Fielding Equipment Second to None

By

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[The following is a reprint of the prepared remarks of Secretary Kaminski presented to the Acquisition and Technology Subcommittee of the Senate Armed Services Committee, on March 19, 1997, in Washington, DC.]

Mr. Chairman, members of the subcommittee and staff, thank you for the opportunity to appear before you today to discuss the Department of Defense's program of acquisition reform and how it supports the department's overall modernization plans and the warfighter's needs.

As I look at the defense acquisition system in detail, what I find is that the system is not broken—it fields equipment that is second to none in the world. The American people can take comfort in the fact that U.S. defense acquisition work force is the very finest in the world. But the system can and must operate much more efficiently.

Reforming DoD's acquisition system is the principal reason why I agreed to serve as the defense acquisition executive. Lasting acquisition reform requires commitment to a continuous process of improving a system which took over 50 years to build. The department must continuously evaluate the way it does business in order to ensure that the warfighter has access to leading edge technology that is affordable and militarily effective. Our vision is to be the smartest, most efficient, most responsive buyer of best value goods and services to meet the warfighters' needs.

DoD has achieved a large measure of success with acquisition reform. The department has made a number of critical and historical changes that are now being institutionalized and beginning to bear fruit. However, there are still many areas that require further work. This statement is a report card on where we have been in acquisition reform. It is also a strategic plan for where we are going in the future. The department cannot, and will not, rest on its laurels. DoD is committed to sustaining the momentum built up during the last four years by continuing to institutionalize the reforms already begun.

Mr. Chairman, you may have heard of the department's studies of a revolution in military affairs, or RMA. The revolution derives not from a single innovation or idea, but from a fundamental change in the way America fights. The revolution is driven by making full use of a wide range of new technology involving sensors, computers, low observables, precision guided munitions, and telecommunications.

Today, I describe a vision of a second but related revolution—a revolution in military acquisition affairs—or RMA2. This second revolution has and is continuing to change the way America develops and fields weapon systems. Like the first revolution, this second revolution is driven by capturing the synergism derived from the integration of multiple thrusts. In particular, we are making progress on seven broad fronts: re-engineering the acquisition support provided to warfighters: continuous improvement of acquisition business processes: reducing weapon system life cycle costs; incentivizing a stable execution environment for acquisition programs; implementing statutory and regulatory reforms; conducting pilot demonstrations of promising acquisition reform initiatives; and maintaining an experienced, highly trained, professional acquisition work force. Mr. Chairman, in this overall framework, procurement reform is only a subset of the overall acquisition reform program under way in the Department of Defense.

My No. 1 priority is to get systems fielded that will be useful to our combat forces and to do that as quickly and with as low a cost as we possibly can. Our first acquisition reform thrust area—supporting the warfighters—is aimed at making this happen. Acquisition cycle time—the time it takes to develop and field an operational capability—is a key measure of progress in this area. We need to ensure that those responsible for overseeing the acquisition process do not forget that our main aim is to field systems, not to conduct endless reviews or to impede development by imposing unnecessary hurdles.

The Department of Defense cannot afford a 15-year acquisition cycle time when the comparable commercial turnover is every three to four years. The issue is not only cost. The lives of our soldiers, sailors, Marines, and airmen will increasingly depend upon shortened acquisition cycle times as well. In a global market, everyone, including our potential adversaries, will gain increasing access to the same commercial technology base. The military advantage goes to the nation which has the best cycle time to capture technologies that are commercially available, incorporate them in weapon systems, and get them fielded first.

New national security challenges require DoD to design a more flexible, agile, and timely acquisition system capable of meeting unpredictable threats. This means that the DoD acquisition system must improve its support to the warfighter by reducing the acquisition cycle time and leveraging the latest available technologies, particularly information technology.

ADVANCED CONCEPT TECHNOGY DEMONSTRATIONS

Mr. Chairman, I am pleased to report that our acquisition system is responding well to this challenge. On a departmentwide basis, our Bosnia Command and Control Augmentation and Advanced Concept Technology Demonstration (ACTD) initiatives provided unprecedented support to the NATO Implementation Force (IFOR) in Bosnia and continues to do so with the Stabilization Force (SFOR) and our other operational forces deployed around the globe.

Initially, the Department of Defense created this ACTD approach to jump start our slow acquisition system. Now I see strong evidence that the services have embraced and are using OSD [Office of the Secretary of Defense]-developed ACTD principles to speed up and improve the responsiveness of their own acquisition systems. The Army's major initiative in this area is called Force XXI. In the Navy, it's called Smart Ship. The Air Force is standing up six new battle labs. All of these initiatives build on the ACTD concept.

Advanced concept technology demonstrations provide a framework by which we seek out emerging technologies to respond to our more critical military needs and incorporate those technologies into fieldable prototypes. These prototypes are then placed in the hands of our warfighters for evaluation. The fundamental question posed to the warfighter during the ACTD is, "Does this capability respond adequately to the need?" Where the answer is yes, we can field that capability years earlier than would otherwise be possible.

The use of fieldable prototypes to evaluate a proposed new military capability pays very large dividends in a number of ways. First, it allows our military users to explore new tactics, concepts of operation and doctrine to fully exploit these new capabilities.

Second, ACTD evaluations occur in their intended use and with their intended users rather than solely on a test range. This permits the user to judge the true contribution that the proposed system will make, recommend adjustments to improve performance and do so before an acquisition decision is made. In today's budget environment, we must choose carefully how we invest in modernization. With ACTDs, we give the warfighter an opportunity to use before we choose.

A third ACTD benefit is that operational demonstrations permit us to focus the technical specifications on the military mission and not overengineer them to stress system aspects which are not necessarily militarily significant. Fieldable prototype demonstrations permit us to more effectively define the operational requirements prior to entering into quantity procurement.

A fourth benefit realized from the use of fieldable prototypes is the ability to leave the ACTD residual systems with the user to provide a limited operational capability.

Fifth, ACTDs foster a close teaming relationship between our military operators and the developers/technologists who are providing the new capability. This relationship results in a better understanding of the military needs and constraints by the developers/technologists and a better understanding of the potential capability by the operators. On a broader level, we see that organizations like the United States Atlantic Command in Norfolk, Va., are engaged in constant dialogue with the technical sponsors, such as DARPA [Defense Advanced Research Projects Agency], of each of those ACTDs.

Finally, ACTDs, under the sponsorship of a unified commander, can serve as a critical agent in fostering joint interoperability. A single ACTD will commonly draw technologies from multiple sources including service laboratories and defense agencies. In doing so they focus each of these organizations on the full scope of the military need, including interoperability.

I would like to highlight some of the significant operational results and progress we have achieved with a number of our ACTDs. Of the 23 ACTDs we have started in fiscal years 1995 and 1996, we have completed six. I expect we will complete three more during this calendar year.

The most visible ACTD, and one of the first to be completed, was the **Predator medium altitude endurance UAV** [unmanned aerial vehicle], which was deployed in support of Operation Joint Endeavor [in the Balkans]. The Predator air vehicle is about 49 feet from wing tip to wing tip. The fuselage is 27 feet long. Its maximum weight is 1,873 pounds; about 450 pounds of that is the payload. The payload contains two sensor packages—a synthetic aperture radar and an electro-optical/infrared package. It has a 500-nautical-mile range and an endurance on station at this range of 24 hours.

Perhaps the most amazing aspect of this ACTD is that we went from concept to first flight in just six months—from January 1994 to June 1994. The ACTD was completed in June 1996 after proving military utility in the Roving Sands '95 air defense exercise, supporting U.N. forces operating in Bosnia in 1995, and again providing support to NATO forces in 1996. This April we expect to enter into production.

Predator was a tremendous learning experience for us in understanding both the military value that results from rapid fielding of a critical new capability and in highlighting the challenges that we must meet in order to achieve our initial objective of more quickly developing and fielding new systems. We will continue to exploit the lessons learned on how to conduct military assessment and transition ACTDs to acquisition.

In October 1996, we concluded the **Counter Multiple Launch Rocket ACTD**, which dealt with the severe threat posed by the North Korean multiple launch rocket capability located just north of the demilitarized zone and within range of Seoul [South Korea]. This ACTD demonstrated and fielded significant improvements in capability related to rocket launch detection, command and control and counterfire, necessary to effectively deal with this threat.

Times required to respond to multiple launch rocket attacks were reduced from 15 to 20 minutes to three to four minutes, and the accuracy of the counterfire was increased dramatically. This ACTD was initiated as an all-Army effort, but as it progressed, was expanded to include

significant participation and contribution by both Navy and Air Force units. Maj. Gen. [Tommy R.] Franks, the commanding general of the 2nd Infantry Division in Korea, said, "The way we need to put technology into the Army for the future is just the way we did it for this Counter MRL [multiple rocket launcher] ACTD. The soldiers have had a chance to play with it and influence the outcome."

Gen. [George A.] Joulwan, commander in chief, U.S. European Command, as the operational sponsor, clearly articulated the purpose of the **Counterproliferation ACTD** as being "to develop, integrate, demonstrate and transition to the warfighters a military ready capability to destroy WMD [weapons of mass destruction]-related facilities." Initiated in fiscal year 1996, this ACTD is still in progress but has already demonstrated some significant results. In December 1996, a full end-to-end demonstration of the capability to accurately characterize, target and destroy a storage facility for weapons of mass destruction was successfully accomplished.

The Air Base/Port Biological Detection ACTD was also initiated in fiscal year 1996. Its objective is to provide significant enhancements in biological detection capabilities to military installations and responds directly to requests from several CinCs [commanders in chief]. This capability has already been fielded, and site surveys are presently under way for expanded operational deployment later this year. The commander of the Marine Corps Systems Command has requested procurement of additional systems to support the Marine Corps Chemical/Biological Incident Response Force.

I ask the committee to give its full support to the department's Advanced Concept Technology Demonstration initiative and to the president's budget request for ACTDs. It is an important part of our overall acquisition reform program and our plans to improve acquisition support to the warfighter. I invite you and members of your staff to review the results of completed or ongoing ACTDs and later this year to examine those additional ACTDs we will select for initiation in fiscal year 1998.

To support the NATO Implementation, now Stabilization, Force in Bosnia, I approved spending about $80 million on an information-communications initiative to be sure we have superb command, control and communications systems for Operation Joint Endeavor. Although not a formal ACTD, this initiative used many ACTD principles to improve the intelligence provided to the forces enforcing the Dayton peace accords in Bosnia.

The impetus for this initiative came from a 1994 Defense Science Board (DSB) summer study and a subsequent DSB task force established to assess intelligence support provided to our forces as we were preparing for deployment to Bosnia late in 1995. The DSB found that the intelligence available to our forces in the field was often limited to the 9.6 kilobit/second communications modems. At this rate, it was taking upwards of one-half hour to transmit a single photograph or image.

The **Bosnia Command and Control Augmentation (BC2A)** initiative improved our communications capabilities in two ways: first, by using commercial TV satellite technology to provide a direct broadcast communications capability; and secondly, by fielding a wide bandwidth, secure tactical internet connection through fiber and commercial satellite transponders. These communications allow military planners and logisticians on the ground in Bosnia, in the European command headquarters in Germany, and back in the Pentagon to have access to the same data at the same time—this access is available to virtually anyone with a 20-inch receive antenna, cryptologic equipment, and authentication codes. We have designed the system in such a way that we are giving local commanders a 5,000-mile remote control to select the programming that they receive over their 30 megabits-per-second downlinks from direct broadcast satellites—that's about a 3,000-fold improvement in throughput capability compared to 9.6 kilobit/second modems.

operational assessments identified a number of potential problems that led to design changes, additional system development work and in some cases, a re-examination of system requirements. On the F/A-18E/F, a switch problem was identified in time for incorporation into production systems. The early tester involvement on these and other programs has led to avoidance of costs associated with later correction of these problems.

The second theme involves **combining development test (DT) and operational test (OT) activities** to enable more efficient use of test resources. In the case of the joint standoff weapon (JSOW), combining DT and OT flight tests allowed a reduction of the originally planned 18 OT launches to 14 with the saved missiles being used to gain early deployment experience. In planning for the AIM-9X, testers eliminated 10 missile firings and saved $70 million through combined DT/OT and combining AIM-9X testing with other weapons systems testing.

The third theme deals with **combining testing with training or field operations** to reduce the cost of testing as well as improved its realism. The Joint STARS [Joint Surveillance and Target Attack Radar System] OT program was modified due to its deployment to Bosnia. The operational testers participated in the deployment and gathered sufficient information to address many of the test issues and support a production decision. The M-1A2 tank follow-on test to verify correction of deficiencies was carried out completely in a training environment. Since the test objectives focused on tank reliability, the unit commander was completely unhampered in structuring the operations to meet his training objectives.

Theme 4 is concerned with expanding the use of **modeling and simulation (M&S)**—beyond using specially constructed M&S tools for resolution of test issues—to using the same M&S tools used in system design for test issue resolution. The Aegis test facility at Moorestown, N.J., is primarily a development facility, but it was recently used to test an upgrade to the Aegis SPY-ID radar in support of a production decision.

In addition to using the test facility, real targets, and electronic countermeasures, simulation was used for a variety of additional targets, including those with low radar cross-section, low elevation propagation paths, and the clutter expected from a moderate sea state. These tests identified several problems, demonstrating the utility of these simulations.

M&S is helping to evaluate the strategic sealift ships and enabled reducing the number of loading and unloading tests from four to two. M&S will examine the load and unload times for the other two ship variants as well as some of the many possible load configurations. M&S plays a major role in most testing by supporting test planning to optimize use of test resources.

And the fifth theme is encouraging greater participation in the ACTD process by test personnel and organizations—from assisting in ACTD planning and evaluation to supporting the transition of ACTDs to acquisition programs at the program initiation milestone. The Predator unmanned aerial vehicle ACTD included participation by the Defense Evaluation Support Agency and the Air Force operational testers. Their participation helped to identify system problems and will support entry into acquisition at a production point, saving considerable time in a development process.

DoD established a process action team to look at ways the **government purchase card** can be promoted within the department for micropurchases, interdepartmental transfers and as a payment vehicle for purchases under $2,500. Data collected for the first half of FY [fiscal year] 1996 list nearly 1.2 million purchase card transactions. This accounts for approximately 51 percent of simplified acquisitions at or below $2,500. From performance in previous fiscal years, it is estimated that the department will have 3.23 million purchase card transactions valued at $1.36 billion in FY 1996. This estimates nearly doubles the totals for the previous fiscal year.

The Defense Logistics Agency's **Prime Vendor** contracts allow the government to use its purchasing power to negotiate lower prices and long-term distribution arrangements with commercial distributors of market-ready or commercial products. Electronic data interchange is being used to help re-engineer our buying practices to do what smart commercial buyers do.

Prime Vendor contracts have changed the way we do business in our mess halls. Under the old way of doing business, we would have each of our mess halls contract for food. They would buy food for some period of time because of our slow acquisition system—perhaps six months at a time for bulk items. They would store that food in a warehouse, and then our own transportation system would deliver food from that warehouse to our mess hall on a daily basis. That's the old way of doing business.

The Prime Vendor Direct program established a basic ordering agreement with a volume discount for all the food that our mess halls need. The cooks, on the evening before breakfast, call up the vendor and orders the items for breakfast. The cooks can order breakfast based on the number of people expected to show up for breakfast the next morning. The food is fresh. we have eliminated our warehouse, and we have eliminated the portion of our base transportation system that supports mess hall food deliveries. So we not only improved the quality of the product, we have reduced the cost for doing that work.

We have taken this prime vendor idea—first used to purchase subsistence items and uniforms—and have now extended it to other areas as well. We now buy pharmaceuticals this way. Our lead time has gone from 27 days to 24 hours. We have been able to reduce our inventory for over 170,000 pharmaceutical items. We are buying auto parts this way now, and the lead time for parts has gone from 36 days to seven days. For helicopter parts. the lead time has gone from 270 days to eight days with a 70 percent cost savings.

A major focus of our acquisition reform program is to reduce the life-cycle cost of our new and existing systems. On new systems, it means paying attention to life-cycle costs early in the design of a new system. The message here is that back-end sustainment costs are receiving more up-front design attention. Each technology effort must buy its way onto our programs in terms of reducing life-cycle cost and program risk. To support these investment decisions, we are encouraging the use of fairly well developed life-cycle cost models that include estimates for operational and support elements like unit level consumables, training, expendables. depot maintenance and mission personnel.

However. given the limited rate at which we are introducing new systems to replace those already in the field, we simply cannot wait for the new weapon system development process to address the growing costs to operate and support our existing systems in the inventory today. Our reforms include creating the proper incentives to insert new low-cost technologies in our fielded systems to improve their reliability, maintainability and sustainability.

In some cases, we are leveraging commercial dual-use technologies for insertion into existing systems. And our reforms include substituting fast transportation and real time information for layered inventory as a strategy for improving logistics response times. As a result, between 1989 and 1999, we plan to reduce our stock levels from about $107 billion to about $55 billion—today we are slightly below $70 billion.

In the past, meeting the threat dictated an emphasis on performance, creating a culture in which cost and schedule were thought of as dependent variables in the acquisition process—performance levels were specified, and the cost and schedule were adjusted to achieve that outcome. For years the nondefense sector has successfully developed and produced high-quality products that fully meet or exceed customer needs while also meeting specific, predetermined cost targets for these products. The thrust of **cost as an independent-variable (CAIV)** seeks to adapt these successful commercial practices to meet DoD needs.

The CAIV process recognizes that needed military capabilities are in most cases best expressed as end results, which actually are the aggregate combination of numerous, more detailed parameters. With rare exception, there are multiple sets of detailed specifications that can be combined to attain the desired end result so that any one item can be varied significantly so long as compensating adjustments are made elsewhere in the system. We must carefully examine opportunities in which reducing the performance of a particular parameter by 10 percent leads to a cost reduction of 50 percent.

For new programs using CAIV from the onset, it has been possible to obtain savings on the order of 30 percent to 50 percent. For existing programs in later acquisition stages, retrofitting CAIV concepts is expected to produce savings on the order of 10 percent to 20 percent. The CAIV acquisition reform initiative has been successfully implemented on many DoD programs. Three programs highlight the benefits of this initiative: the **Joint Strike Fighter (JSF)**, the **Space-based Infrared System (SBIRS)**, and the **Wind Corrected Munitions Dispenser**.

The focus of the JSF program is on affordability—reducing development, production, and ownership cost. The program is accomplishing this by developing fully validated, operational requirements and by applying cost-as-an-independent-variable cost-performance trades. The JSF program is employing the CAIV approach to facilitate the establishment of an affordable, mission-effective solution to the services' needs.

CAIV will address the links and sensitivities between mission effectiveness, system performance, and cost. The services established top-level, aggressive unit flyaway goals, and the program provided them to the competing weapon systems contractors. During the concept demonstration phase, program contractors will be required to continue to use costs (unit flyaway, engineering and manufacturing development, and operations and support costs) as independent variables for trade studies. This is the first time I have seen serious attention given to life-cycle cost this early in a program.

The JSF program will ultimately build three different designs with a high degree of cost commonality. The designs will have key, high-cost components in common—engines, avionics and many of the high-cost structural components. This is different from past attempts at joint aircraft programs, which tried, unsuccessfully for the most part to use one design to meet all services' requirements. The services are working together on a set of joint requirements.

The contractors are conducting extensive studies to determine the appropriate level of commonality and to identify where it makes sense to sacrifice commonality to meet unique service needs. The JSF concept is building three highly common variants on the same production line using flexible manufacturing technology. Cost benefits result from using a flexible manufacturing approach and common subsystems to gain economies of scale. Cost commonality is projected in the range of 70 percent to 90 percent; parts commonality will be lower, but emphasis is on commonality in the higher-priced parts.

Commonality also brings the benefits of common depot maintenance, a commonly supported logistics tail, and increased service interoperability. Development savings from the JSF family of aircraft approach are estimated at nearly $18 billion in constant FY 1995 dollars compared to three separate stand-alone programs, with total life-cycle cost savings projected at 3 percent to 35 percent compared to traditional programs.

CAIV was implemented on the SBIRS program through a user-led integrated product team. This team identified the major cost drivers and evaluated the user utility associated with each cost driver. As a result of the team's efforts, independent cost targets were placed in the operational requirements document (ORD) and the concept validation phase request for proposal (RFP).

During the concept validation phase of the program, the users, developers, and their industry partners performed requirements-cost-performance trade studies to develop a set of affordable and achievable key performance parameters (KPPs). For the engineering and manufacturing development (EMD) phase of the program, aggressive cost targets were part of source selection. Contractor trades are being made with the participation of government team members to meet life-cycle cost targets. Approval cycles have been reduced, and the EMD RFP was reduced from the expected 1,000+ pages to 60 pages. The net result of these actions has been a reduction of the cost estimate by about $300 million.

The Wind Corrected Munitions Dispenser is designed to drop munitions from higher altitudes where the winds might disturb the accuracy of the impact points, and it is designed to be able to compensate for winds and give us better accuracy. This program was designated in 1994 as an Air Force lead program and is a model for putting in place all of our streamlined acquisition approaches, including CAIV. The team was able to use early insight rather than late oversight to make the trades necessary to make cost-performance trades. The program has only two military standards on the contract. Aside from that, commercial practices are used across the board.

As we planned for this program, our estimated cost for each unit was about $25,000, and we expected to buy 40,000 units. When we put in place our CAIV initiative and all of our commercial procurement practices for this program, the winning bid was $8,930 per unit. That is a 64 percent cost savings as a result of CAIV and commercial practices. And if one looks at the life-cycle cost over 40,000 units, it equates to a total cost avoidance of $850 million for this one program. This is a very significant number. The program includes a 20-year bumper-to-bumper warranty, and all our requirements were exceeded with a CAIV-led commercial approach.

A major focus of our acquisition program is to reduce the life-cycle cost of our existing systems. The department also must take advantage of the opportunity to apply commercial technology and products to enhance our military capability and lower the life-cycle costs of our weapon systems. Commercial investment in R&D [research and development] now easily surpasses that of the DoD by a margin of 2-to-1. This large commercial investment in R&D means that the commercial sector is the driving force behind much of the technological innovation in the U.S. today. The department's S&T [scientific and technical] program must leverage this technological innovation for the benefit of military capability.

The **Dual-Use Applications Program (DUAP)** mission is to develop, test, and then transfer to the services new approaches to leveraging the commercial sector's research, technology, products, and processes for DoD's benefit. We have two primary goals. One, DUAP will increase leveraging of the commercial sector across the acquisition spectrum. Two, and as important, DUAP must institutionalize these new dual-use approach in the services. We want to move dual use and leveraging from concepts centered in the Office of the Secretary of Defense to ones centered in the services. We must make these new ways of doing business the normal way of doing business.

More specifically, this year the DUAP consists of two initiatives; the Science and Technology Initiative and the Commercial Operations and Support Savings Initiative (COSSI). The DUAP FY 1997 budget is divided between these two initiatives—$85 million for the Science and Technology Initiative and $100 million for the COSSI. Both of these programs are under way and include cost sharing with industry. A brief description of each follows.

Science and Technology Initiative. As previously discussed, the Department of Defense must increase the use of commercial technology to reduce the costs and increase the capabilities of our defense systems. One way to do this is to join with industry in the development of dual-use technologies.

The Science and Technology Initiative will facilitate this joint development by taking the lessons learned during our earlier dual-use efforts and initiating a dual-use technology development program in the services. This will be done through: education of the services on the use of flexible contracting mechanisms such as 10 U.S.C. [U.S. Code] Section 2371, "Other Transactions" and cooperative agreements; transition of the techniques developed and knowledge gained by DARPA during the execution of prior dual-use programs; and initiation of pilot dual-use development programs in the services.

The process has begun. The services have been asked to identify proposals from industry for the DUAP S&T initiative. Proposals are due on May 30. 1997. Nominated projects must meet the following criteria:

- Dual Use Technology—if successful, the project will result in the development of a technology that has both military relevance and sufficient potential commercial applications to support a viable production base.

- Cost Sharing—at least 50 percent of the cost of the project will be provided by industry. The remaining cost of the project (50 percent) will be equally shared by the sponsoring service and the DUAP. This gives the services 4-to-1 leverage, a significant incentive to apply dual-use technology.

- Competitively Awarded—project awards to industry must be based on competitive procedures and based solely on merit.

- Innovative Contracting Agreements—contracts must be awarded using non-procurement agreements, i.e. cooperative agreements or "other transactions."

The sharing formula that we are planning to utilize will result in the services obtaining a 4-to-1 leverage of their science and technology dollars and will provide the kind of incentive needed to establish a dual-use technology development program in the services. As dual-use science and technology is the most mature leveraging approach, the DUAP is actively transferring these techniques to the services through incentives and learning by doing.

Commercial Operations and Support Savings Initiative (COSSI). The DUAP Commercial Operations and Support Savings Initiative, or COSSI, will combine life-cycle cost containment with leveraging commercial technologies. It will take our dual-use efforts in a new and exciting direction. COSSI will support the retrofit of fielded military systems with commercial technologies to decrease the cost of operations and support of these systems.

What's new here is that we are using commercial technologies not only for newly developed systems, but for fielded systems. And although we may realize benefits in increased performance, or decreased development or acquisition costs, our real focus is on life-cycle costs. These are major differences from the past.

In COSSI, the acquisition executives of the Army, Navy, and Air Force have the lead. The service acquisition communities will help choose the commercial products and processes that make sense for their fielded military systems. They must work closely with commercial industry and the weapons system prime contractors to engineer and adapt the commercial product for the specific weapon system and test the product to ensure that it achieves at least comparable performance at a decreased operations and support cost.

In fact, we will require that industry include a statement of support from the military service customer as a formal part of their team proposal. This is the culmination of DoD's trend toward partnership with industry for mutual benefit, which is key to so many of our acquisition reform efforts.

Perhaps the most exciting aspect of COSSI is that it will develop an innovative acquisition approach for weapon system upgrades. For the prototyping of what we are calling the modification kits, the services will use Section 845 agreements, which are not constrained by the sometimes inflexible government policies and standards found in our cumbersome procurement system. These agreements allow prime contractors to apply independent research and development funds to cost share and to use commercial practices that attract commercial partners to the development team.

These Section 845 agreements have been used for the past three years by the Defense Advanced Research Projects Agency in an experimental mode. The government and industry, as a team, negotiate sensible terms for intellectual property rights, accounting and auditing practices and sharing of costs.

COSSI will validate a new, commercial-like approach for prototyping and procuring upgrade kits—an approach that can be used on an expanded basis in years to come. And with the DUAP Science and Technology Initiative, we will continue to have access to state-of-the-art commercial technology for our developing weapons systems. DUAP's two-pronged strategy of commercial upgrades, and dual-use research and development will help the department take greater advantage of commercial industry's research, technology, products, and processes at every stage of the acquisition life cycle.

ACQUISITION PROGRAM INSTABILITY

Although we have made remarkable progress during the past several years in reforming much of the acquisition process, the most significant work not yet accomplished is tackling the problem of instability in our acquisition programs and the attendant cost growth and schedule slips caused by instability. I view this as the single most important acquisition reform issue to be addressed, and I intend this to be a cornerstone of the department's continuation of the reform process.

Virtually every major study of the major defense acquisition program process in recent years has cited instability as a major contributor to cost growth in DoD systems. In fact, detailed studies by RAND have shown that major acquisition programs experience an average of 20 percent cost growth from our Milestone II estimates. Approximately half of that growth is attributable to funding instability. These changing funding profiles result from a variety of factors and competing departmental priorities, including unplanned contingency operations, underestimation of requirements for operations and support (O&S), and shifts in priorities within the department for systems in response to changes in the anticipated threat and technical difficulties.

The department's emphasis on readiness and personnel quality of life initiatives coupled with the dramatic decline in the DoD top line has left little latitude in reacting to unplanned operational expenditures without decrementing the procurement and R&D accounts. As a consequence, major acquisition programs have been forced to serve as bill payers, forcing reductions in production rates, delays in fielding new systems, and program stretches across all the programs in development and production within the department.

Program stretchout is deleterious for two reasons: It increases overall program cost by deviating from carefully planned baselines designed to ensure we develop and produce weapon systems in an efficient manner, and it ties up resources in the outyears that could have been used for other projects. These funding instabilities are a major cause of long-term growth in weapon system costs.

The department is currently investigating a range of mechanisms intended to reduce the instability in our major acquisition programs. While we have not completed implementation

plans and much detailed work remains, we believe that at least three basic mechanisms are key components of the solution: a fiscal guidance restraint, full funding of contingency operations, and budgeting for risk in individual programs.

Current long-range budget formulation practice is to allocate 100 percent of anticipated resources to anticipated requirements. This assumes we are able to predict our requirements and budgets with absolute certainty as much as six years into the future. However, this practice locks in too many things and does not recognize the need to be flexible and responsive to changes in national and departmental priorities, changes in the global environment we operate in, technological change, or additional funding requirements for investment programs.

We have also realized that there is a consistent pattern of resources planned for investments in the outyears, eventually shifting from long-term investment programs to near-term operations and maintenance (O&M) needs. To mitigate the migration out of investment programs and the induced instability and cost growth associated with this, we are investigating a mechanism with the basic intent of restraining the expectations in outyear budgeting for modernization and creating a prudent programming reserve to permit more flexibility in addressing emergent requirements and counter the tendency to use the investment accounts as bill payers for O&M needs. This type of mechanism is commonplace in commercial business practices.

Over the five-year period from 1992 to 1996, an average of $2.5 billion per year was required to support contingency operations such as Haiti, Somalia, and Bosnia. Since these operations were unplanned, no resources were specifically budgeted in advance to support them. In some cases, supplemental appropriations augmented DoD's budget to help fund contingencies, but generally speaking the department was forced to pay the bulk of these bills by reprogramming funds from investment programs.

The department has recently begun taking action to prevent unbudgeted costs of nonroutine operations, like those in Bosnia, from absorbing funds needed for modernization and other top priorities. To that end, the FY 1998 budget continues for the second year the practice of budgeting for known military operations. The request includes $1.5 billion in FY 98 in the overseas contingency operations transfer account to complete planned operations in Bosnia. In addition, $700 million is included in the military service/defense agency budgets for continuing operations in Southwest Asia.

The first step in successful defense systems acquisition management is recognition of the fact that uncertainties and technical risk are inherent in any major weapon system program. With that basic premise in mind, it is simply good business to plan for and provide sufficient reserves to accommodate these factors should the need arise.

It is our intent to move to a policy of building budgets that incorporate reasonable and prudent reserves and flexible management controls to address potential funding shortfalls related to the inherently risky nature of complex, technologically advanced development and production programs. The specific mechanisms for how this will be accomplished are being studied, but the intent is to provide managers a sufficient amount of insurance against technical risk and uncertainty so that if problems materialize, they can be addressed without negatively impacting (i.e., destabilizing) other programs.

Restrictions on the reapplication of funds limit the flexibility of our program executive officers and service acquisition executives to deal with problems as they arise within their programs. For example, below threshold reprogramming authority levels ($4 million for RDT&E [research, development, test, and evaluation] and $10 million for procurement) have eroded by nearly 40 percent since 1982 when they were established due to 15 years of inflation. A doubling of the thresholds to $8 million for RDT&E and $20 million for procurement is now needed to facilitate good management and financial decisions as programs are executed.

The adverse effect of limited below threshold reprogramming authority is illustrated by the problems encountered in the B-1B program. In FY 1995, the B-1 program needed approximately $8 million in RDT&E funding to ensure the program's contingent liabilities were adequately funded. The program executive officer was able to reprogram only $3.9 million to partially offset the requirement. Because of the below threshold reprogramming authority limit, the remaining funds had to come through rephasing of program content, which caused a four-month schedule slip with attendant cost growth.

Another restriction we face is in the absence of authority to transfer funds between appropriations without first obtaining congressional approval. Transfer authority is the shifting of funds between appropriations, as opposed to reprogramming authority which moves funds within an appropriation.

We need the authority to transfer small amounts, without congressional approval or notification, between appropriations for a given major acquisition program. We recommend the limit be set at $20 million per program.

To be effective, only notification to the OMB [Office of Management and Budget] should be required prior to funds transfer. This authority would help maintain program stability in execution by enabling a program manager to resolve problems within the total funding available in his or her own program. Although this particular proposal was not submitted with the FY 1998 president's budget, a separate proposal is under consideration for submittal to the Congress next month.

The F-14 precision strike upgrade program illustrates the limitations in effectively managing and executing programs because of the inability to transfer any amount of funding between appropriations without notification.

In FY 1996, the Navy sought to field the LANTIRN FLIR [low-altitude navigation and targeting infrared (night) system/forward-looking infrared sensor] in the F-14 aircraft using $25 million of FY 1995 funding programmed in RDT&E for the initial production and integration of the FLIR system into the aircraft. A subsequent ruling concluded that since the system was a commercial off-the-shelf (COTS)/nondevelopmental item (NDI), the proper color of money should be procurement. The ensuing funds transfer approval cycle forced a seven-month delay in contract award, thus causing delays in fielding the operational capability and commensurate cost growth.

The examples I have cited with regard to programmatic impacts compounded by restrictions on the use of funding taken alone may seem relatively minor. But in the aggregate, these kinds of examples repeated on multiple programs represent a substantial limitation in our ability to deal with problems as they occur and minimize the impacts both to the program experiencing a problem (i.e., due to limited reprogramming thresholds) and to other programs which might be destabilized because a problem couldn't be solved quickly within the program itself (i.e., due to lack of authority to transfer funds without prior approval).

ACQUISITION STREAMLINING

The Department of Defense has long recognized the need to find ways to streamline and reduce the administrative costs of its acquisition system while ensuring the integrity of the system.

For many years, DoD suggested to Congress that government-unique contracting requirements imposed by law restrained DoD's ability to streamline the acquisition system and processes. Congress responded by passing Section 800 of the National Defense Authorization

Act of 1990 that required DoD to organize a panel of representatives from government, industry and academia to make recommendations for modification of the laws impacting DoD acquisition.

The Section 800 panel identified over 600 statutes that applied to DoD acquisition and recommended almost 300 laws for repeal or change. DoD submitted the panel's report to Congress in January 1993. In 1993, the vice president also reviewed the way the government operates and made recommendations for improvement in the National Performance Review (NPR).

Based on the recommendations of the panel and the NPR, DoD developed a vision for reforming DoD's acquisition system. The vision was shared with Congress in February 1994 and was entitled, "Acquisition Reform—Mandate for Change." In that document, the secretary of defense acknowledged that:

- New national security challenges require DoD to design a more flexible, agile and timely acquisition system capable of meeting unpredictable threats;

- Declining budgets require DoD to become more efficient and effective, as well as to reduce the costs of DoD's products and services; and

- Technology is developing at an even faster pace, is more often than not led by the commercial sector and is available worldwide so that to maintain technological superiority, DoD must have access to the latest state-of-the-art commercial technology.

The secretary went on to say that DoD, as an enterprise, must respond to these changes by moving from its rule-based system of laws and regulations to a system in which, based on guiding principles, Professionals in the acquisition work force exercise their judgment in making sound business decisions on behalf of the U.S. government. The vision in the "Mandate for Change" is to re-engineer the entire acquisition system. In execution of this vision, the Office of the Deputy Undersecretary of Defense for Acquisition Reform was created to champion fundamental re-engineering and continuous process improvement. Also, DoD formed process action teams to identify problems, recommend solutions and develop implementation plans.

Many of the recommendations made by the NPR and the Section 800 panel were codified in the Federal Acquisition Streamlining Act of 1994 (FASA). The act established a Simplified Acquisition Threshold (SAT) of $100,000; authorized the use of simplified acquisition procedures up to $50,000 (or up to the SAT once a certified FACNET system is in place); and created a micropurchase authority up to $2,500. These provisions allow DoD to reduce the administrative cost of doing business for almost 99 percent of DoD contracting actions. The micropurchase authority allows DoD to expand the use and of the government purchase card, providing direct access to the commercial vendor base to satisfy immediate, low-cost, low-risk needs.

The act also established new definitions of commercial and nondevelopmental items, authorizing exemptions from government-unique terms and conditions for the procurement of these items. These provisions facilitate access to commercial technologies that might not have been available to DoD. The act authorized five defense acquisition pilot programs to permit streamlining changes to be incorporated into them. The act provided relief from the requirement for contractors to provide cost or pricing data for a broader range of procurements.

The Clinger-Cohen Act of 1996 (formerly known as the Federal Acquisition Reform Act of 1996) and the Information Technology Management Reform Act of 1996 (ITMRA) further advance the changes made by FASA. The Clinger-Cohen Act provides a number of significant opportunities for DoD to further streamline and reduce nonvalue-added steps in the acquisition process.

Among the most significant changes authorized by the act is a test of the use of the simplified acquisition procedures (SAP) for commercial items between the simplified acquisition threshold of $100,000 and $5 million. This should allow DoD to reduce its administrative costs and the overhead costs for DoD's vendor base for purchases of relatively low-risk items. This change eliminated government-unique requirements previously cited by industry as a barrier to doing business with DoD. The act also provides the authority for contracting activities to use SAPs for all requirements between $50,000 and the SAT while the government works to fully implement electronic commerce/electronic data interchange.

The Clinger-Cohen Act also provides substantial relief from cumbersome processes that add little value but significant cost to the acquisition of information technologies. The passage of the act allows DoD to focus on the appropriate use and management of information technology resources. It should also reduce the amount of time an information technology acquisition takes by reducing the number and frequency of protests while moving the department in the direction of the use of sound acquisition strategies.

Congress has provided significant relief from burdensome acquisition statutes and regulations. DoD has taken advantage of the relief provided in fashioning implementing regulations. Further, DoD has extended that relief by revising its internal policy documents in the spirit of the legislation.

Notwithstanding ongoing activities and the existence of a sound framework, the department recognizes that much work remains to be done to fully achieve ITMRA objectives. While some of this work will necessarily need to focus on refining and expanding specific initiatives, the more difficult task is one of modifying existing IT [information technology] processes, policies and procedures (e.g., strategic planning, programming, acquisition oversight and process improvement) into an integrated process for making prudent IT investment decisions. An equally complex challenge for the department is to foster, via specific initiatives, cultural changes brought on by ITMRA and associated legislation.

Specifically, the department is taking action to strengthen, expand and institute DoD strategic planning for IT investment and effectively integrate these plans and associated processes into the existing planning, programming and budget processes.

We are directing management attention to information technology's contribution to mission performance, rather than the process used to procure IT. The department's recent focus on building successful programs needs to be further expanded to be even more results-oriented.

We are developing a consensus and finalizing a DoD performance measurement strategy and guidelines that strengthen the linkages between DoD strategic mission-related planning goals, and IT planning and investment decisions. In addition, we are reassessing financial systems and budget exhibits which capture DoD IT resources information and determine how these can best be used and, if necessary, modified to support IT investment and development decisions. And we are promoting the use of education, training and other forums to increase understanding of the ITMRA requirements and ensure the law's requirements are addressed in existing training curricula as appropriate.

FAR INITIATIVES

There are several initiatives currently in process to revamp and streamline the FAR [Federal Acquisition Regulation].

- **Part 15, Contracting by Negotiation,** is being rewritten to improve the efficiency of the acquisition process while providing the best value to the taxpayer. The revisions contemplate more communication between government and industry, and will encourage

such practices as oral presentations to supplement streamlined written proposals and restricting the size of the competitive range for reasons of efficiency.

- **Part 25, Foreign Contracting,** draft revisions make the regulation more user friendly, provide clarifications and examples and eliminate redundancies.

- **Part 31, Cost Principles,** are being streamlined to reduce administrative and accounting burdens on contractors, to clarify the allowability of certain costs, and to promote our policy of stimulating the export of U.S. products. Specific improvements under way include: clarifying the allowability of payments to workers who are being involuntarily terminated and who agree to waive their rights to file employment-related claims; and eliminating the unique-cost principle for automatic data processing equipment leasing, the ceiling for IR&D/B&P [independent research and development/ bid and proposal] costs for FY 96 and beyond, the allowability restriction for foreign selling costs, and the prohibition on calculating foreign differential pay based directly on an employee's specific increase in income taxes resulting from assignment overseas.

- **Part 45, Government Property,** is being reconfigured, with substantial industry participation, to eliminate administrative burdens, simplify the text and clauses, eliminate recordkeeping requirements, and place constraints on the government's right to take title to certain property. The draft revisions propose accelerating the property disposal process, reducing the volume of government property currently required to be tracked and inventoried by the contractor, and simplifying the government's property rental procedures. We have instituted electronic contracting methods to streamline the process of contracting for supplies and services, and to reduce burdens on both industry and government.

- **Part 37, Service Contracting,** is being overhauled to change the focus in acquiring services. Henceforth we will emphasize the use of performance-based contracting methods to ensure that the appropriate performance quality levels are achieved and that payment is made only for services which meet contract standards.

We have eliminated certification requirements for contractors and offerors unless specifically imposed by statute or approved for retention by the administrator of OFPP [Office of Federal Procurement Policy]. In addition, we are currently reviewing all of the existing FAR representations (about 20) to see how many impose an unnecessary administrative burden on contractors. Wherever we can protect the government's interests by using a less burdensome means of obtaining necessary information, we will do so.

The new policy and procedures resulting from DoD's initiative to rewrite the **DoD 5000 series** represent dramatic change in almost every major aspect of the way DoD traditionally does business. The new documents fully implement FASA as well as the recommendations of the 1995 Commission on Roles and Missions; and consolidate and integrate acquisition policy and procedures for both weapon systems and automated information systems, allowing DoD to cancel several acquisition information system policy documents

Directly affecting departmental policy, the rewritten 5000 series articulate a few guiding principles for all acquisitions across the department and set forth procedures for major programs. Tailored management approaches are recognized as a key element in successful program execution, and integrated product teams are institutionalized as a means of bringing representatives of all functional disciplines together as a team to build successful programs, identify and resolve issues, and make sound and timely recommendations to facilitate decision making.

Directly as well as through these changes, the new policy encourages acquisition professionals to innovate through a variety of practices and techniques, including such nontraditional approaches as advanced concept technology demonstrations and rapid prototyping.

The new 5000 series are dramatically reduced in size—the previous version was over 1,000 pages and the new version is only 160 pages—and they mandate standard formats for only a handful of reports and cancel a 300-page plus manual that established mandatory formats for numerous acquisition reports and fostered a one-size-fits-all approach.

The **Defense Acquisition Deskbook** is an automated reference tool that provides acquisition information for all functional disciplines and for all services and DoD agencies. It is designed to provide easy access to the most current acquisition information. Since release of the operational test version in May of 1996, the deskbook has grown from 30 to 130 megabytes of information, from a CD [compact disc] distribution of 1,000 to orders for 17,000 (includes deskbook CDs provided to government personnel and those sold through the Government Printing Office) and boasts a user community of approximately 500,000 across OSD, the services and agencies, and industry.

The Deskbook provides value in four ways. First, it provides a powerful impetus to reviewing regulatory guidance to determine what is mandatory and what is discretionary by providing a place for the identification of alternative practices and for capturing lessons learned. Thus, an empowered work force can use its judgment on how to meet the objectives established in the guiding principles. Providing an information source that separates mandatory information from discretionary information leads to a streamlined regulatory regime.

Second, it ties together the acquisition community at all levels. The Deskbook includes guiding principles covering all acquisition disciplines and alternative practices used by all components, at all levels and from all disciplines. Further, the Deskbook displays this information to every user in the department. The expected result is a reduction in duplicative policies and an increase in the use of practices that reduce acquisition time and cost.

Third, it provides a direct, timely, and unfiltered link between DoD leaders and the frontline practitioner. In the regulatory-based system where regulatory guidance was passed from the top to the bottom, each layer added interpretation and additional guidance. Thus, the practitioner did not know the real intent, the possible variations inherent in implementation, and the limitations on the guidance as it was initially promulgated. Allowing the practitioner to see the guidance as it was originally written and allowing the practitioner to ask questions or provide comments through the Deskbook's bulletin board ensures that the intent of the policy initiator is received by the policy implementer. Just as important, the policy implementer can inform the policy initiator of any unintended consequences.

Finally, the Deskbook is more than just a source of information that can be accessed quickly. It is a key to the most important part of acquisition reform—cultural change. One of the barriers to changing acquisition process is the difficulty in getting the message out as it is intended. By being an impetus for a re-examination of the current regulations, by allowing insight across the acquisition community, and by providing direct, unfiltered information to the entire work force at the same time, the deskbook fosters cultural change. It does this by giving each member of the acquisition work force the knowledge to do his or her job better and the freedom to ask questions and challenge assumptions.

The Defense Advanced Research Projects Agency was given authority in Section 845 of the FY 1994 National Defense Authorization Act to use **"Other Transactions"** (instead of commonly used contracts) for prototype projects that are directly related to weapon systems. "Other Transactions" are more flexible than contracts since many statutes do not apply. The Section 845 prototype authority was made available for departmentwide use on a trial basis in the FY 1997 authorization act. DoD has issued guidance to the department that should facilitate the use of this flexible authority.

DoD has devoted careful attention to mergers and acquisitions in the defense industry, with a focus on developing policies to address DoD needs and encourage the timely and cost-effective downsizing of the industry. The Defense Contract Management Command. Defense Contract Audit Agency, general counsel and USD(A&T)[undersecretary of defense for acquisition and technology] staff have worked as a team to address the relevant issues and ensure we have reasonable policies that protect the government's interests and ultimately save money for the department. DoD believes a good way to do that is to permit contractors to include both the costs and the savings of becoming more efficient producers in the prices they charge, but only when we can certify that the savings are at least twice as large as the costs. Over the past three years, we have agreed to let contractors include $720 million in restructuring costs in our contract prices, and we expect to realize $3.95 billion in savings as a result.

The U.S. has signed **reciprocal procurement MOUs [memoranda of understanding]** with NATO and several other allied countries to foster a two-way street in defense trade. These MOUs enhance standardization, rationalization and interoperability of defense equipment, but they also give us access to foreign suppliers and enable us to obtain the best quality in defense equipment. Statutes and regulations that limit our sources of supply to United States firms are inconsistent with these MOUs. In that spirit, we recently revised the Defense Federal Acquisition Regulation Supplement to remove a number of restrictions to domestic sources not required by law.

There are a number of areas in which we believe legislative relief may still be appropriate. These areas were addressed by the Section 800 Panel and for various reasons have not been previously proposed in some cases or adopted in others. I group these into three areas: Defense Trade and Cooperation; Outsourcing of Commercial Activities; and Warranties.

In our omnibus proposal for the FY 1998 DoD Authorization Bill, DoD has proposed a new chapter on **defense trade and cooperation** that will implement the Section 800 Panel recommendations to consolidate, clarify, and to some degree amplify our authority for conducting cooperative defense-related projects with our international allies and other friendly nations. In order to get maximum results from our increasingly constrained national resources, we must be able to partner more efficiently and flexibly with friendly nations to accomplish critical technology advances that we could not do as effectively on our own. The proposed provisions will enable us to do that. We anticipate that these provisions will soon clear OMB, and we urge your support of them when they come to you for consideration.

The Defense Science Board and industry's Acquisition Reform Working Group have both articulated the need to remove defense-unique statutory inhibitors to our ability to **outsource commercial activities** which fall outside of our core mission requirements and do not constitute inherently governmental functions. Recent revisions of OMB Circular A-76 have enhanced the flexibility to other agencies to outsource such activities, without time-consuming and resource-intensive cost studies when small numbers of current government employees will be affected or when data already accumulated from other sources makes it clear that outsourcing the activity will be cost-effective.

Many of the defense-unique statutory obstacles have no direct bearing on preserving core capabilities essential to the national defense or fail to recognize that our core defense capabilities can on occasion best be preserved by partnering more with industry in performing those missions. In conjunction with the AR [acquisition reform] legislative agenda, we need to re-examine this body of laws and develop revisions that will have the effect of enhancing the ability of the Department of Defense to meet its core mission requirements with the reduced in-house manpower available as a result of "rightsizing" the government. We will seek your support in this endeavor.

The Department of Defense will be recommending repeal of 10 U.S.C. 2403 that mandates **weapon system warranties**. The department's rationale for the repeal is as follows. Weapon system warranties were mandated in 1985. Since then, many reviews have been conducted internally and by the GAO [General Accounting Office] to assess the effectiveness of the weapon system warranties we purchased. Reports of these reviews document that weapon system warranties are frequently not cost effective and that problems exist in contract administration that are not easily remedied.

Warranties are a form of insurance, and insurance policies are not always cost effective. Insurance costs are normally spread among many buyers to protect against the rare instance of catastrophic loss. As the sole buyer of weapon systems. DoD pays the full cost of the insurance provided by the warranty. We pay for the contractor's potential liability even if we do not collect on the warranty, and we pay more if we make claims in excess of the prior year's warranty price.

The GAO recently completed a review of weapon system warranties (GAO Report NSIAD-96-88) that concluded weapon system warranties provide minimal benefits for the costs incurred. The GAO found that warranty problems appear to be unintended consequences of the warranty law due to the de facto mandatory nature of warranties. The GAO recommended that Congress repeal 10 U.S.C. 2403. I agree. The decision to include a warranty should be left to the good judgment of the contracting officer, as it is for all other government agencies.

DEFENSE ACQUISITION PILOT PROGRAMS

The Fiscal Year 1995 Defense Authorization Act authorized the secretary of defense to designate five programs to participate in the defense acquisition pilot program. The five programs are Joint Direct Attack Munition; Fire Support Combined Arms Tactical Trainer; Joint Primary Aircraft Training System; Commercial Derivative Engine; and Commercial Derivative Aircraft. The pilot programs were afforded statutory relief under provisions of FASA.

In addition, I designated certain medical, subsistence and clothing items of the Defense Personnel Support Center and the C-130J program as regulatory relief-only pilot programs. All seven of the pilot programs were granted regulatory relief. The pilot programs are demonstrating that through the use of commercial products and commercial practices military items can be acquired with improved development and delivery schedules. at reduced cost and with substantial gains in in-house efficiencies.

The **Joint Direct Attack Munition (JDAM)** is a joint Air Force/Navy program to develop an affordable, accurate, all-weather kit for current inventory 1,000- and 2,000-pound bombs. The JDAM employed commercial practices, regulatory/statutory relief, innovative contracting processes, streamlined oversight, a commercial like warranty, integrated product teams, contractor formats for data submittals and earned value reporting. The CAIG [Cost Analysis Improvement Group] estimate showed a average 50 percent reduction in average unit procurement cost. The total estimate was reduced by $2.9 billion. Program office staff was cut by 30 percent.

The **Fire Support Combined Arms Tactical Trainer (FSCATT)** is a project to provide training of the Army field artillery gunnery team. Military specifications and data requirements were significantly reduced. As a result, there were substantial in-house cost reductions, an accelerated schedule, and a $14.0 million contract cost avoidance with no compromise in quality or performance.

The **Joint Pimary Aircraft Training System (JPATS)** program is a joint (Air Force-Navy) project to replace the AF T-37B and Navy T-34C aircraft and related ground-based training systems. JPATS was structured to take advantage of NDI/commercial practices. The final RFP contained a reduced number of pages and contract clauses, and a substantial reduction in data requirements and military standards. Program office staffing was also reduced.

The **Commercial Derivative Engine (CDE)** is a project to procure the F-117 engine as the power plant for the C-17 cargo aircraft. The F-117 engine is fulfilling all C-17 mission requirements with substantial savings in manpower and program cost. The use of commercial practices has also reduced acquisition and production lead times, obtained a commercial warranty at no direct charge, permitted contractor configuration control to allow the contractor to implement design improvements, and reduced oversight of the contractor's production process. The long-term commitment by the Air Force for the C-17 will result in a savings of $175 million over the seven year multiyear contract on the engines.

The **Commercial Derivative Aircraft (CDA)** was a program to procure a nondevelopmental airlift aircraft (NDAA) to perform some of the functions of the C-17, should the C-17 not have achieved its cost and technical goals. NDAA was terminated in November 1995 because the C-17 met program requirements. The NDAA served as an important competitive leveraging factor in helping achieve an affordable C-17 price from McDonnell-Douglas. The NDAA created a real alternative to the C-17 and as a result, created a sufficient incentive to put the C-17 program back on track.

DPSC has purchased approximately $3.1 billion worth of 110,000 different items in FY 1996 using best commercial practices. DPSC purchases commercial products using electronic commerce, ordering based on customer demand and providing delivery directly to the customer, thus eliminating inventory and lengthy lead times. Instituting these practices has resulted in a significant decrease in the number of contract terminations for default saving time and money in legal costs, reprocurement and lost payments to defaulted contractors. Under the program, medical and subsistence customers receive products within 48 hours. This compares with 30-60 days from a government warehouse.

The C-130J [Hercules] aircraft program will demonstrate the application of commercial practices on a major system acquisition. Key elements include contractor completion of aircraft testing, including military unique testing, prior to acceptance of first aircraft, contractor configuration management, quality assurance, and production management using commercial practices, and contractor organic and depot maintenance. The C-130J has significantly reduced RFP pages, workload and work force, program staffing and government contract administration.

The pilot programs are realizing substantial progress in demonstrating that through the use of commercial products and commercial practices, military items can be acquired with improved development and delivery schedules, at reduced cost and with substantial gains in in-house efficiencies. We have considered whether additional pilot program legislation is necessary in order to achieve greater improvements in our acquisition system.

We do not believe that additional pilot authority is necessary at this time. Our experience with the first seven pilot programs have led the way by showing what we can do when we want to be innovative. These programs and their respective successes have served as examples for how we can get our job done. Subsequent programs exceeded many of these successes.

In addition, over the next few months we will be undertaking a review of our Single Process Initiative in light of the additional authority the Department of Defense was given for the Pilot Plant Program. Combining the pilot plant authority with the SPI should allow us to address, with your help, a number of statutory impediments identified by industry as keeping them from moving to single, standard processes when meeting our requirements, and assist us in focusing on multiple process proposals as a facility package.

THE ACQUISITION WORK FORCE

The Department of Defense acquisition work force is our most important asset to assure long-lasting reform of the acquisition system and optimizing the expenditure of ever-decreasing

acquisition resources. It is through their professionalism, dedication and efforts that the DoD [is] making significant improvements in acquisition reform.

In 1986, the Packard Commission described the DoD acquisition work force as "undertrained, underpaid and inexperienced." The commission emphasized the direct relationship between personnel reform and acquisition reform, noting: "Whatever other changes may be made, it is vitally important to enhance the quality of the defense acquisition work force—both by attracting qualified new personnel and by improving the training and motivation of current personnel."

Over the last five years, the department concentrated considerable effort in improving the development, education, training and utilization of our acquisition professionals. The investment in this key resource provides significant benefits. Current trends solidly indicate a good foundation, but we need considerably more work to ensure a successful transformation to a superior work force—one of high quality, very motivated and extremely professional. We need a better work force to have a smaller work force. This work force must be equipped to implement numerous new reforms, execute the myriad of acquisition functions and be able to provide the goods and services to our warfighters, now and in the future.

The department must actively manage the acquisition work force. The recent report to the Congress, "Right Sizing the Department of Defense Acquisition Workforce," responded to concerns that the work force might be too large. As the report indicated, the department's plan results in a 25 percent smaller acquisition work force over the five-year period, FY 1996-2000. This is on top of a 30 percent reduction already taken over the preceding six year period, FY 1989-1995.

Section 906 of the National Defense Authorization Act mandated an FY 1996 reduction of 15,000 personnel (acquisition organization less depot skilled trades). The actual reduction was 23,802 (military/civilian). We have now achieved the two-year mandated reduction of 30,000 as well.

If the department's management efforts were not limited for reporting purposes by the depot skilled-trades exemption, the actual realized personnel reduction was 30,377 in FY 1996 in these same organizations. Further, the department estimates a two-year reduction (FY 1996-1997) of over 56,000, or 13.2 percent.

Many view the acquisition work force from a little different perspective. This view includes all personnel (military and civilian) employed in or assigned to acquisition organizations specified in DoDI [DoD Instruction] 5000.58 (with no exclusions). By FY 1995, from this perspective (and using a 1980 baseline), the acquisition work force was 35 percent below the 1989 peak level of employment. It was 18 percent below the 1980 level and continuing to fall, while defense-related employment in industry was above 1980 levels. By the end of FY 1996, these organizations were over 36 percent smaller than in 1989, and there were approximately 200,000 fewer people. We forecast that by the end of FY 2000, these same organizations will effectively be 48 percent smaller, or down by more than 288,000 people. The department continues on a deliberate, consistent reduction path of actively managing our personnel in acquisition organizations.

Another persistent concern is stability of our program managers (PM) and deputy program managers (DPM) in program offices. The department's results in this area show considerable improvement in experience of the managers of our major programs and the length of time they remain on the job. In FY 1993, the experience of our ACAT I (Acquisition Category I) program managers, when they occupied their positions, was 64 months in a program management organization or office and 116 months' total acquisition experience. By the end of FY 96, this

experience reached 128 months in a program management office (101 percent increase) and 211 months overall (82 percent increase).

Supporting the management stability of our programs is the fact that our PMs and DPMs now remain longer in their jobs. Tenure improvement for ACAT I PMs and DPMs is as significant as their experience improvements. By FY 1996, the number of PMs serving at least four years was up to 66 percent with an average PM tenure of 44 months. This is in contrast to the low of 28 percent serving full term in FY 1994 and a low average tenure of only 24.2 months in FY 1992. DPM average tenure was 52 months, with 46 percent serving at least four years on the job in FY 1996. These results improved greatly since FY 1995, when only 30 percent of reassigned DPMs served full term and the overall length of DPM assignment was 38.1 months.

As in previous years, training remains an integral element in achieving objectives to professionalize the acquisition work force and fully implement the benefits of acquisition reform. As in all previous years, the department provided in FY 1996 an increased availability of training and education opportunities for the acquisition work force.

Our efforts continued with full utilization of a very wide range of opportunities to update and train the work force on changes in acquisition, new initiatives and implementing policies. These methods include electronic and printed newsletters, outreach programs, Defense Acquisition University (DAU) course changes, seminars, regional conferences, roadshows and use of multiple delivery mediums and methods. Our first Acquisition Reform Day provided intense and concentrated updates to all of the work force in numerous specific areas.

During FY 1996, the 12 consortium schools of the DAU provided a diverse series of updated, improved and new training opportunities allowing the services and components to satisfy their statutory requirements. In FY 1996, there were 1,209 class offerings to 32,433 students. Class offerings are up from 1,145 in FY 1995 and 1,100 in FY 1994. The number of students trained is slightly down from last year's 32,700, primarily because of the government shutdown, which impacted all the schools. However, there is a 7 percent increase since FY 94, when 30,300 students completed courses. Of the 1,209 offerings in FY 1996, 880, or 72 percent, were resident, while 371 were on-site and the remaining 20 were by satellite. The department is aggressively pursuing regional and other on-site course presentations where there is a sufficient work force concentration to reduce costs and increase training opportunities.

. While implementing the DAWIA [Defense Acquisition Workforce Improvement Act] and its many resulting policies, programs and procedures, the one area we have not been able to successfully change to support professionalizing the work force is [the] personnel system. We drastically need a system that allows and encourages such things as flexibility, innovation, and risk management while reducing the amount of energy expended on administering a fair, effective and responsive personnel management system. We now have the opportunity and authority to tackle this issue with the FY 1996 Defense Authorization Act. In this act, Congress provided for a civilian acquisition work force demonstration project to determine the feasibility or desirability of proposals for improving the personnel management system.

Based on this authority, the DoD created a process action team, chartered by the SECDEF and led by the Army, to design a demonstration program evaluating new personnel management policies and ways of doing business. The PAT is operating much like an acquisition organization with integrated product teams composed of functional and personnel specialists from the services and agencies responsible for acquisition. The PAT includes representatives from OUSD (Personnel and Readiness) and the Office of Personnel Management.

The PAT is using a holistic approach, addressing needed improvements regardless of their origin. To this end, they completed a concept paper outlining several initiatives to be included in the personnel demonstrations and hopefully adopted into a new personnel management system.

Some of these concepts are covered under Title 5, U.S.C., and others are driven by internal DoD policies and regulations. The team is progressing with the detailed development of the initiatives identified in the concept paper in order to construct a viable system responsive to the department's needs while supporting the personal and professional development of the work force.

We are accelerating this demonstration effort due to our belief that it will greatly improve on our ability to promote change in our work force commensurate with the changes in our environment and acquisition processes. We are pursuing legislation that would remove impediments to our ability to effectively apply the demonstration to our acquisition IPTs. We need to allow for consistent application of participants within organizations to maintain the validity of our teams and to minimize the administrative burden of managing multiple personnel systems in a single organization and work group.

We believe the department has a great opportunity, for which we appreciate the authority given to demonstrate these meaningful changes in our personnel management system. We will earnestly strive to make every effort to maximize its effectiveness toward providing a better milieu for our people.

Congress has repeatedly expressed its desire to shift from evaluating inputs to measuring achievement in the conduct of acquisition programs. I am in total agreement with this desire. The key to any incentive system is that the personnel being incentivized must be able to directly and substantially influence attainment of the goals upon which the incentive is based. Also, for DoD, a fundamental requirement of any personnel incentive system is that it treat all members of the program management team, military or civilian, equally.

Providing an incentive to program managers and other members of the acquisition work force to perform is not mainly a matter of providing rewards. Giving relief from the oversight and review burden and allowing program managers to retain program savings for reinvestment in the program are equally or more important to incentivizing appropriate risk management. Over the last two years, we have acted to reduce the burden on the acquisition work force at all levels. We are also working to identify a means for savings achieved in a program through the use of innovative acquisition strategies that reduce cost and schedule while achieving the desired performance to be retained in that program to fund increased quantities or valid unfunded requirements.

In regard to pay and personnel actions, DoD has adequate authority to use the performance appraisal system to grade program management personnel on the achievement of objectives that are within the control of the program management team. However, DoD does not possess adequate authority to pay [the] military for direct accomplishment of their objectives, to include those contractor employees whose contributions, as part of the program team, assist in achieving those results, nor to make program funds, saved through innovative cost and schedule efforts, available to pay bonuses.

We are preparing legislation to allow DoD to design several demonstration programs that would utilize pay to incentivize performance for the program team. The Department of Defense will work with the Congress to design and implement a meaningful system in which program managers, their teams and those other members of the acquisition work force who influence the accomplishment of program goals are incentivized and rewarded to attain the goals that are within their authority and ability to achieve.

The Department of Defense has undertaken many initiatives in order to implement acquisition reform as we have recognized that our environment has [changed] and will continue to change. External and internal pressures to be more effective and efficient have lead us to improve and streamline our processes to acquire the systems necessary to support the department's mission. As we have improved our acquisition processes, we have also changed the

environment in which we operate. Our organizations are becoming smaller, leveraging electronic-based centers and using integrated product teams of multi-skilled professionals.

Certainly, as we undergo these changes, we must also provide for a high quality, professional work force. We believe through our continued implementation of DAWIA and the department's commitment we are achieving this. The DoD has made great strides improving the professionalism of the work force. We have a world-class professional acquisition work force, highly capable, motivated and able to implement acquisition-reform initiatives, while executing the acquisition system to provide our 21st century systems to support our worldwide commitments.

Mr. Chairman, the Department of Defense is not finished with acquisition reform. The department is still implementing the groundbreaking statutory changes provided by Congress, evaluating changes already made and looking at areas where these changes can be improved.

There are more cost reductions to be realized, efficiencies to be achieved and better technology to be acquired and provided to the warfighter. We need to give even greater attention to training and continuing development of our work force.

Mr. Chairman, reform of the defense acquisition system is full speed ahead.