

CHAPTER 14

ACQUISITION AND LOGISTICS REFORM

Acquisition and logistics reform initiatives are designed to help DoD achieve its vital goal of providing modern, high performance weapons systems and support to America's fighting men and women in less time, at lower cost, and with higher performance, than has ever before been the case. Congress directed the Department of Defense to identify key additional steps the Department could and should take to build on the reforms of the previous five years. This chapter provides highlights of several of the key studies chartered in response to Congress' direction in Section 912(c) of The National Defense Authorization Act for Fiscal Year 1998. In addition to those highlights, the chapter provides a range of additional initiatives that have been or will be launched by the Department. Taken together, these efforts represent the Department's vision of the future acquisition and logistics environment.

The Department's strategy hinges on having acquisition policies and practices that ensure faster, better, cheaper access to the tolls men and women in uniform will need to prevail in an era of new, highly unpredictable security challenges. DoD faces an array of threats including state and non-state adversaries who would use nuclear, biological, and chemical weapons against forward deployed forces or the United States; pockets of actual or potential regional instability; and transnational dangers, including information operations against U.S. critical infrastructure and illicit drug trafficking. The Revolution in Military Affairs (RMA) articulates the military and strategic requirements associated with such a dynamic international security environment. Through the RMA the Department will harness new and emerging technologies as quickly as possible to provide U.S. forces greater military capabilities through advanced concepts, doctrine and organization so they can dominate any future battlefield.

THE REVOLUTION IN BUSINESS AFFAIRS

The pre-requisites to achieving the goals of the RMA are many and cut across all facets of the Department of Defense, particularly the arena of acquisition, logistics and technology. Yet, despite the now widely accepted precepts of the RMA, the Department continues to rely on acquisition processes, organizations, and infrastructure largely developed in the years following World War II. Moreover, the Department continues to face a limited investment budget constrained by a relatively stable topline budget, and squeezed by increased operations and support costs from aging weapon systems.

In short, in order to meet the requirements of the RMA, it is equally important that the Department also continue waging a successful Revolution in Business Affairs (RBA).

To be sure, the RBA at the Department has been underway for several years and remains among the highest priorities of the Department's civilian and military leadership. Its primary focus has been on the following three top-level goals and corresponding objectives:

Goal 1. Field high-quality defense products quickly; support them responsively.

Objective. Reduce the average acquisition systems cycle time (measured from program start to initial operating capability) for all Major Defense Acquisition Programs (MDAPs) that started since FY 1992 by 25 percent (from 132 months to 99 months); and by 50 percent (to 67 months) for all programs started in FY 2001 or later.

Objective. Reduce logistics response time from an average of 36 days (in FY 1997) to 18 days by FY 2000. During FY 2001, the Department is planning to define a customer wait time objective to replace the logistics response time objective. During FY 2002, a customer wait time target will be incorporated into future annual defense reports as a substitute goal beginning in FY 2003 and subsequent Government Performance and Results Act (GPRA) performance plans.

Goal 2. Lower the total ownership cost of defense products.

Objective. Minimize cost growth in major defense acquisition programs to no greater than 1 percent annually.

Objective. For fielded systems, reduce the logistics annual support cost per weapon system by 10 percent, when compared to an FY 1997 baseline of \$82.5 billion.

Goal 3. Reduce the overhead cost of the acquisition and logistics infrastructure.

Objective. Reduce the funding required by logistics and other infrastructure from 64 percent of Total Obligation Authority (TOA) in FY 1997 to 60 percent by FY 2001.

DoD has made substantial progress on these goals and objectives:

- As of September 30, 2000, all but nine MDAPs are meeting more than 90 percent of the aggregated number of cost schedule and performance goals for that program. The nine exceptions are: Advance Threat Infrared Countermeasures/Common Missile Warning System (ATIRCM/CMWS), B-1 Conventional Missile Upgrade Program (CMUP-DSUP), Utility Helicopter (CH-60S), Advanced Field Artillery System/Future Armored Resupply Vehicle (Crusader), 21st century Destroyer Program (DD-21), Global Broadcast Service (GBS), Space-Based Infrared System Program (SBIRS), Multi-Mission Helicopter Upgrade (SH-60-R), and Theater High Altitude Air Defense (THAAD) programs. A timely review of these programs is being performed in accordance with Title 10, United States Code, Section 2220(c), and appropriate determinations will be made based on those reviews. As enacted by the Federal Acquisition Streamlining Act of 1994, the average period for converting emerging technology into operating capability for all current major programs was calculated to be 115 months from program initiation dates to initial operating capability dates. As of September 30, 2000, this average period declined to 113 months. The calculation of the average period of MDAPs described above includes a significant number of older programs that were structured and developed using the traditional acquisition process. A more accurate assessment of the effects of DoD's acquisition reform efforts would be to concentrate on those programs initiated under the

new acquisition reform process. MDAPs started since 1992 have an average period of 99 months for converting emerging technology into operational capability. This reduction is due to starting more modification and upgrade programs as well as employing regulatory reform, such as specification streamlining, procurement reform, and integrated product teams to reduce cycle time.

- DoD has taken less time than its 18-day target for the average time required to provide spare parts through the logistics system, and improved asset visibility and accessibility from 50 percent (FY 1996) to 94 percent (FY 1999). These initiatives have also had a profound impact on reducing supply inventory in the Department from \$67 billion (FY 1996) to \$58.9 billion (FY 1999) in constant dollars.
- From FY 1997 through FY 2000, DoD's average annual MDAP cost growth has been 0.1 percent, -0.3 percent, 3.1 percent, and 2.9 percent, respectively. It is projected to be 3.2 percent in FY 2001.
- For FY 2000, weapon system logistics costs are \$77.9 billion (in constant FY 1997 dollars), just slightly behind the \$76.7 billion target.
- The funding for logistics and other infrastructure is 60 percent of TOA in FY 2000—2 percentage points better than the target.

All of these goals are designed to encourage innovation in the Department's acquisition and logistics systems. Seeking new and innovative ways to do business will improve readiness and accelerate modernization.

In recent years, DoD has done much to improve its acquisition practices and policies through acquisition reform. Furthermore, it has come a long way in transforming its logistics systems into integrated supply chains, driven by modern information technologies and a wide range of best business practices that have been proven in the commercial sector. For example:

- Applying new acquisition practices to five major weapons systems that were specifically identified by Congress yielded savings as high as 50 percent over previous official cost estimates and most were fielded or are scheduled to be fielded faster than DoD's normal acquisition time of 8 to 12 years. These weapon systems included: Joint Primary Aircraft Training System (JPATS), Non-developmental Airlift Aircraft (NDAA), Joint Direct Attack Munition (JDAM), F-117 Engine, and Fire Support Combined Arms Tactical Trainer (FSCATT). Most important, JDAM was the first of these systems to be utilized in wartime and performed exceptionally well in the conflict in Kosovo,
- DoD is using credit cards for over 90 percent of its transactions below \$2,500, bringing the Department hundreds of millions of dollars in savings and cost avoidance.
- The Single Process Initiative, launched as a means of eliminating duplicative processes and introducing appropriate commercial-like processes at defense manufacturing facilities, has

enabled the conversion of more than 200 facilities to commercial standards and has resulted in savings and cost avoidance of over \$500 million.

- The Department is pursuing innovative acquisition practices to further integrate the civil-military industrial base. For example, as a result of a manufacturing technology initiative, circuit boards for the F-22 are being produced on a commercial rather than a military line. This kind of practice allows us to capitalize on advanced commercial technology and take advantage of large production runs.
- DoD, with the help of Congress, has dramatically altered how the Department deals with its suppliers. This has created an environment that fosters closer, ongoing communication, focuses more directly on actual performance rather than promises, and encourages the kind of supplier alliances that have become hallmarks of excellence in the commercial world.
- DoD has significantly reduced the use of detailed military specifications and standards in favor of far greater commercial performance standards, thereby reducing costs and enabling access to a wider array of the latest technologies and solutions.
- The use of Other Transactions Authority has enabled DoD to access dozens of commercial providers of cutting-edge technologies that were previously unable to do business with the Department.
- The Department has begun to aggressively pursue innovative, performance-focused logistics support strategies that are resulting in improved delivery and response times, while also enabling reductions in unnecessary infrastructure.
- DoD has reduced its acquisition and technology work force by nearly 50 percent over the last ten years. The Department completed its assessment of work force competencies that will be required in the future and DoD is adapting its education, training, and experience requirements to satisfy those competencies. In addition, the Acquisition 2005 Task Force has recommended 31 initiatives to help the Department meet two near-term challenges: retirement eligibility of nearly half the current work force by 2005; and the growing need for multi-skilled generalists to provide flexible, responsive acquisition support. DoD will begin implementing approved initiatives and propose additional legislative changes. These actions will ensure that the work force retains the size and expertise required for cost-effective management of the defense acquisition system, obtaining best-value products and services for U.S. warfighters.

These are just a few of the many dramatic changes that have taken place and continue to evolve in the Department. Despite the exceptional progress that has been made, the Department continues to face challenges in its efforts to truly transform its business and logistics practices. Pursuant to Section 912(c) of the National Defense Authorization Act for Fiscal Year 1998, a number of studies were conducted to help the Department determine areas where reform should be focused.

The studies covered a wide range of issues, to include: command, control and communications; setting weapon system requirements; the unique challenges of acquiring services as opposed to products; the

future of the Research, Development, Test and Evaluation (RDT&E) capabilities of DoD; Price Based Acquisition; re-engineering product support; and accelerating, implementing and managing change. The overarching findings of each study reinforce the necessity of significant, additional reform. For example:

- The RDT&E Infrastructure Study Team found further reductions were possible and set a goal for an additional 25 percent reduction by FY 2005 from the FY 1996 baseline. Such reductions allow DoD leadership to focus research and development dollars on critical technology issues versus infrastructure support.
- The Product Support Study Team found that the Department has not done enough to transform the logistics system. DoD can expand the use of competitively sourced support for both new and legacy systems; improve reliability, maintainability, and sustainability through continuous technology refreshment; expand the use of prime vendor and virtual prime vendor support; reengineer financial processes; better integrate supply chains; tailer supply chains; and implement complementary information systems. The Program Manager Oversight of Life Cycle Support Study Team identified 30 pilot programs to serve as platforms for demonstrating these strategies.
- The Requirements/Acquisition Interface Team recommended that interoperability be a key performance parameter, cost be included in the operational requirements document, requirements be expressed in a time-phased manner, and that cost of delay analyses be conducted as part of an integrated effort to reduce acquisition cycle times.
- The Training and Tools for Acquisition of Services Team found that DoD does not have sufficient performance-based training for acquisition of complex services.
- The Commercial Business Environment Study Team found that DoD has not done enough to accelerate cultural change. DoD needs to adopt an acceleration change model emulating best commercial practices.

This chapter focuses on the principal findings and recommendations of several of those studies, as well as additional initiatives, not directly tied to the Section 912(c) studies, that the Department has started. While each of the initiatives is beneficial in its own right, the synergy among them is both powerful and central to their real success. Indeed, even as each study team identified challenges—and developed action plans for meeting those challenges—it is clear that no one aspect of the acquisition or logistics system alone can produce the results needed if DoD is to meet its most fundamental missions.

The integrated perspective provided by the studies conducted under Section 912(c), more than anything else, makes clear the inextricable links among all aspects of the acquisition process—from requirements generation to technology development, acquisition, test and evaluation, and support. Thus, the Department's ongoing initiatives to accelerate change include all aspects of that process.

Moreover, the study process clarified the fact that the Department is struggling, and will increasingly struggle, to keep pace with the development and access of new leading-edge technologies. Indeed, this finding, perhaps more than any other, speaks to one of the key focus areas of acquisition and logistics

reform and the overall RBA in the technology era of today. DoD's once prominent role as the innovator and consumer of high-technology has long since been reversed. No longer is either the Department or the U.S. Government at large the driving force behind most new technology, including many critical new technologies required by the Department to meet its mission.

That technology development, including both functional technology and technology designed to support optimal business operations and support, is now led by the commercial world, where research and development has increased steadily at a rate of about 5 percent per year for more than 20 years. Conversely, U.S. government spending on research and development has dropped some 2.5 percent per year during the same period. It is clear that this trend is not going to be reversed, and that the Department must improve its ability to be a player in the development of new technology in the commercial world.

Thus, wherever possible, the Department can no longer expect the world to adapt to its practices, but must adapt its business practices and systems to those that have been proven and that are widely relied upon in the commercial world. This can be, and has been, done in ways that are fiscally responsible to the public, while protecting the unique needs of America's military.

THE ROAD AHEAD

DoD's topline goals are clear. The Department must continue reducing cycle times for new weapon systems to provide new capabilities and support the warfighter quicker than ever before. Reducing total ownership costs of weapons systems will free up precious dollars for investment in new technologies and capabilities. Rightsizing the acquisition workforce and infrastructure and adapting new ways of doing business will enable the Department to realize needed savings and efficiencies and to continue providing the men and women in uniform with the tools they need—when they need them—to achieve their military missions. Accessing leading-edge technologies often found in the commercial marketplace will increase the performance of DoD systems.

Achieving that vision requires building DoD's acquisition and logistics reform initiatives on six focus areas, each of which has its own set of outcome metrics that link to the Department's overall goals.

DOD WILL INCREASINGLY RELY ON AN INTEGRATED CIVIL-MILITARY INDUSTRIAL BASE

Although the two industrial bases have already largely merged, DoD's business practices have not kept pace with that fundamental shift. Gaining access to the global commercial industrial base will enable DoD to take advantage of the technology found in world-class commercial companies that have maintained leadership positions in worldwide commerce and, at the same time, help increase competition for the products and services DoD purchases. DoD must position itself to access commercial technology and take advantage of large, commercial production runs, thereby reducing costs through economies of scale.

Enabled by open systems architecture and procurement reform, DoD will seek, wherever possible, to insert commercial technology and products into its new and legacy systems to improve reliability, maintainability, and sustainability through continuous technology refreshment. This means, in addition to other things, applying military specifications (MILSPEC) and standards reform (first launched in 1993) to legacy systems, while recognizing that integrating new solutions into existing systems is a complex

undertaking. By extending MILSPEC reform to legacy systems, the Department seeks to make the search for new solutions the first priority.

To achieve its goal of civil-military integration, DoD will seek the support of Congress. In addition, the Department has already begun to develop a series of policy changes focused on expanding previous reforms and continuing the Department's efforts to eliminate non-value-added government-unique processes and policies in favor of proven, performance-based, commercial standards. For instance:

- In October 1999, the Department launched a comprehensive review of the status and future requirements in the area of specifications and standards reform.
- The Department issued new property disposal language as a Federal Acquisition Regulation (FAR) final rule. Also, significant additional changes for FAR, Part 45, Property Rewrite, are in process.
- The Department is conducting a pilot program to test the application of commercial packaging specifications to military requirements.
- The Department will seek to significantly expand the use of commercial services contracting, and competition including public-private competitions in determining the most efficient and effective means of service delivery.

Each of these initiatives is designed to eliminate unnecessary and costly government-unique requirements and to expand the Department's access to commercial providers who are often unable to do business with the Department because of those government-unique requirements.

Leading indicators of change in this area include increasing the dollar value of FAR, Part 12, contracts and firm-fixed price competitive R&D contracts.

DOD WILL ADOPT AND RELY ON A NEW APPROACH TO SYSTEMS ACQUISITION WHERE PRICE AND SCHEDULE PLAY A KEY ROLE IN DRIVING DESIGN DEVELOPMENT AND SYSTEMS ARE REVIEWED BY PORTFOLIO

The warfighter must be in a position to place a dollar value on improved capability and choose among potentially dissimilar alternatives. Warfighter requirements must be clearly stated and address a validated need. In the new systems acquisition environment, key acquisition and long term funding commitments will not be made until technology is mature and risks are far better understood (and strategies to mitigate them better developed) than is currently the case. When feasible, adopting a time-phased, incremental approach to systems development, allows the Department to more quickly field new technologies. This will also enable the acquisition of products on the basis of overall price and performance, as is the rule in the commercial technology world. The end result can be newer technology in the hands of the warfighter sooner; a wider, more competitive marketplace from which to purchase needed solutions; and fewer dollars idling in the acquisition pipeline.

The Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01A has already been updated to suggest time-phased requirements when feasible. The CJCSI further mandates that interoperability be a

key performance parameter and that cost be addressed in the operational requirements document as an affordability issue. The Department has also rewritten its guidance on systems acquisition. This rewrite addresses evolutionary acquisition, increased technical maturity before starting acquisition programs, integration of acquisition and logistics early in the process, and additional operational assessments. However, to be fully effective, these changes will need continued support from Congress.

Leading indicators of change include planned evolutionary acquisition strategies and the number of MDAPs with cost as a key performance parameter.

DOD WILL TRANSFORM ITS MASS LOGISTICS SYSTEM TO A HIGHLY AGILE, RELIABLE SYSTEM THAT DELIVERS LOGISTICS ON DEMAND

The Department spends more than \$80 billion annually on logistics but the logistics performance (e.g., responsiveness, service, value, readiness) does not match this investment. Logistics reform must move toward performance-based support and link modern warfighting and modern business practices. The commercial marketplace demonstrates that product support can be optimized to create a strategic advantage by focusing on customer service, integrating supply chains, capitalizing on rapid transportation, and exploiting electronic commerce. When applied to DoD, this equates to integrated logistics chains that focus on readiness and rapid service to the warfighter customer. Providers would be selected competitively, based on best value. Long-term partnerships would be formed with a subset of preferred providers.

Instead of continually focusing on product procurements, logistics operations will increasingly rely on the purchase of services. This will be structured to make the supplier responsible for keeping the product technologically current, thus providing the warfighter with continuously improved capability and readiness.

To accomplish this fundamental transformation, the Department has developed a long-term logistics reform strategic plan, established a logistics architect to help guide the transformation effort, and begun the process of implementing new business strategies. New strategies include Defense Logistics Agency prime vendor total systems performance requirements, electronic commerce, and increased Departmental focus on modern information technology to reduce the costs and support for the Department's aging weapons systems. To reduce total ownership cost, the Department has also identified 30 pilot programs (ten per Service) on which it is testing its initiatives. Most of the pilots will achieve or exceed the 20 percent stretch goal with increased readiness, as more and more initiatives are implemented. Thirteen of these programs have already achieved this goal within the past six years, and average savings are 18 percent, up from 10 percent a year ago. These pilot program initiatives will continue to be leading indicators of change.

To make this new vision of modern logistics a broader reality, support from the Congress is needed, particularly in the area of removing restrictions on competitive sourcing and providing necessary financial flexibility to enable the Department to optimize its support operations. It also requires the clear recognition that the Department's ability to fully reap the benefits of many of its strategies hinges, at least in part, on a concurrent willingness and ability to make the requisite infrastructure and personnel adjustments.

DOD WILL REDUCE ITS ACQUISITION INFRASTRUCTURE AND OVERHEAD FUNCTIONS TO INCREASE EFFICIENCY

With increased reliance on the commercial products, technology, and competitively sourced products there will be excess capacity in the acquisition infrastructure. Because DoD does not retain non-critical excess capacity, it will streamline its management and financial information systems through large-scale adoption of proven commercial business processes in information technology and financial management.

DoD will continue to restructure labs, research and development centers, and test facilities to further encourage intra- and inter-Service efficiencies. DoD faces the challenges of a high percentage of its work force nearing retirement eligibility, the downsizing of recent years, and the changing demands caused by a rapidly evolving technology landscape. Therefore, the Department has also launched significant initiatives focused on the work force skills needed for the next century and how best to shape and mold the work force to meet those requirements.

DoD is working on initiatives to upgrade its facilities or divest itself of additional capacity in order to free resources for modernization. In addition, DoD is moving toward privatizing utilities where that is feasible. Finally, DoD needs at least two additional rounds of Base Realignment and Closure (BRAC) to divest itself of non-critical excess capacity. As always, the Department will need help from Congress to achieve its goals.

RDT&E infrastructure cost reduction is a leading indicator of change and DoD has targeted a 25 percent reduction by FY 2005.

THE DOD WORK FORCE WILL BE TRAINED WITH THE REQUISITE SKILLS TO OPERATE EFFICIENTLY IN THIS NEW ENVIRONMENT AND WILL PERPETUATE CONTINUOUS IMPROVEMENT

In order to operate in this new environment, the acquisition work force must understand commercial business practices and how to learn about and acquire both products and services. Individuals and their work teams will continue to be educated through Defense Acquisition University (DAU) courses, the latest technologies that bring education to the work force, and courses available outside the Department. This will increase the Department's training throughput and help ensure that the work force is receiving the appropriate balance of commercial- and government-unique training competencies. Each practitioner's knowledge will be continually refreshed through continuous learning, with particular focus on moving from transaction-driven work to the management of processes.

The Department has instituted a continuous learning policy for the key acquisition and technology work force, mandating that each member of that work force receives at least 80 hours of continuous learning every two years. In addition, the Department is expanding the scope of coursework available through computer-based training and distance learning offered by the DAU and outside sources. The Department provided all members of the key acquisition and technology work force a catalog of available coursework as well as a core curriculum that includes a series of training modules, most of which will be available through distance learning technologies that focus on key areas of change.

More than 2,200 members of the acquisition workforce have completed a new web-based course on commercial supply chain management, developed at no cost to the Department by the National Contract Management Association (NCMA) in partnership with the National Association of Purchasing Management (NAPM). The Department also offers senior military and civilian acquisition leaders a special commercial practices immersion course provided by the Darden School of Business at the University of Virginia. The Department launched a new offering from NCMA/NAPM, which focuses on the acquisition of services in a performance-based environment and has more than 600 students enrolled. The Department has also initiated a full review of its acquisition management courses (including a restructured approach to the Department's program management training) and has recently started a major initiative to define the future acquisition work force and develop a strategy to ensure that its career development program will be synchronized with future work force requirements.

One leading indicator of change is how much of the acquisition work force is taking continuous education in identified focus areas. DoD aims to have 100 percent of the acquisition work force participating within one year of the establishment of focus area courses.

DOD WILL INSTITUTIONALIZE CONTINUOUS IMPROVEMENT OR CHANGE MANAGEMENT THROUGHOUT THE DOD ENTERPRISE TO ENSURE A VIRTUAL LEARNING ENVIRONMENT

World-class companies have adopted systematic change models, which have enabled them to become more efficient and continue to maintain their competitiveness in the global marketplace. Utilizing a systematic model allows companies to implement change initiatives quickly and efficiently across their organizations and to maintain a culture of continuous change. DoD will routinely use a proven enterprise change model to rapidly implement the business process changes required to better support the warfighter. To accomplish this goal, the Department and its leadership will:

- Provide commitment and continuing advocacy of change. Leadership provides the vision and goals, and recognizes change agents.
- Establish action acceleration workshops to identify and train change agents.
- Initiate rapid improvement teams to change specific processes and cultures.
- Continue to expand the support provided by the newly-established change management center, integrating these efforts with the new DAU corporate university thrust.
- Ensure accountability of the business unit manager and the teams to implement and achieve bottom line objectives of the enterprise and business unit.

Enterprise outcome-driven performance scorecards will be developed for each performance outcome goal and used to measure progress against established outcome-driven performance baselines. The scorecards will measure:

- Attainment of DoD desired performance outcomes.

- Customer/supplier/employee satisfaction.
- Achievement of reform targets.

Leading indicators of change in this area will be measured by the annual acquisition reform survey. For FY 2001, DoD has targeted a 50 percent increase in the extent to which acquisition reform initiatives are positively affecting people's jobs and a 10 percent decrease in neutral or negative support for reform from management.

INTEGRATING ENVIRONMENT, SAFETY, AND OCCUPATIONAL HEALTH REQUIREMENTS INTO THE ACQUISITION PROCESS

In support of its transformation efforts in system acquisition and logistics, DoD is reducing pollution, work force exposure to health risks, and accidents associated with weapons systems peacetime operations, training and maintenance. Increasingly strict international, national, and local environmental regulations make it a necessary design consideration to reduce pollution produced by DoD systems during normal operation. For example, excessive air pollution levels in certain areas of the country make it necessary for the Department to seek ways to field new weapons systems which produce less pollutants than those of the systems that will be replaced. Similarly, international standards for ship pollution require DoD to design ships that strictly control their discharges of waste. Other regulations limit the amount of waste release permissible during weapons systems maintenance procedures and limit the amount of chemicals to which DoD personnel may be exposed during operations and maintenance. To address these requirements and demonstrate DoD's commitment to protecting the environment and the health of its personnel, DoD policies and practices encourage weapons systems designers and engineers to develop systems that achieve performance objectives (e.g., high thrust, stealth, enhanced firepower), while minimizing environmental, safety, and health risks. Trying to enhance performance while providing the greatest possible protection for people and the environment is often difficult and frequently involves trade-offs. However, it is essential that the Department be able to operate, maintain, and deploy the latest weapons systems designed to protect the safety and security of the Nation.

When it comes to protecting the safety of DoD personnel, preventing all accidents is the paramount goal. In DoD, safety experts are part of the weapon system design team. Every effort is made to reduce accident rates and to field technology that enhances the safety of existing systems.

Several of DoD's new systems are being designed to reduce pollution, lower worker exposure, and enhance safety. For example, the T-45, the Joint Strike Fighter, the RAH 66 Comanche, and the Advance Amphibious Assault Vehicle all have efforts underway to minimize or eliminate the use of heavy metals such as chrome and cadmium. Similarly, ship designs for the LPD 17, the DD 21, and auxiliary cargo ships emphasize minimizing discharges to ensure global access to ports. Upgrades to older helicopter systems such as the H1 and H60 have made enhancing safety a key goal. However, these achievements are ultimately designed to enhance DoD's ability to deploy its systems.

TEST AND EVALUATION

Test and evaluation (T&E) is an integral part of the acquisition process and an important element of the Department's vision to accelerate its acquisition and logistics reform efforts with a new set of initiatives focusing on outcome driven performance. Moreover, the new responsibilities of the Director of Operational Test and Evaluation (DOT&E) support the transformation efforts by providing the necessary focus to mandate the early use of T&E for discovery to contribute to reduced acquisition cycles and more expeditious fielding of warfighting capabilities, as well as to assure the warfighter that the capability is better.

New responsibilities of the DOT&E include oversight of the: DoD T&E Infrastructure including the Major Range and Test Facility Base, Central Test and Evaluation Investment Program, Joint Technical Coordinating Group for Munitions Effectiveness, Joint Technical Coordinating Group on Aircraft Survivability, Threat Systems Office, and Precision Guided Weapons Countermeasures Test Directorate. In addition, the DOT&E has become a member of the Board of Directors for Test and Evaluation with the Service Vice Chiefs. The DOT&E is now a member of the DoD Planning, Programming, and Budgeting System Program Review Group, and invited to participate in the Defense Resources Board (DRB) deliberations when modernization issues are addressed. These new responsibilities have already facilitated a more integrated test and evaluation process; emphasized T&E involvement in science and technology activities; encouraged T&E after weapons deployment; and allowed promotion of Service/OSD Integrated Test Teams. The responsibilities also promote earlier identification of operational strengths and weaknesses of weapons technologies during developmental T&E. In addition, the DOT&E is now in a better position to promote the use of modeling and simulation to supplement and improve the efficiency of test and evaluation. The DOT&E has already been successful, through the DRB and related mechanisms, in redressing some of the critical Service T&E manpower and funding shortfalls.

The T&E business area within the DoD has been a full partner in the downsizing and streamlining initiatives of the 1990s. Since 1990, the T&E business area has reduced government personnel by more than 40 percent, and T&E institutional budgets by 30 percent. Over this same period, developmental test and evaluation workload has remained essentially stable, and operational test and evaluation workload has significantly increased. As a result, T&E is not sufficiently funded or manned to effectively and efficiently address the test and evaluation challenges of the next decade. To be responsive to the philosophy of early use of T&E for discovery of military effectiveness and suitability issues, T&E personnel will be overextended. While the principles of the faster, better, cheaper acquisition reform philosophy are sound, the implementation which has stretched the resources of T&E has also resulted in a rush-to-failure mode for some acquisition programs. There is now a Department-wide T&E strategic planning initiative to chart a course for the future looking out 15 years and to provide planning guidance for the FY 2004 budget process. This planning effort will address issues, such as work force levels, process improvements, best value with full cost visibility, technology challenges, and encroachment concerns.

CONCLUSION

Acquisition and logistics reform represents a significant cultural change for the Department's acquisition, logistics, and technology work force. Given the size and complexity of the Department, the changes realized in just five years are remarkable. Moreover, as the results indicate, DoD's internal measures

clearly document significant progress as well. Therefore, the Department is focused on both additional change and a series of initiatives designed to provide tools needed by the work force to carry out its tasks effectively.

DoD is primed to accelerate its acquisition and logistics reform efforts with a new set of initiatives designed to produce even greater outcome-driven performance improvement results well into the next century. To make this happen, DoD will become a learning organization that embraces best practices, empowers its work force, and achieves optimal solutions at affordable costs in support of the warfighters.

It will take commitment and hard work across the Department's business communities to accelerate progress. The Department must successfully adopt performance-based, commercial business processes and practices to field the most technologically advanced, best-equipped, and most mission capable fighting forces in the world to come. Given the progress to date, there is every reason to believe that the Department will achieve that fundamental goal.

