F-18EF has been flying for some time now, and we are beginning low-rate production. The F-22 will be having its first flight this fall. The JSF program is in a very early stage of technical demonstration. [MODERATOR CORRECTION: The F-22 will have its first flight in May 1997.]

We will take the next three years to demonstrate and validate the concept before we commit to a development program. We are working carefully in the JSF program to look at the requirements of our Air Force, Navy, and Marine Corps, and we are also working with our allies in an attempt to satisfy all of these requirements with one program that produces three designs, using common production facilities and common components.

If we can make this work, it will create a new paradigm for future affordable, tactical aircraft.

**Q**

***Straits Times Singapore:*** *Dr. Kaminski, can you comment on the status and impact of Unmanned Aerial Vehicles in the U.S. military?*

**A**

First let me comment on the impact which I believe is already considerable,

and I expect it to grow even more in the future. We have found our Predator Vehicle to be invaluable in Bosnia. We have been using the Hunter UAV in our Force XXI experiments. We are learning more every day about the leverage these systems can provide to our Forces. The Marine Corps has also been using the Pioneer Vehicle in its warfighting experiments. The more we use these vehicles the more we are coming to appreciate their value.

Now with respect to the status...We are now putting the Predator vehicle into Rate Production. We have a family of endurance vehicles still in development. We rolled out the first Global Hawk Vehicle last month, and we expect First Flight late this fall. This is a vehicle with a whole new range of capabilities. For example, the ability to fly 3,000 miles, loiter at the target for 24 hours or more, and then return to base.

We have another endurance vehicle called Dark Star, which performs a similar mission but has enhanced survivability. The Dark Star has had its first flight. It experienced a control problem resulting in a crash on its second flight. We have recently reviewed the redesign to deal with the problems experienced, and Dark Star also is on track to begin flying again this fall.

**Q**

***Government Executive:*** *Please update us on the status of the dual use application program. What are the early indications, and how much support will DoD give the program in the future?*

**A**

Our dual use program has two elements: a science and technology component and a component to use comercial technology to reduce operation and support costs (this is the COSSI program). We have sent out solicitations for both components, and have an excellent set of proposals back. We are now reviewing the COSSI proposals.

We have run into a problem with the COSSI effort, which is loss of the funding in the recent House Markup. We believe this program has so much promise that we are working aggressively with the Congress to restore that funding in Conference.

We continue to believe that this COSSI program is plowing important new ground in taking off-the-shelf, commercially developed subsystems and components to reduce our operations and support costs.

**Q**

***Aerospace Daily:*** *Can Dr. Kaminski tell us what he thinks of the THAAD review team recommendations. Will there still be consideration of bringing a second source into the program to get the missile on track?*

**A**

I received the independent review team briefing on April 18th. I agree with the conclusions of the review team. I am still examining all of the recommendations and more importantly, what we should do to follow up on each of the recommendations.

I have not made a final determination on specific follow-ups. I am expecting to review recommendations within the next week. At this point I believe we will have to undertake a significant restructuring of the THAAD program. I do not believe we should test again until we have satisfied ourselves with respect to the quality and qualification issues raised by the independent review team.

My estimate today is that this will take at least six months. I will be examining a range of options to include an assessment of options for greater commonality between the THAAD and the Navy Theaterwide Kill Vehicle.

**Q**

***Government Executive:*** *Many experts believe the future defense industrial base will be dominated by just a few mega-companies, and in many cases, will dwindle in certain product areas to just two or perhaps even one manufacturer. What are your concerns about such a highly concentrated industrial base in terms of competition, technological innovation, and surge capability?*

**A**

I have a strong interest in an industrial base which provides for competition, technological innovation, and some degree of surge capability. It is important to note that competition occurs and should occur at many levels. There may be instances where best value for our Forces and the taxpayer is obtained by having a single prime. In those situations I will insist on vigorous competition in the supporting subcontractor tiers.

I would generally prefer situations where we have competition at the prime contractor level as well. And my policy will be to preserve that top level competition, so long as the economics are sensible.

I expect to keep in place competition in the supporting tiers, and I have asked the Defense Science Board to carefully investigate the attendant issues by conducting a study on vertical integration. I expect that report to be released shortly, and I will plan a follow-up press conference to describe the policies we will be putting in place to deal with vertical integration.

**Q**

***Straits Times Singapore:*** *You mentioned enhancing international cooperation in your opening statement. Will this be extended to China as well?*

**A**

Our policy is one of engaging with China. As part of this policy, we will consider cooperation as it makes sense.

**Q**

***Straits Times Singapore:*** *This is a follow-up question on THAAD. Can you elaborate on some of the recommendations you mentioned?*

**A**

The first thing I've asked for is a set of program restructuring options to deal

with the recommendations provided by the Independent Review Team. One of the options I have explicitly requested would involve exploring a higher degree of commonality between the Kill Vehicles for THAAD and the Navy Theaterwide. My mind is still open as to whether or not this makes sense, but as one of the options I wish to consider as we restructure the program.

I should emphasize that the issues we are examining here relate to the missile and the Kill Vehicle, not the radar or the supporting command and control. We have been happy with the THAAD ground-based radar thus far.

**Q**

***German Journalist:*** *To what extent will this top-level competition among prime contractors be open to foreign suppliers, beyond programs that are already in progress such as MEADS?*

**A**

I believe the way ahead for cooperative programs is to start at the beginning and rationalize our requirements with our partners. The next step involves forming Transatlantic teams. Those Transatlantic teams will serve as primes to provide for competition and innovation in creating designs to address those requirements. This allows us to share the development costs and to bring to bear our best and brightest industrial talent internationally.

**Q**

***Straits Times Singapore:*** *It is interesting that you mentioned defence cooperation with China. This obviously means transfer of technology. Would this be acceptable to the American people and the U.S. defence industry?*

**A**

I disagree with the premise of this question. I do not believe that defense cooperation necessarily means transfer of technology.

**Q**

***Straits Times Singapore:*** *Still on defence cooperation with China. If not transfer of technology, then what areas of cooperation?*

**A**

There are many potential areas of cooperation that do not involve transfer of technology. For example, we can exercise our Forces together to understand issues of joint deployment in peacekeeping and stabilizing operations, to work out in advance issues of interoperability and communications. We can share and develop in common standards for the interoperability of our key systems, especially communications systems.

**Q**

***Government Executive:*** *What can you tell us about QDR results to date? Are you satisfied with the process thus far? What areas have been most difficult to address?*

**A**

We are now in the difficult decision making phase of the QDR. I am very satisfied with the process thus far. Everything is on the table. I have been participating daily in meetings in which the SECDEF is personally and substantially engaged in these issues.

There have been many difficult areas to address—Tactical Air certainly is one of those. Perhaps the broadest issues involve the tradeoffs among force structure, modernization, and sustainment of our Forces in pursuit of the strategy that we have developed in the QDR.

## Dr. Kaminski's Closing Statement

I want to thank you all for joining this session. I believe the DoD, along with our industry team, has made enormous progress in acquisition reform. I believe we are truly proceeding to do things *better, faster,* and *cheaper*. But we are not yet done. In fact we never will be done because in this world you are either moving ahead or falling behind. We expect to keep moving ahead.

The next challenge that lies ahead is fully institutionalizing these acquisition reforms and applying them not only to developing new equipment, but also to supporting all of the equipment currently in the field. I believe there is as much payoff yet to be gained in applying these reforms to logistics support as we have already obtained in their application to new equipment.

*Thank-you.*

## About *iChat*™

When Dr. Kaminski and other users access the OUSD(A&T) *InterACQt* Website, they'll be using a plug-in for Netscape called *iChat*™. The OUSD(A&T) Information Management Group, led by David Lloyd, Chief, Applications Development, selected *iChat*™ as the application best suited to provide Kaminski and his staff a means to communicate in real-time with other online users, both within and without the U.S. Department of Defense.

*iChat*™ is an interactive application that lets users choose emotions to convey feelings, exchange images and files, or talk privately in special rooms. Basically, it makes your computer act like it's having a telephone conversation with one or more other people. The difference is you're not talking–you're all typing. You also have the ability to chat online and surf the World Wide Web (for resources to use in your chat session) without having to exit *iChat*™.

The OUSD(A&T) ACQWeb Home Page (http://www.acq.osd.mil) is the host site for *InterACQt* (http://-www.acq.osd.mil/interact). You'll need to configure your browser software, or arrange another means of connecting. Much more information is available in *InterACQt's* "Get Connected" link.

Remember that some events like the April 24th Worldwide Online Press Conference require prior registration. Be sure to check the "Schedule of Events" link. Finally, read the "Rules of Engagement" link and observe good "netiquette."

# DSMC's First Commandant Immortalized in Bronze

## Staff, Faculty, Friends, and Family Gather to Honor Army Brig. Gen. Winfield Scott III

KATHRYN E. SONDHEIMER

On April 8, the Defense Systems Management College, once again honored its first Commandant, the late Army Brig. Gen. Winfield S. Scott III, during a ceremonial unveiling of a bronze bust cast in his likeness. At the dedication ceremony, held in the lobby of Scott Hall, Army Brig. Gen. Richard A. Black, DSMC Commandant, welcomed Scott's family including his wife, Mrs. Ruth Scott; their son, Army Brig. Gen. Bruce Scott; and several family members.

During the dedication, Black praised the talented artist, Greg Caruth, Director of DSMC's Visual Arts and Press Department, who created the sculpture to honor Scott. He mentioned that Caruth, using numerous photographs provided by Mrs. Scott, devoted over 40 hours of work at home to sculpture the life-sized bust from roughly 90 pounds of oil-based clay. After receiving approval of the completed artwork from Mrs. Scott, Caruth took the bust to Equestrian Forge in Leesburg, Virginia, where the mold and the bronze casting were created.

Black reflected on Scott's work ethic and the magnificent job he had done founding the College; recruiting the faculty and staff; and bringing the illusion of a school, devoted to training program managers about acquisition management, to the successful reality that is now DSMC. He also spoke of those founding years (1971-74) as related to him by Caruth, who served under Scott as an Air Force junior enlisted person and as part of the original staff. Caruth remembered how Scott and the senior staff were hard-working, especially thoughtful toward

*Sondheimer is a Visual Information Specialist, Visual Arts and Press Department, Division of College Administration and Services, DSMC.*

Photos by Richard Mattox

the small staff, and willing to share such tasks as moving furniture and cleaning flooded basements.

In conclusion, Black told the audience, focusing particularly on the Scott grandchildren, how Scott was a hero and a role model as the founding Commandant who fulfilled a vision, just as Caruth was a hero and role model as an artist for creating such a splendid likeness from a lump of clay.

After the dedication, Black thanked the Scotts for attending and offered Army Brig. Gen. Bruce Scott an opportunity to speak. Visibly moved by the occasion, Scott stated that he was proud of his father's accomplishments and said that the placement of the bronze bust in Scott Hall truly reflected his father's fond thoughts of the College.

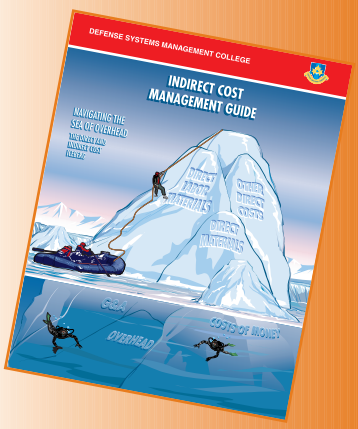
Pictured from left are Army Brig. Gen. Richard A. Black, DSMC Commandant, Greg Caruth, Artist and Director, DSMC Visual Arts and Press Department, Mrs. Ruth Scott, widow of the late Army Brig. Gen. Winfield Scott III, DSMC's First Commandant, and Army Brig. Gen. Bruce Scott, son of the late Gen. Scott.

After Scott spoke, the family members were presented DSMC 25th Anniversary memorabilia and publications, including *A History of The Defense Systems Management College, Center of Excellence in Acquisition Management Education and Research* by David D. Acker, and *From Packard To Perry, A Quarter Century of Service to the Defense Acquisition Community* by Wilbur D. Jones, Jr.

Members of the Scott family traveled from across the country to honor Army Brig. Gen. Winfield Scott III, DSMC's first commandant and their husband, father, and grandfather.

## New Guidebooks Available!

The *Indirect Cost Management Guidebook* is available 1 July 1997 from the DSMC Distribution Center by faxing a request on official agency letterhead to Jeff Turner, (703) 805-3726, DSN 655-3726.



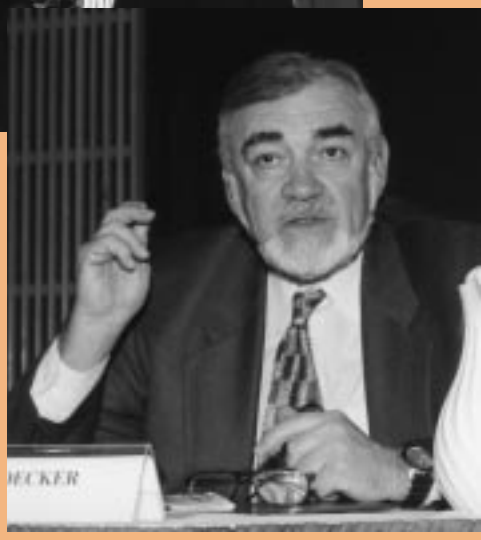

A limited quantity of the guidebook, *Program Manager's Tool Kit*, used in the Advanced Program Management Course, is now available from the DSMC Press by faxing a request on official agency letterhead to Carrie Simpson, (703) 805-2917, DSN 655-2917.

# SERVICE ACQUISI
# CONVENE PA

## Acquisition Reform Initiatives Topic for

On behalf of the Advanced Program Management Course (APMC 97-1), and as part of its ongoing Distinguished Guest Lecturer series for the APMC, DSMC invited the three Service Acquisition Executives to its main Fort Belvoir, Va., campus on April 3, 1997. Attending were Gil Decker, Assistant Secretary of the Army (Research, Development, and Acquisition); John Douglass, Assistant Secretary of the Navy (Research, Development, and Acquisition) and first DSMC alumnus to become an SAE; and Art Money, Assistant Secretary of the Air Force (Acquisition).

This was Decker's last opportunity to talk to the APMC class before he leaves office. Sponsored by DSMC's Industry Chair, George Krikorian, Decker was awarded the title "Honorary Professor" during the morning session. Army Brig. Gen. Richard A. Black, DSMC Commandant, also presented him an enlarged cover of the March/April 1997 *Program Manager* magazine, which featured an interview with Decker.



▲ John Douglass, Navy SAE.

◄ Art Money, Air Force SAE.

► Gil Decker, Army SAE.

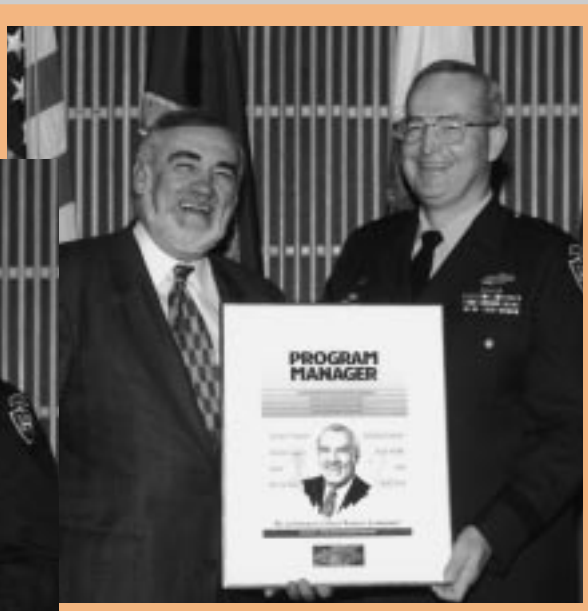
Photos by Richard Mattox

# TION EXECUTIVES
# NEL AT DSMC

## APMC 97-1 SAE Panel

SAE Panel pictured from left: Gil Decker, Army SAE; John Douglass, Navy SAE; Art Money, Air Force SAE; Army Brig. Gen. Richard A. Black, DSMC Commandant.

From left: Gil Decker, Army SAE and DSMC's newest "Honorary Professor" pictured with DSMC Commandant, Army Brig. Gen. Richard A. Black.




From left: Gil Decker, Army SAE, receives an enlarged cover of the March/April 1997 *Program Manager* magazine, from DSMC's Commandant, Army Brig. Gen. Richard A. Black.

Pictured from left: Tony Kausal, DSMC Air Force Chair; John Douglass, Navy SAE; and DSMC Commandant, Army Brig. Gen. Richard A. Black.

# Creating Effective Government/ Contractor Teaming

## Teaming Can Be Extremely Rewarding, But First Let's Temper the Cheers by Recounting the Cost

LUANN COLE • KEVIN MILLER • STEVE ROEMERMAN

*There is an old story of a wealthy American socialite, Mrs. Frances Whitworth Smith, who decided to sit for the most famous Parisian portrait artist of her day, with the result being a fiftieth anniversary gift to her husband. The artist, Jean-Paul Valjean, steadfastly insisted on adherence to his primary rule ...no patron was to view the commissioned portrait until it was complete.*

*The commission was agreed upon, and the days melted into weeks as the master toiled. Finally, the greatly anticipated day arrived, on the eve of the Smiths' fiftieth anniversary, and the artist and his patron stood before the draped portrait. With a flourish, Jean-Paul threw back the drape.*

*Mrs. Smith gasped, her mouth agape, and a crimson blush crept slowly from the base of her neck to the top of her forehead. "Jean-Paul, this portrait does not do me justice!"*

*Jean-Paul Valjean pointedly looked from the lined fact of Mrs. Smith to the representation on the canvas...once...twice... three times. "Indeed, Madame," he said, "one must choose between mercy and justice!"*

Relationships between customers and their contractors can be complex and challenging. The expectations of each can easily be at odds with one another. The goal is, of course, that both parties can reflect upon the finished product with a sense of satisfaction and accomplishment. And "teaming" can be a very effective process to accomplish just that.

Teaming is an approach now well-tried on a number of programs, and the use of teaming can have a significant impact. This article looks at the Joint Standoff Weapon (JSOW) program, currently being led by Navy Capt. Bert Johnston. JSOW is a joint U.S. Navy/U.S. Air Force missile program. Its teams include representatives from both Services, the prime contractor, and key suppliers. What follows is a glimpse of the conditions and factors creating a fruitful government/contractor team, written from the prime contractor's perspective.

An article in *Aviation Week & Space Technology* discussing JSOW teaming commented:

- "Aggressive application of streamlined acquisition practices and an early commitment to teaming are credited with the success of [JSOW] to date."[1]
- According to Navy Capt. J.V. Chenevey, program manager for Conventional Strike Weapons at the Naval Air Systems Command, "...right now, I can't imagine how [teaming] could work much better. It was just a maturation process of the contractor trusting its government counterparts, and the government [people] putting themselves into the team—as opposed to just sitting back and critiquing the contractors..."[2]
- "Texas Instruments, as prime contractor, also brought key suppliers into the program to ensure 'ownership and buy-in' from the outset. Suppliers involved in design processes and cycle-time-reduction efforts include Kearfott Guidance and Navigation (inertial measurement unit); Lucas Aerospace (control actuator system); Aerojet (payload ordnance); Olin Aerospace (dispenser); Eagle Picher (batteries), and HR Textron (wing deployment driver)."[3]

A closer look at certain underlying dynamics creating the successful teaming experience on JSOW follows.

### But Just What is "Teaming"?

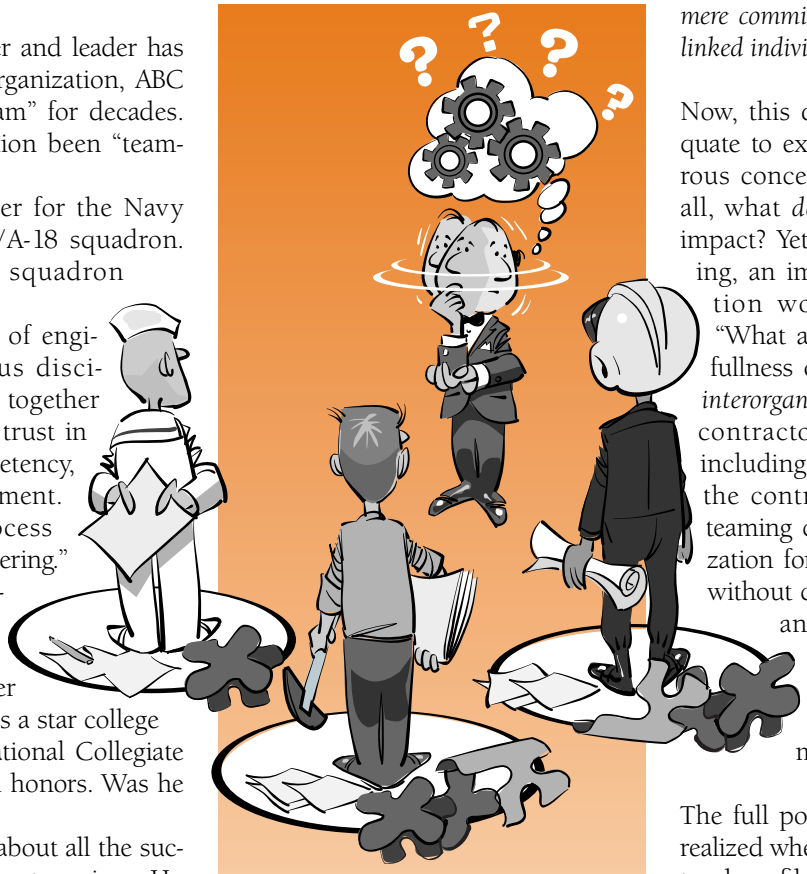
Shallow as it may appear, a discussion of teaming must begin with a definition. For every 10 "practitioners" of teaming, there apparently are *at least 10* definitions! Different organizational cultures (e.g., contractors, Service

*Cole is an Organizational Effectiveness Consultant in the High Performing Organizations Development Organization for the Systems Group at Texas Instruments Incorporated (TI).*
*Miller is Dean of the School of Business and Director of the Colorado Christian University (CCU) Institute for Professional Development. He is the founder and president of Whitestone Miller, Inc., an organizational consulting firm.*
*Roemerman is Vice President and Strategy Manager for the Systems Group at TI. His former position with TI included leading and overseeing interdiction weapons programs, including the Joint Standoff Weapon (JSOW).*

branch), varying experiences of the key participants (e.g., military service, a championship sports team, being consistently picked last for playground teams in elementary school), the desired goals for the organization, the personal motives of any particular participant, and other such factors impact intellectual and emotional understandings of teaming. Also, since the word "team" has had frequent but varied usage, it is difficult to dislodge those uniquely individual conceptions from the minds of team participants or leaders. Consider the following...

- A corporate founder and leader has called her entire organization, ABC Corporation, a "team" for decades. Has ABC Corporation been "teaming"?
- A program manager for the Navy commanded an F/A-18 squadron. Was the ongoing squadron activity "teaming"?
- A seasoned group of engineers from various disciplines has worked together for years, building trust in each other's competency, integrity, and judgment. They call this process "concurrent engineering." Have these engineers been "teaming"?
- A program manager for the Air Force was a star college athlete, earning National Collegiate Athletic Association honors. Was he part of "teaming"?
- An executive reads about all the success derived from teaming. He promptly renames all working committees and work groups within his corporation "teams" and, since they were already functioning well in his opinion, he simply exhorts them to become even better. Is this "teaming"?
- Considered by many to be an excellent primer on popular concepts of teaming, the book *The Wisdom of Teams* says "[a team is] a small number of people with complementary skills who *are equally committed to a common purpose, goals, and working approach for which they hold themselves mutually accountable*" (emphasis the authors').[4] Is that "teaming"?

In the eyes of the beholder, none, any one, or all of these may be "teaming." Even more curiously, two individuals in a particular organization, having experienced firsthand the same set of events in that organization, may disagree as to whether such events comprised "teaming." This is reminiscent of the parable of the five blind men and the elephant where each man felt a different portion of the elephant and reported back, in turn, that an elephant was like a broom, a tree trunk, a wall, a vacuum hose, and a spear.



**RELATIONSHIPS BETWEEN CUSTOMERS AND THEIR CONTRACTORS CAN BE COMPLEX AND CHALLENGING. THE EXPECTATIONS OF EACH CAN EASILY BE AT ODDS WITH ONE ANOTHER.**

With these caveats, the following definition is offered from the contractor's perspective for JSOW: *"...A team is a group of individuals with shared responsibility/accountability (ownership) for accomplishing a whole segment of work. These individuals as a team have the responsibility/capability for planning, controlling, coordinating, and improving their work segment significantly beyond mere committees, concurrent tasking, or linked individual efforts."*

Now, this definition is surely inadequate to explain a pervasive, omnivorous concept such as teaming. After all, what *doesn't* teaming ultimately impact? Yet, in government contracting, an immediate call for clarification would seem appropriate: "What about the potential for the fullness of teaming in this context, *interorganizational* teaming between contractor and customer, that is, including the customer directly on the contractor's teams? Certainly, teaming can exist within an organization for the sake of the customer without consulting the customer on an intimate, ongoing basis. But the unique circumstance of certain defense contracts could well beg more."

The full potential of teaming may be realized when the *customer* has the cultural profile, opportunity, and wherewithal to become integrally involved in the process. If so, then the "group of individuals" previously referred to would be inclusive of *both* contractor personnel and government personnel.

Now, note that under this working definition (and, really, universally), teaming is not a panacea and therefore not appropriate for all organizations and circumstances. The costs and obstacles are *both* high in a full manifestation of teaming; therefore, there must be an expected payback in benefits.

For example, why "team" when a committee will do? Or, the short-term, relatively simple engineering project, say, may well require only a concurrent tasking of engineers from different disciplines. Yet, while the faddish, very broad "application" of teaming—mindlessly encompassing every organization and every circumstance—will inevitably fade, some long-term applicability of teaming, sometimes with astounding results, seems assured.

Therefore, successful teaming entails—

- an individualized response;
- relating to an appropriate organizational dynamic;
- covering a particular period of time; and
- customized or tailored to the needs of the time and circumstance.

Beware: These observations are specific to the JSOW program at this particular point in time. At the same time, however, it may well be appropriate that certain of these elements may be more universally applied. In short, the JSOW experience may well be useful, but it is by no means definitive to all circumstances.

## Conditions Fermenting Teaming

JSOW's ambitious pursuit of teaming gelled at a watershed time for the industry at large. The end of the Cold War—and the implications for the industry—were clear during the infancy of JSOW. Change was afoot! Smaller budgets and adjusted priorities were the order of the day, at least on a macro basis, and those changes would certainly filter on down to individual contracts and contractors.

The late Ken Hinman, then head of the Air Warfare Office in the Office of the Secretary of Defense, was an early advocate of the principles now embodied in the Perry initiatives. Hinman directed that paperwork authorizing JSOW include requirements for both government and contractor to offer evidence the program was being run with "TQM principles." And, there was a growing sense that the customer wanted to be something more than just a "checker."

During this time, the Department of Defense management emphasis was challenging the industry to find new methods. Defense Systems Management College, DoD 5000, and other influences were all shifting the emphasis from engineering design, "full-scale development," to integrated objectives of design *and* manufacture, "engineering and manufacturing development." Teaming, specifically integrated product teams (IPT), seemed to be...and ultimately became in the case of JSOW...a way to bring more voices to the table in response to this challenge.

While these views were being germinated on the customer side, several suppliers for Texas Instruments (TI) noted that TI was an applicant for the Malcolm Baldridge award (TI had not yet won the award at that point), and challenged TI to put shoe leather on the verbiage TI was using about supplier involvement. As this was done, personnel at both TI and its suppliers got an appetite for a forum to collaborate. This was not only effected on the front-end with key suppliers such as Lucas Aerospace and Olin Aerospace, but also worked to sustain notable efficiencies throughout the early years of JSOW.

TI had experienced success, notable success, in the practice of teaming in regard to factory operations, specifically in its Sherman, Texas, and Denison, Texas, facilities. Hank Hayes, then leading TI's Systems Group, became convinced, and directed that teaming should be vigorously implemented in key knowledge-based efforts of the Systems Group.

Retired Navy Capt. Bob Ramsay, was selected to lead PMA-201, the Navy's program office for air-to-surface conventional weapons. This organization included JSOW, and he had his own ideas about teaming. Other programs were having some success with teams, at least in the production phase. But Ramsay brought to the table an unexpected level of passion for teaming and an ardent belief in the necessity for fundamental reform in processes. Early on, he effected this passion with collaborative techniques. For example, he would schedule several meetings at once, in order to force members of the JSOW community to select which one they attended, with the government and contractor representatives then reporting to their peers (not management) regarding the results of such meetings.

Past program experience for the Navy and TI also played a role in the thinking of both. In one particular case, a contract had degraded into a polarized blame game. The subsequent change from "fixed price" to "cost plus" led the Navy to believe that it was indeed possible to be involved in a collaborative approach while fully protecting and maintaining the interests of the government, and without undue contractual complications.

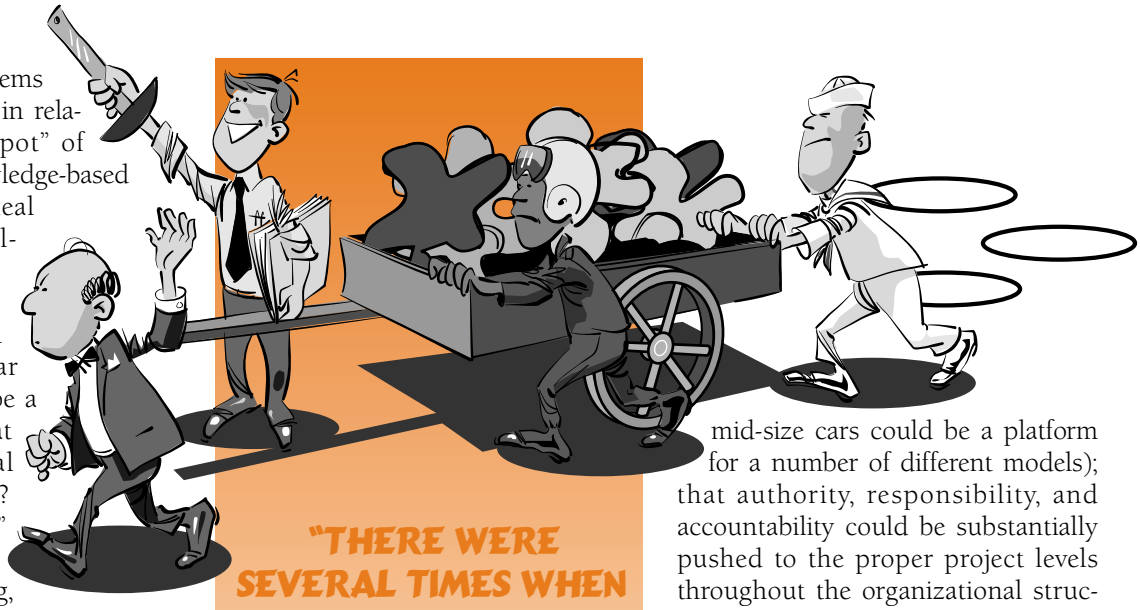
And, neither NAVAIR (Naval Air Systems Command), NAWC (Naval Air Warfare Center—China Lake), nor TI had done a brand new air-to-ground weapon—indeed, one critical to the future of naval aviation—for several years. None of the parties had a complete set of truly experienced staff in that arena...and, in the view of all, a collaborative effort was in order to improve the odds of success.

## Making It Happen...How?

TI management on JSOW needed to respond to this milieu of conditions, and several troublesome questions, among many, presented themselves. A representative group of such questions...

- How does one convert factory success in teaming to knowledge-based efforts, clearly a more difficult endeavor, and one not really overtly attempted by TI before?
- Have others in other industries successfully implemented teaming in very complex, knowledge-based processes, *and jointly with their customers*?

- Where does TI Systems Group truly stand in relation to a "sweet spot" of teaming in its knowledge-based endeavors, that ideal organizational balance between a project approach and a functional approach? How far away? Would this be a radical change that the organizational culture would reject?
- Will the "normal" organizational resistance doom teaming, for government and contractor alike? Should vehement resistance be expected? Or would this be akin to poking the slumbering Leviathan with a toothpick?
- What is the framework, the understanding, of teaming that uniformed military personnel tend to bring to the table?
- How would teaming work *beyond* the contractor's organization, into *interorganizational* teaming, with the Navy and Air Force, no less?



**"THERE WERE SEVERAL TIMES WHEN ALL BUT ONE OF US (GOVERNMENT AND CONTRACT MANAGERS) WANTED TO STOP. AND THE ONLY REASON WE DIDN'T WAS BECAUSE WE DIDN'T GET UNANIMITY ON THAT."**

## Doing The Homework

Research was called for...and much discussion, including a certain amount of self-examination and soul-searching. A notable portion of research into the topic revealed shallow, rah-rah understandings of teaming. However, certain documents and understandings were very helpful to TI's view of JSOW at the time and place...

Others using knowledge-based engineering environments appeared to have done it! Specifically, the first several pages of Chapter 5 of *The Machine That Changed The World*,[5] a book which details significant changes in the automobile industry, were illuminating. These selected pages dealt with the differences between General Motors and Honda in their developing new automobile models in the 1980s.

According to the authors, General Motors tried to simply "coordinate" across models for efficiencies and to honor the various functional areas (read "let the functional areas retain all power and decision making"). The result was frustration at the project level and significantly deteriorated deadlines and accomplishments of the company's stated goals. Honda, on the other hand, totally empowered the key persons appointed to lead its *project*, with the critical authority to pull key personnel from the functional areas to *make things happen*. Accordingly, deadlines were met, with the result that the Honda Accord leapt to the status of the best-selling model in the United States, even though the start date for the Honda project was *years* after that of General Motors.

This seemed to suggest several key points simultaneously: that a knowledge-based company could successfully place a multiple-model "platform"...similar conceptually to the JSOW "platform"...into a project level (e.g., a basic engineering design for mid-size cars could be a platform for a number of different models); that authority, responsibility, and accountability could be substantially pushed to the proper project levels throughout the organizational structure without necessarily retaining authority, responsibility, and accountability primarily at the functional level (e.g., "engineering," "software development"); and perhaps most importantly, that "winning" and "losing" status in the marketplace was directly impacted by the decision to team, and to team properly.

TI Systems Group reviewed its practices, evaluating itself and others in the industry in relation to a linear spectrum ranging from "project orientation" to "functional areas orientation." TI believed that the "sweet spot" of effective teaming lay not at either end of the linear spectrum, but somewhere more near the "project orientation" end, with cognizance of functional areas. TI Systems Group then concluded it was not far from the "sweet spot." Years of trust building, professional relationships, and concurrent engineering within the Systems Group lent themselves to teaming, even if teaming wasn't really practiced. The price would still be high in organizational change, but the belief was that it might well be doable, and worth it!

TI management on JSOW also concluded that there are three dimensions of teaming complexity, facets which impede easy implementation of teaming: degree of team diversity, degree of repetition, and degree of abstraction. For example, it is "easier" to team on a process which requires only one skill

or two, is repetitive, and is concrete—witness a simple factory process. Complex defense contracts tend to be "easy" in none of the three dimensions. However, "platform" thinking... like a JSOW design lending itself to derivative designs and contracts...while facing complexity in all three dimensions, could have tremendous payoffs not only in an initial contract production phase, but in subsequent derivative contracts. And, this benefit could accrue not just to the contractor, but *to the customer*. Teaming for JSOW was looking better all the time, even with the expected organizational resistance!

A number of other works and programs were considered over time in the research process. The breadth and profile of the research were very helpful in formulating understandings of teaming. This list includes the F-22 program, Team Comanche, research by Jon R. Katzenbach and Douglas K. Smith in the March-April 1993 issue of *Harvard Business Review*,[6] a JSOW corrective action team directed to improve TI's own processes, SDIO activities, the GE-414 engine program, the TI concurrent engineering curriculum, Chrysler's development teams, and World War II attempts by various countries to develop the atomic bomb, as described in McGeorge Bundy's book *Danger and Survival*.[7] Although these efforts were considered to be successful to one degree or another, failed efforts were reviewed as well.

One article in particular became key in the homework process. "The Self-Designing High-Reliability Organization: Aircraft Carrier Flight Operations at Sea" had appeared in the Autumn 1987 issue of the *Naval War College Review*.[8] Two quotes from the article represent dimensions of the article critical to thinking about the JSOW process.

> Recent studies of large, formal organizations that perform complex, inherently hazardous, and highly technical tasks under conditions of tight coupling and severe time pressure have generally concluded that most will fail spectacularly at some point ...Yet, there is a small group of organizations in American society that appears to succeed under trying circumstances, performing daily a number of highly complex technical tasks in which they cannot afford to 'fail'...Of all activities studied by our research group, flight operations [aboard U. S. Navy aircraft carriers] at sea is the closest to the 'edge of the envelope'—operating under the most extreme conditions in the least stable environment...[9]

> It will come as no surprise to this audience that the Navy has certain traditional ways of doing things that transcend specifics of missions, ships, and technology. Much of what we have to report interprets that which is 'known' to naval carrier personnel, yet seldom articulated or analyzed. We have been struck by the degree to which a set of highly unusual formal and informal rules and relationships are taken for granted, implicitly and almost unconsciously incorporated into the organizational structure of the operational Navy.[10]

This intriguing article, illuminating throughout with regard to the teaming on JSOW, served TI in several ways: Navy program managers are routinely very experienced in operations, and "teaming" at a very high level was certainly not new to Naval aviators, albeit in operations and not necessarily in program management; another example of knowledge-based teaming with high degrees of teaming complexity (see the previous discussion of degree of abstraction, repetition, and team diversity) was resident *experientially* in the other possible teaming partner in JSOW, the government; and, now, the customer could be "understood" at an entirely new depth by the contractor, by thoughtful reference to an article on aircraft carrier flight operations at sea. Now, with a deeper background understanding of key government players in the JSOW contract made more complete, the *interorganizational* application of teaming, between government and contractor, looked more and more realistic.

Sufficient homework completed, the government, TI, and key suppliers moved into a teaming mode. Steps of faith were still indeed taken, but the factors revealed in the research process helped to mitigate the seeming risks taken.

## Reflections Upon Creating and Implementing the Team

After the implementation of teaming, critical leadership elements worked to sustain teaming. Bluntly stated, hospitable conditions and research in and of themselves were not adequate to create and sustain teaming in the case of JSOW...any more than conditions and research in and of themselves would have been sufficient for the Wright brothers, or the Manhattan Project, or the space race. The appropriate conditions and research are critical, of course, but what about leadership dynamics, especially for the *interorganizational* teaming opportunity? Trust, among several factors, was key, both in the creation of teams and the implementation of teams.

Trust, often pursued yet tantalizingly elusive for many organizations, is perhaps the foundational ingredient upon which many other leadership characteristics necessary for teaming stand. And, if trust is often hard to be found *within* an organization, what about trust *between* two organizations? Especially, what about trust between two organizations—government and contractor, generically speaking—whose relationship by cultural definition and practice often seems to manifest itself adversarially?

A Navy flag officer stated it well: "*Trust* is knowing one well enough to expect them to discharge responsibilities well, while *faith* is hoping that one will do a

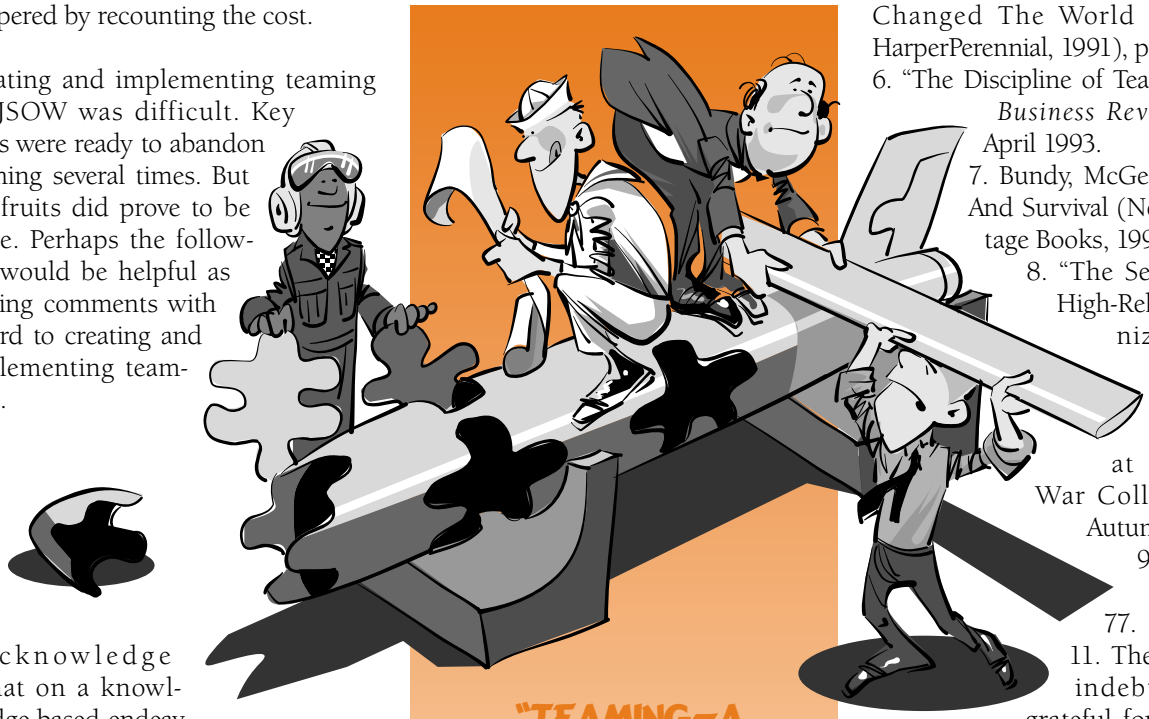
good job. We need more trust, but all the oversight in the world will not change *faith* to *trust.* "

In the case of JSOW, trust indeed worked to effect teaming well, along with other critical leadership factors such as courage, commitment to teaming, and steadfast advocacy of the interorganizational partner. But, in the final analysis, was "teaming" on JSOW worth it? You bet. TI management is out there waving the pompoms. Yet sober reflection and wise counsel would demand that the cheers are tempered by recounting the cost.

Creating and implementing teaming on JSOW was difficult. Key TIers were ready to abandon teaming several times. But the fruits did prove to be there. Perhaps the following would be helpful as parting comments with regard to creating and implementing teaming...

- Acknowledge that on a knowledge-based endeavor, teaming will be extremely difficult, and the initial benefits projected from a cost benefit analysis may not bear up over time.—
- Do your homework. But certainly don't expect research to reveal all answers customized to your need. Teaming, even the very creation of teaming processes, will be an experiential, evolutionary process of learning peculiar to your organization, not an academic process.
- Beware of the "teaming experts" trying to make teaming all things to all organizations...teaming has limited applicability with regard to many organizations in multitudes of circumstances. Leave the "cure-all elixir" mentality where it belongs... on a *Gunsmoke* rerun featuring a peddler passing through Dodge City.
- Enter and proceed with fear and trepidation, and with an expectation of sacrifice.
- But once committed, give the process of teaming the necessary effort...*go for it*!

Good luck. And remember Mrs. Frances Whitworth Smith commissioning her portrait from Jean-Paul Valjean.[11]



**"TEAMING—A MATURATION PROCESS OF THE CONTRACTOR TRUSTING ITS GOVERNMENT COUNTERPARTS, AND THE GOVERNMENT PUTTING THEMSELVES INTO THE TEAM AS OPPOSED TO JUST SITTING BACK AND CRITIQUING THE CONTRACTORS."**

## ENDNOTES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5. Womack, James P., Daniel T. Jones, and Daniel Roos, The Machine That Changed The World (New York: HarperPerennial, 1991), pp. 104-111.
6. "The Discipline of Teams," *Harvard Business Review*, March-April 1993.
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11. The authors are indebted to and grateful for the participation of a number of key JSOW personnel, both from the government and within TI. These individuals were accessed either through interviews or through documents in the TI archives. Each was a vital part of the JSOW story. A list of such individuals must include retired Navy Capt. Bob Ramsay, Navy Rear Adm. (select) Jack Chenevey, Navy Cmdr. Tom Mariner, Navy Cmdr. Tom Wright, Air Force Lt. Col. Bill Goetz, Air Force Col. Riley Shelnutt, Dr. Lloyd Smith, Keith Sanders, Larry Lefbom, Ron Rosenthal, and Karen Higgins on the government side; and David Martin, Charles Marinello, James Cranfill, Jim Polozeck, Mike Chiodo, and Gene Robinson on the contractor side.

# 21st Century "Own the Night" Warfighter Requirements

## Night Vision PM Office Develops Plan to Cope With Realities of Downsizing

JOHN R. GRESHAM

Since the start of President Clinton's first administration, the Army has been coping with a world in which fewer resources are available to support manpower and modernization efforts. This reality is neither good nor bad. It's just the way things are. Nevertheless, any functional area which hopes to accomplish its mission needs a vision or plan that enables it to meet critical mission requirements, even with diminished financial and personnel resources.

Army Col. Jeffrey A. Sorenson, Project Manager for Night Vision Reconnaissance, Surveillance, and Target Acquisition (PM-NV/RSTA) manages a staff actively engaged in planning to meet this particular challenge. Even though PM-NV is one of the PM offices that has been blessed with continued high-level interest and relatively stable funding, its core civilian Table of Distribution and Allowances is being somewhat reduced. As with other PMs, PM-NV/RSTA must also "do more with less." To meet this challenge, a three-pronged approach is in process.

### Phase One—Sharpen the Ax

As the PM workforce gets smaller, employees and managers have shoul-

*Gresham is the Army's Deputy Project Manager for Night Vision, Reconnaissance, Surveillance, and Target Acquisition (PM-NV/RSTA). He is a member of the Army Acquisition Corps and is certified at Level III in program management and logistics. Gresham is a graduate of PMC 86-2, DSMC.*

TARGET LOCATION AND OBSERVATION SYSTEM (TLOS), AN/PLQ-8, A NIGHT VISION SYSTEM THAT IS DESIGNED TO LOCATE AND ACQUIRE ENEMY TARGETS.

U.S. Army photo

dered heavier workloads. However, unlike the parable of the busy woodcutter who couldn't take time to sharpen his ax because he had too many trees to cut down, PM-NV/RSTA has embarked on a deliberate journey into the future. They hold regular internal strategy meetings that map out current business and future business base areas. Their objective seeks to accommodate warfighters' requirements beyond the year 2000. Integral to this process is the ongoing preparation of career development plans that advance employees on to required Level II and Level III certifications in their acquisition careers. Employees with one Level III career field certification are encouraged to begin working on a secondary career field, similar to the military career management model.

### Phase Two—
### Empowerment and Reorganizing to Meet the Challenges

As organizations seek to manage smarter, one way to accomplish this goal is to work smarter. The office equivalent to working smarter is to reduce or eliminate the administrative equivalent of scrap and rework in the PM office. Knowing that a focused group of motivated workers can come up with better acquisition strategies than a single manager, or through a series of sequential management overviews, PM-NV has been deliberately implementing the Integrated Product Team (IPT) concept as found in the March 1996 *OIPT-WIPT Information Guide* published by the Office of the Deputy Under Secretary of Defense for Acquisition Reform.

To formalize the process of making IPTs work, PM-NV first established a formal, chartered Overarching Integrated Product Team (OIPT) comprised predominately of the managers. By preparing a formal charter, the group had both vision and operating "bylaws." This formal charter, coupled with formal training in IPT operations, has provided a roadmap for development of subsequent Working-Level Integrated Product Teams (WIPT).

**However, unlike the parable of the busy woodcutter who couldn't take time to sharpen his ax because he had too many trees to cut down, PM-NV/RSTA has embarked on a deliberate journey into the future.**

Following OIPT establishment, two other WIPTs have since been established with others pending. One of these IPTs is for the management of the Long Range Scout Surveillance System (LRAS3); the other is an Automation Improvement IPT geared to providing 21st Century tools and skills for program management activities across PM-NV's many programs.

Within PM-NV/RSTA, OIPTs and WIPTs follow a simple rule set in order to achieve success. Sample rules include—

- use of agendas and minutes to keep track of agreements;
- consistent use of metrics;
- making IPT meeting attendance a priority;
- open discussion with no secrets;
- qualified, empowered team members;
- consistent, success-oriented, proactive participation;
- continuous up-the-line communications;
- reasoned disagreement; and
- issues raised and resolved early.

### Phase Three—
### Modern Times and Modern Tools

As mentioned earlier, today's complex environment requires rapid data manipulation and information retrieval for use by managers and staff. To meet this goal and to cut down on redundant paperwork, PM-NV, through its Automation IPT and support contractors, has also begun work on developing a series of software tools that complement the Program Executive Office-Intelligence Electronic Warfare and Sensors (IEW&S) Information Management System (IMS) and the Financial Accounting System (FAS).

User-friendly, Windows-based "point and click" icons will allow instant visibility initially in eight areas: Suspense Control, Contract Information, Major Issues, Logistics Status, Funding Documents, Program Schedules, Contract Deliverables, and Information Contacts.

A second effort is designed to tie these software tools into an Automated Data Processing technical architecture capable of supporting the "corporate brain" and the PM-NV/RSTA "factory."

In summary, all managers must constantly evaluate mission performance in view of resource constraints. Bearing this in mind, there is no single correct solution. Each Program Management Office can draw on the best ideas available to tailor their own solutions. Nevertheless, PM-NV/RSTA's strategy to meet emerging "Own the Night" equipment requirements for 21st Century warfighters demonstrates the value of developing and implementing a plan based on the organization's collective vision.

# Defense Industry Students Graduate Advanced Program Management Course

## APMC Students Share Their Perspectives

MICHAEL C. MITCHELL

Diminished business opportunities faced by defense firms since the end of the Cold War have been accompanied by a bewildering pace of change in the way the Department of Defense does business with its suppliers. Laws streamlining acquisition procedures have been passed by Congress at the same time the Department has moved on its own to carry out significant policy changes in areas such as military specifications and standards reform and the single process initiative. Those who operated under the old acquisition procedures have every right to feel a bit overwhelmed by the breadth and speed of these procedural changes.

For those in industry seeking to understand the new DoD approach to business, however, the Advanced Program Management Course (APMC) at the Defense Systems Management College (DSMC) at Fort Belvoir, Va., represents an excellent, if somewhat underutilized, resource for keeping up with the nature and pace of defense acquisition policy change. Following are reflections on the experience that this recent graduate of the APMC had in the program, offered in the hope that more industry members will see the value of participation in the course offerings at the College.

APMC can best be described as a kaleidoscopic experience. It was a 14-week exercise in time management in which we focused on 12 major policy

On April 18, DSMC graduated six industry students from its Advanced Program Management Course (APMC) 97-1 at a ceremony conducted in Essayons Theater, Fort Belvoir, Va. Pictured from left to right: George Krikorian, Industry Chair, DSMC Executive Institute; Michael C. Mitchell, Lockheed Martin Corporation; Robert J. Morris, Pratt & Whitney; R. Paul Normandy, The Mitre Corporation; Army Brig. Gen. Richard A. Black, DSMC Commandant; Richard L. Pasco, Jr., The Boeing Company; Louis L. Jobin III, Robbins-Gioia, Inc; Leon F. Shiflett, Sikorsky Aircraft Corporation; and George Merchant, Associate Director, Advanced Program Management Course. (Not shown—Michael J. Lombard, Pratt & Whitney)

Photo by Richard Mattox

*Mitchell is an employee of Lockheed Martin, and recent graduate of the Advanced Program Management Course (APMC) 97-1, DSMC.*

topics, including defense acquisition policy, contractor finance, contract management, earned value management, funds management, logistics support management, managerial development, manufacturing management, principles of program management, software management, systems engineering management, and test and evaluation. Beyond these academic topics, however, APMC is mind-mapping and Ah-Hahs, ISTJs, and

ENFPs. It's a "most comfortable pad," the Dupont Ratio (Is Dupont making gunpowder again?), and knowing that in the end, "it all depends."[1]

With full days of classes throughout most of the program and at least a couple of hours of preparation each evening, for a period the challenge was not so much the degree of learning as to avoid falling hopelessly behind in the readings! While one legitimately might ask how any of the topics covered could be done justice in 14 short weeks, the broad array of issues was made both interesting and instructive by the manner in which it was taught.

**"The understanding I gained of the customer's perspective on the acquisition system and the contractor's role in it, and the relationships I established with these future program managers during my 14 weeks at APMC would have taken years to attain through the normal course of our business."**

The classes were led by faculty members who were either uniformed military or DoD civilians, all of whom had substantial experience in defense acquisition. But because the teaching method was based on student-directed case studies and integrated exercises, in many of our classes the students were really teaching other students. Based on the diverse and extensive nature of the students' experience, this was an unparalleled resource from which to learn. There were 300 students in APMC 97-1. In my study group of 30 individuals, I was the sole industry representative. The other 29 members of the section included uniformed and civilian representatives from all Services, many with advanced degrees and all of whom had significant acquisition experience. Without a doubt, it was during the exchanges with these fellow students during classroom discussions or in conversations between classes that the real APMC learning occurred.

The understanding I gained of the customer's perspective on the acquisition system and the contractor's role in it, and the relationships I established with these future program managers during my 14 weeks at APMC would have taken years to attain through the normal course of our business. Moreover, because the learning process in the program is based on the Integrated Product and Process Development and Integrated Product Team approaches now featured in defense acquisition, APMC affords industry participants an excellent simulation of the procedures the Department currently is using to improve productivity and constrain costs in its acquisition activities.

If the classroom experience I had at APMC had been all there was to the program, it would have been worth the time and investment. But there was much, much more to the program. For example, once a week we as a class of 300 heard from distinguished guest lecturers including representatives from OSD, the Services, congressional staff, and industry. While all of these guest speakers were first-rate, the highlight for me was the day the three Service Acquisition Executives, Gil Decker, John Douglass, and Art Money of the Army, Navy, and Air Force respectively, spoke to our class. The technical understanding exhibited by these three, along with the mutual respect which they held for one another, was most impressive and spoke well of the acquisition team that has been assembled in the Department.

Because of the tremendous influence that the Congress exerts on acquisition policy as well as program management, APMC provided extensive briefings on the congressional process and an opportunity for the students to travel to Capitol Hill for a day. During the day on the Hill, the class had the chance to attend meetings with Members and staff, and to sit in on public hearings addressing issues affecting defense programs and procedures.[2] As a former Senate staffer, the opportunity to share with my classmates some of the experiences I had had in my eight years on the Hill was one of the highlights of my APMC experience.

Independent study also is a significant element of the program. DSMC features an outstanding library collection focused on defense acquisition and a Learning Resource Center that contains audio and video tapes that permit the learning experience to extend beyond time spent on campus. Electives were made available on a host of topics in order to zero in on particular aspects of the acquisition process and allow students to tailor their learning experience to their particular career and personal development needs. For example, each Wednesday morning during the program, I met with a study group to prepare for the Certified Professional Contract Manager (CPCM) examination administered by the National Contract Management Association. This study group provided excellent preparation for the exam in an environment in which students again learned from other students. Finally, there was the opportunity to participate in field trips that permitted the testing of information learned in the classroom in real life manufacturing or testing facilities. In this regard, I participated in very enlightening visits to three sites in Maryland: the General Motors minivan plant in Baltimore, the Beretta U.S.A. handgun manufacturing plant in Accokeek, and the Army's Aberdeen Proving Grounds Test Center.

In conclusion, APMC represents an excellent opportunity to gain a solid technical understanding of the most recent defense acquisition policy developments in a setting that features the procedures currently employed by the Department of Defense. But of even greater importance is the occasion it provides to meet and interact with the future leaders of the DoD Acquisition Corps. This opportunity for exchange between government and industry representatives creates a learning experience for both partners in the system. For the industry participants, APMC represents a value-added experience for the company and the individual in a manner that in 14 short weeks really cannot be attained any other way.

## Endnotes

1. For those interested in learning why in the end "it all depends," please contact George Krikorian, Industry Chair, Defense Systems Management College, Fort Belvoir, Va. 22060-5565, (703) 805-4944. For APMC registration information or catalog information on the other acquisition courses offered at DSMC, contact the College Registrar at (703) 805-3666.
2. For a more comprehensive overview of acquisition managers and their relationships with Capitol Hill, see DSMC's publication, *Congressional Involvement and Relations*, "A Guide for Department of Defense Acquisition Managers," August 1992.

ATTENTION

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# THE SQUEAKY WHEEL GETS THE GREASE.

# IT'S TIME TO TALK TO YOUR TRAINING COORDINATOR ABOUT DSMC COURSES.

Defense industry executives are invited to attend the Defense Systems Management College and learn the defense acquisition management process side-by-side with their military and government civilian counterparts. Vacancies are now available in DSMC's highly acclaimed 14-week Advanced Program Management Course at the main Fort Belvoir, Virginia, campus. Tuition is waived for eligible industry students. The next APMC class will be September 8 - December 12, 1997. Contact Ruth Franklin, Registrar for the Council of Defense and Space Industry Associations (CODSIA), at (202) 371-8414 for information.

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# Acquisition Workforce Demonstration Project

## Two Insiders Review the Power of Applying IPTs to a Broad Range of Project Settings

GREG GIDDENS • DR. PETER S. FISKE

The Acquisition community is becoming familiar with the Integrated Product Team (IPT) approach; a powerful means of accelerating the design schedule of systems by assembling a team of individuals representing all the stakeholders in the project. But many may not realize that the IPT concept is broadly applicable, and equally powerful in a variety of project settings. In fact, in the Pentagon the IPT concept is demonstrating its value in a project that is far removed from the day-to-day operation of the acquisition community: the Acquisition Workforce Demonstration Project.

The Acquisition Workforce Demonstration Project is a new effort underway to show that modifications to the federal personnel management system can improve the quality and professionalism of the acquisition workforce. The project is being run by a team of dedicated acquisition professionals from acquisition organizations around the country who are familiar with the functions and dysfunctions of the existing civilian personnel system. This Process Action Team (PAT) was chartered by Secretary Perry last fall. It will be the largest personnel demonstration project ever, involving perhaps as many as 50,000 DoD civilian employees.

From the outset, the PAT adopted the IPT approach in developing the set of initiatives that would form the basis for a new personnel system for selected acquisition organizations. The team drew in members from the Services and Agencies and found both personnel specialists and specialists in the acquisition process. They also drew in members from DoD's Office of Civilian Personnel Policy (OCPP) and the Office of Personnel Management (OPM).

> "It [Acquistion Workforce Demonstration Project] will be the largest personnel demonstration project ever, involving perhaps as many as 50,000 DoD civilian employees."

In previous DoD personnel demonstration projects, the OCPP and OPM were treated as "checkers" and called in to inspect the workforce demonstration plan only *after* it had been assembled. When problems with the plans were identified, solutions had to be retrofit back into the project, often resulting in delays and frustration on both sides.

By assembling an IPT representing *all* the stakeholders at the outset, the Acquisition Workforce PAT worked contentious issues from the outset.

Instead of nasty surprises, the group was able to identify problem areas early and devote additional resources to them. By being open and collaborative, the team was able to progress at a much accelerated pace, and may eventually end up with a superior product.

According to Greg Giddens, the Director of the Acquisition Workforce Demonstration PAT, being on the same team does not mean giving up one's individual position and perspective. "Quite the contrary," says Giddens. "Being on the team helps focus everyone on the goal and how best to get there. There will always be problems, issues, and obstacles. The IPT process does not remove barriers in and of itself. It does, however, provide an environment that promotes an early understanding of the problem set and the domain of potential solutions. All issues are addressed up-front and early and worked out accordingly with no surprises."

Watch for more news coming out soon about the Acquisition Workforce Personnel Demonstration Project in upcoming issues. Meanwhile, the power of IPTs to facilitate projects in a multitude of situations and settings is the story behind the story.

*Giddens is an Acquisition Program Management Officer, Office of the Secretary of the Air Force/Acquisition. He is currently on assignment to the Office of the Deputy Under Secretary of Defense (Acquisition Reform) as the Director of the Acquisition Workforce Demonstration Process Action Team. Giddens is a graduate of PMC 94-1, DSMC. Fiske is a White House Fellow and serves as an Assistant to the Secretary of Defense for Special Projects.*

# Kaminski Attends Premiere of Air Force's Newest Unmanned Aerial Vehicle

"There always comes a moment in time when a door opens and lets the future in," said Dr. Paul G. Kaminski, Under Secretary of Defense for Acquisition and Technology, as he quoted noted author Graham Greene during remarks delivered at the start of the Global Hawk Rollout Ceremony. The ceremony was held in San Diego, Calif., on February 20, 1997, and sponsored by Global Hawk's manufacturer, Teledyne Ryan Aeronautical (TRA). "Today," said Kaminski, "I think we are seeing such a door opened. Global Hawk will help U.S. forces and our allies achieve information dominance well into the 21st Century."

The Tier II Plus Global Hawk is the newest Unmanned Aerial Vehicle (UAV) in the Department of Defense (DoD). Designed as a high-altitude, all-weather asset to take pilots out of harm's way, it will provide military battlefield commanders with real-time intelligence data critical to America's defense.

The Global Hawk program began in May 1995, with award of a $160-million contract to TRA as a 31-month development effort. Under the current phase, two Global Hawk vehicles are being built for a follow-on flight test program beginning at Edwards Air Force Base, Calif., in late summer/early fall 1997. With a planned unit flyaway cost of $10 million (fiscal year 1994 dollars) for the air vehicle, sensors, and communications equipment, Global Hawk is scheduled for initial operational capability sometime after the year 2000.

One of three projects in the High Altitude Endurance UAV Advanced Concept Technology Demonstration (ACTD) program, Global Hawk is funded by the Defense Airborne Reconnaissance Office (DARO), and managed by the Defense Advanced Research Projects Agency (DARPA). The goal of the ACTD is to develop a long-term, fully automatic, high-altitude, tactical reconnaissance, surveillance, and target acquisition capability for DoD.

The other two related efforts are the Tier III Minus DarkStar and the Common Ground Segment.

DARO and DARPA will transfer responsibility for defense acquisition of Global Hawk to the Reconnaissance Aircraft Systems Group, Joint Endurance UAV System Program Office, at Aeronautical Systems Center, Wright-Patterson Air Force Base, Ohio, in early 1998.

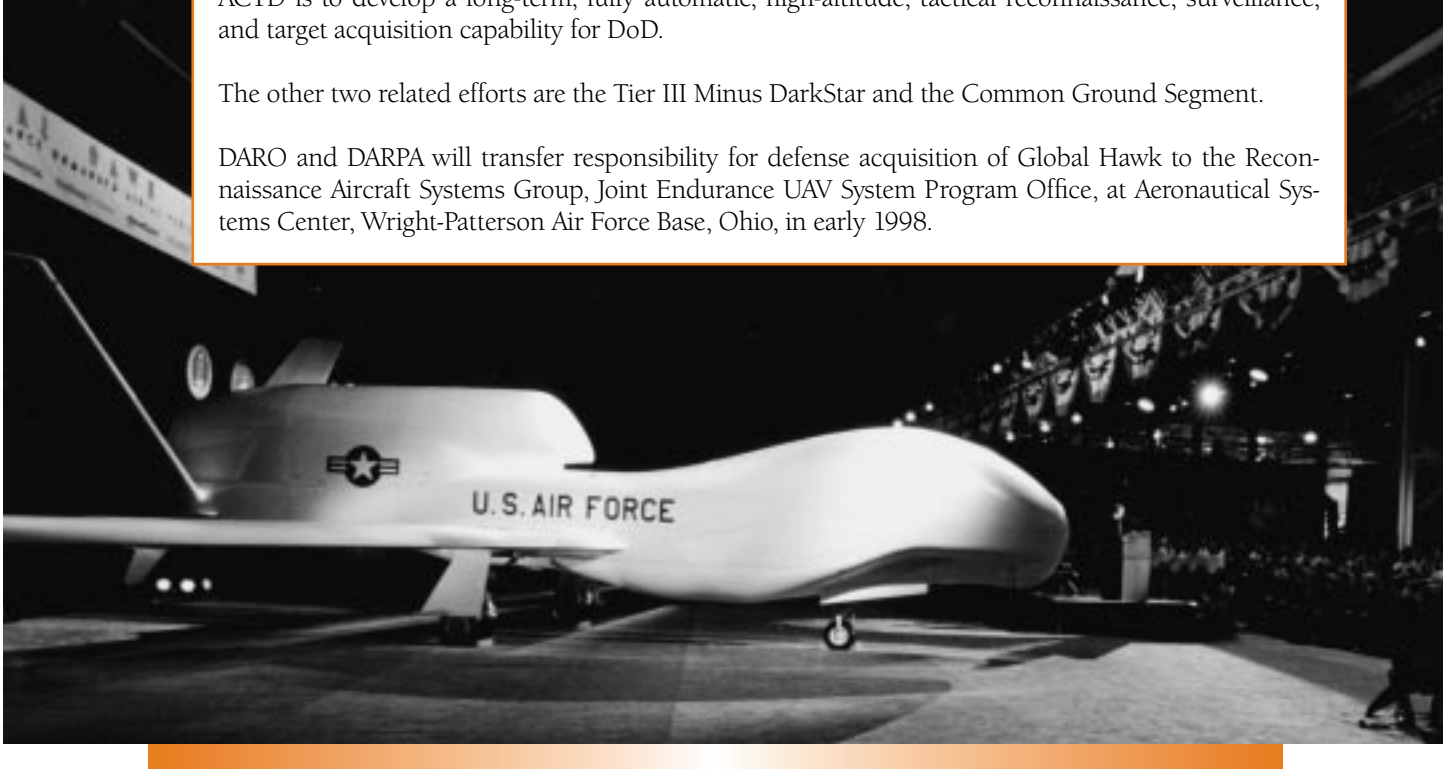


Photo courtesy Teledyne Ryan Aeronautical

# Secretary Cohen Sets Course for International Acquisition

## Bridge to the 21st Century

RICHARD KWATNOSKI

Secretary Cohen's emphasis on International Armaments Cooperation[1] in defense acquisition programs was clearly established in a policy memorandum he signed in late March 1997.[2] The Secretary determined that "...International Armaments Cooperation is a key component of the Department of Defense Bridge to the 21st Century." Citing the evolving environment of coalition warfare, limited resources, and a global industrial base, DoD policy is to utilize International Armaments Cooperation with our allies "to the maximum extent feasible."

### Historical Perspective

Several previous Defense Secretaries have asserted the need for more cooperation with our allies in research, development, production, and follow-on support. Former Defense Secretary Weinberger began emphasizing Armaments Cooperation over a decade ago.[3] He articulated seven steps for convincing our allies of the seriousness of our purposes. Of historical significance to those interested in the training and education of our acquisition workforce was the last step: "Each Service should establish an education program for their personnel in order to develop and maintain appreciation for the significance of, and individual role in, furthering of Alliance collective security through armaments cooperation."[4] The Services relegated this to the Defense Systems Management College, which began during the late 1980s the development of a family of three international acquisition courses. In 1993 Secretary Perry called for a "renaissance in armaments cooperation." He cited armaments cooperation as a primary means for achieving effective and efficient collective defense with our allies, and expressed our objectives in armaments cooperation:

- Deployment and support of common, or at least interoperable, equipment with our allies.
- Leverage of our own resources through cost sharing and economies of scale afforded by coordinated research, development, production, and logistics support programs.
- Exploitation of the best technologies, military or civilian, available for the equipping of alliance forces.

### Five New Policies

The recent policy statement by Secretary Cohen reaffirmed much of the rationale of the previous Secretary for armaments cooperation, and went on to direct five new policies for attaining the objectives of cooperation. These are paraphrased in the following text:

- The DoD will engage allies early to identify common mission problems and acceptable performance requirements.
- The USD(A&T) will designate appropriate defense acquisition programs as international cooperative programs. The Component Acquisition Executive shall notify the USD(A&T) early of intent to terminate or substantially reduce funding for these designated programs.
- In support of designated international cooperative programs, DoD will favorably consider transfers of defense articles, services and technology subject to national security, legal, regulatory, and policy constraints. DoD reviewing organizations objecting to a transfer will be required to provide specific national security rationale.
- Training for program managers and other acquisition workforce personnel will include sufficient instruction in international armaments cooperation programs.
- International Cooperative R&D Program accounts are encouraged for use as seed money for beginning cooperative projects early.

An organization called the Armaments Cooperation Steering Committee[5] was tasked to ensure that this new policy is aggressively pursued. Sponsors have 180 days to amend their appropriate DoD Directives and Instructions to reflect the new policy.

### DSMC's Role

Once again, as in 1985, the Secretary of Defense recognizes the necessity of training and educating the acquisition workforce in international programs. The Defense Systems Management College has much to offer in this regard with its family of three international acquisition short courses: Multinational Program Management Course, International Security and Technology Transfer/Control Course, and Advanced International Management Workshop. All three are designated as assignment-specific, manditory courses by the Defense

*Kwatnoski is the Director, International Acquisition Courses, Executive and International Department, School of Program Management Division, DSMC.*

Acquisition University. Furthermore, mainstream program management courses, such as the Advanced Program Management Course and the Intermediate Systems Acquisition Course, are targeted for the inclusion of some international aspects in future offerings.

### At the Crossroads

The College is positioned at the crossroads of international acquisition A European presence has been maintained for nearly a decade with the Annual International Acquisition/Procurement Seminar. This Seminar is sponsored by the International Defense Educational Arrangement (IDEA), comprised of the equivalent defense educational institutions in the United States, United Kingdom, Germany, and France.

Last year the first-ever Defense Cooperation in Acquisition Course was offered jointly with the Defense Institute of Security Assistance Management in Singapore for U.S. DoD personnel in the Pacific Theater. Plan are underway to conduct an annual international acquisition/procurement seminar with Pacific nations, as well as biennial offerings of the Defense Cooperation in Acquisition Course in both the Pacific and Europe. DSMC is well positioned to be part of the Department of Defense Bridge to the 21st Century, and be the international acquisition academy of distinction.

### Endnotes

1. International Armaments Cooperation is a term that applies when the United States and allied nation(s) jointly manage and share funds equitably to cooperatively research, develop, test, evaluate, produce and/or support defense equipment. Cooperative acquisition programs should not be confused with Foreign Military Sales (FMS) activities.
2. Secretary of Defense Memorandum, Subject: DoD International Armaments Cooperation Policy, March 23, 1997.
3. Secretary of Defense Memorandum, Subject: Emphasis on NATO Armaments Cooperation, June 6, 1985.
4. Deputy Secretary of Defense Memorandum, Subject: Armaments Cooperation Steering Committee, June 25, 1993. NOTE: Secretary Perry signed this memorandum while serving as the Deputy Secretary of Defense.
5. *Ibid*.

# NATO Student Responds To Call For Training Materials

On behalf of the NATO Airborne Early Warning and Control (AEW&C) Programme Management Agency, Fletcher Thomson donates the video "NATO AWACS Facts Only" to the Director of DSMC's Learning Resource Center (LRC). Fletcher was a student in the Executive Management Course (EMC) 97-1, offered at the College's main Fort Belvoir, Va., campus. Pictured from left: Myrna Bass, Director, LRC; Fletcher; Dr. Bob Burnes, Course Director, EMC.

The Learning Resource Center is especially interested in educational materials covering these topics: Test and Evaluation, Software Management, Risk Analysis, Information Technology, Acquisition Policy, Acquisition Reform, Cost Schedule Control, Negotiations, Program Planning and Control, Briefing Techniques, Systems Engineering, Modeling and Simulation, Contract Management, Funds Management, Business Process Engineering, Logistics, and of course the latest improvements at any defense or defense industry facilities. The media may be video, audio, CD, computer-based training, or textbook (as long as it constitutes a "training" package). (Note: Please do not send "software" for managing programs.)

Include any permission or restrictions on use of materials. Contact the LRC Director, Myrna Bass, at the following numbers: Commercial (703) 805-5250; DSN 655-5250. Send your materials to the following address:

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Photo by Richard Mattox

# DoD International Armaments Cooperation Policy

THE SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1000

23 MAR 1997

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
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DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: DoD International Armaments Cooperation Policy

I have determined that International Armaments Cooperation is a key component of the Department of Defense Bridge to the 21st Century. In the evolving environment of coalition warfare, limited resources, and a global industrial and technology base, it is DoD policy that we utilize International Armaments Cooperation to the maximum extent feasible, consistent with sound business practice and with the overall political, economic, technological, and national security goals of the United States.

We already do a good job of international cooperation at the technology end of the spectrum; we need to extend this track record of success across the remainder of the spectrum, to include major defense systems. We must achieve as a minimum:

- Deployment and support of standardized, or at least interoperable, equipment with our potential coalition partners; and
- Leverage of U.S. resources through cost sharing and economies of scale afforded by international cooperative research, development, production, and logistics support programs.

To attain these objectives, I am directing that:

1. We engage Allies in discussions at the earliest practicable stages to identify common mission problems, and to arrive jointly at acceptable mission performance requirements, balancing cost as an independent variable (affordability), meeting coalition military capability needs, and assuring interoperability;

U05047 197

2. The USD(A&T), in coordination with USD(P) and with the recommendation of the affected DoD Component, will designate appropriate defense acquisition programs as international cooperative programs. The DoD must be a reliable international partner by funding fully the U.S. share of such programs. Should circumstances arise which necessitate less than full funding for a designated international cooperative program, the Component Acquisition Executive shall notify the USD(A&T), at the earliest opportunity of the Component's intent to terminate or substantially reduce funding for the program;

3. In support of designated international cooperative programs, DoD will give favorable consideration to transfers of defense articles, services and technology consistent with national security interests and relevant laws, regulations, policies and international agreements. In the case-by-case consideration of proposed transfers through established internal procedures, any recommendation by DoD reviewing organizations to deny or require conditions for proposed transfers will be accompanied by specific national security rationale;

4. Training for program managers and other Acquisition Workforce personnel will include sufficient instruction in the policies and procedures of international armaments cooperation programs, including export regulations and information and industrial security policies, so as to enable them to develop and execute such programs successfully; and

5. The International Cooperative R&D Program accounts (0603790D, A, N, and F) will be used to enable international armaments cooperation programs to begin at an earlier time than what would otherwise be possible through normal program budgeting. The USD(A&T) will approve projects for funding by these accounts in accordance with this policy.

I request your full support of this policy and task the Armaments Cooperation Steering Committee to ensure that this policy is aggressively pursued.

This policy is effective immediately. Appropriate DoD Directives and Instructions should be amended by their sponsors to reflect this policy within 180 days.

Sometimes I become as unhappy with the world as I am with myself. I'm a hard-to-please skeptic working on certified cynic. Case in point—triggered by an article in the *Program Manager* entitled "Controlling Costs—A Historical Perspective," which appeared in the November-December 1996 issue of *Program Manager* and joins the letter to the editor on this same article, which appeared in the March-April 1997 issue. Without challenging the article's historic perspective, I must take issue with its lack of balance in discussing Design to Cost (DTC).

Example: From the article—"...[For FSD] the [F-18] program office provided little or *no guidance* to the contractor on the *design*, *performance*, and *cost* interrelationships. There were *no contractual incentives* to motivate the contractor and make DTC an active effort on the program [emphasis added]."

I have before me a copy of a McDonnell Aircraft Company F-18 briefing, prepared with data through August 1978 (3rd year of FSD). (I've never worked for McDonnell Douglas, by the way).

Here are three figures [opposite page] from that briefing so you can draw your own conclusions. Figure 1 describes the incentives (and penalties) which were contractually applied to the F-18 FSD DTC program.

Figure 2 shows that trade-off studies were completed—not just contemplated. If you can read it, note that the Y axis is *hundreds* of trade studies.

In Figure 3, note the column "Performance." At this point, this cynic probably should rest his case.

There's a broader issue, however, that disturbs me about inferences the reader may have drawn. The author cites an IDA study of 63 major systems showing that cost growth [of DTC programs] was 19 percentage points greater than that of non-DTC programs. The inference is that without DTC, cost growth on those programs would have been less—or "Gosh, we should have avoided DTC at all costs!" (Excuse the pun.)

And excuse the author's propensity to denigrate DTC programs in order to espouse the comparative virtue of "cost as an independent variable (CAIV)." Occasionally, it's necessary to look beyond contrived revelations to find value.

For a different view of cost growth and variance based on SAR (Selected Acquisition Report) data, see "Cost Variance in Acquisition," by Miguel A. Ortegui, in the November-December 1990 issue of *Program Manager*—if you can find someone with issues that go back that far.

However, those who have participated in the SAR process recognize the limitations in the value of the summary-level SAR data—as well as how it's reported.

Now—this yet-to-be cynic rests.

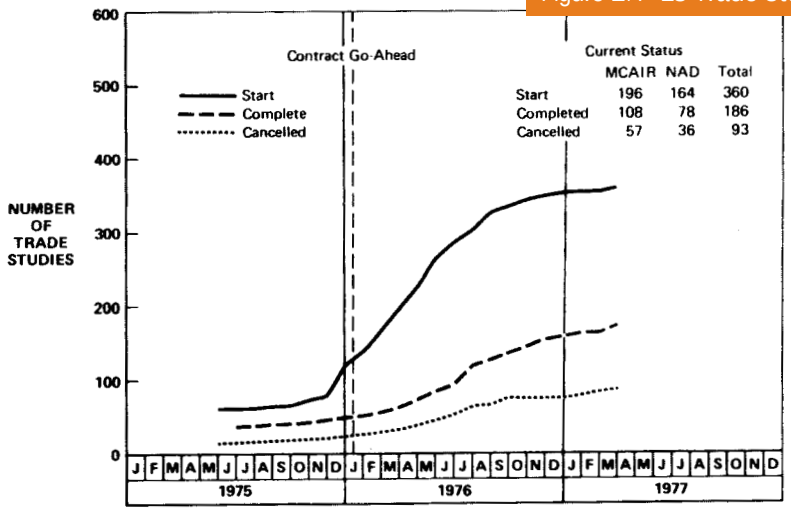
**David H. Allen, CPL, CCA**
**(I never saw a strawman I liked)**
**Thousand Oaks, Calif.**

Figure 1. McAir F-18 Full Scale Development Contract Incentives

- DEVELOPMENT COST INCENTIVE — = 80/20 SHARE RATIO, VARIANCE FROM FSD TARGET COST
- DESIGN-TO-COST AWARD/PENALTY — = 15% (OBJECTIVE – PRODUCTION CONTRACT TARGET), MID-1979
- LIFE CYCLE COST/PROGRAM MILESTONE MANAGEMENT AWARD FEE — ≤ $15,000,000 ..... JAN 76 - JAN 81
- RELIABILITY AND MAINTAINABILITY AWARD FEE — ≤ $24,000,000 ..... EARLY - 1980 TO EARLY 1982

***MAXIMUM FEE = 15% x FSD TARGET COST***

Figure 2. F-18 Trade Study Status




| ITEM | COST SUMMARY | | | WEIGHT (LB) | RELIABILITY | MAINTAIN-ABILITY | PERFORMANCE |
|---|---|---|---|---|---|---|---|
| | FSD | UNIT PROD (K) | LIFE CYCLE ($\bar{M}$) | | | | |
| COMMON F-18/A-18 WHEEL/TIRE | –0.8$\bar{M}$ | +0.4 | –7.5 | +89 | IMPROVED | IMPROVED | DEGRADED |
| WING PYLON JETTISON | –2.1$\bar{M}$ | –4.0 | –23.8 | –40 | NO CHANGE | IMPROVED | DEGRADED |
| WING LE AND TE SURFACES | –8.6$\bar{M}$ | –15.8 | –15.8 | +17 | NO CHANGE | IMPROVED | NEGLIGIBLE |
| WING - FUSELAGE ATTACH | –1.2$\bar{M}$ | –31.0 | –26.6 | +4 | NO CHANGE | NO CHANGE | NEGLIGIBLE |
| FCS COST/WEIGHT REDUC | –0.8 $\bar{M}$ | –33.0 | –33.2 | –60 | IMPROVED | IMPROVED | IMPROVED |
| INCREASED RADAR VOLUME | –0.5 $\bar{M}$ | –18.4 | –31.4 | –3 | IMPROVED | IMPROVED | NEGLIGIBLE |

Figure 3. Example Life Cycle Cost Trades

# 1997 ACQUISITION RESEARCH SYMPOSIUM

**THEME**

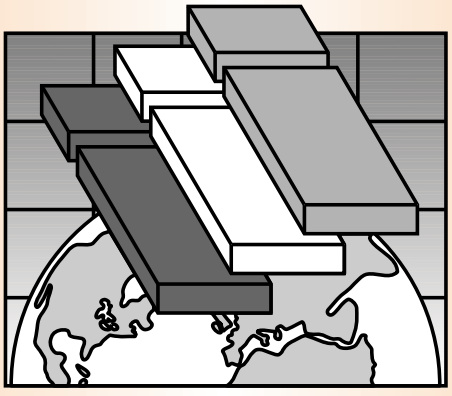
**Acquisition for the Future: Imagination, Innovation, and Implementation**

**SUBTHEME**

**Acquisition Reform: "Sustaining the Momentum – Full Speed Ahead"**

**DATES**

**June 25-27, 1997**



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**Defense Systems Management College and the National Contract Management Association (Washington, D. C., Chapter)**

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**[METRO Red Line, Twinbrook Station]**

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**Phillip Odeen, Chairman BDM International; Member, Defense Science Board**

**Honorable Steven J. Kelman, Administrator, OFPP/OMB**

**Senator John Warner (R-Va.) [invited]**

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- Civilian Agency Acquisition Executives – "Innovation Outside of DoD"
- DoD Service Acquisition Executives – "Looking Ahead"
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## HOTEL RATES & REGISTRATION

Hotel Rates and Registration. Hotel rates are $124.00 (single) and $144.00 (double) per night (plus tax). For reservations, call the **Doubletree Hotel, 1-800-222-TREE, or (301) 468-1100**. To receive these rates, state that you are attending the Acquisition Research Symposium and make reservations no later than May 29, 1997.

## REGISTRATION FORM

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(received & prepaid by May 31, 1997)
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- ACQ Web (Office of the Under Secretary of Defense for Acquisition and Technology)
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- Defense Acquisition University (DAU)
- DoD Acquisition Deskbook
- Defense Technical Information Center (DTIC)
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# Naval Warfare Assessment Division

## Naval Ordnance Center's Premier Testing and Research Facility

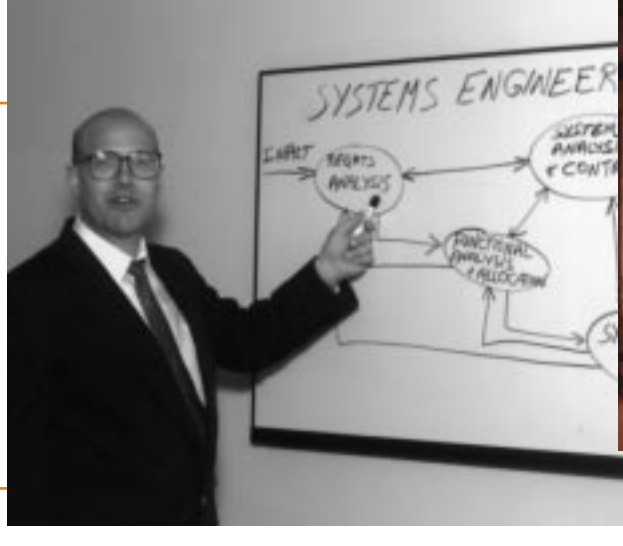
P. A. BARNES

Near Corona, California, in a former resort area once noted for the hijinks of the rich and famous, is the Naval Warfare Assessment Division (NWAD), a premier testing and research facility that offers a high level of instructional expertise for members of the acquisition workforce working toward certification in the Intermediate Systems Planning, Research, Development, and Engineering career field.

DSMC's Commandant, Army Brig. Gen. Richard A. Black visited NWAD as part of an oversight tour of several West Coast Defense Acquisition University (DAU) consortium schools. From left: Robert A. Bennett, Quality Engineering Division Manager, NWAD; Dr. Arthur W. Meeks, Technical Director, NWAD; Black; Navy Cmdr. Michael Bernard, Executive Officer, NWAD.
Photo by Richard Mattox

During March, Army Brig. Gen. Richard Black, Commandant, Defense Systems Management College (DSMC), visited NWAD as part of an oversight tour of several West Coast Defense Acquisition University (DAU) consortium schools. Black observed that NWAD's "primary mission, with its strong emphasis on quality assurance, is somewhat different than the mission of other schools belonging to the consortium." As its name might indicate, the primary purpose of NWAD is to assess the effectiveness of operational and acquisition systems and activities (Figure 1). Black added, "The training that NWAD provides for improving force readiness is particularly important as the Defense Department restructures the Armed Forces."

According to Ronald J. Weis, an instructor of DAU courses, a main strength of the acquisition courses offered by NWAD is its instructors, a cadre of more than 50 multidisciplinary, journeyman-level engineers, mathematicians, and scientists who are working experts in their fields.




### History

In the years before World War II, the U.S. Congress, concerned by events

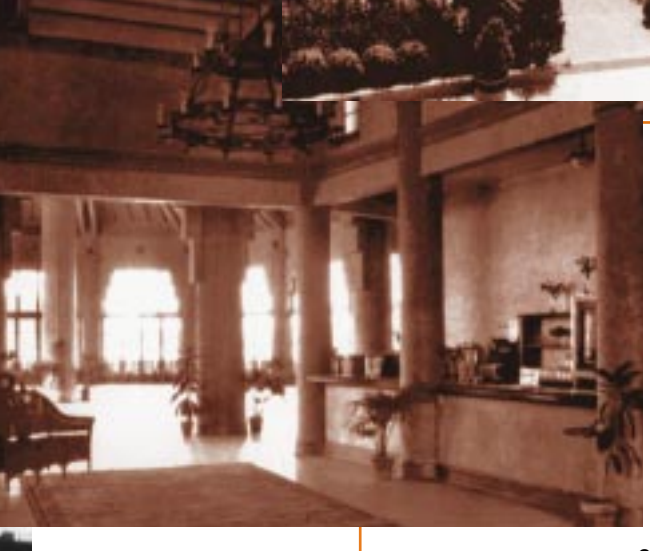
*Barnes is a professional journalist with over 24 years' government service. She is retired from the U.S. Army Reserve, where she served in the Public Affairs and Communications Media career field. She is a recipient of the Army's Keith Ware Award for Excellence in Journalism.*



Department of Navy photos unless otherwise noted.

The Rex Clark Resort circa 1928, the complex on which NWAD's predecessor was established. As war in the Pacific loomed, the U.S. Navy settled on the luxury resort as a site for a hospital. As with many military installations, the complex became federal property under the exigency of war. The Navy turned the old resort, turned Navy hospital, over to the state of California in the early 1960s for a drug rehabilitation center. Today, this view shows the entrance to the warden's office of the California Rehabilitation Center, a medium security prison in Norco, California.

Late 1928 or early 1929. View from the dining room of the Rex Clark Resort's Norconian Club before it became federal property and later a Navy hospital. Photo shows the walkway from the old resort (now the California Rehabilitation Center) down to the casino on Lake Norconian, a 55-acre lake created by Rex Clark. Today the casino is the site of the Navy's Norconian Club.



The lobby of the Rex Clark Resort (the complex on which NWAD's predecessor was established) before it became federal property and later a Navy hospital. The photo was taken on Opening Day, February 2, 1929. Walt Disney, along with many Hollywood notables—Lawrence Welk, Roberta Linn, Frankie Lane, and a very young Bob Hope—stayed at the resort. The lobby is now part of the present day California Rehabilitation Center.

## Figure 1. Categories of Evaluations Performed by NWAD

**Weapons and Combat Systems Performance.** NWAD assesses the capabilities of not only deployed, but also developing weapons and combat systems.

**Unit Warfighting Capability.** NWAD evaluates the mission area effectiveness of unit, Joint, and combined forces in training exercises.

**Tactical Training Range Engineering.** NWAD provides systems engineering services to the Navy Tactical Training Range (NTTR) Program and to the Naval Air Forces.

**Quality Engineering.** NWAD develops and assesses life-cycle quality and program management requirements for contractors and Navy activities and assesses manufacturing processes for production readiness and quality control.

**RM&A.** NWAD evaluates field maintenance and support data to determine the readiness parameters that influence design and logistics support decisions and actions.

**Test Systems Availability.** NWAD develops engineering criteria and processes and assesses the measurement reliability and readiness of test systems.

**Metrology Systems Engineering.** NWAD assesses the adequacy of test equipment calibration plans and standards to meet design and field requirements. It also develops new metrology standards to meet advanced support requirements.

**Weapons Test Engineering.** NWAD assesses the adequacy of weapons tests and gaging to meet design, production, and field requirements.

**Information Systems Engineering.** NWAD collects, processes, simulates, stores, displays, and distributes warfare assessment information to Fleet, shore, and contractor defense communities.

elsewhere in the world, established the National Research Defense Committee to develop new and more sophisticated weapons. The National Bureau of Standards (NBS) in Washington was chosen to become the principal laboratory for this secret work. By 1940, NBS had assembled a distinguished

## Capt. Michael G. Mathis

*U.S. Navy*
*Commanding Officer*
*Naval Warfare Assessment Division,*
*Naval Ordnance Center*

Captain Michael G. Mathis is the Commanding Officer of the Naval Ordnance Center's Naval Warfare Assessment Division in Norco, California, a position he assumed in June 1995.

Captain Mathis was born in Rock Island, Illinois, May 7, 1948, and graduated from North Catholic High School, Portland, Oregon, in June 1966. He earned a Bachelor of Science degree in Chemistry from Seattle University in 1970. After completion of Officer Candidate School in Newport, Rhode Island, Captain Mathis was commissioned an ensign in May 1971. He was awarded a Master of Science Degree in Physics upon completion of the Weapons Engineering Curriculum at the Naval Postgraduate School in Monterey, California, in December 1983. In December 1991, he completed the Program Managers Course at the Defense Systems Management College at Fort Belvoir, Virginia.

Captain Mathis' initial assignment was aboard the U.S.S. *Chicago* (CG-11) as the Electrical Officer and subsequently the Electronic Warfare Officer. During this assignment, he was awarded the Combat Action Ribbon for operations supporting the mining of Haiphong Harbor, North Vietnam. He was assigned to the U.S.S. *Cayuga* (LST-1186) as Operations Officer in January 1975. Following Surface Warfare Officer Department Head School in Newport, Rhode Island, he was assigned as Weapons Officer aboard the U.S.S. *Stein* (FF-1065) in May 1977. Both ships were homeported in Southern California. He was assigned as Combat Systems Officer for Destroyer Squadron 33, Pearl Harbor, Hawaii, in April 1979.

From March 1981 to December 1983, Captain Mathis was assigned to the Naval Postgraduate School. Upon graduation, he was assigned as Executive Officer aboard the U.S.S. *George Philip* (FFG-12) and completed his seventh deployment to the Western Pacific and third to the Indian Ocean and Persian Gulf. In December 1985, he was assigned to Headquarters, Naval Sea Systems Command in Arlington, Virginia, as Director of the Surface Electronic Warfare Decoy Development Branch where he oversaw development of the North Atlantic Treaty Organization (NATO) Sea Gnat Chaff and AN/SLQ-49 Inflatable Decoy programs. He also served as Program Manager for the Advanced Electronic Warfare Decoy known as Nulka, a joint program with the Australian Navy.

Captain Mathis assumed command of the fast frigate, *Jesse L. Brown* (FF-1089), homeported in Charleston, South Carolina, in February 1989. During his time in command, the *Brown* and her crew circumnavigated South America as part of the UNITAS XXX Task Force, and were awarded the Commander in Chief, U.S. Atlantic Fleet Golden Anchor Award for retention, and the Joint Meritorious Unit Award for counter-narcotics operations in the Caribbean Sea and Pacific Ocean.

Following his command tour, Captain Mathis accepted designation as an Acquisition Professional and attended the Defense Systems Management College Program Managers Course in July 1991. Upon completion of course work, he became Director of the Directed Energy Weapons Division of the Space and Naval Warfare Systems Command in December 1991, where he led the Navy's efforts to develop technology for future laser and high-power microwave weapon systems. In October 1993, he transferred to the Program Executive Office for Ship Self Defense, later to become the PEO for Theater Air Defense, as the first Chief of Staff until his assignment as Commanding Officer Naval Warfare Assessment Division.

Captain Mathis' military awards and decorations include the Legion of Merit, the Meritorious Service Medal with two gold stars, the Navy Commendation Medal with gold star, the Combat Action Ribbon, the Battle Efficiency Award, and various other Service and campaign awards.

Captain Mathis was promoted to the rank of Captain July 1, 1992. He is married to the former Jannine LeeAnn Cleveland. They have two children: Elaine Frances and Zachary Michael.

corps of scientists and technicians and begun developing guided weapons, which included everything from radio-controlled bombs to pilotless aircraft. As the war worsened, the NBS was expanded to include a naval ordnance detachment for testing, evaluation, and training. The best known of the weapons developed by NBS was the Navy's BAT, the first operational missile used in combat. The BAT, which homed on pre-selected targets, is credited with sinking several ships in the Pacific during the closing months of World War II.

Following its wartime success, the NBS detachment was renamed the Missile Development Division, and its weapons development and testing mission was expanded. Shortly thereafter, the division was moved to the West Coast and established near the site of a large Naval hospital, which had taken over the site of a luxury resort hotel. The subsequent assignment of analyzing shipboard firing tests of the Navy's Terrier guided missile in 1952 was a key event in the evolution of the Naval Warfare Assessment Division. The outstanding work of the NBS Corona laboratories led to a joint decision by the Secretary of Defense and the Secretary of Commerce to transfer the function of weapons research and development from the NBS to the military. The NBS activity at Corona was transferred to the Navy, renamed the Naval Ordnance Laboratory, Corona (NOLC), and assigned to the Bureau of Ordnance.

In the 1950s, the NOLC's missile evaluation program gradually eclipsed its research program, which resulted in the establishment of a separate evaluation department. This department added two related areas vital to production and overall evaluation of weapons: quality assurance, including the appraisal of a manufacturer's ability to produce a weapon; and design of surveillance programs to determine

the nature and extent of weapons deterioration, both in storage and in use. In accomplishing these missions, the department pioneered the use of large-scale digital computers in processing data. On February 24, 1964, the Missile Evaluation Department was separated from NOLC and established as the Fleet Missile System Analysis and Evaluation Group (FMSAEG). In a 1971 consolidation of related Navy activities, the FMSAEG became an annex of the Naval Weapons Station Seal Beach; in 1976, it was renamed the Fleet Analysis Center (FLTAC) to better recognize its full role. In the 1980s, the FLTAC, the Navy's Metrology Engineering Center, the Gage and Standards Center, and the Weapons Quality Evaluation Center were merged into a technical directorate, which was renamed the Naval Warfare Assessment Center, Corona (NWAC).

### Focus Shifts to Acquisition Courses

In the mid-1970s, the predecessor of NWAD began offering a variety of courses specifically aimed at the acquisition workforce. The curricula included a civilian logistics intern program; product assurance training; and reliability, quality, and maintainability training for the Navy and foreign military sales customers. In 1991, NWAD became a member of the DAU consortium and was certified by the Acquisition Enhancement Program (AEP) Office (the forerunner of DAU) to instruct Quality Assurance (QA) Level II courses. Since that time, NWAD has offered on its own, and helped other schools teach, many courses that fulfill the training requirements for Level II and Level III certification, including the following:

| | |
|---|---|
| QUA 201 | Intermediate Quality Assurance |
| SYS 201 | Intermediate Systems Planning, Research, Development, and Engineering |
| PMT 101 | Basic Program Management |
| ACQ 201 | Intermediate Systems Acquisition Management |
| LOG 304 | Executive Acquisition Logistics Management |
| TST 202 | Intermediate Test and Evaluation |
| TST 301 | Advanced Test and Evaluation |

**The students attending NWAD courses represent all U.S. military services—Navy, Army, Air Force, Marine Corps—as well as the Defense Logistics Agency (DLA).**

According to Ronald J. Weis, an instructor of DAU courses, a main strength of the acquisition courses offered by NWAD is its instructors, a cadre of more than 50 multidisciplinary, journeyman-level engineers, mathematicians, and scientists who are working experts in their fields. Based on the expertise of its training personnel, NWAD was tasked to co-develop a number of acquisition courses in 1994, including the following:

| | |
|---|---|
| ACQ 101 | Fundamentals of Acquisition Management |
| ACQ 201 | Intermediate Systems Acquisition Management |
| PQM 201 | Production and Quality Management |
| TST 202 | Intermediate Test and Evaluation |
| TST 301 | Advanced Test and Evaluation |
| SYS 201 | Intermediate Systems Planning, Research, Development, and Engineering |
| SYS 301 | Advanced Systems Planning, Research, Development, and Engineering |
| LOG 304 | Advanced Acquisition Logistics Management |

Weis, who is presently teaching SYS 201, explains that the number of students attending DAU courses at NWAD has varied depending on demand and availability of the workforce, as well as funding levels. The students attending NWAD courses represent all U.S. military services—Navy, Army, Air Force, Marine Corps—as well as the Defense Logistics Agency (DLA). Figure 2 shows the number of DAU students in NWAD-offered courses since 1992.

### Facility

As with many military installations, the complex on which NWAD's predecessor was established became federal property under the exigency of war. The area originally was the site of a luxury resort, which had been built in 1928 by developer Rex B. Clark after his engineers uncovered hot mineral wells. Clark's resort hotel drew the millionaires and movie-star set from the Los Angeles, California, area until

Figure 2. DAU Students Attending NWAD Courses-1992 to Present

| Service | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|
| Totals | 450 | 480 | 990 | 450 | 570 | 250* |

*Estimated students for winter term.

the Depression struck, devastating the economy. As war in the Pacific loomed, the U.S. Navy settled on the luxury resort as a site for a hospital. The facility was closed down from November 1949 until June 1951, when it was recommissioned to handle patients from the Korean War. At the same time, the Navy Ordnance Laboratory at Corona (NOLC) was established on lakeside property down the hill from the hospital in the former tropical disease wards.

### State-of-the-Art Analysis and Assessment

Today, all that's left of the original NOLC is the metrology laboratory. Next to the old building, the Navy has built the Warfare Assessment Laboratory (WAL), a consolidated, high-security facility for analyzing Fleet readiness and combat systems performance. The heart of the WAL is an integrated operations (Ops) center with 12 workstation-controlled, large-screen displays and a seating capacity for more than 200 people. To assess combat systems and warfighting performance, NWAD employees use state-of-the art technology including—

- distributed graphical analysis workstations;
- multi-dimensional analytical models;
- parallel computer processing;
- large screen displays; and
- video teleconferencing facilities.

These systems are integrated using advanced computer networks and are coupled to Fleet commands and program offices via high-speed data lines and satellite links, allowing near real-time assessments of individual Ship, Battle Group, and Joint exercises, as well as weapons systems tests. Individual phone lines and computer LAN connections at each seat in the auditorium accommodate interactive war gaming. Four "sky boxes" overlooking the Ops center support individual warfare commanders during exercise play. The WAL also has extensive laboratory space for special projects, conference rooms, and a suite of Sensitive Compartmented Information Facilities (SCIF) certified to the Sensitive Compartmented Information (SCI) level.

### From the Commanding Officer

Navy Capt. Michael G. Mathis has served as NWAD's Commanding Officer since June 1995. Mathis speaks with confidence of NWAD's vitality and ability to train the current and future acquisition workforce, charged with sustaining the momentum of acquisition reform. "NWAD's continuing mission of independent analysis and assessment provides it the unique experience and perspective sought for acquisition workforce training. As a consortium member of DAU, NWAD will continue to provide vital training to employees of both the United States and foreign governments as acquisition reform moves into the next century."

Inquiries about the Division should be directed to—

**Commanding Officer**
**Naval Warfare Assessment Division**
**Naval Quality Engineering Training Office**
**ATTN: Ronald Weis/R. Bennett (QA20)**
**P.O. Box 5000**
**Corona, CA 91718-5000**

**Comm:** (909) 273-4976/4625
**DSN:** 933-4976/4625
**Fax:** (909) 273-5315 or DSN 933-5315
**Internet:** weis.ronald@corona.navy.mil
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# DSMC's Acker Library Teams With Automation Department to Install CD-ROM Local Area Network Campus-wide

JANE L. COHEN

*Acker Library's Collection of CD-ROM Information Resources Now Available at Every Campus Workstation*

April 16, 1997, marked the beginning of a new era for the Defense Systems Management College (DSMC) as Army Brig. Gen. Richard A. Black inaugurated the installation of the Acker Library CD-ROM LAN during a National Library Week reception. The Library has provided automated titles in-house for a number of years, but was anxious to take advantage of technological innovations that make remote access to varied resources a reality. In 1996 the Online Catalog became available via the World Wide Web, and Library staff began providing hypertext links to off-site resources from the Catalog earlier this year.

Helen Haltzel, Library Director, explained that access to the new CD-ROM LAN will be available from all buildings on the Fort Belvoir campus. She noted that these resources will now be available 24 hours a day to multiple users, thereby allowing researchers to continue work even when the Library is closed, and ending the wait for workstation time on popular titles. "With crowded class schedules, we often had lines waiting to use our CDs during lunch breaks and before and after classes met," she said. "Now students will be able to launch applications to answer research questions and quote sources during class discussions without even having to leave their chairs."

It took a team effort with the DSMC Automation Department to make the LAN a reality. Issues of varied platforms and search engines became opportunities for both departments to appreciate the benefits of the other's expertise in different areas to reach their common goal. The final step of providing access to the LAN from every workstation on campus was integrated into the upgrade to *Windows* 95, allowing for an integrated introduction to new resources on campus.

The titles now available on the CD-ROM LAN include:
Air University Library Index to Military Periodicals
Business Periodicals (ABI/Inform)
Computer Select
Defense Strategy
ERIC (Educational Resources Information Center)
Federal Budget
Magazine Article Summaries
NTIS (National Technical Information Service)
OGE (Office of Government Ethics)
Standard and Poor's Corporations
U.S. Government Periodical Index
*Wall Street Journal*
*Washington Post*

Editor's Note: Cohen is a former Reference Librarian, David D. Acker Library, Division of College Administration and Services, DSMC.

# Task Force XXI Advanced Warfighting Experiment (AWE)

*Army's Operational Test and Evaluation Command Now Crunching the Numbers*

Secretary of the Army Togo West (left) and Defense Secretary William Cohen meet at the Army's National Training Center at Fort Irwin, Calif., to view Force XXI training in March 1997.

Photo by Linda D. Kozaryn

Personnel have returned to their home stations; equipment has been packed up and moved as well. After one of the largest exercises at the National Training Center (NTC), Fort Irwin, Calif., the dust is finally starting to settle. But for the analysts and evaluators at the Army's Operational Test and Evaluation Command (OPTEC), the work not only continues, but actually increases. OPTEC, through its subordinate command, the Operational Evaluation Command (OEC), has the responsibility to analyze and evaluate the information gathered at the recent Task Force XXI Advanced Warfighting Experiment (TFXXI AWE) held at NTC.

Hundreds of gigabytes and thousands of surveys and interviews must be reduced into a written report by June when it will be presented to Army Gen. William Hartzog, Commander, Training and Doctrine Command. The evaluations contained in the report will *help guide Army decision makers and acquisition executives* as they decide which systems will be fielded with the 21st Century soldier.

**Editor's Note:** This information was extracted from a U.S. Army Operational Test and Evaluation Command (OPTEC) news release, available for public consumption on the OPTEC Home Page:

**http://www.optec.army.mil/news.html**

Look for more on Task Force XXI and the OPTEC evaluations in a future issue of *Program Manager* magazine.

# Naval Facilities Contracts Training Center

## Contracting Specialty Courses—From Cradle to Grave

P. A. BARNES

As the instructor moves about the classroom delivering his lecture on facilities contracting, a camera tracks him, hanging on his every word and displaying his image on a monitor. A student asks a question and the monitor clicks to display her image. And so it goes throughout the class, the monitor switching back and forth between teacher and students. In today's age of technology, televising a course is nothing new. Almost all

MOREELL HALL, NAMED AFTER NAVY ADM. BEN MOREELL, "FATHER OF THE SEABEES," AND HOME TO THE NAVAL FACILITIES CONTRACTS TRAINING CENTER, PORT HUENEME, CALIF.

WITH A PORTRAIT OF NAVY ADM. BEN MOREELL, "FATHER OF THE SEABEES" AS A BACKDROP, MEMBERS OF THE NFCTC STAFF WELCOME THE DSMC COMMANDANT. PICTURED FROM LEFT: DEBORAH SCHULTZEL, OPERATIONS DIVISION DIRECTOR, NFCTC; SHARI DURAND, DIRECTOR, NFCTC; ARMY BRIG. GEN. RICHARD A. BLACK, DSMC COMMANDANT; CHRIS SCOTT, DIRECTOR, ACADEMIC ISSUES, NFCTC.

*Barnes is a professional journalist with over 24 years' government service. She is retired from the U.S. Army Reserve, where she served in the Public Affairs and Communications Media career field. She is a recipient of the Army's Keith Ware Award for Excellence in Journalism.*

Photos by Richard Mattox

major universities employ students to film lectures, which are broadcast to classrooms elsewhere. But no person is operating the camera at this school. The instructor is wearing an infrared, voice-activated microphone that allows the camera to track his movements throughout the classroom. The students have "push-to-talk" microphones that focus the camera on them when they speak. Moreover, the instructor and half of the class are in Port Hueneme, California, while half of the class is in Arlington, Virginia, thousands of miles away.

The contracting class is one of six Level I and Level II Defense Acquisition University (DAU) courses offered by the Naval Facilities Contracts Training Center (NFCTC), a state-of-the-art instructional facility that is a member of the DAU consortium. During his briefing visit in March to the NFCTC, Army Brig. Gen. Richard A. Black, Commandant, Defense Systems Management College (DSMC), was highly impressed with the school, terming it among "the most modern and fully equipped training facilities in the DAU consortium."

## History

The NFCTC was established in 1984 by the Naval Facilities Engineering Command (NAVFAC) to provide specific training in construction and facilities contracts. Its original staff comprised a director, secretary, and six instructors. In 1990, the Defense Management Review Decision 982 consolidated all DoD mandatory procurement courses for construction and facilities contracting under NFCTC. In 1991, NFCTC became a consortium member of the DAU. The school presently has a staff of 34.

## Facility

Recognizing the need for an expanded training facility, a military construction project was approved to build a modern schoolhouse for NAVFAC's Con-

Sally Oswalt, Senior Program Analyst, NFCTC; Army Brig. Gen. Richard A. Black, DSMC Commandant; Shari Durand, Director, NFCTC.

Kathleen Wilburn, NFCTC Instructor, shows Army Brig. Gen. Richard A. Black, DSMC Commandant, and Shari Durand, Director, NFCTC how the Computer Classroom operates.

"We Are On the Air"-Speaking from a classroom in Port Hueneme, Calif., the DSMC Commandant and Director, NFCTC hold a discussion with DSMC personnel located at Fort Belvoir, Va., to demonstrate the effectiveness of Distance Education. Standing: Chris Scott, NFCTC Academic Director. Seated from left: Tony Kausal, Air Force Chair, DSMC; Army Brig. Gen. Richard A. Black, DSMC Commandant; Shari Durand, Director, NFCTC; Navy Capt. John Langan, Deputy Navy DACM.

tracts Training Center. The facility was completed and fully occupied in December 1990. The Navy's Civil Engineer Corps Officers School, as well as NAVFAC's Procurement Measurement and Assistance Team, share the building with NFCTC. The 68,300-square-foot facility houses a library, nine classrooms with fully automated computer and audio-visual equipment, a computer lab for students, two fully equipped computer classrooms, an auditorium, a fully operational print shop that produces all student textbooks on-site, and NFCTC's new distance learning classroom.

## Curriculum

Shari Durand, Director of the NFCTC, explains that she and her staff are committed to ensuring that those from the acquisition workforce attending NFCTC "receive the most current and useful information...We recognize that the legislative and regulatory changes in federal acquisition are a continuing challenge. We are working diligently to incorporate all of these changes into our course materials...."

She stresses that the NFCTC strives to be receptive to student feedback and suggestions. An example of a recently implemented student suggestion is altering the course length of CON 223, Intermediate Facilities Contracting, from 13 days to 10 days. She adds, "We have fully automated our courses that are delivered on-site so that students receive the same presentation methods whether they take our courses in residence or at their facility."

Currently, NFCTC provides five mandatory courses and one assignment-specific course, which fulfill the training requirements for those in the DoD contracting career field. The six courses are Level I and Level II and include—

CON 103
Facilities Contracting Fundamentals

CON 106
Facilities Contracts Pricing

CON 201 (C)
Government Contract Law

CON 223
Intermediate Facilities Contracting

CON 231
Intermediate Contract Pricing

CON 234
Contingency Contracting

Four of these courses, CON 103, CON 106, CON 201 (C ), and CON 223, are specifically tailored for acquisition personnel involved in facilities-related contracting, such as architect-engineer contracting, facilities support service contracts, and military construction contracts. CON 231 and CON 234 are structured for all members of the DoD acquisition workforce. The school also tailors courses for non-DoD agencies.

> *"NFCTC's greatest responsibility is to provide our students with current and practical information and training so they can perform their jobs better. We have been successful because our faculty and operations staff are extremely talented and dedicated."*
>
> *— Shari Durand*
> *Director, NFCTC*

Figure 1.
DAU Graduates of NFCTC Contracting Courses by Fiscal Year

| Course | FY93 | FY94 | FY95 | FY96 | FY97* |
|---|---|---|---|---|---|
| CON 103 Facilities Contracting Fundamentals | 180 | 211 | 290 | 261 | 281 |
| CON 106 Facilities Contracts Pricing | 241 | 291 | 254 | 396 | 359 |
| CON 201 (C ) Government Contract Law | 343 | 337 | 385 | 336 | 440 |
| CON 223 Intermediate Facilities Contracting | 411 | 401 | 405 | 411 | 377 |
| CON 231 Intermediate Contract Pricing | | | 132 | 368 | 384 |
| CON 234 Contingency Contracting | | | | 21 | 280 |
| TOTAL | 1,175 | 1,240 | 1,466 | 1,793 | 2,121 |

*FY 97 are projected graduates

## Future Changes

Beginning in FY 98, NFCTC will significantly change its curriculum of Defense Acquisition Workforce Improvement Act (DAWIA)—mandatory courses. DAU has established a core set of contracting courses that will focus on all contracting areas, vice tailoring the courses to particular areas, such as facilities or base-level contracting. These curriculum changes have been a team development effort by six of the DAU consortium schools. NFCTC's audience will be expanded to cover the entire DoD acquisition workforce.

Since NFCTC began offering DAU courses, the number of acquisition workforce graduates in the various courses has grown from 1,175 in FY 93

to an estimated 2,121 in FY 97. Figure 1 shows the various contracting courses and the number of DAU graduates for each fiscal year. Figure 2 shows the breakdown, by Service, of students taking NFCTC courses during FY 96. The NFCTC DoD mandatory courses have been evaluated and accepted by the American Council on Education's (ACE) Program on Noncollegiate Sponsored Instruction. Students applying for academic credit from degree-granting institutions are awarded three to four semester hours toward a baccalaureate or graduate degree.

## Other Missions

NFCTC also supports the Navy's Engineering Duty Officer (EDO) School by providing faculty support for some of the contracting modules in the EDO's ACQ 201 equivalency course. Moreover, NFCTC offers NAVFAC Specialty Courses, such as Contracting Officer's Technical Representatives, Source Selection, and Environmental Cost-Type Contracting. NAVFAC's contracting offices perform both pre- and post-award functions; therefore, these specialty courses address contracting from cradle to grave.

Inquiries about the Center should be directed to –

**Director, NAVFACCONTRACEN**
3502 Goodspeed Street, Suite 2
Port Hueneme, CA 93043-4337

**Operations Issues**
**(Registration, Student Services)**
Comm: (805) 982-2844

DSN: 551-2844

Internet: dschultzel@cbcph.navy.mil

**Academic Issues**
Comm: (805) 982-2834
DSN: 982-2834
Internet: cscott@cbcph.navy.mil
Fax: Comm: (805) 982-1414
DSN: 551-1414

Figure 2.
Service Breakdown of Students Taking NFCTC Courses, FY 96

| FY 96 COURSE YEAR | | | |
|---|---|---|---|
| Service | DAU Courses | NAVFAC Courses | Service Totals |
| Navy | 7802 | 3093 | 089 |
| Army | 670 | 2 | 672 |
| Air Force | 328 | 5 | 333 |
| Marine Corps | 11 | 17 | 28 |
| National Guard | 5 | | 5 |
| Coast Guard | 1 | 7 | 8 |
| Non-DoD | | 11 | 11 |
| Totals | 1,795 | 2,351 | 4,146 |

# Shari Durand

***Director,***
***Naval Facilities Contracts Training Center***

Shari Durand began her contracting career in 1981 as a SECNAV Contracting Intern at the Naval Regional Contracting Department, Naval Supply Center, Norfolk, Va. In 1983, she transferred as a SECNAV Intern to the Naval Air Systems Command where she worked as a contract specialist on both airframe, research and development, and avionics programs. In 1987, Durand was awarded a SECNAV Fellowship, which allowed her to attend graduate school at The American University on a full-time basis for two semesters. In 1988, she returned to NAVAIR as a Procuring Contracting Officer. She subsequently received a NAVAIR Fellowship for part-time graduate studies. In June 1990, Durand transferred to Navy Public Works Center (NPWC), San Diego, Calif., as a Division Director of NPWC's Contracts Department. After leaving NPWC for a brief period to work at the Resolution Trust Corporation in Costa Mesa, Calif., she returned to NPWC San Diego as the head of the Contracts Department. In January 1995, Durand transferred to the Naval Facilities Contracts Training Center in Port Hueneme, Calif., as the school's Academic Director. She was promoted to NFCTC's Director in August 1995.

Durand received a Bachelor of Science Degree in Psychology from Athens State College in Athens, Ala., in May 1980. In 1990, she received a Master of Science Degree in Procurement Management from The American University in Washington, D.C. Durand was awarded a 1990 Competition Award from the Secretary of the Navy for her work as the Procuring Contracting Officer of the first low rate initial production contract of the Airborne Self-Protection Jammer Program. In 1990, Durand graduated from NAVAIR's Senior Executive Management Development Program. In 1995, she received the Navy's Meritorious Civilian Service Award from NPWC, San Diego. She recently served as the Chairperson of a DoD Working Integrated Product Team on Past Performance Information for Services Contracts.

# 14th Annual DSMCAA Program Managers Symposium

## Implementing Innovative Practices in Defense Acquisition

ED ROBINSON

THE DSMC SOFTWARE ACQUISITION MANAGEMENT EXHIBIT AT THE ACQUISITION EXPO ATTRACTED A FEW HIGH-LEVEL VISITORS. FROM LEFT: R. NOEL LONGUEMARE, PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION AND TECHNOLOGY), ARMY LT. COL. PATRICIA LANE, FACULTY DIVISION, DSMC; DONNA RICHBOURG, ACTING DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION REFORM).

The DSMC Alumni Association recently completed its largest and most successful Program Managers Symposium since the founding of the Association, 14 years ago. Over 284 DoD and industry members of the acquisition workforce registered for the Symposium. This success came at a time when reductions in funds for government training and travel are hampering many professional organizations' training activities. The professional quality of the speakers, panels, and workshops contributed to the heightened attendance and interest in the program.

### Professional Certification

The Symposium was billed as a continuing acquisition education opportunity and a cost-effective means for members of the acquisition workforce to accomplish much of the mandatory 40 hours of annual acquisition training required by Under Secretary of Defense (Acquisition and Technology), Dr. Paul G. Kaminski's acquisition reform implementation memorandum. In order to facilitate professional recognition of the excellent training afforded by the Symposium, the Association completed agreements with the Project Management Institute (PMI), the Performance Measurement Association (PMA), and the National Contract Management Association (NCMA). These agreements provide opportunities for attendees to submit their certificates of Symposium attendance for credit toward meeting or renewing professional certifications offered by these professional organizations.

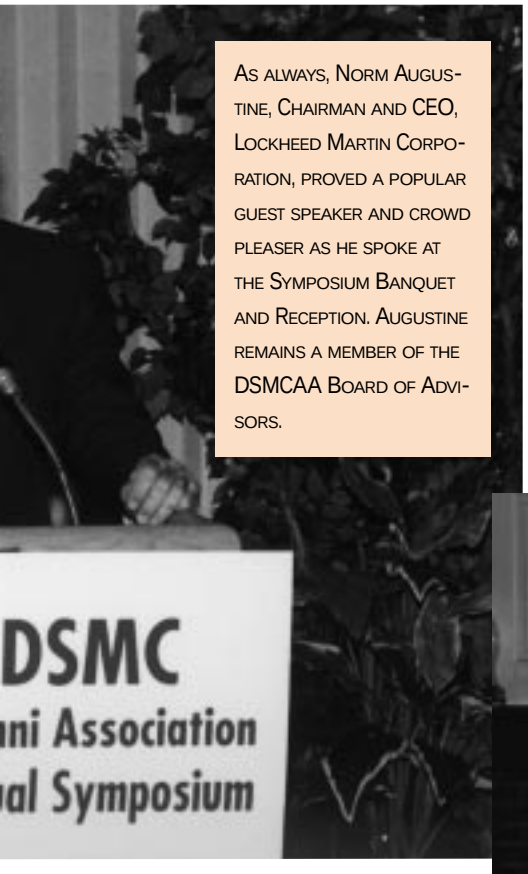
### Fun and Recreation—A Good Start

For early birds, the Symposium began on Sunday, May 4, with a relaxing opportunity for members and families to attend an optional bullpen picnic and baseball game at Prince William County Stadium in Woodbridge, Va., featuring the Prince William Cannons and the Lynchburg Hillcats. These are farm teams for the St. Louis Cardinals and the Pittsburgh Pirates, respectively. Our thanks to faculty member, Paul McMahon, for once again making this option available.

This year, for the first time, we posted details of the picnic and the Symposium along with the Symposium registration on our DSMCAA Website (**http://www.dsmcaa.org/dsmcaa**). If

*Robinson is a Prinicipal at ANSER, Inc., a graduate of PMC 78-2 and the Executive Refresher Course, and a former Army Program Manager. He remains active in the DSMCAA, serving as an Immediate Past President, and Vice-President and Chairman of the 14th Annual Program Managers Symposium. Robinson also chaired the 10th Annual Symposium and was awarded the David D. Acker Award for Skill in Communication.*

Photos by Richard Mattox




As always, Norm Augustine, Chairman and CEO, Lockheed Martin Corporation, proved a popular guest speaker and crowd pleaser as he spoke at the Symposium Banquet and Reception. Augustine remains a member of the DSMCAA Board of Advisors.

you haven't checked out our website yet, please do so and offer your comments and suggestions in the guestbook.

## DAE Presentation

The theme of the symposium, was "Implementing Innovative Practices in Defense Acquisition," with the focus on examples of acquisition reform results as the bottom line. On Monday, May 5, Kaminski, the keynote speaker, delivered one of his last addresses as the Defense Acquisition Executive. Kaminski enumerated the results of many acquisition reform initiatives to date, including the cancellation of over 5000 Milspecs and the adoption of over 500 commercial performance specifications. He illustrated how the Single Process Initiative was extended even to the opening of current contracts, with savings of over $100 million per year.

Other examples included reductions of helicopter parts lead times from 270 days to 8 days through innovative practices, while reducing U.S. support base inventory by $30 billion, and clients' inventories by another $57 billion. Kaminski emphasized the need for the DoD to catch up with industry by continuing its education and development initiatives for acquisition professionals, even while Congress questions the need for the size of the current acquisition workforce.

Three DSMCAA Chapter Presidents were highly visible at this year's Symposium. From left: Gary V. Wimberly, President, Capital Area Chapter; Gayla Wolaver, President, Dayton Chapter; Tom Maday, President, Southern Maryland Chapter.

Air Force Maj. Art Greenlee (right), a DSMC Professor of Systems Acquisition, speaks with conferees visiting the U.S. Air Force Exhibit. Greenlee served as this year's Acquisition Expo and Job Fair coordinator.

Kaminski will leave government with the satisfaction that a sound foundation for acquisition reform has been laid, and with the recognition that the reforms must now be propagated to smaller programs.

## Guest Speakers and Panels

Following Kaminski and welcoming remarks by the Association's Symposium Chair [yours truly], and outgoing

President Wayne Glass, Army Brig. Gen. Richard A. Black, our DSMC Commandant, presented his "State of the College" message.

**State of the College.** Black's remarks included the impacts of continued acquisition workforce streamlining and funding and the College's plans for coping with these changes in the current environment. (Black's briefing is posted on the DSMCAA Home Page for downloading in Power Point.)

**Anthony "Tony" Valetta, DASD($C^3$I).** Our featured speakers this year included a leader from the DoD $C^3$I acquisition community, Tony Valetta, Deputy Assistant Secretary of Defense, $C^3$I. Valetta discussed $C^4$I acquisition results and innovative practices under the new DoD 5000. He also discussed the recently signed Joint Memorandum, "Requirements for Compliance with Reform Legislation for Information Technology (IT) Acquisitions (Including National Security Systems)," dated May 1, 1997. This memorandum, with an associated checklist of Chief Information Officer (CIO) and DoD Program Requirements, keyed to acquisition milestones and statutory and regulatory requirements, is now accessible on the DSMCAA Home Page.

**Program Managers Panel.** The Program Managers Panel on Monday afternoon, introduced and moderated by the DSMC Commandant, was one of a continuing series of program highlights. Each Service/DoD Component and ACAT level was represented, including a Program Executive Officer (PEO). Moreover, each Service representative to the panel was carefully chosen by the Service Acquisition Executive and his staff. These included—

- Army ACAT I Program Manager for the Comanche Helicopter Program, Brig. Gen. James R. Snider;
- Navy ACAT II Program Manager, Capt. John Jarabak, Program Manager for Submarine Combat Systems, PMS 425;
- Marine Corps ACAT III Program Manager, Col. Rick Owen, PM Ground Weapons, and former PM Light Armored Vehicles; and
- Brent R. Collins, Air Force PEO for Space Systems.

**"We, [DSMCAA] are always looking for new volunteers and Board and Committee members to continue and improve on our ongoing initiatives toward increasing services and value for our members."**

The Service PMs and PEOs were chosen for their results in implementing innovative acquisition practices.

Representing industry on the Panel was Martin O'Sullivan, Vice President and Director, Business Process Management, Motorola Corporation. O'Sullivan recounted his experiences with the innovative commercial Iridium consortium that is working to establish a worldwide constellation of communication satellites that will provide instant worldwide commercial communications from mobile phones. The Iridium program is a model for innovative commercial practices.

The excellence and innovation represented by this panel of experts, and the exchange of dialogue among the audience and program managers, were unprecedented in this forum from my long-term perspective.

### A Power-Packed Second Day

Tuesday, 6 May, included a full day of four sessions, consisting of 28 workshops, organized by DSMC professor, Bill Fournier, and presented by subject matter experts. Tuesday also featured the opening of an expanded Acquisition Expo, including government and industry displays of innovative acquisition tools. Displays were located in the registration and break area in the Packard Executive Conference Center, Building 184, and outside of Howell Auditorium.

Dr. Steve Kelman, Administrator, Office of Federal Procurement Policy (OFPP), was Tuesday's featured luncheon speaker. Kelman discussed acquisition reform implementation at the federal level, where he has several ongoing reform initiatives directed at bringing many of the DoD concepts to federal agencies. These include the soon-to-be-released Capital Programming Guide and revised OMB Circular A-11. Kelman has maintained ongoing active forums on various issues, including FAR part 15, on the World Wide Web's Acquisition Reform Net (ARNet).

The Symposium highlight, a reception and banquet on Tuesday evening, featured Lockheed Martin's dynamic Chairman and CEO, Norm Augustine. Always a crowd pleaser, he is the author of the ever-popular acquisition speakers' bible, *Augustine's Laws*. This was an excellent opportunity to hear

one of the giants of industry as he closes out his career as CEO and Chairman of Lockheed Martin Corporation, before retiring to a visiting faculty position at Princeton.

Augustine's 10-year tenure in a key CEO position is more than double the traditional tenure at that level. The DSMCAA is proud to have featured Norm Augustine as its first banquet speaker 14 years ago, and as a continuous member of its Board of Advisors for 14 years. He was given a standing ovation at the conclusion of his speech. A summary of Norm's speech will be featured in an upcoming DSMCAA Newsletter.

Wednesday's activities began with a congressional update from Cathy Garman, Vice President, Government Affairs, National Security Industrial Association, and Meredith Murphy, McDonnell Douglas Corporation, Government Affairs. Cathy was a majority staffer on the House Armed Services Committee, who contributed greatly to writing and passing the Federal Acquisition Streamlining Act (FASA).

Wednesday morning also featured all of the Service Acquisition Executives in our SAE panel presentation and discussion. R. Noel Longuemare, the Principal Deputy Under Secretary of Defense, Acquisition and Technology, introduced the Acquisition Executives and moderated the SAE Panel questions and discussion period. SAEs, or their representatives, included Arthur Money, Air Force Service Acquisition Executive; Dr. Kenneth Oscar, Acting Assistant Secretary of the Army, Research, Development and Acquisition; and Rear Adm. Michael Sullivan, Principal Deputy Assistant Secretary of the Navy, Research, Development, and Acquisition.

The featured luncheon speaker was Dan Czelusniak, Director, Acquisition Program Integration, Office of the Under Secretary of Defense (Acquisition and Technology), who spoke on "Program Stability." His presentation included an impressive display of statistics on the impacts of program instability and funding issues.

Following the luncheon at the Officers Club, the Association conducted its annual meeting, which included the announcement of the newly elected officers for the coming year. The new list of officers is posted on the Association Home Page.

### And We'd Like to Thank—

Finally, the Symposium adjourned to the Packard Center for a free networking session and Job Fair for all Association members, with representatives from various industries. Thanks go to DSMC faulty member, Air Force Maj. Art Greenlee, for his work in putting together the Acquisition Expo and the Job Fair this year. It was clearly the biggest and best ever. The work of our new support contractor, Kane Associates, was clearly evident in the overall expansion and improvement of many of our Symposium services, including the Expo and the Job Fair.

Alberta Ladymon, DSMC's Administrative Officer, Division of College Administration and Services, represented the College on our small Symposium Committee and was indispensable in coordinating the many areas of support that we received from the DSMC Commandant and Army Col. Charles W. Westrip, Jr., Dean, Division of College Administration and Services, and their respective staffs.

Finally, the Service representatives to the Board of Directors were absolutely essential in putting together the excellent Program Manager and Acquisition Executive panels and in getting the word out through their Home Pages and military contacts. The Service representatives included Army Lt. Col. (P) William Fast; Alex Dean Bennett, Navy; Marine Corps Col. Rick Owen; Kay Brewer, Air Force; and Air Force Col. Terry Raney.

As previously mentioned, a new Symposium feature this year includes increased professional certification. The Project Management Institute (PMI) will consider Symposium attendance toward PMI certification points for qualification as a Project Management Professional (PMP). The National Contract Management Association (NCMA) will accept Symposium attendance for Certified Professional Contract Manager (CPCM) or Certified Associate Contract Manager (CACM) recertification credit.

The DSMCAA Board of Directors and the Symposium Committee have gone to great lengths to make this the best Program Managers Symposium yet offered by the Association. We hope that it will meet many of our member's needs for continuing acquisition education at an affordable price. We welcome your comments, suggestions, and participation. Please feel free to contact us via the DSMCAA Website. We are always looking for new volunteers and Board and Committee members to continue and improve on our ongoing initiatives toward increasing services and value for our members.

For Symposium questions or future registration information, please contact the Association Office:

**DSMC Alumni Association**
**7205 Burtonwood Drive**
**Alexandria, VA 22307**

**Comm:** 1-800-755-8805
or (703) 765-4725
**Fax:** (703) 765-5162
**E-mail:** DSMCAA@cais.com
**Website:** http://www.dsmcaa.org/dsmcaa

Lyn Dellinger, newly elected DSMCAA Vice President (Symposium), will chair the 15th Annual Program Managers Symposium in 1998. Lyn also welcomes comments or suggestions concerning next year's event. She may be contacted at the following E-mail address:

**dellinge@erols.com**

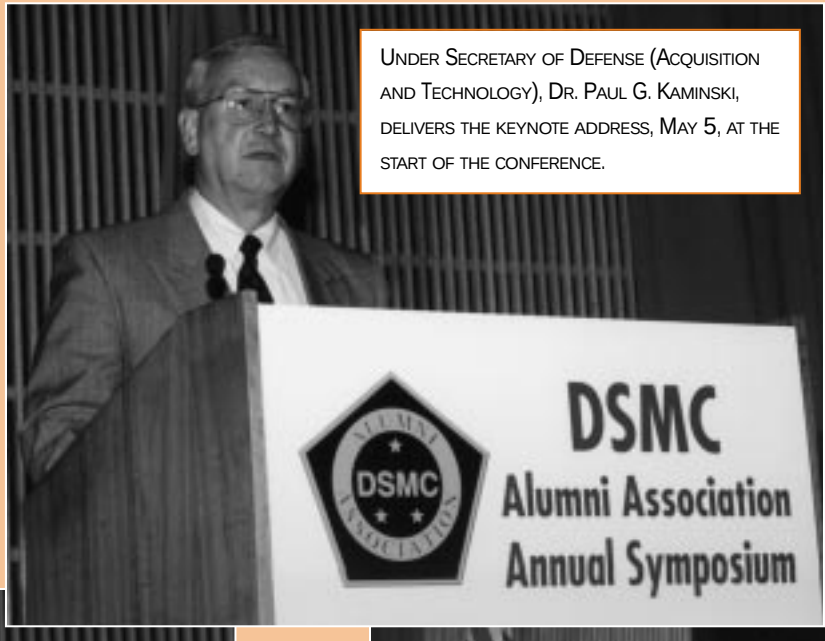
We'll look forward to seeing you at next year's Symposium.

# 14th Annual Program

## May 5-7, 1997

"This year's Symposium was...a continuing acquisition education opportunity and a cost-effective means for members of the acquisition workforce to accomplish much of the mandatory 40 hours of annual acquisition training required by Under Secretary of Defense (Acquisition and Technology), Dr. Paul G. Kaminski's Acquisition Reform Implementation Memorandum."

**–Ed Robinson**
*Symposium Chairman*



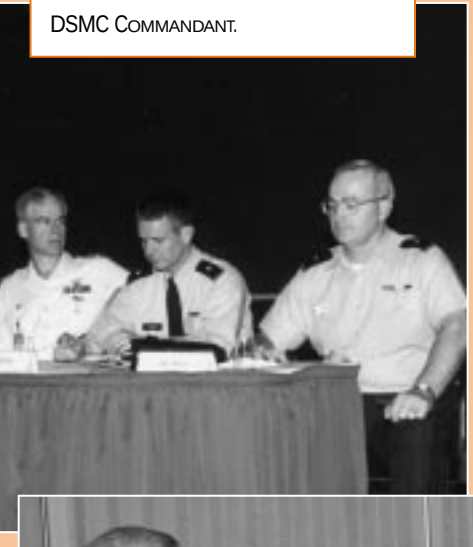

Under Secretary of Defense (Acquisition and Technology), Dr. Paul G. Kaminski, delivers the keynote address, May 5, at the start of the conference.

Art Money, Air Force Service Acquisition Executive, also participated in the Service Acquisition Executives Panel, conducted on the third day of the Symposium.

Dr. Kenneth Oscar, Acting Army Service Acquisition Executive, was a member of the Service Acquisition Executives Panel, which was conducted on the third day of the Symposium. SAEs or their representatives participated in discussion and fielded questions from the conferees.

# Managers Symposium

Program Managers Panel. From left: Marine Corps Col. Rick Owen, ACAT III Program Manager, PM Ground Weapons, and former PM Light Armored Vehicles; Brent R. Collins, Air Force PEO for Space Systems; Martin O'Sullivan, Vice President and Director, Business Process Management, Motorola Corporation; Navy Capt. John Jarabak, Navy ACAT II Program Manager for Submarine Combat Systems, PMS 425; Army Brig. Gen. James R. Snider, Army ACAT I Program Manager for the Comanche Helicopter Program; Army Brig. Gen. Richard A. Black, DSMC Commandant.



Anthony "Tony" Valetta, Deputy Assistant Secretary of Defense, $C^3I$, discussed $C^4I$ acquisition results and innovative practices under the new DoD 5000 as well as the recently signed Joint Memorandum, "Requirements for Compliance with Reform Legislation for Information Technology (IT) Acquisitions (Including National Security Systems).

Attending the Symposium Reception are from left: John Mathias, former DSMC Professor; Troy Caver, former DSMC Professor; Joanne Barecca, DSMCAA Board of Directors; Dr. Andy Mosier, former DSMC Professor. All are members of the DSMCAA Capital Area Chapter.

From left: Army Brig. Gen. Richard A. Black, DSMC Commandant; Steve Kelman, Administrator, Office of Federal Procurement Policy; Joanne Barecca, DSMCAA Board of Directors; retired Army Lt. Col. Wayne Glass, President, DSMCAA; retired Army Col. Ed Robinson, Past President and Vice President/Chairman, 14th Annual PM Symposium (1997).

# DSMC Hosts Fifth Semiannual PEO/SysCom Commanders/PM Conference

## "Reducing Total Ownership Cost"

BOB O'DONOHUE • COL. DAYTON SILVER, USAF

R Noel Longuemare, Principal Deputy Under Secretary of Defense for Acquisition and Technology and Chairman of the Defense Manufacturing Council (DMC), hosted the fifth PEO/SysCom Commanders/PM Conference, held at the Defense Systems Management College Fort Belvoir main campus, April 22-23. This conference, attended by over 300 senior people from the Services, Defense Agencies, and the Office of the Secretary of Defense, focused on Reducing Total Ownership Cost and improving cohesion and unity of purpose between those persons and organizations focused traditionally on the acquisition portion of a program's life cycle, and those focused primarily on the sustainment phase. A special highlight of the conference was the surprise presentation of the David Packard Award for Acquisition Excellence to the departing Under Secretary of Defense for Acquisition and Technology, Dr. Paul G. Kaminski, by former Secretary of Defense William Perry. The SAEs also made a special presentation to Dr. Kaminski.

### Top Two Acquisition Leaders Report Out

Kaminski opened the conference with a keynote address, providing a "report card" on acquisition reform activities and summarizing the recent Acquisition Reform Week. Longuemare next

As a farewell gift, the SAEs presented Dr. Paul G. Kaminski, USD(A&T), a beautiful color sketching of himself, surrounded by each of the SAEs who served during his tenure as the Defense Acquisition Executive (1994 to 1997). From left: John Douglass, Navy SAE; R. Noel Longuemare, PDUSD(A&T); Kaminski; Gil Decker, Army SAE; Darleen Druyun, representing Art Money, Air Force SAE.

*O'Donohue and Silver are the Executive Secretary of the Defense Manufacturing Council and Deputy, respectively. Both are from the Strategic and Tactical Systems Office, Office of the Under Secretary of Defense for Acquisition and Technology.*

Photos by Richard Vigue

Dr. Paul G. Kaminski (center), USD (A&T), attends his last PEO/SysCom Commanders/PM Conference prior to leaving office. Former Secretary of Defense William Perry (right), traveled from California to personally award Kaminski the David Packard Award for Innovative Practices in Defense Acquisition. Assisting Perry in the presentation is R. Noel Longuemare, PDUSD(A&T).

gave examples of the fiscal and force level imperatives leading to the Conference theme: "Reducing Total Ownership Cost" and the related objectives of improving the integration of Acquisition Reform and Logistics Reform. He noted inadequate funds are available to modernize our forces and, since about 80 percent of DoD's system inventory in 2010 already is operational today, lowering the operations and support costs of these *existing systems* will be the primary means of making funds available for modernization.

## Old Business

Three action items from previous conferences were briefed. Dan Czelusniak, Director of Acquisition Program Integration, summarized the Department's efforts to improve program stability, including possible increases in reprogramming limits, the use of risk management funding pools, and possible reprogramming across "colors of money." [Note: Conference briefings are available on DMC's Web Page at **http://www.acq.osd.mil/dmc.**

Tom Crean, President of Defense Acquisition University, detailed progress in the education and training arena, including the Distance Learning initiative.

Finally, Mike McGrath outlined the pending shift in focus for the DMC, broadening its view to include "the other 70-80 percent: the operations, support, sustainment, and modifications costs that occur beyond the original system development, production, and deployment."

## Logistics Reform

The next two speakers initiated a more detailed examination of logistics reform. John Phillips, Deputy Under Secretary of Defense for Logistics, spoke on "Reengineering Logistics for the 21st Century," echoing Longuemare's comments with what he called the "geriatric challenge": supporting and maintaining systems originally designed for lives of 20-30 years that we now plan to keep in the inventory from 50 to over 90 years. The focus of all the logistics reform efforts is to provide better support to the warfight-

Conferees from DUSD(AR) and DSMC. From left: Brenda Curts, Confidential Assistant to Dr. Kaminski; Donna Richbourg, Acting Deputy Under Secretary of Defense (Acquisition Reform); Linda Black, wife of the DSMC Commandant; Edward Hirsch, Deputy Commandant and Provost, DSMC.

Obviously enjoying the conference are three of the acquisition community's most senior leaders. From left: John Douglass, Navy SAE; Paul G. Kaminski, USD(A&T); Gil Decker, Army SAE.

ers while reducing operations and support costs.

Bob Mylott, Manager of Commercial Applications at Caterpillar, Inc., gave a luncheon address on "The Caterpillar Road to Reinventing Logistics," contrasting commercial and DoD achievements in worldwide user support by describing how Caterpillar streamlined its worldwide logistics system, resulting in dramatic reductions in parts transit times and inventory levels. Many of these techniques have direct DoD application, and presently are under study for possible adoption.

## Panels Convene

The afternoon of the first day and morning of the second day consisted of sessions designed by the Services and Joint Staff. Two afternoon panels discussed specific approaches for reducing Total Ownership Cost by using examples from actual programs. The first, designed by the Navy, featured Mark Adams, Director of the Continuous Acquisition and Life-Cycle Support Office, leading a group of program managers focused on introducing fully computerized Integrated Product Data Environments (IPDE) at various program life-cycle phases: Navy Capt. Maurice Gauthier from the LPD-17, Army Col. Don Schenk from Combat Mobility Systems, and Air Force Col. Jack Hudson from the F-15 recounting their implementation experiences; as well as Gary Jones, Defense Advanced Research Project Agency's Simulation-Based Design program manager, discussing opportunities offered by emerging technologies.

Next, Army Brig. Gen. Joe Yakovac, Deputy for Systems Acquisition, U.S. Army Tank-Automotive and Armaments Command, moderated a panel including program managers from the Paladin and Kiowa Warrior systems that discussed "Commercial Approaches to Supporting Fielded Systems."

Following an evening mixer, Phillips chaired a question-and-answer session with a panel consisting of senior executives from both the Acquisition and Sustainment communities. Panel members included Dr. Ken Oscar, SARDA; Air Force Lt. Gen. Ken Eickmann, Commander, ASC; Navy Vice Adm. John Lockard, Commander, NAVAIRSYSCOM; Army Maj. Gen. Charles Mahan, ODCSLOG; Navy Vice Adm. Paul Robinson, NAVSEASYSCOM; Marine Maj. Gen. Joseph Stewart, HQ USMC; and Air Force Gen. (select) George Babbitt, Director DLA. After the highly interactive session, Kaminski charged each panel member to provide Phillips—

- examples of 'best practices' that are making significant contributions to reducing total ownership costs (TOC);
- specific actions they are launching that will help reduce TOC; and
- actions that have the potential to reduce TOC, which might benefit from a pilot program to generate conclusive evidence on their value.

The evening mixer also served to launch an Offsite to be held on May 28 that will tackle elements of an integrated acquisition-logistics attack on LCC.

## Day Two

Air Force Maj. Gen. John Hopper, Vice Director for Logistics (J4), the Joint Staff, began the conference's second day by presenting "Joint Vision 2010 and the Concept of Focused Logistics," showing the Joint Staff's approach for dramatic improvement to warfighter support worldwide.

The next two sessions were designed by the Air Force, the first one summarizing the application of Commercial-Like Warranties as a Tool to Reduce Ownership Costs, with the Joint Direct Attack Munition (JDAM) program as an example. The government and contractor program managers, Oscar Soler and Charles Dillow, gave the briefing jointly, offering the audience a chance to ask each how they viewed the JDAM warranty structure.

Next, Jim Bair, Director of Engineering at HQ AFMC, discussed the impact of Acquisition Reform on Sustainment, using the Performance-Based Business Environment (adopting private-sector practices to acquire DoD systems) and the Single Process Initiative, to show how acquisition reform and sustainment efforts could be blended harmoniously and related implementation challenges.

Luncheon speaker Jim Sinnett, McDonnell-Douglas Corporation's Corporate Vice President for Technology and Chair of the Industry Affordability Task Force, provided "Some Industry Observations on Affordability," his message echoing that of the conference:. Acquisition – and Acquisition Reform – extends throughout the life cycle, from requirement, or need, through retirement and disposal. So also should an Affordability "mindset" and cost-reduction initiatives. Jim agreed that Cost has replaced the Warsaw Pact as our monolithic threat; and force structure, force readiness, force sustainment, and our supporting acquisition infrastructure all are intertwined inexorably to serve our warfighters and our Country. Affordability in process and product, across all life-cycle phases, is our key challenge.

The final conference activity was the Senior Acquisition Executives Panel, chaired by Kaminski. Panel members included Longuemare; John Douglass, Navy SAE; Gil Decker, Army SAE; Darlene Druyun, representing Art Money, Air Force SAE; and Tony Valletta, Deputy Assistant Secretary of Defense ($C^3I$ Acquisition), representing Emmett Paige, Jr., the ASD($C^3I$). A lively discussion with the audience covered a wide range of topics across the acquisition and logistics reform arenas.

## Looking Ahead

The next conference, tentatively planned for October, will continue to explore ways to reduce costs throughout the entire system life cycle.

# FIFTH SEMIANNUAL

# PEO/SysCom Commanders/PM Conference

APRIL 22-23, 1997

Cost has replaced the Warsaw Pact as our monolithic threat, and force structure, force readiness, force sustainment, and our supporting acquisition infrastructure all are intertwined inexorably to serve our warfighters and our Country. Affordability in process and product, across all life-cycle phases, is our key challenge.

*-Jim Sinnett*
*McDonnell-Douglas Corporation's Corporate Vice President for Technology and Chair of the Industry Affordability Task Force*

JEANINE MACEO, REPRESENTING THE OFFICE OF ELECTRONIC COMMERCE/ELECTRONIC DATA INTERCHANGE, DUSD(AR) SPEAKS WITH A VISITOR TO THE EC/EDI EXHIBIT. OTHER EXHIBITS INCLUDED THE DEFENSE LOGISTICS AGENCY'S ELECTRONIC MALL, DEFENSE ACQUISITION DESKBOOK, THE DEFENSE MICRO-ELECTRONICS ACTIVITY, AND OTHERS.

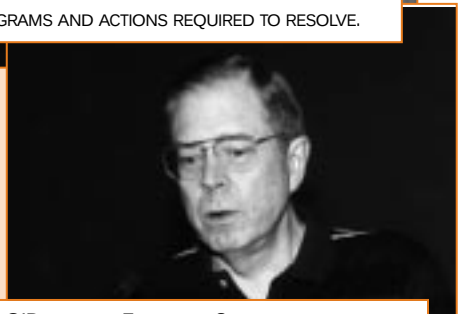
A HIGHLIGHT OF THE SECOND DAY OF THE CONFERENCE, THE SENIOR ACQUISITION EXECUTIVES (SAE) PANEL ALLOWED THE CONFEREES AND SAEs AN OPPORTUNITY TO INTERACT. PICTURED FROM LEFT: JOHN DOUGLASS, NAVY SAE; R. NOEL LONGUEMARE, PDUSD(A&T); DR. PAUL G. KAMINSKI, USD(A&T); DARLEEN DRUYUN, REPRESENTING ART MONEY, AIR FORCE SAE; GIL DECKER, ARMY SAE; TONY VALLETTA, DASD ($C^3I$ ACQUISTION).

Photos by Richard Vigue

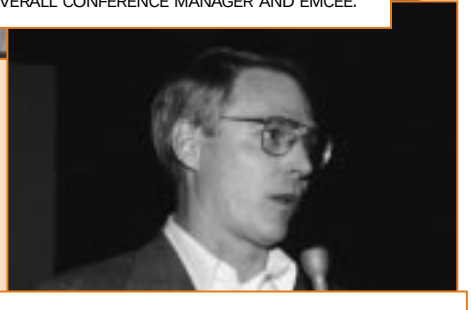
# PEO/SysCom Commar

## Continued...

Dan Czelusniak, Director, Acquisition Program Integration, USD(A&T) discussed the 3:1 cost impact of funding instability on programs and actions required to resolve.



Bob O'Donohue, Executive Secretary to the DMC– overall conference manager and emcee.



Luncheon speaker Bob Mylott, Manager of Commercial Applications, Caterpillar, Inc., described steps Caterpillar took to "reinvent" its worldwide logistics system.

As the second day's luncheon speaker, Jim Sinnett, McDonnell-Douglas Corporation's Corporate Vice President for Technology and Chair of the Industry Affordability Task Force, talked about industry's observations on affordability.

Army Brig. Gen. Joseph Yakovac, Deputy for Systems Acquisition, U.S. Army Tank-Automotive and Armaments Command, led a discussion of commercial approaches to supporting fielded systems, using Paladin and Kiowa Warrior as examples.

# nders/PM Conference

Air Force Maj. Gen. John Hopper, Vice Director for Logistics (J4), The Joint Staff, discussed how the concept of focused logistics will help achieve Joint Vision 2010.

Mark Adams, Director, Continuous Acquisition and Life Cycle Support, ODUSD (Logistics), led a panel of program managers discussing implementation of Integrated Product Data Environments.

John Phillips, Deputy Under Secretary of Defense (Logistics), described actions needed to reengineer Logistics for the 21st Century.

After a mixer the first evening, the Senior Military Executives Panel, moderated by John Phillips, DUSD (Logistics), fielded questions from the conferees on total ownership cost issues. From left: Navy Rear Adm. Paul Robinson, representing the DCNO (Logistics); Air Force Lt. Gen. Bill Hallin, DCS/Logistics, HQ USAF; Army Maj. Gen. Charles Mahan, ODCSLOG; Navy Vice Adm. John Lockard, Commander, NAVAIRSYSCOM; Air Force Lt. Gen. Ken Eickmann, Commander, ASC; Dr. Ken Oscar, SARDA. Panel members not shown: Air Force Gen. (select) George Babbitt, Director DLA and Marine Maj. Gen. Joseph Stewart, HQ USMC.

Tom Crean, President, Defense Acquisition University (DAU) spoke on acquisition education and training, including DAU's current distance learning initiative.

Charles Dillow, McDonnell-Douglas Corporation's Joint Direct Attack Munition (JDAM) Program Manager, described industry's role in applying commercial-like warranties to reduce military program ownership costs. Leading the discussion, Oscar Soler, JDAM Program Manager, spoke on government's role.

# Training the Contracting Officer (CO) of the Future

## Our Acquisition Courses Must Reflect the New Role of COs

RALPH C. NASH, JR.

There seems to be general recognition that the role of the contracting officer (CO) is changing quite sharply at the present time. With the use of credit cards for micro purchases and other simplified acquisitions, most of the smaller purchases are being made by technical and program people. On the larger purchases, the CO is being told that he or she is now a member of an Integrated Product Team (IPT) and must function as a team player. In addition, the regulations are being rewritten to reduce the number of mandatory rules and to emphasize that the CO is expected to exercise discretion. With all of these changes occurring simultaneously, it seems clear that the CO of the future will play a different role than in the past.

If this is so, we need to sit back and figure out what skills the CO of the future will need to continue to play a meaningful role in the work of the contracting agency. I like to think of these skills as contributions the CO would make at the initial acquisition planning session of the IPT. We then need to assess our training programs to ascertain whether they are equipping COs with these skills. I fear that this assessment will show that current training is sadly lacking. But let's take a look at the five skills that I think will be essential.

### Skill 1—Knowledge of the Rules of the Game

This skill has been the bedrock of the contracting profession. At a public conference in Los Angeles last summer, a CO in the audience summed it up nicely by asking, "If you take away most of the mandatory regulations, how will I keep the technical people honest?" My answer was that if that was the main role of the CO, it wasn't a very high calling. We must know the rules of the game to avoid abuse of the contracting process and carry out the intent of Congress and the policy makers in the Executive Branch, but surely this is a subsidiary part of the job. The rules are merely a means to an end and not the end itself.

But there will still be a lot of detailed rules in the new contracting process, and the CO will be expected to know what they are. This is especially true of the most fundamental rule, which is stated in the Guiding Principles of Federal Acquisition Regulation (FAR) 1.102-2 as follows:

> (c) Conduct business with integrity, fairness, and openness. (1) An essential consideration in every aspect of the System is maintaining the public's trust. Not only must the System have integrity, but the actions of each member of the team must reflect integrity, fairness, and openness. The foundation of integrity within the System is a competent, experienced, and well-trained, professional workforce. Accordingly, each member of the team is responsible and accountable for the wise use of public resources as well as acting in a manner which maintains the public's trust. Fairness and openness require open communication among team members, internal and external customers, and the public.

But the Guiding Principles also make it clear that the rules should be kept to a minimum. See FAR 1.102-4 stating:

> (e) The FAR outlines procurement policies and procedures that are used by members of the Acquisition Team. If a policy or procedure, or a particular strategy or practice, is in the best interest of the government and is not specifically addressed in the FAR, nor prohibited by law (statute or case law), Executive Order or other regulation, government members of the team should not assume it is prohibited. Rather, absence of direction should be

*Nash is Professor Emeritus of Law at The George Washington University, Washington, D.C., from which he retired in 1993. He founded the Government Contracts Program of the University's National Law Center in 1960; was director of the program from 1960 to 1966, and again from 1979 to 1984; and continues to be actively involved in the program. He was Associate Dean for Graduate Studies, Research and Projects, of the Law Center from 1966 to 1972.*

> interpreted as permitting the team to innovate and use sound business judgment that is otherwise consistent with law and within limits of their authority.

What is the state of training with regard to this skill? My assessment is that this is the one area where our training is adequate. Admittedly, there are some courses where the FAR is taught by rote, and this is close to useless because COs need to know the purpose of the rule and its underlying policy to be able to use it. But most courses on government procurement contain enough discussion of the rules to earn a satisfactory grade in this area.

### Skill 2 – Ability to Exercise Sound Business Judgment

If it is correct that we are moving from a world of detailed rules to a world of discretion, it follows that COs must be able to exercise their discretion wisely. This is not a new role for COs that regularly conduct best-value procurements, because they understand that the ultimate source-selection decision is a discretionary one. But many COs have not thought of themselves as discretion exercisers. In the new world of government procurement, this will be one of the essential skills of the contracting profession.

Here the state of training is almost totally inadequate. For some reason, our training programs have almost completely ignored the need to teach COs this skill. Let me quote some highly relevant language from the Executive Summary of Ron Fox's report, "Critical Issues in the Defense Acquisition Culture" (Defense Systems Management College, December 1994):

> Notwithstanding a recent, sharp increase in the number of personnel sent to government acquisition courses, most government and industry managers are disappointed with the quality of government acquisition training. Government managers made frequent references to the heavy emphasis on communicating rules and regulations rather than building business management and judgmental skills in much of their acquisition training. Practitioners expressed a strong need for more practical training in lessons learned, in dealing with dilemmas encountered in acquisition programs, and in developing skills required to work effectively with contractors. Supplying this training does not entail costly or sophisticated computer programs or simulation exercises; it requires the preparation of materials to be read or viewed, and scheduled time for prospective program managers to question and discuss with peers and with experienced acquisition managers, the typical acquisition problems encountered, and promising approaches to mitigating the harmful effects of problems once they arise.

**The CO should be conversant with all existing acquisition strategies [and tactics] that have been used to buy comparable products and services and should be able to propose innovative ways to use these strategies and to improve the procurement process.**

Fine tuning the current approach to acquisition training will not produce the needed changes. The creation of a professional acquisition corps requires a revolution in acquisition training. The "lecture and vugraph" approach to training has been found wanting in every profession, from medicine, law, and business, to aircraft piloting, professional sports, and combat arms. Professional training requires the opportunity to question, discuss, and *practice* the skills one is expected to perform in a profession. It also requires that lessons from actual experience be collected systematically, communicated, and practiced as part

of one's preparation for the profession.

Now Ron was assessing training programs for program managers, but what he says is equally applicable to training programs for COs. In this area, we must change our training to incorporate case studies with adequate time for classes to work the case and critique their responses with knowledgeable professionals.

### Skill 3 – Knowledge of Strategy and Tactics

The CO should be conversant with all existing acquisition strategies that have been used to buy comparable products and services and should be able to propose innovative ways to use these strategies and to improve the procurement process. Most COs are well aware of the strategy that has been used by their agency in the past—indeed, most RFPs seem to have been constructed by the cut-and-paste method. But that is not enough. Other agencies are buying the same products or services using different strategies, and they may be doing a better job. For example, one agency may obtain services using a multiple-year indefinite quantity contract, while another agency may accomplish the same result using a single-year contract with options for additional years. COs must know all of the choices.

This is a difficult skill to acquire because little acquisition training is focused on strategy, and most agencies haven't publicized their strategies. However, improvements are occurring in this area. In the past several years, there has been a concerted effort to publish "lessons learned" detailing the strategy that was used in many new and innovative procurements. Much of this information is now available on the Internet. All that remains to be done is to incorporate this information in a methodical way in our training programs.

**In the new world of government procurement, this [exercising discretion wisely] will be one of the essential skills of the contracting profession.**

### Skill 4 – Knowledge of the Market

In my classes I have asked for years, who brings knowledge of the market to the acquisition planning table. The answer, all too frequently, is that the technical people know the market. Well, that may be useful, but it should not be the complete answer. The CO should be fully knowledgeable about all of the facets of the market. He or she should know what companies are selling the products or services the agency buys and what developments are occurring with those products or services in the commercial world. The buying practices of commercial buyers of the same products are also highly relevant to a full understanding of the market. Indeed, in my ideal world, the CO would come to the acquisition planning meeting with a full knowledge of the market (as well as full information on all acquisition strategies), while the technical people would come to the table with full knowledge of the needs of the agency.

In this area, again, our training is woefully inadequate. Perhaps it is because we haven't identified this as a skill necessary for COs, but there is very little training in this area. But it should be an important ingredient in future training programs.

### Skill 5 – Ability to Function Successfully As a Team Member

One of the most fascinating things about the Guiding Principles in FAR 1.102 is that they avoid the use of the term "Contracting Officer." They only speak in terms of the "Acquisition Team." Thus, they assume that the CO will function in the future as a member of a team, not as the person responsible for the back end of the procurement process. No more "over the transom" with a procurement request, and the CO runs the show from then on.

This is a new role for many COs. It emphasized the fact that the CO is a member of a service organization, not

an independent actor. Of course, we know that the CO is both—he or she has the independent authority to sign contracts and modifications, but also functions within an organization where others determine how much money to request, what to buy, and how to use what is bought. Thus, the real power in any contracting agency resides in agency management, not in the CO. It is a truism that any CO, in this real-life situation, functions best when acting as a member of the team rather than acting as an independent agent. In our view, the Guiding Principles merely make this truism manifest in regulatory language.

I would argue that this perception of the CO as a member of an IPT is the most important contribution of the Guiding Principles. I would further argue that this *enhances* the role of the CO. If implemented effectively, it brings the CO into the acquisition process at an early stage (program planning and budgeting), and permits full participation in all of the decisions that are made in obtaining a product or service. Of course, it permits other agency personnel to participate fully in the later stages of the process where the CO has previously had the strongest voice. But this is as it should be. In the team concept, each member of the team is entitled to a full voice in each decision—with the ultimate decision being determined on the basis of what is best for the team. The good CO will relish this situation, knowing that he or she can make a major contribution in this free market of good ideas. The CO with no ideas will not do well because other members of the team will quickly learn that the CO has nothing to contribute to the conversation. What is happening is that the CO must lead by knowledge and persuasion, not by citing rules and regulations.

**We must know the rules of the game to avoid abuse of the contracting process and carry out the intent of Congress and the policy makers in the Executive Branch...**

Does our training teach the skills necessary to function as a team member? I doubt it. Most of our training is still based on the assumption that the CO is an independent operator. It is my guess that training in the future will deal with this problem by having the key members of the IPT attend the same training program and address the case studies together. Perhaps there are other ways to teach successful team participation, but this would be a step in the right direction.

## The Look of the Future

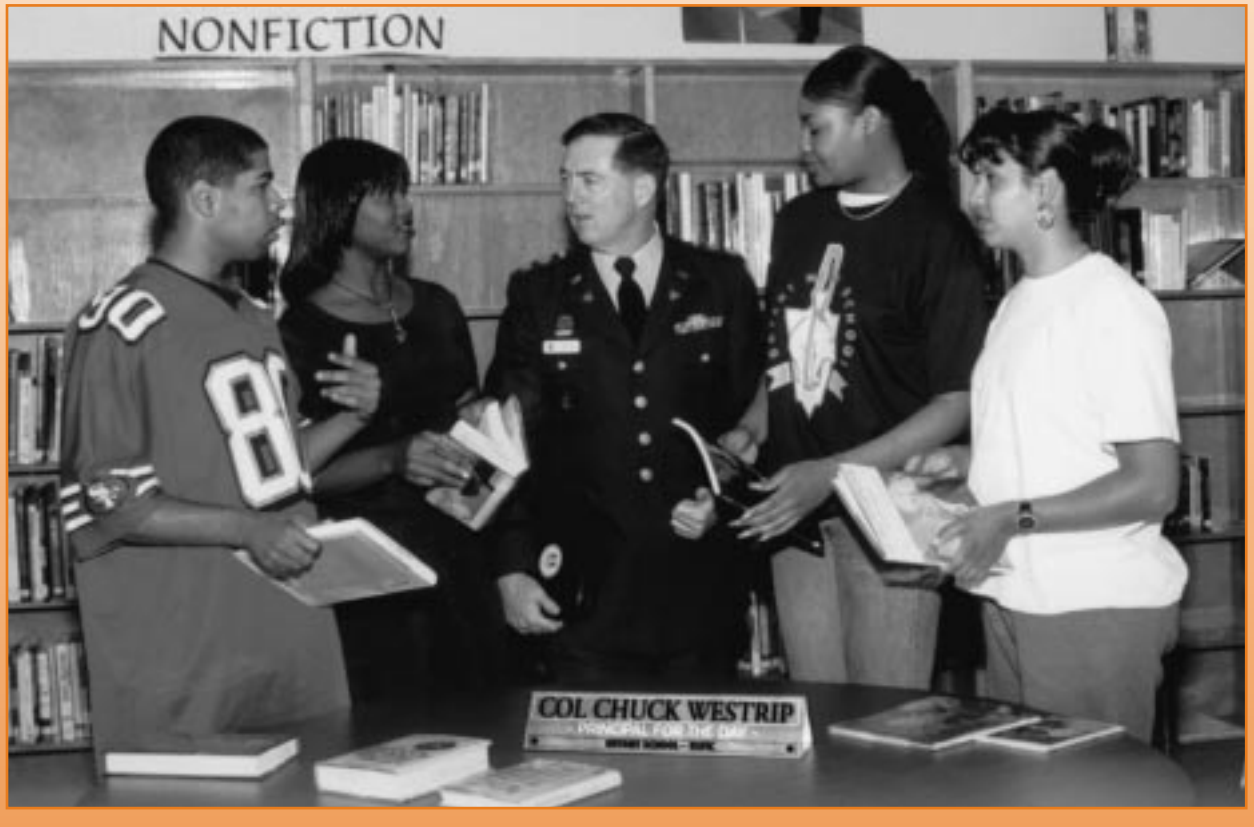
It seems to me that the future is very bright for the CO functioning as a member of an IPT with all of these skills. I have talked to a number of COs in this situation, and I have yet to find one that didn't relish the role. In reality, a CO with all of these skills would be the logical person to chair the IPT.

The current COs with these skills have acquired them on the job, and perhaps that is to be expected in an environment that has changed as quickly as ours has in the past few years. But it is time for our training programs to catch up with the new reality. All organizations, especially the DoD Consortium Schools that teach acquisition, should review their courses to ensure that they teach these skills. For most organizations, this means integrating case studies into their courses and spending a good bit of class time critiquing and discussing solutions to the problems posed. Instructors will have to be knowledgeable in the new skills as well as in teaching techniques that effectively communicate them. Students will be required to do a considerable amount of homework in analyzing case studies and background materials. We'll all have to work harder, but the results should be worth the effort.

DSMC Dean Serves as

# Principal for the Day

## At Bryant Adult Alternative School




Army Col. Charles Westrip, Jr., DSMC's Dean of College Administration and Services, experienced a day as principal, and gained a clearer understanding of the unique opportunity available to students who get a "second chance" to receive a high school diploma. DSMC and Bryant have been partners in education since 1993. From left: Sam Johnson III; Safiath Bungur; Westrip; Corneshia Jenkins; Esmirna Paiz.

Photo by Richard Mattox

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# From The Commandant

In the two months that have elapsed since I last spoke to you from this column, we've participated in and observed several noteworthy events. Acquisition Reform Day II (detailed in a series of articles beginning in our May/June issue, and continuing in this issue, p.34), allowed all of us, working as a team, to step back and really take a hard look at what we and others are doing to promote acquisition reform.

Our cover story (p. 2) announces an exciting event for the Defense Acquisition University (DAU) and the Defense Systems Management College (DSMC)—the opening of our new Mid-Atlantic Region at Fort Monmouth, N.J, on April 11. Please join DAU and DSMC in welcoming the Region's new Director, Suellen Phair-Back.

This permanent classroom provides DSMC, and other DAU consortium schools that teach courses at Monmouth, a quality teaching environment for the large acquisition workforce population in this area. This is also the first step in the DSMC Corporate Plan to take more acquisition education and training to the workforce, making it more accessible to them.

We've also hosted a number of activities around campus that provided our acquisition workforce the opportunity to network and broaden their skills. During April 22-23, we once again hosted the semiannual PEO/SYSCOM Commanders/PM Conference, sponsored by the Chairman, Defense Manufacturing Council, R. Noel Longuemare (p. 88).

On April 24, we were invited to Dr. Kaminski's Online Session with the Worldwide Media (p. 42). It was a great opportunity to share his perspectives on defense acquisition and technology issues as he prepared to leave office. Also, it marked the first opportunity for the worldwide media, using Internet technology, to electronically question Dr. Kaminski on a wide range of topics.

The DSMC Alumni Association's 14th Annual Program Managers Symposium, May 5-7 (see p. 82), along with its Acquisition Display, Job Fair, and popular guest speakers, achieved record attendance (over 280 participants).

Also included in this issue are the first two in a series of articles concerning our DAU consortium schools. This issue highlights the Naval Warfare Assessment Division (p. 72) and the Naval Facilities and Contracts Training Center (p. 78).

Our senior acquisition leaders have also been busy promoting the acquisition reform initiatives before Congress that we need to "sustain the momentum." Let me briefly discuss Dr. Kaminski's recent testimony before a House Armed Services Committee acquisition subcommittee.

Dr. Kaminski testified that because our DAWIA acquisition workforce is going to be smaller, we need to improve their training. He is not yet satisfied with the amount of training we're providing the professional acquisition workforce. He is, however, our strongest advocate and ally in pushing hard for the resources and legislation we need. He's fighting this battle on four fronts:

- First, bigger overall budgets for our educational institutions (train our workforce to think on their own "outside of the box"), to use their good judgment based on sound acquisition management knowledge.
- Second, expand distance learning and continuing education. DAU is already heavily involved in the move toward distance learning and continuing education. They're working hard to put in place the delivery systems and technology that will drive distance learning, both classroom via Video Teletraining (VTT) and computer-based training. Educational hubs and satellite locations like our new Fort Monmouth Mid-Atlantic Region will be vital to the overall efforts to provide continuing education for the workforce. Working with DAU, the consortium schools will package these courses into modules appropriate for distance learning and improve the availability of acquisition management training materials at the work sites.
- Third, Just-in-Time (JIT) training—send people to training (or vice versa) just before they begin work on a major acquisition event).
- Fourth, institutionalize long-term acquisition reform, including continuing education.

I believe this College and the other consortium members are equal to the challenge. We're going to not only meet increased demand for acquisition courses in our Regions but also, through distance learning and continuing education, save TDY costs for that large segment of the acquisition workforce located in close proximity to our Regions.

Several other events are happening around campus. Look for articles in future issues covering the 1997 Acquisition Research Symposium, June 25-27; and the Ninth Annual International Acquisition/Procurement Seminar in Mannheim, Germany, July 7-11.

Bridging the gaps between RD&A and O&S; RD&A and T&E; and RD&A and technical base/combat development communities is another article we're developing. We'll also feature an article on Task Force XXI and the TFXXI AWE (Advanced Warfighting Experiment) at the National Training Center. (See p. 77 for an update on the status of OPTEC's final assessment.)

Other upcoming topics will include an update on program stability from Daniel Czelusniak, Director, Acquisition Program Integration, Office of the Under Secretary of Defense (Acquisition and Technology), as well as interviews with senior leaders selected to fill key positions vacated by Dr. Kaminski and members of his staff.

Dr. Kaminski said it best in his speech to the professional acquisition workforce on Acquisition Reform Day II, March 17, 1997. "In this world, you're either moving ahead or you're falling behind. We can't stop where we are and rest on our laurels." They've done a great job, and now we've got to carry forth with implementation and institutionalization of their initiatives and programs.

Our challenge in the face of all the personnel changes is to truly "sustain the momentum" and keep acquisition reform moving "full speed ahead."

— Brig. Gen. Richard A. Black
U.S. Army
Commandant

# PM

A Bimonthly Magazine
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