Department of the Army Historical Summary

Fiscal Year 1997

CENTER OF MILITARY HISTORY
UNITED STATES ARMY
WASHINGTON, D.C.

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Introduction

National Military Strategy

In May 1997 the Clinton administration issued *A National Security Strategy for a New Century*, which set forth a national strategy designed to advance U.S. national interests in an era of unique opportunities and multiple dangers. Unparalleled U.S. military strength, a dynamic global economy, and a growing community of democratic nations enhanced the prospects for world stability. At the same time, ethnic conflicts, radical state governments, terrorism, illegal drug trafficking, organized crime, and nuclear weapons threatened that stability. The three core objectives of the new national strategy were to enhance U.S. security with effective diplomacy and trained and ready military forces; to bolster U.S. economic prosperity; and to promote democracy throughout the world.

As a global power with global interests, the United States must remain engaged with the world diplomatically, economically, and militarily. On the basis of national strategy, an overarching defense strategy was developed to meet the challenges of the current and future world, to identify military capabilities, and to define needed programs and policies. The three pillars of the defense strategy for the near and long term were to shape the strategic environment and advance U.S. interests; to maintain the capability to respond to the full spectrum of threats; and to prepare for the threats and dangers of an uncertain future. The military shapes the strategic environment by promoting regional stability, preventing or reducing conflicts and threats, and deterring aggression and coercion in key regions of the world. United States forces, however, will sometimes be required to protect America's interests, demonstrate its resolve, and reaffirm its role as a global leader by deterring aggression and coercion in crises, conducting smaller-scale contingency operations, and, ultimately, fighting and winning major–theater wars. At the same time, the U.S. military must prepare to meet the challenges likely to exist through 2015 by pursuing a focused modernization effort, exploiting the revolution in military and in business affairs, and planning for future threats.

To fulfill the defense strategy, the U.S. military must maintain near-term capabilities to shape the environment and respond to threats while developing the long-term capabilities to respond to future challenges. A capabilities-based force undertakes a range of operations in peace, crisis, or war; and must be capable of conducting multiple missions, be proficient in warfighting competencies, and be able to mobilize quickly from peace to war. A substantial overseas presence remains vital for supporting the defense strategy, as does the ability to rapidly move and concentrate U.S. military power around the world. A well-trained force that enjoys a good quality of life, a global intelligence system that provides early strategic warning, a global communications system, superiority in space, and control of the seas and airspace ensure these capabilities.

The Quadrennial Defense Review (QDR) of 1997 stemmed from a May 1995 recommendation by the Commission on Roles and Missions of the U.S. Armed Forces for a "quadrennial strategy review." In the National Defense Authorization Act for Fiscal Year 1997, Congress directed the Department of Defense to conduct a QDR and provided funds for it. The secretary of defense expanded the concept to include a thorough review and assessment of military strategy, capabilities, force structure, infrastructure, resources, and programs. He established panels with representatives from the Office of the Secretary of Defense, the Joint Staff, and the services to conduct the review and make recommendations. On the basis of these recommendations, the secretary of defense made decisions, which he incorporated in a final report to Congress on 15 May 1997 The secretary envisioned that, through 2010, with the United States remaining the preeminent military power, U.S. military forces would conduct peacekeeping, crisis response, humanitarian assistance, disaster relief, and noncombatant evacuation operations. He reaffirmed the need for ten active Army divisions to execute two nearly simultaneous major–theater wars. At the same time, he approved the QDR's conclusion that increased efficiencies and organizational changes allowed personnel reductions.

The Army's tasks in shaping the environment, responding to threats, and preparing for the future have as their objectives the retention of the U.S. initiative in international affairs, the capability for strategic preemption, and the ability to prevent debilitating conflicts. Because land forces provide the most visible and sustained forward presence in other countries, the Army's contacts with other nations and their land forces contribute significantly in shaping the international security environment. The Army has provided the majority of the military forces in twenty-seven operations since the end of the Cold War and will continue to respond to the full spectrum of conflict. The decrease in Total Army personnel required by the QDR will allow the Army to free funds for modernization of equipment in preparation for the future. One of the most significant

aspects of the QDR is an increase in modernization funding that will allow the Army to field a digitized corps by 2004.

In July 1996 the chairman of the Joint Chiefs of Staff issued *Joint Vision 2010*, the armed forces' conceptual framework for future military operations. The premise of *Joint Vision 2010* is that modern and emerging technologies, especially those pertaining to information, will create a new capability for joint operations. The massing of forces will decline in importance as joint force commanders acquire the ability to pinpoint the decisive location and time for concentrating their combat power to defeat the enemy. Under *Joint Vision 2010*, U.S. forces are viewed as a team possessing full-spectrum dominance; that is, able to win against any opponent, in any situation, in any operation. The achievement of the following operational concepts will ensure full-spectrum dominance—dominant maneuver, precision engagement, full-dimensional protection, and focused logistics. Implementation of *Joint Vision 2010* will be achieved by providing common direction and strategic guidance to the defense community and guiding future joint warfighting concepts and operational capabilities.

Army Vision 2010 is the blueprint for the Army's contributions to the operational concepts identified in *Joint Vision 2010*. The Army plans to leverage technologies to achieve new levels of effectiveness as the land forces component of the joint warfighting team. To develop and maintain a full-spectrum force, the Army relies on the fundamental imperatives of obtaining quality people; establishing effective doctrines for military operations; creating the proper mix of heavy, light, and special operations units, supporting elements, and sustaining activities; providing a high standard of training; focusing equipment modernization to support battlefield operations; and producing quality leaders. Maintaining the readiness to respond rapidly to worldwide crises is the Army's highest priority; obtaining the proper force structure to meet mission requirements and enhancing quality of life for service members and families are also essential. To ensure full-spectrum dominance, the Army must use digitization to achieve information dominance and must make incremental improvements to current systems to attain capabilities overmatch.

The Army After Next (AAN) will be a revolutionary new force in which light forces will become more effective and heavy forces will be redesigned to produce increased lethality, strategic mobility, and flexibility. Autonomous platforms and space-based systems will be crucial for battlefield success. Space will arise as a new battlefield. Designed to better understand the probable nature of war thirty years in the future, the AAN program is providing a focus to the Army's current development efforts. Through an annual cycle of war games, demonstrations, experiments, exercises, symposia, workshops, and conferences, the AAN initiative strives to lay a research foundation for assessing the effects of increased

mobility, lethality, and maneuver. By leveraging radical advances in information technology, weapons systems, and vehicle speeds, the AAN program seeks to ensure that ground forces remain a strategically decisive element of warfighting. To develop the full-spectrum dominance needed in the future, technological advances will be examined to create "leap-ahead capabilities" beyond those currently envisioned.

Army XXI is the force that the Army plans to field by 2010 as an intermediate step in the process of developing the AAN. As the twenty-first century force of decision, the defining features of Army XXI will be its ability to compel victory, deter aggression, reassure allies, and support the national strategy. Army XXI will still be a power-projection force, but it will be more agile, more lethal, and more capable of providing full-spectrum dominance. Emphasizing information dominance, the force will be digitized, enabling commanders and soldiers to exchange information in real time and obtain an up-to-date situational awareness of the battlefield. Technologies added to combat systems and new information technologies will provide enhanced warfighting capabilities.

Force XXI, although earlier envisioned as a discrete force design, evolved into the Army's ongoing process for managing change and advancing into the twenty-first century. *Army Vision 2010* serves as a bridge between Force XXI, the near-term plan, and the AAN, the long-term objective. To achieve full-spectrum dominance in the near term, a restructuring of the Army was required. Force XXI is the process of transforming the Army into a superior technological force for the twenty-first century that can attain information dominance. Through this process, the Army will develop the right doctrine and organizations, realistic training, appropriate sustainment packages, and the best equipment and weapons systems possible. Identifying the capabilities and technological applications needed in the near term, Force XXI eschews traditional methods of development and provides new systems in a fraction of the time previously required. Flexibility, durability, and user-friendly systems will enhance deployability, sustainability, versatility, and protection of the force. The product of the Force XXI process will be Army XXI, an Army poised to enter the twenty-first century.

Highlights of the Army's Activities

During FY 1997, the Army continued to restructure itself from the forward-deployed force suitable for the Cold War to the power-projection force needed for the twenty-first century. The drawdown that had been taking place during the 1990s slowed considerably as all elements of the Total Army began to reach their mandated personnel levels. Operation JOINT ENDEAVOR, which had begun in December 1995 in Bosnia, endured

throughout FY 97 as Operation JOINT GUARD. This heavy commitment to a protracted contingency, coupled with increasing deployments around the world, strained the Army's budget. Although the Army remained able to procure some new equipment, declining financial resources and aging equipment forced it to rely more heavily on renovating and rebuilding equipment. The Army did make some progress in improving quality of life and housing for its soldiers and family members, although the backlog of needed improvements remains monumental.

Sexual harassment and sexual misconduct allegations colored much of the Army's public persona during the fiscal year. The highest ranking enlisted soldier in the Army was accused of sexual harassment and sexual misconduct; he was suspended from his duties, and a preliminary hearing was held to determine whether he should be court-martialed. Drill instructors were investigated for improprieties with basic trainees from the 1980s. The Army was forced to deal with these issues in a highly charged public atmosphere, under intense media scrutiny. Senior Army leaders conducted a detailed study of sexual harassment and sexual misconduct, and various courts-martial were held. Some soldiers were discharged and sentenced to prison, whereas the majority received nonjudicial punishment or administrative sanctions or were exonerated. As the number of women in the active Army has increased, rising from 14.2 percent of the active force in FY 1996 to 14.8 percent in FY 1997, endeavors to create a nonhostile atmosphere have gained in importance. Women remained excluded, however, from all Infantry, Armor, Special Forces, and Ranger positions, as well as some Field Artillery and Air Defense Artillery roles. Nevertheless, progress was evident with the promotion of the first Army female to lieutenant general and the first assignment of a female command sergeant major to work for a lieutenant general. The Character Development XXI initiative, in which traditional Army values are imparted by leaders and through training curricula, was another effort designed to ensure that all service members are treated with dignity and respect.

The Army budget's persistent decline was evident throughout FY 1997, with a 2.5 percent decrease from FY 1996. Although the budget included funds for ongoing military contingencies and operations, it did not contain funding for unprogrammed missions. The Army revolutionized its business practices to find economies in some areas to support unfunded requirements in others. In one of the most radical departures from tradition, the Army turned increasingly to privatization of noncore competencies to attract private funds and renovate the Army's aging infrastructure. Some of the most significant private ventures involved the replacement or modernization of deteriorated family housing, which vastly improves the quality of life for soldiers and their families, and the privatization of utilities, which reduces the Army's installation operating costs. Technology

played an important role in assisting the Army in wresting savings from the performance of necessary functions. The Army decreased travel expenditures with the Lodging Success Program, which obtained volume discounts on hotel room rates for government travelers. The Government Travel Card reduced the need for travel advances.

In addition to lower personnel levels for each component of the Total Army that the 1993 Bottom-Up Review (BUR) had recommended, the QDR recommended and the secretary of defense directed 93,700 additional cuts through FY 2006, with nearly half of the reductions in the reserve components and more than one-third in the civilian workforce. The Total Army consisted of 1,321,300 active Army, U.S. Army Reserve (USAR), Army National Guard (ARNG), and civilian members at the end of FY 1997, compared with 1,345,900 when the fiscal year began, a 2 percent reduction involving 24,600 personnel. With 491,700 troops, the active Army met its BUR goal of 495,000 and was slightly over its QDR goal of 490,000 for the year. USAR had 212,900 soldiers and was on schedule to reach its BUR goal of 208,000 for FY 1998. Remaining stable during the year with 370,000 personnel, ARNG had 3,000 more troops than its BUR goal. Reductions in the reserve components under the QDR are not scheduled to begin until FY 1998. The number of civilians declined in an effort to reach the BUR goal of 236,000 by FY 2001, standing at 246,700 at the end of FY 1997.

Although the Army continued to restructure its forces to meet the requirements of Force XXI, the number of divisions remained stable, with ten active Army and eight ARNG divisions. A decrease of four separate brigades occurred in FY 1997, leaving the total at eighteen. As a result of the QDR, USAR and ARNG will be decreased by 45,000 persons over the next few years. ARNG contains more than half of the Total Army's combat force and USAR more than one-third of the combat support and combat service support units. Planners have recognized that the infrastructure contains an insufficient level of combat support and combat service support units for the capabilities-based and force-projection Army of the future. Moreover, the prevalence of joint operations has created a need for units that are capable of integrating active and reserve forces and achieving interoperability with other military services. In line with the Army National Guard Division Redesign Study, two active/ARNG integrated divisions will be formed over the next fourteen years from up to twelve ARNG combat brigades and support elements from two divisions that will be converted to combat support and combat service support units.

Throughout FY 1997 the Army endeavored to maintain or improve readiness of its personnel, equipment, systems, and installations to ensure that it would have the capability to conduct two major-theater wars in different parts of the world simultaneously. Switching from the forward-based Army

of the Cold War required that power-projection platforms be established at many installations in the United States. At the end of FY 1997, fifteen installations had been prepared and equipped to serve as power-projection platforms, and an additional twelve installations were designated as power-support platforms that would perform initial mobilization and training for reserve component units. Under the Army's new philosophy to fund and equip units that deploy early in contingencies, combat service support units have begun to receive a higher priority for funding within the Total Army. Funding constraints reduced the Army's ability to conduct programmed levels of training in combat vehicles, measured as ground operating tempo, and forced the Army to reduce the flying-hour program for all aircraft except attack helicopters. To better determine the full cost of preparing a unit to go to war, the Army has developed a new measure termed *Operational Readiness*. In a significant improvement in readiness, however, the fully mission-capable rates of the Army's sixteen major weapons systems, particularly the M1A2 Abrams tank and Army helicopters, increased from FY 1996 to FY 1997. Improving training while reducing costs, the Army Distance Learning Program expanded operations and will eventually provide 95 percent of all soldiers with standardized training within an hour's drive of their home station. Using other advanced technology tools, simulators and simulations provided increased training opportunities at the individual, unit, and higher headquarters levels at a fraction of the cost of live exercises. An emphasis on physical training has not declined, however, as the Army Physical Fitness Test standards were revised, making the measures tougher for women in the Army's bid to attain gender equity.

The Army of the past year was a highly mobile force, engaged in numerous contingency and humanitarian missions around the globe. Personnel tempo was at an all-time high, as soldiers deployed from their home stations for six months at a time, despite the Army's goal of limiting their absences to a total of four months in one year. On any given day in FY 1997, an average of 6 percent of the active Army was operationally deployed to nearly 80 countries. Special Operations Forces personnel, who were highly prized for their skills, performed missions for U.S. ambassadors in 144 countries. Another 120,000 soldiers were stationed permanently outside of the United States. In addition, thousands of active Army, USAR, and ARNG soldiers engaged in large-scale training exercises in the continental United States (CONUS) and in every major command area of responsibility. Partnership exercises, in which Total Army soldiers trained with those from other countries, provided opportunities for developing new skills and building relations with prospective allies. Reserve component personnel were particularly involved in nation-building exercises, in which their skills were honed while they constructed tangible infrastructure improvements or provided basic services for the indigenous population.

Thousands of soldiers remained deployed to Bosnia in FY 1997 and, in support of them, thousands to Hungary and hundreds to Croatia. Troops had initially been mobilized in December 1995 for Operation JOINT ENDEAVOR to support the North Atlantic Treaty Organization in monitoring a peace agreement in Bosnia. This was the largest mobilization of soldiers since Operation DESERT STORM. Active Army units stationed in Germany were deployed to Bosnia, and in some cases mobilized USAR and ARNG units were deployed to Germany to assume those units' mission. As active Army units returned to Germany, USAR and ARNG units from CONUS were often sent directly to Bosnia. In December 1996 the treaty implementation force became a stabilization force under Operation JOINT GUARD, with thirty-nine nations participating. United States soldiers in Bosnia served primarily in the Multinational Division (North), composed of separate brigades from the United States, Russia, Turkey, and Norway/Poland. In addition to carrying out the mission, many Total Army personnel have become intimate with interoperability and combined operations as a result of their experiences, which will better prepare the Army for activities of this type in the future.

As the Army moves towards the twenty-first century, it has been restructuring its forces to exploit information technology, particularly in weapons systems, and is planning to digitize its divisions and corps. The 4th Infantry Division (Mechanized) was selected as the experimental force (EXFOR) for Force XXI. Throughout the fiscal year, thousands of pieces of new equipment were fielded to the EXFOR with concomitant training provided to the division's soldiers at Fort Hood, Texas. In March 1997 the Army's largest and most significant experiment, the Task Force XXI Advanced Warfighting Experiment, took place at the National Training Center in Fort Irwin, California, incorporating new military doctrine, organizational structures, technologies, processes, systems, and equipment. A combination of computer technologies, information networks, intelligence systems, and simulation technologies resulted in a vastly improved situational awareness of the battlefield, both enemy and friendly, that tactical commanders have been demanding for years. Eleven Force XXI initiatives were fielded and tested during the Advanced Warfighting Experiment and deemed to require urgent funding under the new Warfighting Rapid Acquisition Program. The Army requested $100 million to develop the programs in an expedited fashion for fielding of the first Army XXI division by September 2000.

Because of the Army's heavy reliance on automation to shoot, move, and communicate effectively, the service gave increasing emphasis during the year to resolving with the year 2000 (Y2K) computer problem. Since the 1960s, a standard computer programming practice had been to identify the year with two digits (for example, 97 for 1997), with the inherent fault

of systems interpreting 00 as 1900 instead of 2000. Thus the beginning of the year 2000 threatens to cause widespread miscalculation of data. Addressing this problem in March 1997, the secretary of the Army and the chief of staff of the Army assigned top priority to analyzing its extent, fixing and testing affected systems, and certifying the results. They noted, however, that these efforts to make systems Y2K compliant had to be carried out with existing funds.

As the Army downsized following the end of the Cold War, old equipment was eliminated, leaving the force with a modern inventory dating from the 1980s. By the end of FY 1997, however, this equipment had aged and was on the verge of becoming obsolete. Equipment modernization had become critical, but sufficient funds were not available to fill all of the Army's needs. Although the Army did not cancel any major weapons systems in FY 1997, it limited procurement of some items and lengthened the development periods of others in an effort to stretch resources. The establishment of the Army XXI Acquisition Reform Reinvention Laboratory, designed as a virtual laboratory to reform the acquisition process, succeeded in reducing acquisition times for some system modifications, which in turn reduced costs. To further decrease the costs of modernization, the Army relied on recapitalization; that is, replacing or refitting worn or dated equipment. This process refurbished one-fifth of ARNG's aircraft. At the same time, the Army was able to sustain development for new air defense, missile, artillery, intelligence, support vehicle, and command and control systems, with the Crusader field artillery system remaining the Army's top development program for ground combat systems. In addition, the Army continued equipping ARNG's fifteen Enhanced Separate Brigades expected to be fully operational by FY 1999. One of the Army's significant achievements was the fielding of digitized technical manuals on a variety of combat, wheeled, and aviation systems, reducing the need to carry hundreds of pounds of manuals to the field. With the revolution in military logistics, the Army gained savings by decreasing stockpiles of equipment, gaining visibility of goods, and improving its distribution system.

With operation of the Army's $100 billion of real property and 12 million acres of land costing $10 billion a year, or one-third of the Army's discretionary funds, it is essential that costs be eradicated wherever possible. ARNG and USAR alone operate and maintain more than 22,000 installations and facilities. As a result of the QDR conclusion that additional installation infrastructure could be eliminated, two additional rounds of Base Realignment and Closure (BRAC) decisions have been scheduled for 2001 and 2005. By the end of FY 1997, 80 percent of all BRAC closings required in CONUS, and 95 percent of those required overseas, had been accomplished. During the fiscal year, for the first time, the Army saved more on the BRAC process than it expended. Through the

Facility Reduction Program, the Army is working to eliminate unneeded buildings to decrease operational expenses, but this program cost $100 million in FY 1997 rather than providing savings. Because the Army has continued to receive insufficient money to adequately replace family housing and barracks, operating and maintaining aging structures has captured an ever-increasing amount of Army funds. In FY 1997 the Army did manage to revitalize 1,746 family housing units, design or construct 22,000 barracks spaces, and modernize additional 10,600 barracks spaces. In one effort to economize, the Army developed Service Based Costing, an analysis of the resources consumed for 122 typical services provided at military installations, and collected its first full set of data from 77 installations in FY 1997.

2

Organization and Management

Organizational Changes

Organizations

In 1967 the Office of the Assistant Vice Chief of Staff of the Army (OAVCSA) was created to guide and integrate Department of the Army (DA) efforts in resource management. In 1974 OAVCSA and the secretary to the General Staff were replaced by a newly created director of the Army Staff. In 1995 the Army considered reestablishing OAVCSA to compete with sister services for defense funds. In September 1996 the president approved the reinstatement of the position of assistant vice chief of staff of the Army (AVCSA).The AVCSA was charged with developing and articulating the Army's requirements and, pursuant to the direction of the assistant secretary of the Army (financial management and comptroller) (ASA [FM&C]), helping to integrate military requirements into the overall planning and programming process. In October 1996 the director of the Army Staff proposed that the AVCSA acquire oversight of the Program Analysis and Evaluation Directorate and of the Concepts Analysis Agency. By the end of FY 1997, this issue remained in contention among the administrative assistant to the secretary of the Army, the general counsel, the ASA (FM&C), and the deputy under secretary of the Army (operations research). Also unresolved was the potential infringement of ASA (FM&C) duties and responsibilities by the new AVCSA.

Technological advances also create a demand for new organizations. The 1997 Army After Next (AAN) winter war games demonstrated that space and information operations will not only be critical to success on the future battlefield, but will dominate on occasion. Space control, space policy, space reliability, and space vulnerability have become significant issues. In particular, the ability to conduct reconnaissance and counter-reconnaissance in space will affect the outcome of a war. With space and missile defense becoming even more essential, the U.S. Army Space and Strategic Defense Command (SSDC) reorganized into the U.S. Army Space and Missile Defense Command (SMDC) and published Vision 2010.

Responsible for unifying the Army's space and missile defense efforts, SMDC will bring space support to the joint warfighter and national missile defense to the continental United States (CONUS) while continuing to develop theater missile defense.

In a major organizational change, the Personnel Information Systems Command (PERSINSCOM) and its field operating agencies became subordinate elements of the U.S. Total Army Personnel Command (PERSCOM) as of 1 October 1996. Although PERSINSCOM's name was changed to the Personnel Information Systems Directorate (PERSINSD), no significant changes in mission, funding, or personnel occurred. The U.S. Army Information Systems Command–U.S. Military Entrance Processing Command (USAISC–USMEPCOM) was a field operating agency of PERSINSCOM. Its role was to furnish communications electronics support to Headquarters, U.S. Military Entrance Processing Command (USMEPCOM), and to sixty-five military entrance-processing stations in the United States and Puerto Rico. In addition, the organization was responsible for ordering all telephone services for USMEPCOM. On 1 October 1996, PERSCOM approved the transfer of USAISC–USMEPCOM employees to Headquarters, USMEPCOM, and the move occurred early in 1997.

At the beginning of FY 1997, PERSCOM was authorized 2,869 military and civilian personnel. During the fiscal year, 412 personnel authorizations were transferred to PERSCOM from major commands (MACOM) and the Software Development Center–Washington to support the regionalization of civilian personnel offices. All but six of these authorizations, along with another twenty-nine, were later transferred to the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs). An increase of 39 authorizations to PERSCOM occurred in the Casualty and Memorial Affairs Operations Center, Prisoner of War/Missing in Action, and 116 authorizations for the Central Identification Mission in Hawaii when the Central Identification Laboratory Concept Plan was approved. In a major reorganization, the U.S. Army Information System Management Activity transferred 897 positions to PERSCOM. By using the Voluntary Early Retirement Authority and the Civilian Voluntary Separation Incentive Program, PERSCOM reduced its civilian strength by 34 personnel. With 3 additional authorizations lost through other changes, PERSCOM's total authorization at the end of FY 1997 was 3,861 military and civilian personnel.

The Colonels Division in PERSCOM, which had been responsible for colonel assignments, was inactivated in June 1997 and replaced by the Colonels Distribution Branch. The Colonels Distribution Branch is subordinate to the Distribution Division but works directly for the director, Officer Personnel Management Directorate (OPMD). Although career divisions within OPMD were given the responsibility to assign colonels, the Colonels Distribution Branch has become the focal point for colonel

assignments. It manages the requirements and assignments of colonels to fill the Officer Distribution Plan in the Army, in joint accounts, and in positions located outside the Department of Defense (DOD). In pursuit of its mission, the Colonels Distribution Branch has established relations with MACOM and non-DOD agencies.

In June 1997 PERSCOM's Office of the Deputy Chief of Staff for Operations experienced a major reorganization when the Force Integration and Analysis Division and the Military Operations Division were divided into the Mobilization Division, the Force Integration Division, and the Training and Analysis Division. The Current Operations Branch was established under the Office of the Deputy Chief of Staff for Operations to coordinate all cross-directorate actions within PERSCOM. In addition to providing support to Operation JOINT GUARD, the Mobilization Division participated in exercises and in contingency planning. The Force Integration Division published Army force structure changes and several new Army regulations. The Training and Analysis Division assisted in the transition to the Officer Personnel Management System XXI and participated in developing the Aviator Continuation Pay program.

In April 1995 Executive Order 12958 established new guidelines for classifying, safeguarding, reviewing, downgrading, and declassifying national security information, and for exempting some materials from declassification. Agencies were required to review, for declassification or exemption, all classified information in permanent records dated before 1974. Documents not reviewed would be declassified automatically in April 2000. The Army established an Army Declassification Activity (ADA) in June 1996 to review its 270 million pages of classified material. During FY 1997, the ADA reviewed more than 10,000 document pages and declassified more than 6,000. It also provided support to the John F. Kennedy Assassination Records Review Board and the Freedom of Information and Privacy Act programs.

In response to a study recommending that the Army Review Boards Agency (ARBA) increase accountability, reduce the number of old cases, improve morale, and incorporate new technology, ARBA created a new Top Management Team and purchased a new tracking system to provide accountability of all correspondence. New ARBA screening teams were established in St. Louis, Missouri, and Arlington, Virginia. Renovation of facilities was completed in St. Louis and was under way in Arlington. In FY 1997, ARBA's Clemency and Parole Board paroled 22.8 percent of the persons whose cases it reviewed. Army soldiers constituted 69 percent of all military inmates who were paroled in FY 1997.

The National Defense Authorization Act for Fiscal Year 1997 required the secretary of defense to form a National Defense Panel to assess the Quadrennial Defense Review (QDR). In May 1997, with the completion

of the QDR, the Strategic Synchronization Cell in OAVCSA, which had assisted the AVSCA in directing and integrating the 1997 QDR effort throughout the Army Staff, was reorganized to support the work of the National Defense Panel and renamed the Center for Land Warfare. Consisting of a director's office, an analysis and integration team, and a visualization team, the center is a cross-functional organization reporting to the AVCSA. The Center for Land Warfare will provide an integrated view of Army requirements and improve the Army's ability to articulate those requirements in DOD resource debates, including the Joint Requirements Oversight Council and the Joint Warfighting Capabilities Analysis panels.

During a 1996 study on restructuring Headquarters, Department of the Army (HQDA), the Army Science Board recommended transferring management of nonmajor acquisition programs to the Army Materiel Command (AMC). In FY 1996, AMC accepted a total of seven programs from the Information Support Command. During FY 1997, about eighteen program, project, and product managers (collectively, PM) transferred into AMC, raising the total of AMC PMs to sixty. The program executive officer for Standard Army Management Information Systems and associated PMs are scheduled to transfer into AMC during FY 1998.

The Operational Test and Evaluation Command (OPTEC) developed the OPTEC System Team (OST) in FY 1997 to support the Integrated Test and Evaluation process for every active program that requires OPTEC testing or evaluation. When an OPTEC element identifies such a program, a lead office is appointed to establish an OST that will develop the OPTEC test and evaluation strategy. An OST is composed of representatives from the Operational Evaluation Command, the Evaluation Analysis Center, and the Test and Experimentation Command who are involved in evaluating, testing, or experimenting with a particular program. An OST also includes personnel from the appropriate OPTEC Test and Evaluation Coordination Office and, when necessary, from the OPTEC Threat Support Activity or the Test and Evaluation Command. The OST provides a forum at the action officer level to coordinate issues and resolve problems, or raise them to higher levels, and is empowered to take actions that are consistent with OPTEC and Army policies and positions.

One Army organizational change resulted from a decreased workload. Experiencing a reduction of its testing mission since the beginning of FY 1996, the U.S. Army Corps of Engineers (USACE) possessed more laboratory space than it could support. In May 1997 USACE completed a review of its laboratory activities that indicated that most laboratories were operating at a net loss and would continue to do so. The review recommended that existing laboratories should be consolidated at one location, with one-third of the personnel and

equipment. In July 1997, the commander, USACE, decided to close six of the seven laboratories as soon as possible, but no later than 30 September 1998, and consolidate their activities in Omaha, Nebraska. Five of the laboratories were closed during FY 1997, saving $5.3 million in future annual operating losses.

In the U.S. Southern Command (USSOUTHCOM), some large units were inactivated in preparation for eliminating the U.S. presence in Panama by 31 December 1999. By the end of FY 1997, the 470th Military Intelligence Brigade, the Military Police Command, the 106th Signal Brigade, the 536th Engineer Battalion, the 92d Military Police Battalion, and the 154th Signal Battalion had been inactivated. The remaining U.S. Army, South (USARSO), units, many of which had declined in size from battalions to companies or companies to detachments, were organized under a new theater support brigade. With the USARSO staff, the theater support brigade, composed of combat, combat support, and combat service support units, will plan, coordinate, and execute USSOUTHCOM's theater engagement strategy.

Several Army bands were reflagged during FY 1997. In October 1996 the 2d Armored Division Band at Fort Hood was renamed the 4th Infantry Division Band, and the 2d Infantry Division Band at Fort Stewart, Georgia, became the 3d Infantry Division Band. A month later, the 3d Infantry Division Band in Bamberg, Germany, was reflagged as the 1st Armored Division Band. As the result of the Change in Noncommissioned Officer Structure Study, the noncommissioned officer composition of Army bands was reviewed and revised.

Installations

When DOD closed major military installations in the 1960s, it did not consider the effect upon communities. Legislation in the 1970s ensured that Congress would be involved in future closings. In 1988 the secretary of defense chartered a Commission on Base Realignment and Closure (BRAC) to make recommendations. Later that year, Congress required that DOD implement the recommendations. The Defense Base Closure and Realignment Act of 1990 directed that additional BRAC (the acronym is commonly applied, despite variations in title) commissions be convened in 1991, 1993, and 1995. Closing unnecessary installations has saved the Army considerable resources and enabled it to be positioned for Force XXI. Full implementation of all four commissions' findings was expected to save $1 billion annually. Approving the QDR's finding that additional infrastructure could be eliminated, the secretary of defense proposed that two additional rounds of base closures take place in 1999 and 2001. As of the end of FY 1997, congressional opponents had been successful in blocking the proposal.

BRAC implementation continued in FY 1997 with the Army saving more during the year than it had spent on the process of closing and consolidating bases. By the end of the fiscal year, the Army had accomplished about 80 percent (91 of 112) of the scheduled BRAC closings in the United States and had returned to host nations 95 percent of identified installations overseas. Vint Hill Farms Station in Virginia, the only Army installation selected for closure in the FY 1993 process, lowered its flag in June 1997, two years earlier than planned. Its primary tenants moved to Fort Monmouth, New Jersey, and to Tobyhanna Army Depot, Pennsylvania. The largest BRAC construction project, which allocated $160 million for new facilities at Fort Leonard Wood, Missouri, continued during FY 1997 to support the Military Police and Chemical Schools being transferred from Fort McClellan, Alabama. In April 1997 the Army leased the former Fitzsimons Army Medical Center to the city of Aurora, Colorado, where the University of Colorado will transform it into the fourth academic medical center and research park in the country. Most of the acreage of Cameron Station, Virginia, was sold to a private developer, and the remainder was transferred to the city of Alexandria; the existing structures were razed to make way for 2,000 residential units, commercial space, and recreational facilities.

As a result of BRAC 95, Fort Pickett, Virginia, and Fort Chaffee, Arkansas, were closed and realigned to the Army National Guard (ARNG) in 1997. The BRAC commission had recommended the installations be closed except for minimum essential ranges, facilities, and training areas needed as a training enclave for individual and annual training. ARNG's Maneuver Training Center at Fort Pickett consists of forty thousand maneuver acres, with billets for four thousand soldiers. It can support training for a brigade-size element during peak annual training months or for two or more battalions during inactive duty training periods. The Fort Chaffee Maneuver Training Center contains sixty-two thousand acres and has billets to support up to one brigade with attached elements. Training capabilities include lane training (training of company and smaller units on a series of selected soldier, leader, and collective tasks, using a specific terrain), artillery firing, engineer demolitions, bridging operations, and small arms range firing. Fort Dix, New Jersey, and its subordinate organizations transferred from U.S. Army Forces Command (FORSCOM) to the U.S. Army Reserve Command on 1 October 1997.

In preparation for the departure of U.S. troops from Panama, Quarry Heights, the Curundu Flats housing area, and Gorgas Army Hospital were transferred to the Panamanian government during FY 1997. Almost half of all Army properties had been transferred by the end of the fiscal year, and the remaining transfers are expected to be on schedule. The USSOUTHCOM headquarters became fully operational in its new Miami

location. Unaccompanied soldiers were stationed at Fort Sherman, Panama, and accompanied personnel were assigned to Fort Clayton, Fort Kobbe, and Corozal Army Complex, all in Panama.

Under a presidential initiative in 1993 and the National Defense Authorization Act for Fiscal Year 1994, the secretary of the Army was authorized to transfer installation property to promote economic redevelopment in communities surrounding an installation being closed. After reviewing a local reuse authority (LRA) business plan, the Army could establish a payment plan under an economic development conveyance (EDC). The Fort Benjamin Harrison Reuse Authority received an EDC in FY 1996 to purchase Fort Benjamin Harrison, Indiana, for $6.1 million paid over ten years. In early 1997 the LRA began comprehensive rezoning of the site, which would provide a new state park, a town center, and a golf course, as well as employ six thousand people.

With the closing of Fort Devens, Massachusetts, the Army retained the Devens Reserve Forces Training Area but transferred other parts to the Department of Labor, the Federal Bureau of Prisons, and the U.S. Fish and Wildlife Service. In November 1995, the Massachusetts Government Land Bank requested an EDC for the remaining thirty-four hundred acres in November 1995. In May 1997, the state began paying the Army the agreed price of $17.9 million over six years in six installments. Since the conveyance, twenty-six hundred jobs have been created.

Another EDC was approved in FY 1997 for the Defense Personnel Support Center Clothing Factory in Philadelphia, Pennsylvania. The Philadelphia Authority for Industrial Development purchased the property for $650,000, to be paid in installments as buildings are conveyed. Bright Star Manufacturing will use the facility and employ six hundred persons to produce Christmas ornaments.

Management and Information Systems

Personnel Management

As a result of DOD reviews of military recruiting and major automated information systems, the Army began to develop the Joint Recruiting Information Support System (JRISS) in 1994 to provide common automation for military recruiting services. The Information Support Activity–U.S. Army Recruiting Command continued to manage this multiservice effort during FY 1997. The JRISS program would incorporate new, cost-efficient technologies, including a working data dictionary under development containing eleven hundred standardized data elements. A recruiter workstation, which would include an automated sales presentation on a laptop, was also being developed. Limited DOD

funding and a recognition that commonality could not be achieved easily, however, forced abandonment of the joint project.

The Army decided to refocus its efforts on the Army Recruiting Information Support System (ARISS), reintroducing the objectives of Army Recruiting 2000. ARISS incorporates new business practices and information technology, resulting in a system that offers single data entry; a common database and operating environment using DOD standardized data; and commercial off-the-shelf software and hardware. Three thousand laptop systems were deployed to brigade and training support organizations. With automated presentations and business functions on the laptop, recruiters are more mobile and can spend more time in recruiting markets rather than in the office.

In January 1997 the United States Army Recruiting Command's (USAREC) Headquarters Support System (HSS) was approved as a service-unique subsystem that USAREC would own and operate. Although all services conduct the same activities with respect to recruiting, the procedures and philosophy they follow are different and affect how they accomplish their mission. The HSS project includes all USAREC automation procedures not associated with accession. A user-friendly system, it will provide timely information down to battalion level, using a single database and common data entry. USAREC was able to reengineer the HSS applications immediately to newer technology, which will eliminate old equipment and duplicate systems while providing more accessible information.

The Total Officer Personnel Management Information System (TOPMIS) provides the capability to update personnel data on commissioned and warrant officers in the Total Army Personnel Database–Active Officer (TAPDB–AO). TOPMIS is used only for updates that occur on-line; the Total Officer Personnel Transaction Update System (TOPTUS) processes transactions using a main computer. Using TOPMIS, the TAPDB–AO can be updated twenty-four hours a day from HQDA or from personnel service centers worldwide. The system can update more than three hundred personnel data items and provide immediate feedback to personnel managers. Maintenance of TOPMIS during FY 1997 included the development and implementation of more than one hundred Engineering Change Proposals/Problem Reports. Extensive modifications in all TOPMIS modules were made to support the elimination of the Colonels Division. Additional work continued in designing and developing software to provide daily updates of officer data in TOPMIS II, which will be a client-server system instead of the mainframe-based TOPMIS.

For several decades, the Army used the Officer Master File (OMF), a late 1960s batch processing computer system, to update officer personnel data. The system processed SIDPERS-2 (Standard Installation/Division

Personnel System) transactions and stored them at HQDA. On a weekly basis, PERSINSCOM collected input data, processed it through sixty interrelated programs, and then posted the data. During FY 1993, in preparation for SIDPERS-3, the OMF was redesigned to apply batch updates directly to the TAPDB–AO, requiring 550 new edit, update, and feedback modules. With the redesign, OMF was renamed TOPTUS, and TAPDB–AO became the central officer personnel database, with transactions processed twice daily and posted directly. More than 200 Engineering Change Proposals–Software/Problem Reports were developed and implemented for TOPTUS. During FY 1997 analysis of how to include Exceptional Family Member Program data into daily updates was accomplished. In addition, automated extracts of active duty military personnel records were interfaced into TOPTUS, providing the Defense Manpower Data Center with weekly deployment information. Using TOPTUS, missing security data of nearly twenty-eight thousand officers were captured during FY 1997, and sixty thousand records of separated officers were deleted rather than remaining on TAPDB–AO indefinitely.

The new Officer Evaluation Report (OER) tries to eliminate inflated ratings resulting from the drawdown, encourage junior officer professional development, and emphasize institutional values and the need for regular counseling. The Officer Evaluation Reporting System–Enhanced (OERS–E) database is designed to receive, log, track, and manage the new OER and Academic Evaluation Reports. Implemented on 30 September 1997, the objectives of Phase I for OERS–E were to move from a mainframe to a client-server, modify forms packages and the data entry system, scan OERs, process images, apply senior rater profiles, and produce initial reports. More than two hundred data elements were standardized. The OERS–E data structures, physical model, and other documentation were provided to the U.S. Army Reserve (USAR) and ARNG for future implementation. The Officer Selection Support System, a menu-driven automated system, provides a means to process data for promotions, school selections, and special boards. In FY 1997, this system supported 133 promotion boards.

Under DOD Regulation 5200.2–R, *Personnel Security Program*, a periodic reinvestigation is required every five years for personnel holding a top secret security clearance and not earlier than every ten years for those with a secret clearance. The Army conducts periodic reinvestigations for personnel holding secret clearances every fifteen years, under Army Regulation 380–67. In FY 1996, the Defense Investigative Service set annual quotas for periodic reinvestigations for each military service to reduce the workload in light of reductions in the investigative personnel workforce. In October 1996 the U.S. Army Central Personnel Security Clearance Facility established an initial submission schedule and instructions for submitting periodic reinvestigations. Having received a low submission rate in the first quarter of FY 1997, the central clearance facility accelerated the required

submission rate for the rest of the fiscal year. The Total Army exceeded its quota of 7,600 periodic reinvestigations for top secret clearances, with 9,189 opened in FY 1997; however, its quota of 14,000 secret periodic reinvestigations was not met and only 11,415 were opened.

The Retiree Mobilization Preassignment and Recall Program has received new support through the redesigned Retiree Volunteer Preassignment System (RVPS). Using RVPS, experienced retired Army personnel suitable for mobilization can be identified in the Total Army Personnel Database–Reserve (TAPDB–R) for valid requirements of the Office of the Deputy Chief of Staff for Operations and Plans. Assignments can be made or reversed, reports produced, and requirements and personnel data reviewed using the TAPDB–R. Although the functional proponent normally assigns the retiree, the RVPS can assign the retiree to an available requirement in the state in which the retiree resides. On the basis of requirements received from PERSCOM, RVPS can select and order retirees to mobilization stations. The core database for the Total Army Personnel Database (TAPDB) supports worldwide queries for all levels of crisis or mobilization. During FY 1997, all requirements for RVPS were analyzed, and systems specifications, unit specifications, and programming code were completed. In addition, regulatory and legal changes and other technical improvements, including some addressing the year 2000 (Y2K) problem, were made.

Information Management

The Army Enterprise Architecture (AEA) is an integrated methodology and framework that affects all Army systems using, producing, or exchanging information electronically. The AEA is essential in establishing seamless interoperability and digitizing a division in 2000, a corps in 2004, and the active Army in 2010. It will provide the information technology architecture for Army XXI and AAN and supports the goal of information superiority articulated in *Joint Vision 2010*. The AEA supports the 1993 Army Enterprise Vision, and fulfills the 1996 legislative requirements for information technology architecture. Under the AEA, systems with interoperable information technology will require less human intervention. In addition, AEA will identify and prevent system redundancies.

The three components of AEA are the Army Operational Architecture (AOA), the Army Systems Architecture (ASA), and the Joint Technical Architecture–Army (JTA–A). The AOA consists of the total aggregation of missions, functions, tasks, information requirements, and business rules. The physical implementation of the AOA is accomplished by the ASA, which provides the layout and relationship of systems and communications. The JTA–A provides the building codes upon which the systems are based.

In FY 1997, the Army developed the AEA Master Plan; completed version 1.0 of the ASA for the 1st Digitized Force; completed versions 4.5 and 5.0 of the JTA–A; and initiated the Installation Information Infrastructure Architecture (I^3A). Execution of AEA is accomplished by the Training and Doctrine Command (TRADOC), (AMC), and the Directorate of Information Systems for Command, Control, Communications, and Computers ($DISC^4$).

In the DOD Appropriations Act for Fiscal Year 1997, Congress required the services to submit an automation master plan for the installation level by 1 May 1997. The Army Base Level C^4/IT (Command, Control, Communications, and Computer/Information Technology) Infrastructure Transition Roadmap was developed as a framework for a system that would provide information exchange at the installation level. The roadmap will be implemented on 1 November 1997. The I^3A, initiated as part of AEA, and the integrated infrastructure investment strategy are two key elements of the roadmap. The I^3A will provide information necessary for investment in or acquisition of installation infrastructure, data exchange, shared data management, and control of the systems interface.

In keeping with new business practices, the Army Special Operations Forces (ARSOF) procured a commercial off-the-shelf system to serve as the backbone of Special Operations Forces telecommunications. The Special Operations Forces Tactical Assured Connectivity System (SOFTACS) will provide deployed ARSOF with secure, seamless, large-bandwidth, satellite transmission, and digital switching services. SOFTACS, purchased under the tactical satellite terminal program, has achieved economies of scale by consolidating the requirements of SOF, the Army, the U.S. Marine Corps, and the joint communications support element.

PERSCOM began providing Video Teleconferencing Capability (VTC) to customers in October 1996. Located in the Hoffman Complex in Alexandria, Virginia, the PERSCOM VTC facility can accommodate twenty-five persons. The system provides the capability for remote instruction and meetings, significantly reducing temporary duty costs by $500,000 in its first year of operation. With VTC, images and sounds in one location are processed through a coder/decoder and sent through specialized phone lines for digital transmission to another VTC site. Equipment used by PERSCOM in FY 1997, which included a fixed unit with dual 31-inch monitors and a mobile VTC unit, was not able to communicate with all VTC sites. However, this situation should be alleviated once the global Defense Information System Network is completed in 1998.

The first Joint Optical Information Network System (JOINS) was fielded to Army recruiting stations in 1983, and the second version was delivered in 1988. The latter, based on a computer with a 286 microprocessor and a videodisk capability but no hard drive, became obsolete. It could not support

new requirements, peripheral devices, or commercial automation software. The vision of USAREC under Army Recruiting 2000 was to give a laptop computer to each recruiter. When this plan became DOD's Joint Recruiting Information Support System (JRISS), acquisition of the laptops became delayed. USAREC decided on an interim solution, fielding a multimedia personal computer with a high-speed modem to 1,560 recruiting stations, as well as a combination fax/copier/printer device or a laser printer. By the end of FY 1997, all of the old software applications on JOINS had been replaced and memory chips had been purchased to increase memory from 8 to 24 megabytes. Recruiter presentations have been placed on CD–ROMs (computer disk–read only memory), anticipating the date when presentations can be made on laptop computers. Communications costs have been reduced owing to high-speed modems. Recruiter interface software has permitted the recruiter to enter the first echelon of data into the Army personnel system via the personal computer. In addition, higher headquarters are able to communicate more easily with the recruiting stations and provide cost-effective computer-based training courses. The personal computer is bridging the gap from the old JOINS to the multimedia laptop computer that will be provided by ARISS.

The Total Army Personnel System (TAPSYS) contract is a requirements contract for automatic data processing services in support of the Office of the Deputy Chief of Staff for Personnel (ODCSPER). The first contract was awarded in 1989 to Advanced Technology, later purchased by Black and Decker, to provide software development and support for personnel systems on a cost-plus-fixed-fee basis in response to work orders. In 1994 the TAPSYS–2 contract was awarded to Planning Research Corporation, also owned by Black and Decker, for five years and a total of $111 million. The new contract permitted both level-of-effort orders (where requirements were not well known and purchases were made for a specified number of work hours) and completion delivery orders (where requirements were well defined and purchase was made at a guaranteed price). The TAPSYS–2 contract supplied automated services ranging from help-desk operations to supporting the movement of functions to a client-server environment. In FY 1997, thirty-four delivery orders were issued, increasing the value of the contract to $68 million from $25 million at the end of FY 1996.

To ensure that its operations are adequately and properly documented, as required by law, the Army maintains a records management program. The Army Records Management Program was transferred in 1985 from the Office of The Adjutant General to DISC[4], managed by the new Information Systems Command. The deterioration of the Army Records Management Program, as evidenced by a loss of documentation during the Gulf War and demonstrated in an Army redesign study in 1996, convinced the Army to transfer the responsibility for the program from DISC[4] to the deputy chief

of staff for personnel, with PERSCOM assuming operational management. The Information Systems Command reorganized as the Army Signal Command on 1 October 1996 and divested itself of all nonsignal missions. The Army Records Management Program was subordinate to the U.S. Army Publications and Printing Command until 30 April 1997, at which time it returned to the responsibility of the Office of The Adjutant General. The new Records Management Program Division was charged with improving the program to meet the Army's changed requirements, despite a vanished personnel infrastructure resulting from the drawdown. After examining the Army's record-keeping system, the division planned to conduct training to ensure that information is created and preserved in garrison and contingency operations, and to develop record-keeping practices user-friendly and independent of a personnel support infrastructure.

PERSCOM's Enlisted Personnel Management Directorate was reorganized from a branch concept, in which soldiers were managed by Military Occupational Specialty, to a team concept, in which soldiers were managed within geographical areas. To accomplish the transition, a complete revision of several forms and the design of new forms were necessary. In addition, new business practices were incorporated to ensure that items were mailed to soldiers in the field in a timely manner. The new forms and practices reduced the amount of time and money needed to print and mail materials to soldiers.

To improve the data quality of the TAPDB, the Army instituted the Data Accuracy Initiative in FY 1997. The project focused on increasing timeliness and accuracy in accession data, eliminating grade discrepancies between pay and personnel, improving strength accounting and reporting to the ODCSPER, identifying mismatches between the Unit Identification Code and the Personnel Processing Activity, and expanding the feedback and control mechanisms for data sources. The Data Accuracy Initiative accomplished the Army's goals in all of these areas. In addition, a PERSCOM data accuracy website was established to provide an up-to-date and on-line venue for viewing data compatibility and data discrepancies between TAPDB, SIDPERS, and the Defense Financing and Accounting Service.

The original Capability Requirement Management Information System–Redesign (CAPRMIS–R) system, implemented in February 1996, automated the creation, submission, approval, validation, and tracking of requirements in the acquisition of information technology. This system, PERSCOM's first attempt to automate workflow, enabled technical personnel to made decisions about capability requirements and permitted information management officers to track the status of acquisitions. Nevertheless, the Capability Requirement Management Information System (CAPRMIS) required too many decisions, lacked database links, had limited reporting capabilities, and resided on an inadequate hardware

platform. Under the TAPSYS II contract, a delivery order was approved to redesign CAPRMIS. Requirements specifications and design began in November 1996, with CAPRMIS–R software development commencing in April 1997. The redesigned CAPRMIS will be implemented in November 1997. With almost all business rules automated, validation of capability requirements will occur within a 48-hour period.

Under a DOD commitment to identify all information on health problems of Gulf War veterans, the Army was assigned as the DOD Executive Agent to declassify pertinent materials. Within the Army, the Center of Military History's Gulf War Declassification Project (GWDP) assumed this responsibility in April 1995. On 1 January 1997 the GWDP transferred to PERSCOM control. The GWDP provided oversight in DOD's effort to collect 6.6 million operational records and post 54,700 health-related documents on the Internet. The GWDP collected 2.3 million documents in support of the Army's effort; initiated a reindexing effort to enable the Office of the Special Assistant to the Deputy Secretary of Defense for Gulf War Illnesses to search the database rapidly; and posted 30,300 documents on the Internet. By visiting installations within CONUS and overseas, GWDP site teams recovered 300,000 additional documents that included 41 logs and journals, 22 situational reports, and 166 after-action reviews. The GWDP also provided 10,000 documents to operations and intelligence officers to assist them in identifying units' locations during the war. The Association for Information and Image Management International recognized the GWDP's information system with 1997 Process Innovation Awards for vision and innovative solutions. In addition, the Center of Military History received a 1997 Computerworld Smithsonian Award for the GWDP information system's innovative use of information technology to improve society. The Army Casualty Information Processing System–G (ACIPS–G) is an operational system that supports Casualty Area Commands and the Army's Casualty and Memorial Affairs Operations Center. The system supports casualty reporting, the disposition of remains and personal effects, and notification and assistance to family members. In 1995 DOD designated ACIPS–G as the new system for casualty and mortuary affairs processing for all services and appointed the Army as its Executive Agent. During FY 1997 DOD provided funds to establish ACIPS–G as the foundation for the new Defense Casualty Information Processing System (DCIPS), using the same contractual support as the Army's to develop its system. The DCIPS will provide a standardized, integrated casualty support system for all services to use in peace and war to manage casualty and mortuary affairs and will support joint operations. Each military service will use uniform procedures, accounting, and casualty reporting under DCIPS, and will be able to insert casualty information from the field. Throughout FY 1997,

the Army worked with all of the other military services to determine their specific functional, data, and technical requirements in their casualty processes. Towards the end of FY 1997, DCIPS development team gave the Casualty Advisory Board the services' requirements and demonstrated the Army Casualty Information Processing System model to the board. The DCIPS was extended to the Navy, Air Force, and Marine Corps in FY 1997; fielding will be completed in FY 1999.

The Total Army Equipment Distribution Program (TAEDP) projects the percentage of Class VII—major end items of supply—requirements filled in a unit. But the TAEDP model, developed in the 1970s, is slow, inflexible, and obsolete. The Army Artificial Intelligence Center is developing the Army Flow Model (AFM), a decision support system that will integrate all HQDA databases from Army master files and provide a tool for assessing force structure, personnel, logistics, installations, and budget. Within AFM, the Logistics Distribution Model will replace TAEDP, distributing end items of equipment along the same rules followed by TAEDP. The Logistics Distribution Model, which meets the real-time analytical modeling needs of the Office of the Deputy Chief of Staff for Logistics, will also project equipment readiness and calculate secondary item requirements for Army Pre-positioned Stocks.

In another effort to improve logistics efficiency, changes were implemented in the Standard Property Book System–Redesign (SPBS–R) to support revisions in the Command Plan process. The SPBS–R moved to one revision per year to minimize turbulence and to align the budget and documentation processes. The transition began in summer 1996 and continued through the winter, producing MTOE (Modified Table of Organization and Equipment) documents for FYs 1998 and 1999. In May 1997 the first 12-month documentation cycle began, during which FY 2000 MTOE documents were produced. Integration of TDA (Table of Distribution and Allowances) documents began in November 1996 for FY 1999, creating a flexibility that permitted changes from the HQDA level and ensuring that MACOMs would notify HQDA if Command Plan changes resulted in TDA changes. Through the SPBS–R, the new Logistics–The Army Authorization Document System would provide a multiyear view of authorization documents, an ability to archive one document, and a capability to produce unit equipment readiness reports based on current or future authorization documents. Property book officers are prevented from editing requirements quantities, thus eliminating discrepancies between the original MTOE and the unit copy. In addition, property book officers can requisition equipment on the basis of future authorizations and can edit on-hand balances as new equipment arrives. The SPBS–R has also reduced discrepancies that occurred because updates of the Army's primary supply manual and downloads of the Army Authorization Document System data

were not synchronized, which resulted in unit requisitions being rejected because authorizations did not appear in the system.

The Installation Status Report (ISR) provides the annual status, based on Army-wide standards, to installation commanders, as well as to MACOM and DA staffs, of the availability and quality of infrastructure, environmental, and service programs. The three components of the ISR have been developed and implemented sequentially. Part I—Infrastructure—was fielded in FY 1995 and reported the status of 219 facility types at 260 Army installations worldwide. In FY 1997, ARNG consolidated all state- and territory-level reports, reducing the number of installation reports. Cost estimates were produced for maintenance and renovation of existing facilities, and for constructing needed facilities. Part II—Environment—was initially fielded in FY 1996, reporting the status of 24 environmental programs at 156 CONUS and 8 overseas installations. In FY 1997, environmental programs were evaluated for both quality and quantity. As of the end of FY 1997, Part III—Services—had not been fielded. Once compiled, all FY 1997 ISR data was placed in the Headquarters Installation Status Report, a system for viewing ISR data above installation level, and distributed to HQDA, MACOMS, and MACOM subordinate commands.

The assistant chief of staff for installation management (ACSIM), with the support of the U.S. Army Cost and Economic Analysis Center, is developing a measure of base operations called Service Based Costing (SBC), which will assist in evaluating installation services. Using a managerial costing approach, SBC measures the full historical cost of providing a standard set of base support services, identifying the resources consumed. Baseline data were obtained in FY 1994. A field organizational assessment occurred at nine installations in FY 1995, collecting information on 122 services typically provided at a military installation, which AMC had identified through a study at twenty-four locations. Prototype efforts were in place in FY 1996, and the first Army-wide SBC data collection effort was conducted in FY 1997. An SBC team visited all MACOMs and major installations to brief their personnel on the data collection process. Data on the standard set of 122 services were collected through electronic workbooks and transferred between installations, MACOMs, and HQDA via e-mail. By May 1997 information had been collected on all 122 services for seventy-seven installations and was published in an Army-wide CD–ROM. Feedback during the collection effort resulted in a decrease in the number of services to be considered in the future from 122 to 95. Army Financial Accounting Codes have been redesigned to align them with the 95 services so that future data collection efforts, beginning with FY 1999, can be automated. Information from SBC will be used to develop the standard expected cost for a given quantity and level of

quality of service in support of ISR Part III—Services. Because of SBC, the ACSIM will be able to manage costs by results, in accordance with the Government Performance and Results Act, and Army budget requirements and justification will be enhanced.

The Army Audit Agency (AAA) completed a conversion phase for its audit management information system in FY 1997. A successful fielding of the converted system began in the third quarter of the fiscal year and was completed in the fourth quarter. Software was installed and training provided at twenty-six AAA locations. Once fielding of the system was complete, some enhancements to the system occurred. One new application eliminated the need for auditors to enter time charges to audits and other projects, permitting auditors to spend more time on the auditing process.

Under the Software Process Improvement (SPI) initiative, the secretary of the Army directed that all Army software activities develop a Capability Maturity Model certification rating of Level 3 within six years in an effort to ensure that Army capabilities keep pace with information technology (IT). The Information Support Activity–St. Louis Software Process Improvement (ISA–St. Louis SPI) program exists to continuously improve the Information Suppot Activity's St. Louis software development capability. In November 1996, ISA–St. Louis SPI assessed its software process maturity level, with assistance from the Air Force; and in January 1997 reported that it was at the initial maturity level (Level 1). On the basis of the report, ISA–St. Louis SPI completed its Software Process Improvement Plan and an Action Plan in February 1997. A month later, the Software Engineering Process Improvement Office was established, and, in April 1997, a Management Steering Council was created. By July 1997 training was being conducted on new procedures that had been developed.

In January 1995 PERSINSD was also assessed at Level 1, and, during FY 1997, a Software Engineering Process Group Pilot Project was initiated. In FY 1997 the pilot project used SPI handbooks to identify needed modifications and additions, create a Developer Checklist/Guidelines Handbook for Year 2000 efforts, and establish an automated SPI library on a client-server platform. At the end of FY 1997, PERSINSD was finalizing all SPI-tailored documentation and began reviewing commercial off-the-shelf software for possible future purchase.

Automation Systems

Funding in USAREC is normally obtained at the end of the year, resulting in piecemeal replacement of critical technology systems throughout the year. The highest priority user receives the newest equipment, and the older equipment is passed down to a lower priority user. In an effort to improve its office automation, USAREC distributed

six thousand personal computers during FY 1997, the equivalent of one per action officer. Although each action officer now had a personal computer, they were not totally adequate nor could their capabilities be expanded. With three different levels of capabilities among the computers, action officers had trouble exchanging information, as well as storing and processing it. At the end of FY 1997, USAREC obtained funds to replace its oldest computer systems in FY 1998, with the exception of Army Medical Department computers that will be replaced by ARISS laptops when the laptops are fielded. In addition, USAREC received funds to replace all laser printers more than five years old. With the receipt of the new computers, all USAREC action officers will be using the same operating system and software, enabling them to communicate more effectively. Future plans include upgrading or replacing USAREC's 486-microprocessor computers and installing Microsoft Windows 95 and Office 97 on all systems.

Software was also used to enhance response capability when FORSCOM improved its mobilization system to rapidly activate reserve component personnel and units. FORSCOM developed an automation initiative, called mobilization-level application software (MOBLAS), and fielded it at all power-projection and power-support platforms. MOBLAS provides required individual and unit data for mobilization planning and execution. It integrates reserve component personnel into active-unit databases and automates soldier-readiness processing associated with mobilization.

In addition to fielding MOBLAS, FORSCOM improved mobilization by consolidating responsibilities for high-priority units at fifteen power-projection platforms. Another twelve installations, designated as power-support platforms, will perform the training base expansion mission, mobilize individuals, and serve as initial mobilization stations for certain enhanced separate brigades of ARNG.

The Army Recruiting and Accession Data System (ARADS) collects and processes all information on every new enlistee in the Total Army and forwards it to the TAPDB. The ARADS interfaces electronically with the Military Entrance Processing Command system for applicant processing information and with the KEYSTONE Recruit Quota System (REQUEST) for making training school reservations. The ARADS also distributes hundreds of thousands of records to the recruiting force and is USAREC's Military Personnel Management System. During FY 1997 the first of two option periods of the extended ARADS contract, major modifications were made that will enable ARADS to continue functioning by using new client-server equipment until ARISS is fully implemented.

The ARADS had been in use for ten years before a new communications infrastructure was provided that would support local area networks for remote sites and provide interfaces through the Internet to DOD and the rest of the world. The Recruiting Services Network (RSN), a private network

with multiple connections to DOD and other private and public networks, provides communications for all of the Total Army's recruiting requirements processed automatically. In addition, RSN offers communications ability to the Total Army and to other military services at a lower cost and with the highest reliability. In Fiscal Year 1997 the RSN had 13,100 local area network users on 240 local area networks at 206 sites, located in all 50 states and Puerto Rico, providing critical support to the geographically dispersed USAREC. Activity will increase to include more than 10,000 dial-up users from remote sites.

The SIDPERS–3, a new tool for automating personnel actions and increasing total personnel visibility, passed its operational assessment in 1996, and operational fielding began in August 1996 at Aberdeen Proving Ground, Maryland. With the real-time capability of data input and access resident in SIDPERS–3, personnel managers would be able to obtain timely information on soldiers and better predict and meet the Army's and soldiers' needs. The purpose of the SIDPERS–3/TAPDB Interface is to facilitate processing of transactions between the bottom of the system (SIDPERS–3), and the top of the system (TAPDB). In FY 1997 formal and informal software testing took place, with an interim package installed at Aberdeen in December 1996. Data in failed transactions were closely monitored to ensure that SIDPERS–3 and TAPDB were in synchronization. Fourteen Engineering Change Proposals—Software were created to correct interface problems from the Enlisted Distribution and Assignment System, ARADS, TOPMIS, Accession Management Information System (AMIS), and Inter-Component Data Transfer (ICDT). Fort Jackson, South Carolina, was converted to SIDPERS–3 in May 1997, and Fort Drum, New York, in September 1997. In addition, a new program allowed the Army Training and Requirements System to report information to these new SIDPERS–3 sites during training, saving clerks twenty minutes per soldier by not having to manually enter data into the local database. In spring 1997 a working group met to develop a module that would control all TAPDB–AO updates from all interfacing systems such as SIDPERS–3, ICDT, TOPMIS, and AMIS. The TAPDB will support implementation of the SIDPERS–3 system and the fielding of future sites, providing an improved exchange of data with soldiers in the field.

The KEYSTONE system is an interactive, on-line personnel system supporting the Total Army and refers collectively to its subsystems: REQUEST, RETAIN, KMS, and KEYVIEW. The KEYSTONE system provides critical automated tools in support of accession, training, assignment, retention, reclassification, and mobilization during peace and war. Originally run on a contractor's mainframe, it is accessible worldwide and supports thousands of users in hundreds of locations. In FY 1995 PERSINSCOM acquired its own mainframe, on which the KEYSTONE

system was operating solely by December 1995. This mainframe was aging when purchased, however, and by the end of FY 1997 was not meeting the needs of the personnel community.

The KEYSTONE RETAIN is an interactive, automated system designed to support ODCSPER in providing personnel to the active Army during peace and war. KEYSTONE RETAIN supports retention by providing real-time policy updates to personnel managers worldwide, ensuring that the most highly qualified personnel in each field are targeted for retention. A copy of the Personnel Enlisted Data Base is received by KEYSTONE RETAIN, which provides the retention noncommissioned officer at each unit a list of personnel eligible for retention and their fields of eligibility. During FY 1997 KEYSTONE RETAIN was expanded to include the same information and capability for USAR and ARNG. In addition, KEYSTONE RETAIN helps to identify individuals who transfer to the reserve components and to assist in processing reclassification actions.

To find ARNG vacancies for soldiers who left the active Army with service commitments, without relying on a recruiter or counselor to contact a unit or state by telephone, ARNG fielded the Army National Guard Automated Unit Vacancy System during FYs 1995 and 1996. States sent weekly lists of vacancies to the National Guard Bureau, which posted a consolidated list on KEYSTONE RETAIN that users could access around the world. As of 7 October 1996, fourteen states—Arkansas, California, Florida, Indiana, Maine, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Utah, and Washington—and the territory of Puerto Rico were able to post their vacancies on KEYSTONE RETAIN. Vacancies in the remaining states and territories will be posted on-line during FY 1998.

PERSCOM's OPMD took numerous automation initiatives during FY 1997, primarily in the areas of functional proponency for the TAPDB–AO, TOPMIS, and local area networks. While reengineering of the mainframe-based TOPMIS to a client-server environment continued, requirements for the TOPMIS assignment and requisition functions were being developed. A new TOPMIS II Command Slate Briefing System was developed in time to support the FY 1997 command slate briefing to the chief of staff of the Army. Other new developments in TOPMIS included colonels' assignment and field interview worksheets and an on-line Officer Record Brief. A Data Accuracy Cell was created to manage officer data accuracy issues raised by the ODCSPER Data Accuracy Task Force, and an OPMD Automation Master Plan was published. Capabilities were added to the OPMD branching model to distribute officers of high quality equally throughout Army branches and to determine the branch mix for Reserve Officers Training Corps cadets. OPMD also began a process of placing all historical files and records onto CD–ROMs for easy retrieval in the future.

To modernize automation at CCF, a project began in 1996 to change the Clearance Management System to an open-system operating environment. PERSCOM funded four unfinanced requirements that CCF had identified to support this process: software development, $150,000; workstation upgrade, $680,000; telecommunications infrastructure upgrade, $600,000; and software and hardware maintenance, $65,000. The upgrades for workstations and the telecommunications infrastructure were necessary for CCF to be compatible with new Defense Investigative Service automation.

During FY 1994 the security clearance application for the Sustaining Base Information Services Program dropped the remote access status check function from its development plan. The commander of CCF decided to develop that capability from internal resources in FY 1995. Developed from a shareware program, the Security Office Interface (SOI) allows security managers worldwide to check the status of security clearances and clearance actions in CCF via dial-in access to CCF's local database. The SOI was ready for dissemination by October 1996. In FY 1997 CCF distributed SOI software to 204 security managers, with 106 of them establishing connectivity to CCF throughout the fiscal year.

The operating systems that processed Army personnel information in the Army Reserve Personnel Command (ARPERSCOM) and ARNG were not Y2K compliant in 1997. The Personnel Enterprise System–Automation (PES–A) office, which is responsible for integrating hardware platforms and operating systems across the Total Army, negotiated with IBM (International Business Machines Corporation) to acquire an upgraded operating system for ARPERSCOM and ARNG. They added the upgraded system to an existing PES–A contract for automation replacement. Although there was no significant additional cost to ARPERSCOM or ARNG, the new operating system will be the base of the infrastructure that will provide Y2K compliance. In addition, this upgrade of the ARPERSCOM and ARNG systems saved more than 25 percent in maintenance costs.

One of the Army's highest priorities is logistics automation, an essential element in providing efficient and effective force sustainment to soldiers. Besides enabling logistics efficiencies, logistics automation provides benefits for soldiers. By digitizing selected technical manuals, the Army eliminated the need to carry 200 pounds of M1A1 Abrams tank manuals to the field. These electronic technical manuals contain information on a variety of combat, wheeled, and aviation systems. Distribution of these new manuals continued during FY 1997. Interactive electronic technical manuals, which add a prognostic and diagnostic capability, will soon be available.

Implementation of the Standard Army Retail Supply System–Objective (SARSS–O) continued during FY 1997 and will be completed in FY 1998.

This multilevel supply management and stock control system will automate the management of supply and will be the single retail supply system throughout the Total Army. The SARSS–O provides faster requisition and status flow, gives greater asset visibility, reduces excess, performs lateral redistribution, and allows split operations. In another logistics automation development, USAR created an engineer management automation system, which provides the entire USAR's engineer community with an automated method for managing their respective facility and real estate inventories from conception through disposal.

Over the years, installations and MACOMs have developed a number of automated Central Issue Facility (CIF) systems. The Army recognized that to improve management of CIFs, it needed to develop a standardized Army-wide automation system. A CIF module was developed that will provide a user-friendly system for the receipt, storage, issue, exchange, and turn-in of authorized organizational clothing and individual equipment at Army installations. Initial fielding of the module began in May 1997, but significant problems developed at Fort Stewart, Georgia, and the module was returned to development to resolve them. At the end of FY 1997, the CIF module was being tested at Fort Polk, Louisiana; Fort Belvoir, Virginia; Hunter Army Airfield, Georgia; and Fort Stewart Georgia. Fielding to additional locations is expected to resume in FY 1998, after the module problems have been corrected.

In 1993 the deputy secretary of defense, seeking to eliminate duplication in information systems, directed that DOD accelerate its selection of new systems, setting of data standards, and improvement of processes. The Joint Transportation Corporate Information Management Center (JTCC), part of the U.S. Transportation Command, was given the responsibility of managing the upgrade of DOD transportation systems. The Joint Transportation Coordinator's Automated Information for Movements System II (TCAIMSII) was selected as the automation system to replace current service Installation Transportation Office/Transportation Movement Office and unit movement systems. JTCC drew parts of TCAIMSII from each of the military services. The Army, as the lead agent for the upgrade to TCAIMSII, established the Joint Program Management Office (JPMO), which as of September 1997 was staffed primarily by Army civilians and active Army officers. In October 1996 the Army established the Deployment Process Modernization Office at the U.S. Army Transportation School at Fort Eustis, Virginia, to act as the Army's clearinghouse for TCAIMSII requirements. Seven working-level integrated product teams assisted in program development in specific areas and produced several documents on TCAIMSII requirements that were approved in August 1997. Each service selected two locations where software would be tested. In January 1997 the Army chose Fort Hood, Texas, and Fort Eustis. Site surveys, equipment

installation, and training were accomplished during the rest of the fiscal year, with testing commencing in September 1997 and scheduled to end in February 1998. The JPMO released two versions of TCAIMSII during FY 1997, but they were very difficult to work with as they still reflected their Air Force and Marine Corps origins too closely.

After using electronic commerce (EC) technologies for years, DOD began the Electronic Commerce Program in 1988, requesting that all services and agencies make maximum use of Electronic Data Interchange (EDI). In 1990 DOD required the implementation of EDI in logistics, contracting, and finance activities. DOD published an EC/EDI Strategic Plan in 1991, and directed in 1993 that an EC infrastructure be developed. Although numerous Army EC/EDI initiatives have occurred over the years, the efforts have been uncoordinated and require a cohesive strategy. In 1997 DISC[4] initiated a strategic plan for implementing EC, using a business planning methodology that was consensus driven, team oriented, and focused on business processes rather than technologies. Following a series of structured interviews by DISC[4] personnel of individuals in principal Army agencies, the EC mission and guiding principles were developed; the EC vision for the Army was established; an analysis of the Army's current use of EC was conducted; and future goals and strategies were adopted. The strategic plan includes an emphasis on national and international standards, business practices, commercial off-the-shelf products, and security issues. In addition, the plan supports the C[4]/IT Strategic Plan and the JTA–A. Electronic commerce technologies will assist the Army in reducing overhead and streamlining operations to achieve maximum cost efficiencies.

Although technology has received a higher priority in today's Army, the PERSCOM Data Processing Installation (DPI) was deteriorating. It was unable to provide enhanced computer capabilities, and the current operation systems running on DPI platforms were experiencing degradation, resulting in poor response times to users. A new IBM 9021 mainframe computer would solve the problem, but the purchase price of $9.2 million was prohibitively expensive. Towards the end of FY 1996, an excess IBM 9021, with the same processing power as a new system and a transfer cost of $577,240, was located at the Social Security Administration. The Army and the Social Security Administration signed a memorandum of agreement in December 1996 and February 1997, respectively. The IBM 9021 was delivered to the DPI in Alexandria, Virginia, in March 1997 and was operational two months later. The new system doubles DPI's earlier capacity and will be able to expand to meet growing requirements.

The MIL.80X II contract, the primary acquisition vehicle for hardware, software, communications, and support services for the Army personnel community, was scheduled to expire in February 1997. Continuing the

contract was essential for the personnel community's IT programs. PERSCOM allocated $7 million for the development and processing of procurement documentation to acquire a new contract. While searching for alternative replacement vehicles, PES–A personnel attempted to renew the MIL 80X II contract. Acquisition reforms enacted by Congress and implemented by DOD permitted the 80X to be replaced using simplified acquisition strategies and fewer bureaucratic procedures, saving the $7 million. In addition, PES–A saved an additional $491,887 in hardware and software maintenance and contractor support costs, and achieved a one-time cost avoidance of $15,230,736 in hardware and software acquisitions. Most significantly, the innovative acquisition strategies resulted in saving $40,700,000 over the life cycle of the contract. The original life cycle cost had been estimated to be $384 million for 9.5 years, but was reduced to $343.3 for 15.5 years.

3

Budget

Economies and Efficiencies

The National Performance Review (NPR), begun in March 1993, was in its fourth year of operation in fiscal year (FY) 1997. Creating a more effective, efficient, and productive federal government while using fewer resources was the goal sought by the NPR. Recognizing the need to reinvent its business practices, the Department of Defense (DOD) designated certain organizations in which experimentation could take place without the burden of bureaucratic red tape. Forty reinvention laboratories and four reinvention centers, as these organizations were called, were in existence in the Army during FY 1997. Commanders of these reinvention laboratories and centers possessed authority to waive regulations and coordinate directly with DOD to recommend future legislative changes that supported reinvention. In August 1994 the secretary of the Army established a new policy waiving Army regulations that hindered good business practices, providing commanders of these organizations with an important tool. At the end of FY 1997, the Army had approved 286 requests for waivers, of which reinvention laboratories and centers submitted 222 requests; other Army organizations submitted the remainder. In addition, the Army established a Reengineering Legislative Working Group under the vice chief of staff of the Army and the assistant secretary of the Army for manpower and reserve affairs to review all Army reinvention and reengineering legislative initiatives and to develop a strategy for their approval by Congress. This development has streamlined the Army's acquisition process and expedited the enactment of legislative changes. During 1997 nineteen Army organizations won the Hammer Award, given by the vice president to organizations that significantly supported the NPR. Through 1997, nearly 25 percent of all Hammer Awards had been given to Army organizations.

The fiscal environment within which DOD and, consequently, the Army operated in FY 1997 necessitated new ways of conducting missions, as resources continued to be constrained. The Quadrennial Defense Review (QDR) projected that annual defense budgets would remain at about

$250 billion beyond FY 1997 and deemed the prospect of larger sums being appropriated as unlikely. In addition, the QDR recognized that as federal expenditures decreased, DOD would probably have to shoulder a proportionate share of those declining resources. Although DOD has been able to maintain the force structure recommended by the 1993 Bottom-Up Review and the 1995 Bottom-Up Review Update, the budget has not provided sufficient funding for modernization or procurement. Following the end of the Cold War, the drawdown enabled DOD to eliminate old equipment from its inventory, leaving the military with modern 1980s equipment. As a result, the DOD procurement budget stabilized at about $40 billion in the early and mid–1990s.

In the late 1990s, however, equipment modernization has become critical, and adequate funds remain unavailable. To maintain forces and military readiness, DOD has placed the highest funding priority on sustaining troops and ensuring that the United States retains technological superiority in the future. Procurement funding had been expected to grow as a result of cost-reduction initiatives in other areas, but these savings were less than anticipated. Other unprogrammed expenses, such as contingency operations and higher costs for depot and real property maintenance, further diminished available funds and resulted in annual postponements of modernization goals. The FY 1998 President's Budget and the six-year Future Years Defense Program submitted to Congress in FY 1997 projected a steep rise in procurement funding from $42.6 billion in the FY 1998 budget to $60 billion in FY 2001. After analysis of recent trends, however, the QDR concluded that future unplanned expenses of as much as $10–12 billion per year would undermine that growth. Savings from reduced infrastructure costs and transition of some major programs from development to production would provide an offset, permitting procurement funding to increase, but that funding would level off at about $50 billion per year.

Finding ways to cut costs has become critical in the Army. The Army Resources Board approved a concept in FY 1996 for conducting oversight of the FYs 1998–2003 Program Objective Memorandum (POM) efficiencies effort. This effort would eliminate duplicate functions, consolidate organizations, simplify procedures, improve professionalism, and increase efficiency throughout the Army. In the FYs 1998–2003 POM, the Army introduced a number of initiatives to support the reprogramming of $2.1 billion to meet high priority programs. The new oversight process approved by the Army Resources Board defined the efficiencies by category. Category I efficiencies were identified as those that had already been implemented in the POM and required no further action. Category II efficiencies were identified as those that required implementation plans and consistent monitoring. As of December 1996, there were fourteen

Category I efficiencies, which could save the Army $1.69 billion, and forty Category II efficiencies, which could save $7.09 billion. The Army Audit Agency (AAA) was directed to review and evaluate the Category II implementation plans and, by the end of FY 1997, had done so for twenty-four of the forty efficiencies, issuing eight reports. The audits showed that for eight efficiencies with an estimated $2.06 billion in savings, nearly $784 million in estimates were unsupported.

Of the twenty-four efficiencies that AAA reviewed, the Office of the Deputy Chief of Staff for Logistics (ODCSLOG) estimated it would save $412.5 million employing four efficiencies: depot-level repairable return rates, Integrated Logistics Analysis Program, Standard Army Retail Supply System–Objective, and velocity management. The Army Materiel Command (AMC) estimated it could implement seven efficiencies—administrative/production lead-time, electronic contracting, training resource model credit policy, cost of spares, closure of the European Redistribution Facility, operating and support cost reductions, and integrated sustainment maintenance—and save $1.625 billion. Within the Office of the Deputy Chief of Staff for Operations and Plans, four efficiencies estimated to save $215.4 million involved an "offset to training modernization" (a reduction in the number of projected students, and therefore projected costs, based on historical experience); reduction of paid parachutist authorizations; greater use of training aids, devices, simulators, and simulations; and power projection platforms (elimination of the mobilization mission, and therefore some civilian positions, at eleven installations). The Office of the Deputy Chief of Staff for Personnel calculated it would save $1.4 billion with four efficiencies that encompassed permanent change-of-station (PCS) reductions, changes in the noncommissioned officer structure, filling specialist positions 100 percent, and reducing attrition. An efficiency to reduce leases was estimated by the Office of the Assistant Chief of Staff for Installation Management (OACSIM) to save $309.3 million. Finally, The Office of the Assistant Secretary of the Army for Financial Management and Comptroller expected to save $168 million with the efficiency in debt avoidance.

In FY 1996 and early FY 1997 the service developed the Army Strategic Management Plan (SMP) to provide a means through which the chief of staff of the Army (CSA) and other senior leaders in Headquarters, Department of the Army (HQDA), could exercise quarterly review of selected performance initiatives and planned economies important to realizing *Army Vision 2010*. In January 1997 the vice chief of staff held an in-progress review for principal members of the Army secretariat to brief them on the plan's current status, elicit their ideas, and lay out an approach for continuing the plan as a collaborative effort with the secretariat. Plan

administrators subsequently sought to strengthen the plan and make the task of tracking more than three hundred managerial initiatives more manageable by setting an SMP goal of Stewardship. Among other changes, the improved plan made it clear that the POM would drive SMP objectives, not the reverse. In other words, the SMP was not the place to introduce unfounded requirements.

In one of its many efforts to conserve resources, change traditional operating methods, and institute good business practices, the Army utilized Javits–Wagner–O'Day (JWOD) resources to a greater extent than previously. The Javits-Wagner-O'Day Act of 1971 requires government agencies to purchase selected products and services from nonprofit agencies that employ blind or severely disabled personnel and have demonstrated their capability to produce quality goods and services at reasonable prices. The Committee for Purchase From People Who Are Blind or Severely Disabled administers the JWOD program; and two national, independent organizations—the National Industry for the Blind and the National Industry for the Severely Disabled—assist state and private nonprofit agencies in participating in the program. Benefits to the government include high-quality supplies and service, on-time delivery, reasonable prices, reduction of paperwork and costs, central points of contact to resolve problems, reduced disability payments, and increased tax revenues. By creating a mandatory supply source, the JWOD program has been successful in creating jobs and training opportunities for its clientele, allowing them to lead more productive and independent lives by offering them a stable work experience, increased income, marketable job skills, and a possible future outside of the nonprofit agency. When serious supply problems resulted from the closure of self-service supply centers, the backbone of local supply, on Army installations, the Army turned to JWOD. Entering into agreements with the National Industry for the Blind and the National Industry for the Severely Disabled, the Army gained supply stores on military installations at little or no cost to the government.

To improve the procurement process while developing a technologically superior force quickly and with fewer available resources, the Army created in November 1995 an Acquisition Reform (AR) Plan that consisted of thirty initiatives in six major areas: requirements and budget, overhead reduction, barrier reduction, testing and evaluation, production and fielding, and sustainment. As the vehicle for executing the Acquisition Reform Plan, the assistant secretary of the Army for research, development, and acquisition (ASA [RD&A]) developed and disseminated the Army Acquisition Reform Strategy in August 1996. The Acquisition Reform Strategy emphasized partnership and customer support over the traditional methods of regulations and statistics and would empower personnel to continually improve acquisition processes. Recognizing that implementation at the lowest levels was essential, the ASA (RD&A) provided the "Guidelines

for Army Acquisition Reform Strategic Planning" in September 1996 to every Army acquisition organization.

Each organization was directed to incorporate the new strategy into its strategic planning process and to produce an AR improvement plan specifically designed around its mission and customer support. Furthermore, each organization was charged with establishing an AR home page on the Internet by November 1996 and posting its improvement plan on the home page by 15 March 1997. Of the thirteen major commands (MACOM) and nine program executive officers (PEO) required to post improvement plans on home pages, 68 percent had done so by 28 July 1997, when ASA (RD&A) assessed implementation of the AR strategy. The Forces Command (FORSCOM) was commended for its AR improvement plan institutionalizing a strategic planning system that consisted of a strategic plan, an annual assessment, an annual plan, and quarterly reviews. In addition, ASA (RD&A) commended the office of the PEO, Intelligence, Electronic Warfare, and Surveillance, for its use of metrics to assess progress; the office of the PEO, Tactical Missiles, for its inclusion of AR accomplishments; the U.S. Army Space and Strategic Defense Command for its progress reports and lessons learned; AMC for its innovative approach and self-assessment; and the office of the PEO, Air and Missile Defense, for its thorough implementation of the AR strategy.

In an effort to enhance acquisition reform, the Army established the Warfighting Rapid Acquisition Program (WRAP) in April 1996. This program was intended to accelerate the fielding of new systems and technologies identified through advanced warfighting experiments (AWE), advanced technology demonstrations, advanced concept technology demonstrations, and similar demonstrations and evaluations conducted by the Training and Doctrine Command (TRADOC). Following the AWE in March 1997, WRAP identified critical new systems and technologies that may be essential for fielding the first Army XXI Division by September 2000. Because these newly identified systems and technologies had not yet been funded, TRADOC was authorized to appoint a WRAP Army Systems Acquisition Review Council to review each unfunded "new start" and set priorities for those that required urgent funding.

To improve further the acquisition process, the secretary of the Army designated the Army XXI Acquisition Reform Reinvention Laboratory as a virtual laboratory in September 1996. Unlike other reinvention laboratories and centers, the Acquisition Reform Reinvention Laboratory is not an organization but a process. Under the aegis of the NPR, the reinvention laboratory integrates, controls, and improves the acquisition processes of all Army organizations engaged in materiel acquisition. The Acquisition Reform Reinvention Laboratory achieved considerable progress in FY 1997 in reforming the acquisition process. For example, an

integrated product team reduced the time required for acquiring changes for tactical automated systems, previously two to five years, to a much shorter period of two to six months, thereby validating the new concepts and new processes.

Many new or ongoing initiatives to improve business practices emphasized the Army's resolve to minimize the effects of fewer available resources. FORSCOM reorganized its staff to focus on core competencies of training, mobilization, deployment, sustainment, installation management, and quality of life. To establish clear and measurable command goals to realize these core competencies, FORSCOM developed a strategic business plan that identified nine strategic performance indicators and eighteen measures of effectiveness. AMC began work to develop revised business processes to achieve a single stock fund that would modernize how the Army manages secondary items (end items, replacement assemblies, parts, and consumables). The command established a Corporate Board to manage and guide implementation of a single stock fund. In June, however, HQDA halted work on the single stock fund concept until a reexamination of the concept and management structure could be completed.

Senior Army leaders have strongly endorsed initiatives to privatize or contract needed functions, particularly with respect to business practices or noncore competencies, and to attract private capital to renovate the aging infrastructure. As privatization became an increasingly important tool in saving defense dollars, the deputy secretary of defense formed an Integrated Policy Team for Outsourcing and Privatization in October 1995 to implement outsourcing initiatives. In response, the Army's assistant chief of staff for installation management established the Outsourcing and Privatization Office in February 1997. Two months later, the Army briefed its entire outsourcing and privatization program to the DOD integrated policy team. At that time, the Army committed itself to studying fifty thousand personnel positions with an eye towards determining whether service members and Department of the Army civilians or contract personnel should fill them. In addition, the Resource Analysis and Business Practices Office, OASA (FM&C), actively worked to identify potential Army outsourcing and privatization candidates, as well as to propose legislative changes to remove restrictions hindering wider access to the private sector when these rules were inconsistent with good government and managerial principles.

The Commercial Activities Program was another means employed to study Army practices. A methodical review of base operations functions at all installations enabled the Army to determine that it would be more cost-effective to provide some of those services through contracted support. The Army privatized some of its functions and leased some facilities to local governments. In addition, unneeded facilities were turned over to

new, more productive uses or were preserved for future use. In a related program, DOD generated revenue for base operations through its Sale and Outlease Program. Underutilized real and personal property was leased to the private sector. By law, the funds generated remained with the installation owning the property. The Army earned $20 million and additional in-kind benefits during the fiscal year. Through partnerships with local governments, universities, and businesses, the Army obtained needed services in exchange for Army assets or services. For example, local governments and private businesses that provided maintenance, lighting, and fencing at Army airfields were allowed to use the facility, while universities provided computers in exchange for space.

Searching for ways to do more with less, the Army also adopted a commercial practice called Asset Management Strategy. Under this program, the Army obtained private sector financing to build or improve some of its vast real-property assets, which it then shared with the lender. Possession of real-property assets enabled the Army to engage in innumerable collaborative projects with the private sector. Under the Capital Venture Initiative, contractors owned and operated family housing for Army members, allowing the Army to shorten the time necessary to acquire such housing by many years. In the best example, Fort Carson, Colorado, handed over management of its Army Family Housing to a private enterprise. In exchange, the private company used its capital to manage the installation housing, revitalize deteriorated housing, and, most important, construct 840 sorely needed new housing units that the Army had not been able to build for years owing to a lack of funds.

With prime vendor contracting, the Army was able to reduce costs by maintaining a minimal level of stockage. Under this concept, a single supplier was permitted to distribute a specific class of commercial supplies within a specified geographical area. Orders were placed electronically and the prime vendor provided "just-in-time delivery" to meet the Army's requirements. At Fort Sam Houston, Texas, the U.S. Army Medical Command successfully used prime vendor contracting to obtain improved delivery of quality medical services with an increase in savings.

As early as 1993, the General Accounting Office (GAO) indicated that DOD could save resources by following commercial practices in ordering and receiving subsistence (food supplies). That same year, the deputy secretary of defense for logistics established a demonstration project, involving the military services and the Defense Logistics Agency (DLA), to evaluate the use of private sector practices to reduce the cost of DOD food inventories. Conducted in FY 1995, the demonstration project compared costs and benefits of using commercial food distributors for DOD activities in Alabama, Florida, Georgia, and South Carolina. Army installations affected by this project included Redstone Arsenal and Forts McClellan

and Rucker in Alabama; Camp Blanding, Florida; Forts Benning, Gillem, Gordon, and Stewart in Georgia; and Fort Jackson, South Carolina. DOD learned that food could be delivered to defense dining facilities three times each week efficiently and effectively by commercial vendors and with a quality of service that equaled or exceeded that of DOD's own depot subsistence activity. As a result, a provision in the National Defense Authorization Act for FY 1996 required the use of prime vendors for subsistence. This measure was expected to reduce defense subsistence inventories as well as decrease the number of personnel necessary for warehouse inventory maintenance. Prime vendor solicitation and contract award was accomplished by the Defense Support Center, Philadelphia, a DLA activity. In September 1997 prime vendor subsistence contracts were implemented at all active Army installations within the continental United States (CONUS) and will begin overseas in February 1998.

Some military functions, however, cannot be outsourced or privatized. The United States Code prohibits contracting for firefighting or security guard functions except when occurring overseas, on government installations operated by private organizations, on a contract that began before September 1983, or on a base scheduled for closing within 180 days. Because outsourcing of these functions is prohibited in most cases, a recent GAO report could not determine whether contracting for the services would be more cost-effective. Although the GAO did note that savings usually result from such a practice, it found mixed results in the few cases where firefighting services had been contracted. In the National Defense Authorization Act for Fiscal Year 1998, Congress required DOD to provide by 31 December 1997 a plan that will identify firefighting and security guard functions that must remain under government control and how to outsource these functions if the law is repealed. About twenty-five hundred Army firefighting personnel positions would be subject to outsourcing. The Army will host a meeting of defense and military agencies in November 1997 to draft the plan.

Controversy surrounds at least one of the Army's efforts at privatization. Tank gun mounts for the M1A1 Abrams tank have been produced in equal numbers at the Rock Island Arsenal in Illinois and the Detroit Army Tank Plant (under the auspices of General Dynamics) in Michigan since 1983. When tank and armored vehicle production declined in the 1990s, the Army considered whether to consolidate the manufacturing jobs at the Detroit Army Tank Plant, privatizing the operation under General Dynamics. Some savings would be realized but Rock Island Arsenal would not be closed, resulting in residual overhead costs. Under the Base Realignment and Closure 95, however, the Army closed the Detroit Army Tank Plant, and the ASA (RD&A) directed a cost-effectiveness study in March 1996 to determine whether the gun mount production at Rock Island Arsenal

should be privatized. The American Federation of Government Employees, which represented the Rock Island Arsenal employees, filed a lawsuit in March 1997 to prevent movement of the manufacturing jobs to Detroit. Politicians in Illinois and Michigan supported their respective state's facility, and the Army decided not to change its operation at that time.

Because the gun mounts were component parts of a weapons system produced by a prime contractor, the general counsel, DOD, ruled in March 1997 that the Army was not required to use techniques prescribed by the Office of Management and Budget (OMB) to ascertain the cost-effectiveness of components produced in a government arsenal. Rather, the general counsel stated that a cost comparison should be conducted using procedures outlined under the Arsenal Act. The Arsenal Act, which was enacted in 1920, mandated that the Army obtain its military guns and warfighting equipment from U.S. factories or arsenals, provided this production could be accomplished economically. Rock Island Arsenal and Watervliet Arsenal, in New York, were the two remaining Army arsenals that had been manufacturing weapons since the early 1800s. Since the end of the Cold War, as workloads and employment declined at both arsenals, operating costs increased as fixed costs were borne by smaller levels of production. Following OSD's recommendation, ASA (RD&A) immediately directed that AMC conduct a cost-comparison study under the provisions of the Arsenal Act; the study is nearly completed.

The Army is also working to improve its contracting process by replacing the Standard Army Automated Contracting System and the Procurement Automated Data Documentation System with DOD's Standard Procurement System. A coordinated system, the Standard Procurement System combines several acquisition functions, standardizes the process, and creates an acquisition environment more completely integrated. The Corps of Engineers Financial Management System and the Procurement Tracking System feed the Standard Procurement System information to the Defense Finance and Accounting Service (DFAS), warehouses, and other logistics systems. After all requirements are entered into the system, resource management personnel fund the electronic purchase requests, which are then sent directly to the Standard Procurement System for acquisition. This process eliminates the need for contracting personnel to enter fund sites, avoiding incorrect inputs that would delay payment. Because the resulting contract is forwarded to the vendor as an e-mail attachment, distribution to all parties is cheaper, faster, and simultaneous. In preparation for fielding the system in FY 1998, each Army MACOM is currently upgrading existing hardware to ensure it will meet the infrastructure requirements.

In yet another measure designed to reduce contracting costs, DOD established the Single Process Initiative in December 1995. In contractor

facilities, different contractual requirements often resulted in varying processes or specifications demanded in the manufacturing or management of similar goods and services. Through this inherently inefficient process, both the contractor and the federal government incurred additional costs and greater workloads. DOD decided to eliminate these multiple processes, specifications, and contracts in favor of a common set of processes and performance specifications on existing contracts. Such a change would produce savings for the contractor and the government, but not until all contracts at a given facility had been modified. Rather than modify contracts singly, DOD opted to provide a "block change" of all contracts within a given facility. At each facility, the Administrative Contracting Officer was designated as the single point of contact for facilitating the process. In addition to streamlining the process, this avoided unnecessary paperwork and costly proposals on the part of the contractor. At the same time, DOD requested that contractors provide concept papers with proposals on how the Single Process Initiative should be implemented. Of the 622 acquisition process changes that contractors proposed, the Army accepted 350 and is still considering 181; the contractors withdrew the remainder following a technical review. General Electric Aircraft Engines submitted the largest number of concept papers, with 22 accepted and 12 under negotiation. At the end of FY 1997, the Army was conducting contract modifications with 55 contractors, of whom 35 were among DOD's top 200 contractors.

Recapitalization also provided an avenue whereby the Army could reduce operating costs. With this process, worn or dated equipment was replaced or refitted so that it remained operationally safe, was reliable in wartime, cost less time and money to maintain, and gained an extended useful life. Although many Army systems are currently under production or being fielded, aging equipment has become a chronic problem. When funds must be spent to maintain old fleets of equipment, readiness and procurement objectives suffer. In addition to replacement, the Army achieves recapitalization via extended service programs, preplanned product improvements, depot rebuild, and technology insertions. During FY 1997, the Army set a goal to recapitalize 75 percent of its equipment by 2012.

Through streamlined operations resulting from the Joint Reconciliation Program, the Army saved millions of dollars during FY 1997. Although most funds that Congress appropriates can be obligated only in the year in which appropriated, multiyear funds may be obligated for a specified period. Once that period is over, the funds are expired; after five years as an expired appropriation, the funds are canceled and cannot be used to pay for past obligations. Current year appropriated funds must be used, however, to pay any valid invoice for an obligation associated with a canceled appropriation, restricting the amount of obligations the Army can make in

that year and providing it with less purchasing power than intended in the budget process. To ensure that expired appropriations are reconciled and paid before five years have passed, the Army has been working with DFAS to reconcile unpaid obligations. Under this Joint Reconciliation Program, the Army has succeeded in retaining the total obligation authority for the current year and substantially reducing the amount of funds that would have had to be used to pay for invoices associated with canceled appropriations. Of the $798 million in potential canceled appropriations in FY 1997, the Joint Reconciliation Program reconciled all but $10.6 million in valid invoices, reducing the Army's current liability to only 1.3 percent of what it would have endured otherwise.

In certain cases, disputes between contractors and the government result in litigation, a costly process in time and money for all participants. To reduce these difficulties, the government has turned to the business practices of partnering and alternate dispute resolution. With partnering, which is a technique designed to avoid disputes altogether, the government and the contractor try to work as a team to resolve potential disagreements at the beginning of a contract, transforming an often adversarial process into a cooperative one. Protests about contract awards and disputes still arise, however, and alternate dispute resolution is the process used to avoid litigation. Using alternate dispute resolution techniques, the Army has resolved contract claims and appeals from small amounts to more than $50 million. The Office of Federal Procurement Policy voted AMC's alternate dispute resolution program as one of the ten best government programs during FY 1997. As of the end of FY 1997, more than 425 protests have been filed under AMC's program rather than at GAO or in federal court. Likewise, the U.S. Army Corps of Engineers has reversed a tremendous number of litigious cases through a formal partnering program and alternate dispute resolution. Contract claims were reduced 69 percent between 1986 and 1995 (the last full calendar year of information) and 34 percent between 1993 and 1995.

The Army also discovered it was losing money to soldiers who were discharged from the service. About 28 percent of all soldiers who separated from active duty in FY 1995 owed a debt, usually caused by overpayment of pay, allowances, entitlements, leave, bonuses, transportation costs, or travel advances, or from the soldier's liability for lost or damaged government property. These debts were usually not identified during a soldier's outprocessing and were difficult, labor intensive, and costly to collect after the soldier left active duty. To resolve the problem, the assistant secretary of the Army for financial management and comptroller and the deputy chief of staff for personnel initiated a debt avoidance program that instituted a standardized and comprehensive separation checklist and incorporated more rigorous outprocessing procedures throughout

the Army. The new checklist, which was tested in the field in FY 1996, makes soldiers more responsible for properly clearing an installation and requires a validating signature from unit commanders. A soldier who fails to complete the checklist will receive only 55 percent of final pay due at the time of separation. Once DFAS has verified that the soldier has no outstanding debts, DFAS will issue a final payment to the soldier within thirty days following separation. This program has reduced to 23 percent the proportion of soldiers indebted to the Army after separation and by 27 percent the amount of money owed to the Army by separated soldiers.

Stewardship of the resources the Army possesses is an extremely important factor in reducing costs. At the installation level, the Army has instituted or expanded a number of programs that emulate smart business practices to offset the impact of downsizing and constrained resources while improving service and reducing installation costs. One of these programs is the Electronic Commerce/Electronic Data Interchange, in which solicitations and contract information are submitted electronically. The goal of this program is to create a paperless contracting process, beginning with computer-generated customer requirements and ending with electronic payments, to reduce administrative costs, decrease errors, encourage competition, and shorten the lead-time for procurement actions. The Army currently leads the federal government in reaching this goal, with more than 90 percent of its sites capable of transmitting electronic commerce/electronic data interchange information via the Federal Acquisition Network.

The driving force behind the Army's Facilities Management Program is the goal to reduce costs and manage facilities more efficiently. With that in mind, the Army has privatized some utility systems, demolished excess buildings, and reduced the number of leases it holds. Because some of these measures, such as facilities disposal, require a commitment of funds before savings can be realized, the Army is challenged to accomplish these actions as quickly as possible. The Army plans to privatize 100 percent of its natural gas systems and 75 percent of its other utility systems within CONUS by FY 2003. Under the utilities privatization program, the Army transfers its ownership and responsibility for operation, maintenance, and upgrade to a local utility provider, resulting in savings for the Army. By the end of FY 1997, the Army had privatized 15 systems (8 gas, 3 electric, 1 water, and 3 wastewater plants) and is currently studying the transfer of 166 additional utility systems.

In another successful effort to trim expenses, the Army has just completed a five-year Facility Reduction Program, in which more than 39 million square feet of unneeded buildings were eliminated. Although the disposal of unnecessary facilities frees resources to maintain needed facilities, this process has also required the Army to spend about $100

million a year to accomplish the reductions. Because the five-year program did not eliminate all unnecessary facilities, the Army will spend $89 million each year, beginning with FY 1999, to reduce its facility inventory. Another Army goal is to reduce by $198 million the amount of money spent on leased facilities through the end of FY 2003. Nearly 50 percent of all leasing costs are due to recruiting and military entrance processing activities being housed in nongovernment facilities. Wherever possible, the Army is moving these functions out of leased space and onto installations; otherwise, the Army is attempting to reduce the size and cost of leased facilities.

The Army is also realizing savings by expanding its use of technology. In the usage of the International Merchant Purchase Authorization Cards (IMPAC), the Army is the government leader in both number of transactions and dollar amounts. During FY 1997, the 2 million transactions made by 43,000 Army soldiers and civilians resulted in $1 billion in purchases. This represents an increase since FY 1996 of 25 percent in the number of transactions, 16 percent in the number of cardholders, and 35 percent in the value of purchases. The purchase card is used instead of purchase orders for micro-purchases, those of commercially available off-the-shelf items valued at $2,500 or less. The Army used the IMPAC for 89 percent of all micro-purchases in FY 1997. Elimination of purchase orders for these transactions has saved the Army millions of dollars in direct labor costs. In addition, the Army uses one line of accounting to fund each cardholder account rather than each individual purchase, reducing the labor costs associated with processing purchase card transactions.

An innovative program designed to provide electronic money to Army basic trainees was implemented during FY 1997 on a pilot basis at Fort Leonard Wood, Missouri, and Fort Knox, Kentucky. Upon entering basic training at either installation, soldiers were presented with a Stored Value Card, or Smart Card, credited with a certain dollar amount, rather than receiving the traditional cash advance. The soldier used the Smart Card, in the same fashion as a debit card, to pay for toiletries, haircuts, and other personal items on the installation, as well as special events sponsored by Morale, Welfare, and Recreation Services. When training was completed and the soldier was ready to depart the installation, banks and credit unions on the installation redeemed the Smart Card and provided cash to the soldier in the dollar amount remaining on the card. A partnership between the U.S. Department of Treasury, DFAS, the Army, the First Union Bank in Missouri, and the Mellon Bank in Kentucky enabled the program to operate successfully. In addition to ensuring that soldiers were less vulnerable to theft because they were not encumbered by large amounts of cash, the program eliminated the U.S. Treasury's need to send millions of dollars in cash to these installations, freeing the cash for other purposes.

In a similar program, the Army has been planning and preparing an Automated Meal Tickets system that will be put in place in FY 1998. Military personnel in transit, particularly new recruits en route to their first duty station, will be provided with Automated Meal Tickets to pay for meals in commercial restaurants when government facilities are unavailable. The Army expects to save $6–8 per meal ticket, measured against the current labor-intensive system of manually issuing meal tickets and reimbursing the vendor.

Another initiative, specifically designed to assist commanders in stretching their travel funds, is the Lodging Success Program, which began in 1992. The Army negotiates with high-quality hotels that provide transportation to and from airports and frequently visited temporary duty locations to obtain volume discounts on room rates. In FY 1997, the Lodging Success Program was operating in the metropolitan areas of Washington, D.C.; San Antonio, Texas; and Atlanta, Georgia. Reduced lodging rates were about 30 to 40 percent below the per diem rates that the government had previously authorized for those regions. In addition, travelers had no need of a rental car, further reducing costs. The Army contracted for 225,000 room-nights during FY 1997, with an estimated saving of $10–12 million. Not only will the Army expand the Lodging Success Program to the Norfolk area in FY 1998, but also DOD is planning to adopt the program for all services.

Seven Army installations were selected as pilot sites to implement new initiatives in 1995 as part of DOD's effort to reengineer travel. At one of those sites—the Combined Arms Center and Fort Leavenworth, Kansas—the processing of official government travel was drastically reduced from 37 to 9 steps, and the processing time per voucher decreased from 5.4 to 1.3 hours. As a result, soldiers and civilians were reimbursed within 24 to 36 hours after presenting their travel vouchers directly to the finance office. The Combined Arms Center and Fort Leavenworth was one of three federal organizations to receive *Government Executive Magazine*'s Travel Manager of the Year Award for 1997. The process used at all seven sites will be the foundation for the Defense Travel System that will soon encompass all of DOD.

The Army continued to use the government travel card to reduce the need for travel advances and to emphasize the collection of outstanding travel advances. On 30 September 1997, reported travel advances totaled $62 million, a decrease of 15 percent since 30 September 1996 and the third consecutive fiscal year in which a reduction had occurred.

To gain more control over funds, ASA (FM&C) established a team to review the Military Training Open Allotments, which funded per diem and travel for training directed by HQDA and per diem for training en route to a PCS. The open allotments provided funds through a fund site that any

authorized fiscal station in the Army could use, creating a system similar to a joint checking account with many co-owners who could all write checks to withdraw money. Although open allotments provided flexibility and easy access in the field, there was no control over how the funds would be spent and limited opportunity for analyzing expenditures once they were made. Without priorities or controls on spending, unnecessary expenditures occurred; and, despite the active Army's decline in size during the 1990s, military training open allotments increased. The Army conducted a successful pilot test at two Army installations in FY 1997 in which the commands were given military training specific allotments that enabled them to control their own funds, establish their funding priorities, and prevent access to the funds from outside the command. During FY 1998, the Army will switch from military training open allotments to military training specific allotments Army-wide.

The Army must also maintain vigilance against fraud if it is to protect and conserve its resources. The Major Procurement Fraud Unit, a subordinate element of the U.S. Army Criminal Investigation Command, conducted major procurement fraud investigations involving centralized Army contracts, major systems acquisitions, military construction, and civil works contracts and projects. Following criminal convictions of, and civil administrative settlements with, contractors who defrauded the Army, reclaimed or awarded funds are sent to the Treasury Department's General Fund, although an increasing amount has been given to the Army in recent years for goods and services. During FY 1997, $83.1 million was returned to the Treasury and $60.1 million to the Army. In addition to returning funds and property to Army activities, the fraud unit identified serious hazards to personnel safety and health as well as to enhanced Army readiness and combat effectiveness.

Legislation

Legislation has both required and assisted the Army in developing acquisition practices consistent with smart business practices, so that resources can be protected and used more effectively and efficiently. Under the Chief Financial Officers Act of 1990, federal agencies were required to centralize financial management, appoint a chief financial officer, prepare audited financial statements, and modernize their financial information systems. The Army was designated a pilot agency and has aggressively implemented the Chief Financial Officers Act's provisions. To fulfill the requirements of this act, the Army has been breaking down the traditional barriers between functional and financial managers and working to improve every aspect of financial management and stewardship. In the FY 1997 Annual Financial Report, auditors highlighted the Army's progress.

Full compliance with the Chief Financial Officers Act cannot take place, however, until reliable, integrated financial systems and processes are in place. Until then, Army auditors are unable to assess the reliability of data in the Army Financial Report, although continual improvements in accounting controls, processes, and systems have been made since 1990.

Congress passed the Government Performance and Results Act (GPRA) of 1993 as another measure to create efficient and effective government. The act requires agencies, including DOD, to develop strategic plans and goals, identify how those goals will be achieved, measure performance, and make adjustments to ensure that the goals are met. The May 1997 *Report of the Quadrennial Defense Review* served as DOD's strategic plan. With Army participation, DOD developed performance measurements in September 1997 based on the Quadrennial Defense Review's (QDR) most critical strategic goals. Although a DOD memorandum directing each military service to develop its own strategic and performance plans remains unsigned and with no suspense date, the Army is revising its Army SMP to implement the GPRA. The SMP is based on the Army's strategy, imperatives, goals, and long- and short-term objectives. To ensure correlation with DOD strategic and performance plans, the Army is rewriting its objectives so that they will be quantifiable and measurable.

New legislation is giving significant impetus to the privatization of housing. The Housing Revitalization Act of 1996 permits the establishment of partnerships between public and private agencies and allows the federal government to provide various types of guarantees to attract private investment. The act also created a Defense Housing Improvement Fund into which funds from housing appropriations can be transferred. Under the authority of the act, which expands flexibility and opportunity for privatization of housing, an Army team is currently working to improve Army housing through additional privatization efforts.

The Army plays a significant role in proposing legislation to Congress. The Resource Analysis and Business Practices Office in OASA (FM&C) is responsible for aggressively soliciting, developing, and submitting legislative proposals that will provide Army commanders with the flexibility to generate additional funds and maximize the use of their resources. During FY 1997, the Resource Analysis and Business Practices Office proposed, and Congress passed, legislation that will allow the Army to retain refunds from official government travel, provided that the government travel card or a government contracted travel management center is used to pay for or arrange the travel. The Army estimates that it will receive $10 million annually as a result of this legislative change. Installations will use the funds to pay for base operations.

The Resource Analysis and Business Practices Office also gained congressional approval in the National Defense Authorization Act for Fiscal

Year 1998 for two initiatives that will reduce printing costs. The act permits DOD to contract directly with the Government Printing Office for printing and duplication services and prohibits the Defense Automated Printing Service from requiring a 5.5 percent surcharge for DOD publications. These initiatives, which make government printing costs competitive with the private sector, will lower DOD costs.

Legislative restrictions also need to be eliminated. The Resource Analysis and Business Practices Office has identified such instances and provided suggestions on new legislation for DOD and Army leaders to use when discussing outsourcing with Congress. The Resource Analysis and Business Practices Office is presently assisting DOD in preparing a legislative package that will request relief from many of these restrictions. Congress also approved a recent legislative proposal that allows DOD to retain funds collected from assessments for damage to Army real property assets. In addition, the Army and DOD obtained approval for 32 waivers of financial regulations and policy, enabling the Army to attain greater efficiency and reduce costs.

Accountability

In 1991 DOD established DFAS and charged it with developing a single corporate database to support all DOD finance and accounting functions. Five years later, DOD directed that a transaction-driven general accounting system be acquired for DFAS-Indianapolis customers. DFAS in 1997 released a transition strategy for general and business fund accounting systems. In the initial phase, each military service and defense agency will replace existing systems with the best intermediate systems available. In the final phase, these intermediate systems will be replaced by a single DOD-wide system. Following an analysis of alternatives, DFAS selected the Corps of Engineers Financial Management System to create the Defense Joint Accounting System (DJAS). DJAS will modernize and upgrade the Army system to create an integrated financial accounting system for DOD that will meet Joint Financial Management Improvement Program standards and be fully compliant with the financial reporting requirements of the Chief Financial Officers Act. Through DJAS, customers will be able to perform functions such as funds control, general ledger, accounts receivable, accounts payable, financial reports, cost management, and core financial systems management. Customers supported by DJAS will include army posts, camps, and stations; AMC; Army National Guard (ARNG); DFAS–Indianapolis; and the Military Traffic Management Command. DJAS will support accounting, finance, and reporting operations at the installation, MACOM, and military department levels. To ensure that DJAS is fielded on schedule, the Army has been working with the DJAS program office, which developed the DJAS

program structure during FY 1997. This seamless integration of the financial and accounting capabilities of Army and defense agencies supports *Joint Vision 2010* and the attainment of information dominance.

As early as FY 1990, DOD identified accountability for real and personal property as a high-risk area. The Federal Managers' Financial Integrity Act (FMFIA) of 1982 requires all federal agencies to assess the effectiveness of their management controls and financial systems and to provide an annual statement for Congress and the president by 31 December, identifying any deficiencies and outlining resolutions. By 1993 DOD recognized that it needed a standard property accountability system to eliminate weaknesses discovered while fulfilling the requirements of the FMFIA and the Chief Financial Officers Act. The Defense Property Accounting System (DPAS), developed by DOD to manage real and personal property for all defense agencies, provides on-line comprehensive property accountability and integrated equipment management, including preventive maintenance schedules. Incorporating automated logistics and financial interfaces, DPAS complies with all DOD financial regulations for asset accountability, general ledger reporting, and depreciation. With DPAS, item authorizations, cataloging of actions, accountable record processing, financial depreciation data, serial number tracking, component visibility, warranty information, maintenance records, utilization data, and an automated document register can be validated on-line. Although DOD has not mandated that the military services switch their property accountability systems to DPAS, the Army had fielded DPAS at 67 sites, or 70 percent of all Army locations, by the end of FY 1997. The Army will implement DPAS at its remaining locations once a test has been successfully completed in FY 1998.

Despite the improvements made in accountability, problem disbursements continued to be one of the primary financial concerns for the Army and DOD in FY 1997. Problem disbursements are Army funds that have not yet been matched against the specific source obligation document or that do not agree with the amount of the original obligation. As a result of problem disbursements, accounting reports are inaccurate, and availability of funds is difficult to determine. Eliminating problem disbursements becomes more difficult and labor intensive as they age. As of 30 September 1997 the Army reported problem disbursements in the amount of $1.7 billion. Although this amount is lower than that reported in FY 1996, the difference resulted from a change in reporting procedures rather than an improvement in financial accountability.

The key organization in the Army designated to audit contractor claims, a central function in ensuring financial accountability, is AAA. As the Total Army decreased in size during the 1990s, so did AAA. Having assembled a Restructuring Task Force in FY 1994, AAA continued with

Phase II of its restructuring in FY 1997, closing five field offices and four administrative centers. As a result, the number of military and civilian employees in AAA declined during the fiscal year to 601, although 668 positions were authorized. With the closing of numerous facilities, some personnel were relocated to other geographical areas. Even with fewer people, AAA continued to establish process action teams to evaluate Army processes that required improvement. Moreover, AAA retained a high standard of performance and submitted an application in FY 1997 for the Presidential Award for Quality.

One of the AAA divisions restructured in FY 1997 was the Programs and Audit Support Division. Direct support to audit teams had resided previously in the division but was transferred to an AAA audit directorate, leaving the division with providing statistical sampling and advanced audit techniques. In the summer of 1997 the division replaced the AAA Information Management System with the Agency Management System. In addition, the division completed AAA's transition to local- and wide-area networks and developed a network operations group to ensure the smooth transition of AAA elements as they went on-line.

To improve the fulfillment of its mission, AAA implemented a new coordinated audit process in FY 1997 after two years of study and testing. In previous years the audit process had become an adversarial relationship between the auditor and the client; clients and auditors did not always agree on solutions needed for some audit findings; and the official Army position on audit findings and recommendations was usually not provided until months after a report was issued. After surveying customers, AAA worked with MACOM representatives to develop a new coordinated audit process. Under an innovative philosophy that encourages partnership between auditor and client, the client is now involved in the entire audit process from the planning phase to the reporting phase. In addition, the auditors and the client jointly decide on the solutions recommended in the report. Finally, the Army's official position on findings and recommendations is included in the final report. After conducting pilot audits, AAA began using the process in FY 1997 and will completely implement it during FY 1998.

To ensure that its auditors have the appropriate leadership skills, AAA established a training partnership with the Air Force Audit Agency in FY 1996 and developed the Leadership Development Course. The curriculum teaches team building, leadership skills, competencies, ethics, and how to work with people. Leadership skills are sometimes necessary for auditors placed in positions other than supervisor or manager. Forty Army auditors attended the course during FY 1997, and forty-eight are projected to attend in FY 1998.

AAA has also been involved in acquisition reform. Under the GPRA, federal agencies were required to develop strategic plans for FY 1998 by September 1997, annual performance plans for every budget activity for

FY 1999 by September 1997, and annual performance reports beginning in March 2000. The GPRA designated seventy pilot projects to ensure that performance measures would be developed to compare requested resources with results. As one of the Army's three selected pilot agencies, AAA streamlined its operations by reducing personnel nearly 35 percent, realigned audit resources to match more closely Army functions, and expanded its consulting services. Customer satisfaction increased from 3.95 out of a possible score of 5 in FY 1994 to 4.16 in FY 1997.

During FY 1997 AAA participated for the first time in the West Point Cadet summer program. AAA developed a project that cadets would be able to accomplish in a two-week period during the summer. Two cadets selected AAA's project in information management and spent two weeks at AAA, providing significant contributions to the project and benefiting AAA as well as themselves.

AAA continued to play a vital role throughout FY 1997 by performing audits. In one of the most significant, the audit of the Acquisition Arrangement with the Hungarian Ministry of Defense, AAA concluded that the Army had not been overcharged for bus services. An internal audit for U.S. Army, Europe (USAREUR), had claimed that the Ministry of Defense had presented a bill of $1.9 million for bus services, of which $1.2 million represented overcharges. USAREUR's internal audit report was leaked to the American and Hungarian press, and the allegations created a tense international atmosphere. According to the AAA audit issued in March 1997, USAREUR did not review sufficient documentation and used incorrect criteria to define overcharges. AAA reviewed all 67 purchase orders for the $33.3 million of goods and services provided through the Acquisition Arrangement and concluded that USAREUR was charged properly. As an aside, AAA reported that USAREUR had not always followed prudent procurement practices, expending some resources unnecessarily.

The audit of Plant Operations, Johnston Atoll Chemical Agent Disposal System, issued in November 1996, stated that using other measures could have saved $26.1 million. The audit reviewed the management of plant operations and delivery processes for chemical munitions, focusing on personnel staffing, demilitarization schedules, lessons learned, compliance with safety and environmental guidelines, and management controls. The AAA audit determined that process improvements were necessary to ensure that a successful chemical demilitarization program was completed as scheduled. The commander, U.S. Army, Pacific, and the program director for Chemical Demilitarization agreed with AAA's recommendations and the estimate of potential savings. This audit was one of the first to be published that included the official Army position.

At the request of the under secretary of the Army, AAA conducted an audit of Contractor Support for the Logistics Civil Augmentation

Program (LOGCAP), focusing on the processes used to request and monitor contractor support for Operation JOINT ENDEAVOR. Before the audit, ODCSLOG and AMC had already implemented numerous initiatives to update and expand program guidance, doctrine, and training on contractor support. AAA concluded in December 1996 that the Army needed to evaluate a contractor's cost estimate and expenditures in a timelier manner; monitor the services provided by a contractor more fully; implement a plan for surveillance and inspection of contractor performance; and evaluate contractor performance to determine future award fees. ODCSLOG and AMC agreed with most of AAA's recommendations, and AMC incorporated many of the suggestions in developing and awarding a new LOGCAP contract in FY 1997.

AAA's audit of Management of Repair Parts for Maintenance, issued in March 1997, demonstrated that Army depots supporting maintenance operations needed to improve their management of repair parts to be cost-effective. Problems identified included multiple layers of retail inventories, redundant handling of material, fragmented management of inventory, and inadequate visibility and control over inventory. Depots tended to retain excessive amounts of inventory and procured unnecessary repair parts. AAA stated that the Army could save $5 million annually by reengineering the process to eliminate repetitive handling and avoid supply fees. In addition, the Army could save $12.6 million during FY 1997 by disposing of excess material. The audit also concluded that the Army could reduce order ship times by two to four days and depots could minimize their purchase of unneeded repair parts. The Army's official position agreed with AAA recommendations and estimates of potential monetary benefits.

Budget

The Army budget continued to decline in FY 1997. During FYs 1989–97 the Army's total obligation authority declined from $100.3 to $64.8 billion, representing a 35 percent decrease in purchasing power. In constant dollars, the FY 1997 Army budget declined 2.5 percent from that of FY 1996. In FY 1997, the Army's share of DOD's total obligation authority was 24 percent, a reduction of 3 percent since FY 1989, despite the fact that the Army had provided 60 percent of all U.S. military forces committed to the 33 major DOD contingency operations during the same period. Beginning in FY 1999, however, the Army budget will increase $2.2 billion over FY 1998's request, with $1.6 billion earmarked for modernization. Excluding Operation DESERT STORM, this is the first planned increase in the Army's total obligation authority since 1985. The Army's total obligation authority for FYs 1997–99 is shown in *Table 1*.

Table 1—Army Total Obligation Authority, Fiscal Years 1997–1999

Category	Fiscal Year 1997 ($ Billion)	Fiscal Year 1998 ($ Billion)	Fiscal Year 1999 ($ Billion)
Military Personnel	26.3	25.7	26.3
Operations and Maintenance	22.9	20.6	20.4
Procurement	8.1	6.8	8.3
Research, Development, Test, and Evaluation	4.9	4.5	4.6
Military Construction	0.7	0.7	.8
Army Family Housing	1.4	1.3	1.3
Base Realignment and Closure	0.4	0.4	.5
Environmental Restoration	0.0	0.4	.4
*Total	64.8	60.3	62.5

*Numbers may not add up owing to rounding

In addition to affecting modernization, maintenance, and procurement of equipment, lower levels of funding continued to affect the Army's ability to attract high-quality people and provide them with the necessary training. As buying power declined, Army leaders have acquired an additional burden in assuming roles in resource allocation and cost measurement to ensure that the Total Army has the quality, capabilities, and size to deter potential adversaries and meet operational commitments. Despite cutbacks, the Army has used its available resources effectively and continues to possess a trained and ready force. The Army's FY 1997 budget included funds for ongoing military contingencies and operations, but did not contain funding for unprogrammed missions. Conducting unprogrammed missions, such as responses to natural disasters or new military contingencies, adversely affected the Army's ability to maintain readiness and quality of life. The Army is continuing to work with Congress and DOD to identify a method for funding these missions.

In April or May of each year, DOD submits to Congress an omnibus reprogramming action that incorporates all reprogramming requests submitted by the military services. The dollar amount of submitted requirements must equal the dollar amount of previously approved appropriations and is merely a request to realign funds. Congressional

approval is normally given late in the fiscal year; thus DOD implemented the FY 1997 Omnibus Reprogramming Action in September 1997. The Army's part included $33.1 million in FY 1997 requirements and offsetting sources and $3.9 million for FY 1995. The FY 1997 requirements would transfer funds from Military Personnel, Army, to National Guard Personnel, Army, to support the Operational Support Airlift Command. Those requirements would also realign funds from Reserve Personnel, Army, to Operations and Maintenance, Army Reserve, for base support, real property maintenance, and Pentagon renovation. Finally, funds would be transferred from Chemical Agents and Munitions Destruction Defense to Operations and Maintenance, Army (OMA), for chemical demilitarization activities. Although Congress approved all of the Army's requirements, it did not approve the FY 1995 source, leaving the FY 1995 requirement unfunded.

Before executing the FY 1997 WRAP, the Army was required to present its list of FY 1997 WRAP candidates to Congress. Following the AWE in March 1997, the CSA approved eleven Force XXI initiatives under WRAP. The Army notified Congress that the FY 1997 WRAP projects would require a commitment of FY 1998 funds. Of the $100 million request for WRAP in the FY 1998 President's Budget, the Army estimated that $62 would be used for FY 1997 WRAP projects and $38 million to pursue new FY 1998 WRAP candidates. Congress approved the initiatives in July 1997. Although the House Appropriations Committee approved the $100 million request in the FY 1998 President's Budget, the Senate Appropriations Committee approved only $62 million. The Army has forwarded an appeal to the Senate urging support of the House position. Passage of the House position would enable the Army to conduct WRAP on a one-year cycle, rather than extend it to a two-year period as the Senate position would require.

During FYs 1998–2003 POM, the Army incorporated QDR decisions and Defense Planning Guidance (DPG) to wrest $5 billion in savings from efficiencies in infrastructure, as well as from reductions in force structure and end strength. With these initiatives, the Army reallocated those funds for modernization, infrastructure, and recruiting programs. The FYs 1998–2003 POM provided funds for ten divisions and 480,000 personnel in the active Army, fifteen enhanced brigades in ARNG, and 530,000 personnel in the reserve components. In addition to funding air and ground operating tempo (OPTEMPO) to meet readiness levels specified by the DPG, the FYs 1998–2003 POM funded training requirements in support of digitization, Force XXI initiatives, and conversion of combat units to combat support or combat service support roles. The largest increase in the FYs 1998–2003 POM was $3.2 billion for modernization. An additional $1.3 billion was allocated for fielding the digitized corps and $1.1 billion to reduce the shortage of combat support and combat service support units.

Funding of real property maintenance was increased by $1 billion and depot maintenance by $362 million, while base operations requirements were reduced by $1.3 billion. In addition, funding for communications to improve deployment support and distance learning capabilities was increased. To ensure the Army creates the leap-ahead technologies required by the Army After Next, another $437 million was budgeted for acquisition stability and science and technology programs. Nevertheless, not all critical requirements were funded.

The FY 1999 budget estimate submission (BES) contained only minimal program adjustments to the FYs 1998–2003 POM and reflected probable congressional actions, repricing, realignment of acquisition strategy, and revisions to correct for slips in program execution. The FY 1999 BES preserved ground OPTEMPO at 800 miles per vehicle and air OPTEMPO at 14.0 flying hours per aircraft (14.5 for attack helicopters) for the active Army, with comparable funding appropriate to mission requirements for the U.S. Army Reserve and ARNG. OPTEMPO is a framework for estimating costs of fuel; spare parts; and recurring home station operations, training, and maintenance, based on unit-specific events. Increased modernization funding was included for the AH–64 Longbow Apache, the UH–60 Black Hawk helicopter modifications, the M2 Bradley Infantry Fighting Vehicle, the M1 Abrams tank, and the Hellfire missile. In addition, the BES continued funding for the Family of Medium Tactical Vehicles and the Family of Heavy Tactical Vehicles. Base operations funding will increase from 78 percent of requirements in FY 1998 to 85 percent in FY 1999, which should minimize the transfer of OMA funds. In the BES, quality of life and soldier support programs, such as barracks modernization, continuing education, housing maintenance and repair, and pay raises, are adequately funded. The budget will not provide for all of the Army's needs, however, and shortfalls will prevent full funding for the Army's digitization effort, ammunition war reserve modernization, drawdown replacement, depleted uranium production gap, Second Destination Transportation, ammunition sustainment, supply depot operations, and real property maintenance. Minimal funding is provided for revitalization.

In 1995 the Army Budget Office initiated efforts to reengineer the programming and budgeting phases of the Planning, Programming, Budgeting, and Execution System (PPBES) to decrease the difficulty and complexity of developing, submitting, and monitoring the execution of the POM and the Army budget. Factors that necessitated the reengineering included reduced financial resources, fewer Army personnel, a demand for improved stewardship of Army resources, and a perceived need to connect all phases of PPBES. In addition, reengineering the PPBES process became an important element in fully implementing the GPRA and the

QDR recommendations, which demanded better resource management and smarter business practices. As of the end of FY 1997, the reengineering process has removed the artificial boundaries between the POM and the budget and integrated them into one resource decision process. The new process reduced the size of budget schedules required from subordinate commands by two-thirds and streamlined the preparation of the DOD budget. Inefficiencies and inconsistencies in DOD reporting requirements for procurement appropriations were identified for correction and simplification. For the first time, the Army simultaneously documented and improved its PPBES process, creating a nine-volume Army Resource Formulation Guide and publishing the initial five volumes.

The Chief Financial Officers Act, as amended by the Government Management Reform Act of 1994, required federal agencies to prepare annual financial reports. Based on OMB and DOD requirements and guidelines, the Army prepared the FY 1997 Annual Financial Report, which is intended to give a clear picture of the Army's financial position. The report consisted of the statement of financial position, the statement of operations and changes in net position, and the statement of cash flows as of 30 September 1997. The statement of financial position included $215.3 billion in assets, $36.4 billion in liabilities, and a net position of $178.8 billion. The net position was composed of unexpended appropriations, invested capital, cumulative results of operations, and future funding requirements. As a comparison, in FY 1996 the Army had $201 billion in assets, $25.3 billion in liabilities, and a net position of $175.7 billion. Equipment, real estate, and physical plants composed more than 61 percent of Army assets, with war reserves another 22 percent. Fourteen percent of the Army's assets, $30.6 billion, were in Treasury accounts, with virtually the entire amount coming from appropriated funds. Unfortunately, auditors have been unable to determine the reliability of data in the Army's financial statements, although each successive annual audit has noted continuing improvements in accounting controls, processes, and systems.

The Army reported $1.3 billion in accounts receivable and $2.3 billion in accounts payable at the end of FY 1997, but an AAA audit concluded that these amounts were unreliable and that correct balances could not be determined. Although the Army reported $27.7 billion in nonfederal liabilities not covered by budgetary resources, the audit could not verify that all reportable liabilities were properly identified. For the first time these nonfederal liabilities included $10.6 billion for chemical demilitarization programs, $972 million for environmental restoration at closing installations, $414 million for the Voluntary Separation Incentive Program, and $185 million for claims and litigation. The Army could not audit the $65.4 billion of expenses for FY 1997 owing to a deficiency in the accounting systems used. The Defense Accounting Service, which

owns and operates the Army's primary accounting systems, is preparing a new system to replace those currently in use. The Army reported $4.6 billion as assets under capital lease when they should have been reported as overseas real property assets. In the future, such real property will be reported as real property assets. Although the Army stated that its fund balance with the U.S. Treasury was $30.6 billion, the audit concluded that the amount was probably understated by $1.4 billion.

Accounting for Army property, plant, and equipment is one of the most difficult problems in forming an accurate financial statement. The total value placed on this category by the Army on 30 September 1997 was $132 billion, but AAA stated that reporting problems most likely resulted in an understatement of $10 billion. Reported values for real property were often misstated, duplicated, or incomplete. For example, the Army did not record its financial interest in ARNG facilities as an asset, but this deficiency is being corrected. The Army developed new accounting procedures for real property in FY 1997, but these had not been approved by the end of the fiscal year. Reported values for construction projects were also misstated owing to inaccurate or incomplete contractor reports. In FY 1997, the Army conducted a review of government property in the custody of contractors, the largest part of the accounting problem related to property, plant, and equipment. The Army also commissioned a study of practices used by foreign governments and commercial businesses that could improve the Army's accountability of contractor-held government property.

Finally, AAA performed a worldwide validation of Army property in FY 1997, working with the Inspector General, DOD, and GAO. Concentrating on five mission asset categories (aircraft, combat tracked vehicles, communications equipment, missiles, and missile support equipment), the study concluded that the Army maintains good accountability at the unit level even during times of frequent deployments and rapid turnover of personnel. Nevertheless, the audit also found that the Army has overstated the value of its military equipment. In one example, the Army valued military equipment at the latest acquisition cost or standard price rather than the actual cost. The Army reported the value of its war reserves as $46.8 billion on 30 September 1997, but this amount was overstated because assets in excess or in an unknown condition were valued at full price. In previous years, the Army had also reported unserviceable equipment at full value. In FY 1997, AMC reduced the value of repairable equipment to 35 percent of its standard unit price and nonrepairable equipment to a salvage value of 2.7 percent of the standard price, which more closely reflected actual values.

4

Personnel

The Total Army concept is key to maintaining readiness, as the Army is unable to deploy a large force without the participation of the reserve components. The active Army, U.S. Army Reserve (USAR), Army National Guard (ARNG), and civilian workforce must work together to ensure that the Army can meet its worldwide missions. Critical skills of USAR and ARNG soldiers have placed them in high demand for operational deployments in the post–Cold War era, particularly during FY 1996 and 1997 in Bosnia. Integration of the civilian workforce into the Total Army continues, and their role is expected to grow in the future. Civilians, both Department of the Army (DA) employees and contractors, have been needed in greater numbers for deployments and were essential in supporting U.S. and North Atlantic Treaty Organization (NATO) forces in Bosnia in FY 1997. To ensure that the Total Army's personnel resources are managed efficiently and effectively, an integrated Total Army human resource management system was being developed during the fiscal year.

The Army has recognized that human resource management is more than personnel management and includes leadership, equal opportunity, strength management, recruiting, compensation and entitlements, career management, quality of life, and budgeting. The same changes in technology and society that are driving the Force XXI advanced warfighting experiments (AWE) have resulted in a new comprehensive approach to managing the Army's personnel resources. To recruit the highest quality soldiers in a marketplace increasingly competitive, the Army must maintain adequate compensation and quality of life. More important, however, the Army believes it must develop young soldiers into leaders and has developed the back-to-basics approach in Army values to reach this goal.

The traditional values—loyalty, duty, respect, selfless service, honor, integrity, and personal courage—remain the same but are being treated in a new way. Offenses in recent years caused the Army's values and its ethical climate to be questioned and reviewed. In November 1995 General Dennis J. Reimer, chief of staff of the Army (CSA), created the Character Development XXI initiative, a values baseline to establish an environment in which Army members would do the right thing, treat others well, and

be respected. In the review process, the Army learned that terminology and definitions of institutional values were not clearly defined, Army publications and documents provided conflicting meanings of values, and training and education programs focused on values with varying levels of quality and emphasis. In September 1996 General Reimer approved the Character Development XXI concept, which included initiatives and projects in three categories: doctrine and policy, training and education, and communications.

During FY 1997 the Army worked to implement Character Development XXI. With respect to doctrine and policy, leadership doctrine was revised to establish a common framework that incorporated the traditional values, which had been redefined. To develop leaders whose behaviors exemplified Army values, leadership traits were synchronized in the officer, noncommissioned officer, and civilian evaluation reports. Additionally, a character development model and an ethical climate assessment survey were created. In the realm of training and education, the Army revised the curricula of all institutional schools, from initial entry training to the Army War College, to incorporate the redefined values, character development concept, and history of the Army's heritage. Moreover, the Army implemented the Consideration for Others program. To increase Army awareness of Character Development XXI, the Army released a video, *Living Army Values*, in June 1997 and developed a synchronized communications plan. The basic doctrine to reinforce the values baseline is contained in Field Manual 22–100, *Military Leadership*.

Although attracting greater attention in recent years, the quantity of personnel has remained a major issue. Since the drawdown began in FY 1989, the Army has decreased its size by 481,000 soldiers and 159,000 civilians, creating the smallest U.S. Army since World War II. As part of the downsizing, more than 250,000 soldiers and civilians, with family members, were redeployed from Europe. Although the Total Army continued to decrease during FY 1997, the process slowed considerably. Personnel reductions continued through reduced accessions and use of voluntary programs such as Voluntary Early Transition, Voluntary Separation Incentive, Special Separation Benefits, and Early Retirement. In addition, as the drawdown comes to an end, Army accessions are expected to stabilize.

The 1993 Bottom-Up Review recommended that the active Army reach a level of 495,000 personnel by the end of FY 1997; USAR reduced to 208,000 by FY 1998; ARNG decreased to 367,000 by FY 1997; and the decline in the number of civilians to 236,000 by FY 2001. The secretary of defense, using the Quadrennial Defense review (QDR) recommendations, directed that the active Army decrease its size by an additional 15,000 personnel to 480,000 by FY 2003; the reserve components by an additional 45,000 personnel to a combined total of 530,000; and the civilian force by

an additional 33,700 to 202,300. To accomplish these objectives, the active Army in FY 1997 implemented a plan to reduce its force by 5,000 troops each year during FYs 1997–1999 through deactivations, consolidations, and the realignment of headquarters and support facilities. Of the 45,000 reductions directed in the reserve components, USAR will accomplish 3,000 in FY 2000, while ARNG will decrease its force by 5,000 persons in both FYs 1998 and 1999 and 7,000 in FY 2000. Total Army Analysis is a biennial process to determine the Army's force structure, and Total Army Analysis 2007 will identify in 1999 which positions will be eliminated during FY 2001–2002 and how the remaining 25,000 reserve component reductions will occur. Before that analysis, the active Army and reserve components will work together to reconfigure USAR and ARNG units so that they mirror active units. A plan also was devised to reduce the civilian workforce by 17,000 individuals by FY 2006.

At the end of FY 1997, the active Army end strength was 491,700, close to its QDR goal for FY 1997 of 490,000. USAR strength, 226,200 soldiers at the end of FY 1996, continued to decrease during FY 1997 to 212,900. ARNG remained stable at 370,000 troops, the same number that had existed at the beginning of the fiscal year. Army civilians numbered 258,600 at the end of FY 1996 and were reduced to 246,700 during FY 1997. At the end of FY 1997, the Total Army consisted of 1,321,300 active Army, USAR, ARNG, and civilian members (*Table 2*).

Table 2—Military and Civilian End Strength, Fiscal Years 1995–1997

Component	Fiscal Year 1995 (Thousand)	Fiscal Year 1996 (Thousand)	Fiscal Year 1997 (Thousand)
Active Army	508.6	491.1	491.7
Army National Guard	374.9	370.0	370.0
Army Reserve	241.3	226.2	212.9
Army Civilians	272.7	258.6	246.7
Total	1,397.5	1,345.9	1,321.3

The size of the active Army's officer corps continued to decline, but the number of enlisted increased significantly, as shown in *Table 3*.

Expected changes in future demographics, however, required slight increases in the number of spaces programmed to accommodate the annual average number of trainees, students, and other soldiers not assigned to operational units or organizations. To increase this figure, the

deputy chief of staff for operations and plans on 8 August 1997 ordered a decrease of 16,000 in the total number of spaces authorized to operational units and organizations, which is termed the Force Structure Allowance. The CSA approved a reduction in the force structure of 5,000 in FY 1997; 5,000 in FY 1998; and 6,000 in FY 1999. At the end of FY 1999, the active Army's end strength of 480,000 will consist of 419,000 Force Structure Allowance spaces and 61,000 Transient, Trainee, Holdee, and Student Allowance spaces.

Table 3—Military Personnel Distribution, Fiscal Years 1995–1997

	Fiscal Year 1995 (Thousand)	Fiscal Year 1995 Percent	Fiscal Year 1996 (Thousand)	Fiscal Year 1996 Percent	Fiscal Year 1997 (Thousand)	Fiscal Year 1997 Percent
Officer	82.5	16.2	80.6	16.4	79.3	16.1
Enlisted	422.2	83.0	406.5	82.8	408.3	83.0
Cadet	3.9	0.8	4.0	0.8	4.1	0.8
*Total	508.6	100.0	491.1	100.0	491.7	100.0

*Numbers may not add up owing to rounding

Despite the continued downsizing and the fears in some quarters that women and minorities would be affected adversely, the percentages of both within the Army continued to increase. Women had constituted 14.2 percent of the active Army in FY 1996 but increased to 14.8 percent of the active Army in FY 1997. Among commissioned officers, 14.2 percent were female; among warrant officers, 6.3 percent; and among enlisted soldiers, 15.1 percent. The representation of women in FY 1997 in USAR was 24 percent of the force; in ARNG, 9.3 percent; and, among United States Military Academy (USMA) cadets, 14.2 percent.

Minorities had composed 38.6 percent of the active force in FY 1996 and by the end of FY 1997 had risen to 39.5 percent. Hispanics accounted for the rise in minority representation, as their percentage of the force rose from 5.5 percent in FY 1996 to 6.5 percent in FY 1997. Nevertheless, Hispanics remain underrepresented among both officers and enlisted members in comparison with their representation in the U.S. population. The percentage of African Americans in the Army had declined slightly in recent years owing to declining accessions of African Americans in the

early 1990s, yet the percentage of African American accessions continued to exceed the percentage of African Americans in the U.S. population. In FY 1996, accessions of African Americans began to increase, returning to previous levels and slowing the decline in the percentage of African Americans in the Army. Minorities composed 19.8 percent of commissioned officers, 24.7 percent of warrant officers, and 43.7 percent of enlisted personnel. In other than the active Army, minorities constituted 35.2 percent of USAR, 25.7 percent of ARNG, and 18.7 percent of the USMA cadets. The accessions of women and African Americans during fiscal years 1995–1997 are depicted in *Table 4*.

Table 4—Accessions of Women and African Americans, Fiscal Years 1995–1997

Accessions	Fiscal Year 1995	Fiscal Year 1996	Fiscal Year 1997
Total Number	62,931.0	73,418.0	83,469.0
Female Percentage	18.9	20.3	19.7
African American Percentage	22.5	23.5	23.5

African Americans composed 26.8 percent of all soldiers; other minority groups contributed 6.3 percent. Of the women in the active Army, 44.6 percent were white, 43.0 percent were African American, 5.7 percent were Hispanic, and 6.7 percent were from other minority groups. Among enlisted women, African Americans constituted the largest group at 47 percent, while 39.8 percent were white. Of all active Army men, 63.3 percent were white, 23.9 percent African American, 6.6 percent Hispanic, and 6.5 percent from other minorities. Within the commissioned officer corps, the composition was 11 percent African American, 3.5 percent Hispanic, 5.3 percent other minority groups, and 80.2 percent white. Warrant officers included a greater representation of minority groups, with African Americans composing 15 percent; Hispanics, 4.6 percent; other minority groups, 5.1 percent; and whites, 75.3 percent. African Americans constituted 29.6 percent of the enlisted ranks, while Hispanics formed 7.3 percent; other minority groups provided 6.8 percent, and whites contributed 56.3 percent.

The Army seeks to meet three objectives in attaining its military manpower goals: providing quality nonprior service (NPS) accessions; retaining high-quality soldiers; and sustaining the right numbers, academic disciplines, and grades of active commissioned officers. Working hard to

retain quality people, the Army met its retention goals in every category in FY 1997. Although initial-term soldiers (those nearing the end of their first enlistment) and mid-career soldiers reenlisted at rates higher than expected, the career soldiers (those at or nearing retirement eligibility) far surpassed the anticipated goal. The achievement of retention goals for FY 1997 is shown in *Table 5*.

Table 5—Achievement of Retention Goals, Fiscal Year 1997

Category	Actual	Goal
Initial	24,312	23,935
Mid-Career	30,209	29,699
Career	25,043	23,981

Retention rates improved considerably from 82.8 percent in FY 1996 to 84.1 percent in FY 1997, increasing among commissioned officers from 89.9 to 90.5 percent, respectively; among warrant officers from 89.6 to 91.2 percent, respectively; and among enlisted personnel from 81.4 to 82.8 percent, respectively. In every gender, race, and ethnic grouping, the highest retention rate was among warrant officers, except for white males. White females had the lowest retention rate of any category of soldier, except for those who were warrant officers, whereas white males had the lowest retention rate of all males, except for commissioned officers. The total retention rates of blacks, Hispanics, and other minority groups in FY 1997 were higher than those of whites by several percentage points (*Table 6*).

Table 6—Retention Rates, Fiscal Year 1997

Rank	White Male %	White Female %	Black Male %	Black Female %	Hispanic Male %	Hispanic Female %	Other Male %	Other Female %	Total Male %	Total Female %	Total %
Officers	91.1	86.3	90.2	89.5	91.2	89.0	91.4	88.4	91.1	87.2	90.5
Warrants	90.6	93.9	92.5	93.3	92.1	96.0	93.0	100.0	91.0	94.1	91.2
Enlisted	81.2	77.8	85.4	86.7	85.7	84.9	84.0	84.5	82.8	82.9	82.8
Total	83.3	79.9	85.8	87.0	86.2	85.4	84.9	85.1	84.2	83.6	84.1

Personnel strength is an important indication of military readiness, but not all soldiers are capable of deploying when necessary. The Army remained concerned about those individuals who were nondeployable, that is, unable to deploy to a specified area of operation. Changing its evaluation process in FY 1997, the Army decreased significantly its nondeployability rate from nearly

4 percent of the force to 3 percent. The percentage of soldiers considered permanently nondeployable remained negligible, while 3 percent were classified as temporarily nondeployable. Soldiers diagnosed with a permanent medical limitation, such as being HIV-positive or having cancer, heart disease, asthma, diabetes, or any other progressive medical condition, were given assignment limitations and not assigned to deploying units. A soldier diagnosed after being assigned to a deploying unit was reassigned and replaced. Soldiers designated nondeployable did not include those in transient status, training, long-term medical care, prison, or in the process of separating from the service. Because an individual could be nondeployable for multiple reasons, the Army assigned priorities to different categories of nondeployability and listed a soldier only in the highest-priority category applicable. *Table 7* depicts the numbers and categories of nondeployable Army personnel for FY 1997.

Table 7—Army Nondeployable Personnel, Fiscal Year 1997

Category and Nondeployable Personnel		Male	Male Total	Female	Female Total	Total
Permanent Nondeployable			517		107	624
HIV Positive	261	236		25		
Medical Permanent	325	257		68		
Hazardous Duty Restriction	38	24		14		
Temporary Nondeployable			7,722		6,260	13,982
Away Without Leave	246	225		21		
Legal Processing	2,209	1,947		262		
Pregnancy	3,637	0		3,637		
Medical Temporary	5,989	4,254		1,735		
Administrative	1,901	1,296		605		
Total Army Nondeployable Unit Personnel			8,239		6,367	14,606

Classifying soldiers who did not have a current Panorex (dental x-ray) in their files as deployable decreased the number of nondeployables by about 3,000 persons since FY 1996. Because most soldiers who lacked a Panorex were men, this change reduced the percentage of men considered as nondeployable. The number of temporary administrative and medical conditions that would render an individual nondeployable also decreased for men. An additional 2,300 men were considered as deployable in FY 1997 as compared with FY 1996, while the number of women considered nondeployable in those categories remained about the same. Although the pregnancy rate for women rose in FY 1997 to 4.9 percent from 4.4 percent in FY 1996, the rate remained below the pregnancy rate of 10.5 percent for women in the U.S. population. Nevertheless, the percentage of women nondeployable remained much higher than their representation in the

active Army. During FY 1996, 9.5 percent of all active Army women were nondeployable, while the rate for men was 3 percent. The percentage of nondeployable women decreased in FY 1997 to 8.7 percent, but remained much higher than the 2 percent recorded for men. *Table 8* depicts the changes in nondeployability rates during FYs 1996 and 1997.

Table 8—Nondeployability Rates, Fiscal Years 1996 and 1997

Nondeployables	Men	Women	Total
FY 96	12,782.0	6,617.0	19,399.0
Percent of Nondeployables	65.9	34.0	100.0
Percent of Active Army	2.6	1.3	3.9
FY 97	8,239.0	6,367.0	14,606.0
Percent of Nondeployables	56.4	43.6	100.0
Percent of Active Army	1.7	1.3	3.0

The rate at which Army personnel are deployed away from their home station and families for unit and personnel training or military operations is known as personnel tempo (PERSTEMPO). The increase in unit and individual deployments, the increase in joint training exercises, and the reduction-in-force structure continued to increase PERSTEMPO. The number of soldiers deployed operationally on any given day in FY 1997 averaged 31,316, assigned to 79 countries and constituting 6 percent of the active Army. In addition, 120,000 soldiers remained stationed outside of the continental United States (CONUS), a number which had stabilized after the drawdown except for the personnel stationed in Bosnia. During FY 1997, PERSTEMPO was 180 days or more for personnel in U.S. Army, Europe (USAREUR), while the Army's goal was 120 days. By maximizing the use of simulations and simulators, as well as realigning the time spent training at home station versus major training area deployments, the Army strove to reach its PERSTEMPO goal. The Army divided PERSTEMPO into deployment tempo (DEPTEMPO) and skill tempo (SKILLTEMPO). Although the Office of the Deputy Chief of Staff for Personnel (ODCSPER) acquired proponency for SKILLTEMPO, the Office of the Deputy Chief of Staff for Operations retained responsibility for the overall PERSTEMPO program. DEPTEMPO referred to the amount of time units spent in overnight training and operational deployments, while SKILLTEMPO referred to the time spent by individuals on operational deployments away from home station by MOS (military occupational specialty) and skill level. To decrease PERSTEMPO, the Army initiated force management

options and, in particular, worked with the Department of Defense (DOD) to manage force requirements in response to contingency operations.

In addition to operational deployments, the deputy chief of staff for personnel (DCSPER) authorized 18,724 permanent changes of station (PCS), costing about $192 million, in FY 1997. The authority to approve breaks in an assignment was delegated to the chiefs of the Career Management Divisions in ODCSPER. Division chiefs were given the authority to approve a break in a CONUS tour, as long as a service member had served at least twenty-four months in the assignment, and authority to curtail an overseas tour for up to ninety days before the DEROS (date of estimated return from overseas). A funding shortage for approved PCS moves required an additional allocation of $7 million from the DCSPER. Within USAREUR, 400 operational moves with changes in DEROS were approved, while 100 operational moves with no change in DEROS were approved.

Enlisted Personnel

Trends in enlistment propensity, reported annually to the president and Congress, provide an important tool for the military services in predicting the future demographics of their service members, adjusting their recruiting methods, and making changes to the military lifestyle. The young male's propensity to enlist in the Army decreased significantly from FY 1991 to FY 1992 by 23.5 percent, and then remained stable at about 12 percent, while the young female's propensity to enlist remained at about 6 percent. Recruiting young people, however, was made more difficult by a strong economy, higher college attendance, and increased job opportunities in the civilian marketplace. Compared with FY 1996, the number of persons age 16 to 21 who said in 1997 that they would definitely join the Army decreased among African American and Hispanic males and females, rose among white males, and stayed the same for white females. *Table 9* shows the most recent trends.

Table 9—Propensity to Enlist in the Army, Fiscal Years 1996 and 1997

	Fiscal Year 1996 Males (Percent)	Fiscal Year 1997 Males (Percent)	Fiscal Year 1996 Females (Percent)	Fiscal Year 1997 Females (Percent)
White	8	9	3	3
African American	18	16	13	11
Hispanic	22	18	11	9
Total	12	11	6	5

Of those individuals who said they would join the Army, one-third intended to do so for the educational funding for college that they would receive. For one-fourth of the men and one-sixth of the women, the catalyst to enlist was for the job training and experience. A dislike of the military lifestyle was the primary reason given by one-sixth of the men and one-fifth of the women who did not plan to join the Army. Of the rest who did not intend to enlist in the Army, their reasons were evenly divided among other career interests; family obligations; and perceptions that the military required too long a commitment, was against their beliefs, or was too dangerous.

Adding to these recruiting difficulties, the completion of the post–Cold War drawdown required the Army to reverse the policy of decreased accessions that had operated through FY 1996. Reinstating its pre-drawdown policy of replacing enlistment losses one-for-one, the service set its accession requirement for FY 1997 at 89,700 enlistments, up 22 percent from actual enlistments in FY 1996. At the beginning of FY 1997, only 31.2 percent of this goal, rather than an anticipated 35 percent, was met through the Delayed Entry program. In seeking to meet its recruiting challenge, the Army assigned more recruiters, increased its advertising budget and the enlistment bonus for some fields, and raised Army College Fund benefits. Even with all these efforts, however, only a fourth-quarter reduction of seventy-seven hundred in the recruiting objective enabled the service to consider the recruiting year a success. *Table 10* indicates the increase in accessions for FYs 1995–97.

Table 10—Active Army Accessions, Fiscal Years 1995–1997

	Fiscal Year 1995	Fiscal Year 1996	Fiscal Year 1997
Accessions	62,931	73,418	83,469

The active Army and the USAR met their goals for the quality of their NPS accessions. The Army imposed a goal on itself from FY 1991 through FY 1996 that at least 95 percent of its accessions would be high school graduates, even though DOD's standard remained at 90 percent for each military service. In FY 1997, owing to recruiting difficulties, the Army reduced its goal to 90 percent. Of the FY 1997 active Army NPS accessions, 90 percent had high school diplomas, so the Army met its goal. The USAR attained 98 percent of its accession goal of 47,935, with 95 percent of its NPS accessions possessing high school diplomas. Exceeding its accession goal of 59,262 soldiers, ARNG reported that, although only about 83 percent of its NPS accessions held high school diplomas, another 17 percent achieved alternate diplomas after enlistment. The Army's goals and accessions of NPS recruits for FYs 1995–97 are shown in *Table 11*.

Table 11—Nonprior Service (NPS) Accessions, Fiscal Years (FY) 1995–1997

Army Component		Total NPS Accessions	High School Diploma Graduates: Goal (Percent)	High School Diploma Graduates: Actual (Percent)
Active Army	FY 1995	57,300	95	95.6
	FY 1996	70,400	95	95.2
	FY 1997	75,000	90	90.0
National Guard	FY 1995	21,000	95	81.9
	FY 1996	24,000	95	82.3
	FY 1997	28,000	90	82.7
Army Reserve	FY 1995	19,000	95	95.2
	FY 1996	19,000	95	95.2
	FY 1997	18,000	90	93.6

To maintain the highest quality of accessions possible in FY 1997, the Army hoped to draw 67 percent of its recruits from those who scored in the highest categories on the Army Services Vocational Aptitude Battery (ASVAB) and to limit to 2 percent of its recruits those who scored in the lowest category. All Army components met the goal of having 2 percent or fewer of their accessions scoring in the lowest ASVAB category. ARNG continued to have difficulty meeting its goal for recruits scoring in the highest categories, while USAR's percentage in those categories dropped precipitously. *Table 12* depicts the ASVAB goals and accessions for FYs 1995–97.

Table 12—Army Services Vocational Aptitude Battery (ASVAB) Goals and Accessions, Fiscal Years (FY) 1995–1997

Army Component		Highest *Categories Goal (Percent)	Highest Categories Actual (Percent)	Lowest Category Goal (Percent)	Lowest Category Actual (Percent)
Active Army	(FY 1995)	67	69.4	2	1.7
	(FY 1996)	67	67.4	2	1.3
	(FY 1997)	67	68.0	2	1.9
Army Reserve	(FY 1995)	67	75.0	2	2.0
	(FY 1996)	67	73.6	2	2.0
	(FY 1997)	67	67.0	2	2.0
National Guard	(FY 1995)	62	54.1	2	2.2
	(FY 1996)	65	55.6	2	1.7
	(FY 1997)	67	55.4	2	1.8

*Scoring on the Army Services Vocational Aptitude Battery

Promoting high-quality soldiers is essential to maintaining an appropriate grade structure in the Army, as well as recognizing individuals capable of performing at the next higher grade. After promotion boards have selected the soldiers to be promoted to the senior enlisted ranks of sergeant first class, master sergeant, and sergeant major, promotion lists are established. Each month, DA identifies the number of soldiers from the lists that will be promoted within each MOS and grade. The DA also selects the soldiers to be promoted in the ranks of sergeant and staff sergeant, posts their names on the Total Army Data Base, and determines when each will be promoted based upon a competitive scoring system. During FY 1997, 52,604 enlisted soldiers were selected for promotion to or within the noncommissioned officer corps in the ranks of sergeant to sergeant major, representing 12.8 percent of the total enlisted strength, a substantial increase since FY 1996 when 11 percent of the enlisted force was so promoted. *Table 13* shows the number of enlisted personnel promoted to each noncommissioned officer rank during FYs 1996 and 1997.

Table 13—Promotions to Noncommissioned Officer Corps Ranks, Fiscal Years 1996 and 1997

Rank	Fiscal Year 1996	Fiscal Year 1997
Sergeant Major	535	660
Master Sergeant	3,350	2,550
Sergeant First Class	8,550	6,440
Staff Sergeant	10,878	13,501
Sergeant	21,922	29,453
Total	45,235	52,604

Because unprogrammed losses were expected to create a potential shortage in end strength, several reenlistment policy changes were made in FY 1997 to retain quality soldiers. The Army concentrated its efforts during the second quarter of FY 1997 on those soldiers whose ETS (estimated time of separation) was in FY 1997. Before FY 1997, a soldier had to reenlist within ninety days of the ETS; this requirement was eliminated for those soldiers whose separation date was in FY 1997. In another change, soldiers who reenlisted, rather than being required to move to another installation, were permitted to remain on the same installation as long as they were reassigned to a different major command (MACOM) on that installation. In addition, soldiers were permitted to reenlist up to twelve months before their ETS as opposed to eight months, allowing them to make their decisions earlier. In the past, initial-term soldiers barred from

reenlisting had been allowed to request voluntary separation from the Army, but this option was eliminated in FY 1997. Finally, the Army lengthened the amount of time that a soldier could serve on active duty without being promoted to ten years from eight for the rank of specialist and to fifteen years from thirteen for the rank of sergeant.

Through the Selective Reenlistment Bonus Program, which is a monetary incentive offered to qualified soldiers who reenlist in the Regular Army for continued duty in selected specialties, the Army aims to increase reenlistments in critical MOSs that have inadequate strength levels and retention levels. Periodically, the Army analyzes each MOS and readjusts the list of MOSs for which bonus monies are paid. The Selective Reenlistment Bonus Program budget was increased from $22.5 million in FY 1996 to $29.6 million in FY 1997. This enabled the Army to offer bonuses for thirteen new MOSs and increase the entitlements for four MOSs. At the end of FY 1997, the Army was offering a Selective Reenlistment Bonus for 22 combat, 31 combat support, and 25 combat service support MOSs.

Although the Army did not quite meet its goal of reenlisting 80,000 soldiers in FY 1997, it did reenlist 79,564 soldiers, achieving 99.5 percent of its goal. The 24,312 initial-term and 30,209 mid-career soldiers who reenlisted represented a reenlistment rate that equaled 101.6 percent of the initial-term and 101.7 percent of the mid-career goals. The Army fell short of its goal with career soldiers, of whom only 25,043 reenlisted, representing 95.1 percent of the goal. Because of enhanced advertising, the near completion of the drawdown, and concerned leadership, reenlistment rates have remained about 10 percent above historic levels, especially among initial-term soldiers. Reenlistment rates among mid-career soldiers returned to levels that existed before the drawdown. As a further indication of the quality of Army soldiers and future leaders, nearly 82 percent of initial-term soldiers who reenlisted had general technical scores above 100. The reenlistment rates for initial-term soldiers in FYs 1995–97are given in *Table 14*.

Table 14—Initial-Term Reenlistment Rates, Fiscal Years 1995-1997

Personnel	Fiscal Year 1995	Fiscal Year 1996	Fiscal Year 1997
Eligible to Reenlist	43,757	45,405	45,787
Reenlisted	19,960	21,107	24,312
Reenlisted (Percent)	45.6	45.5	53.2

To maintain the right mix of specialties and ranks, the Army had several programs designed to manage losses of its enlisted personnel.

During FY 1997, the Voluntary Separation Incentive Program was not offered. A small Early Retirement Program provided for the release of 1,015 enlisted personnel based on their basic active service date, grade, and, in some cases, MOS.

Personnel readiness continued to be affected negatively by enlisted reassignment no-shows, soldiers who were expected to arrive at gaining units in response to published orders but were sometimes deferred or removed from the assignment. Reducing no-shows would increase morale, improve the budgeting process, and enhance efficiency. A new definition of no-shows devised in FY 1996 improved personnel readiness reporting. Reassignment procedures at the installation level were tightened, and management reports tracking no-shows by name were created. The CSA tasked the commander of the U.S. Total Army Personnel Commamd (PERSCOM) to provide a quarterly update on MACOM and installation progress in reducing no-shows. As a result of these new procedures, quarterly no-show rates in FY 1997 declined from 24 percent in the first quarter to 18 percent in the second, 15 percent in the third, and 13 percent in the fourth. In August 1997 the CSA directed that the no-show goal for FY 1998 would be 10 percent, with a transition goal of 13 percent in the first quarter.

One of the factors affecting reassignment no-shows was the Declination of Continued Service Statement. Soldiers were required to receive counseling from the Personnel Service Battalion before their reenlistment date to help them decide whether to reenlist or leave the Army. If the soldier decided to separate, a Declination of Continued Service Statement was forwarded by the counselor to the commander. After the commander approved the statement, it was returned to the counselor, who forwarded it to the Personnel Service Battalion. This process took more than sixty days to complete, resulting in reassignment no-shows because soldiers who were separating from the service were still listed on orders to new units. To streamline the process and make it timelier, PERSCOM directed that new procedures be tested at Fort Hood, Texas, during the second half of FY 1997. Career counselors became the approving authority for the statement, the processing time was reduced to five working days, and reenlistments increased. Moreover, the number of no-shows attributed to the lack of a timely Declination of Continued Service Statement dropped to zero. The new procedures will be implemented in all CONUS installations in October 1998.

When soldiers lose their skill qualifications or units experience reorganization, shortages or excesses in particular MOSs result, creating an imbalance in personnel resources. Reclassifying soldiers is a possibility but not allowed if a soldier is not qualified for the new specialty, training is not available, the new MOS is full, the old MOS has a shortage, or the soldier provided an incomplete request. In addition,

the field reclassification authority sometimes fails to perform eligibility processing. During FY 1997 a total of 3,621 reclassification requests were processed, almost half the number submitted in FY 1996, with 66 percent of them disapproved. About two–thirds of the requests were voluntary. The system used for reclassification processing, RETAIN, was enhanced in FY 1997 using feedback from the field. Voluntary reclassification requests could be submitted electronically via RETAIN to PERSCOM, with decisions provided electronically to units. This reduced the processing time for such requests from forty-five to ten days and increased the percentage of approvals.

Officer Personnel

Tto improve the quality of its soldiers and their quality of life, the Officer Personnel Management Directorate (OPMD) revised some of its procedures in FY 1997. It reduced the number of requisition cycles—the periods in which it identified personnel to fill Army assignments—from six to four and realigned the cycles throughout the year to decrease volatility in officer assignments. This created fewer mismatched assignments and reduced the amount of turbulence experienced in the officer corps. In addition, the number of officers required to relocate during the non-summer decreased, which improved the morale of families. To reduce the constant shortage of branch-qualified captains, OPMD decided in FY 1997 to decrease the number of authorized positions in which they were required, although this solution is still awaiting approval. In the meantime, OPMD studied life-cycle development, mission requirements, production, promotion potential, and the culture of the Army to increase the number of branch-qualified captains.

Despite its efforts, the Army experienced a shortage of 995 officers in FY 1997, a larger deficiency than the 667 officers it was short in FY 1996. The Army's end strength at the close of the fiscal year was 79,305, although it had planned to reach a goal of 80,300 officers. Of all Army officers, commissioned officers composed 67,555, short of the goal of 68,500 by 945; warrant officers totaled 11,750, fewer than the goal of 11,800 by 50 persons. The most significant decreases were among first lieutenants, captains, majors, and the two lowest warrant officer ranks, as junior officers left the Army at rates higher than projected because of an improved civilian job market, increased operational deployments, and multiple assignments overseas. The grade distribution of active Army officers in FYs 1996 and 1997 is depicted in *Table 15*.

Table 15—Fiscal Year 1996-97 Active Army Officer Personnel

Rank	Fiscal Year 1996	Fiscal Year 1997
General	13	11
Lieutenant General	38	43
Major General	101	101
Brigadier General	151	146
Colonel	3,623	3,599
Lieutenant Colonel	9,037	9,065
Major	13,631	13,196
Captain	23,984	23,390
First Lieutenant	9,037	8,783
Second Lieutenant	9,047	9,221
Total Commissioned Officers	68,662	67,555
Chief Warrant Officer, W-5	367	349
Chief Warrant Officer, W-4	1,296	1,311
Chief Warrant Officer, W-3	3,005	3,072
Chief Warrant Officer, W-2	5,390	5,244
Warrant Officer, W-1	1,912	1,774
Total Warrant Officers	11,970	11,750
Total Officers	80,632	79,305

Although the Army did not meet its goal for the number of officers in the corps, it did exceed the number of planned accessions for officers. *Table 16* indicates the number of officer accessions required for a balanced corps and the number the Army actually acquired during FYs 1995–97.

Table 16—Officer Accessions, Fiscal Years 1995–1997

	Fiscal Year 1995	Fiscal Year 1996	Fiscal Year 1997
Planned	5,881	5,334	5,552
Actual	5,840	5,212	5,560

Table 17 is a summary of FY 1997 officer accessions by source and category.

For the class of 2001, USMA processed 4,153 congressional nominations, almost 500 fewer than in FY 1996. West Point proffered appointments to 1,676 candidates, and a class of 1,196 cadets entered the institution in June 1997. The Reserve Officers Training Corps' Selection and Branching Board reviewed 3,814 cadet files and selected 3,259 for active duty, assigning each

to a basic branch. Two selection boards chose 404 from the approximately 1,005 soldiers who applied to attend Officer Candidate School.

Table 17—Active Army Officer Accessions, Fiscal Year 1997

Source of Commission	Army Competitive Category	Army Medical Department	Judge Advocate General	Chaplain	Total
Military Academy	893	23	0	0	916
Reserve Officer Training Corps	2,695	514	32	0	3,241
Officer Candidate School	342	9	0	1	352
Army Recruiting Command	182	1,047	87	93	1,409
Warrant Officers	888	0	0	0	888
Total	5,000	1,593	119	94	6,806

A constrained budget precluded the convening of any selection boards in FY 1997 for the Call to Active Duty programs, another means by which the Army acquires officers. Any applicants possessing critical skills were reviewed on an individual basis as exceptions to policy. The Army also has programs to recall soldiers from retirement; to select individuals to serve on the Retiree Council for five days; to mobilize Judge Advocate Corps reservists for active duty tours; and to bring reservists to active duty for three years to serve on the Physical Disability Evaluation Board. Of the forty-nine commissioned officers considered for any of these programs, twenty-six went on active duty in FY 1997, while eighteen of the forty-four warrant officers whose records were reviewed were approved for active service. Fifteen officers requested interservice transfers—four into and eleven out of the Army, with one and four, respectively, approved. Nearly all of the applications from graduates of other military academies were approved for cross-commissioning in the Army. Three graduates of the U.S. Air Force Academy, two from the U.S. Naval Academy, and three from the U.S. Merchant Marine Academy entered as Army officers in FY 1997.

To ensure that Army officers were promoted on a fair and regular basis, implementation of the Defense Officer Personnel Management Act (DOPMA) continued during FY 1997. Goals for selection rate and length of time for promotion in the basic branches were met, except for the selection rates to lieutenant colonel and colonel and the length of time for promotion to major. The officers in the year groups under consideration

for lieutenant colonel and colonel had not been subjected to a drawdown, so the size of the year groups was larger than usual, and their promotion rates correspondingly decreased. Although the DOPMA goal for time until promotion to major was not met, the Army is expected to decrease the length of time for promotion to that grade over the next two or three years. The actual selection rates against the DOPMA goal and the length of time in service for promotion versus the DOPMA goal are given in *Table 18*.

Table 18—Officer Promotion Rates, Fiscal Year 1997

Rank	Selection Rate (Percent)	*DOPMA Goal (Percent)	Time until Promotion	DOPMA Goal
Colonel	45.24	50	22 years, 8 months	22 years, +/- 1 year
Lieutenant Colonel	65.64	70	16 years, 9 months	16 years, +/- 1 year
Major	80.78	80	11 years, 5 months	10 years, +/- 1 year
Captain	101.13	95	4 years, 0 months	3.5 years, +/- 1 year

*Defense Officer Personnel Management Act

One of the Army's initiatives to ensure that a high quality of leadership exists in installation management is a centralized selection system for garrison commanders. Command selection boards now select garrison commanders in a process that makes these positions competitive with those of troop commanders. To obtain trained and capable future garrison leaders, the Army Management Staff College has trained nearly 100 new garrison commanders in the garrison precommand course and nearly 40 installation commanders in the general officer installation course. In addition, the CSA approved a pilot program, under the auspices of the assistant chief of staff for installation management for six garrison commanders to work with local city managements before assuming command. Commanders at Fort Hood, Texas; Fort Carson, Colorado; Fort Benning, Georgia; Fort Jackson, South Carolina; Aberdeen Proving Ground, Maryland; and Fort Lewis, Washington, gained the opportunity to confront complex issues and acquire new tools.

To better manage the graduates from senior service colleges, the Army revised its assignment procedures during the year. More than eight hundred officers from the Army, Navy, and Air Force Command and General Staff colleges were slated to fill branch-qualifying and other key Army positions in MACOMs and Army agencies. In FY 1997, fifty-two graduates from the Advanced Military Studies Program were assigned to MACOMs in CONUS and overseas in accordance with Army guidance. OPMD developed a Senior

Service College Distribution Plan for over 300 senior field-grade officers and revised its assignment procedures for former battalion commanders. Officers stationed at Fort Hood were stabilized in their assignments to assist in the March 1997 Advanced Warfighting Experiment.

Other changes in PERSCOM were instituted to improve officer personnel management. In managing the 10,500 combat service support officers in the Army, OPMD significantly changed assignment options for its branch-qualified captains as a result of the drawdown. An increasing number of such officers were assigned as company commanders in the U.S. Army Recruiting Command or as assistant professors of military science at civilian universities. In addition, with the dissolution of the Colonels' Division, branch chiefs became responsible for assigning colonels in their branches. Finally, in late summer 1997, OPMD developed an Assignment Officer's Certification Program that included mandatory automation training, a newcomer's orientation, and an off-site training session for all officers who had been assigned to PERSCOM for less than twelve months.

The officer evaluation report (OER) that had been in place for nineteen years had experienced serious inflation over the years, and the Army determined that a revision would improve officer personnel management. In FY 1996, employing feedback from officers, the Army devised a new OER system with several basic elements: a stronger support form, the tool with which officers list the contributions they have made during the reporting period; a Junior Officer Development Support Form; a provision for disregarding OERs of second lieutenants in the future; improved administrative and rater parts; and a new managed-profile technique to ensure that senior raters do not inflate reports. The CSA approved the new OER in March 1997 and directed its implementation beginning 1 October 1997. Six briefing teams traveled to 77 CONUS installations, 35 overseas installations, and 87 organizations in the National Capital Region and briefed 45,000 officers on the new OER. Although the teams reported some anxiety about the new OER on the part of officers in the field, the officer corps fully supported the new system. In addition, a video and a CD–ROM of the briefing were sent to all brigades and separate battalions. In August and September 1997 the Army sent 110,000 copies of the new OER regulation and forms, with an instructional guide, to officers and installations. Before the new OER was implemented, all officers had the opportunity to receive a final OER under the old system; and 56,000 such reports were created.

Congress provided another means for improving the quality of the officer corps. Recognizing that military operations had become joint in nature, Congress required each of the military services to develop officers with an understanding of other services and their role in joint operations. The Goldwater-Nichols Department of Defense Reorganization Act of

1986 made service in a joint duty assignment (JDA) essential for a military officer to be promoted to general or flag officer rank. An officer would be designated a joint specialty officer (JSO) after completion of joint professional military education (JPME), scheduled in two phases, and a JDA. Although DOD designated similar numbers of JSOs in FYs 1996 and 1997, the Army's number in FY 1997—202 of DOD's 504—represented a drop from 67 to 40 percent of the total. But while the number of officers designated by DOD as JSO nominees dropped precipitously from 2,356 to 1,760, the Army's portion (563) remained about one-third. Of the Army JSO nominees, 293 were designated as a result of their critical occupational skills (COS) in Infantry, Armor, Artillery, Air Defense Artillery, Aviation, Special Operations, or Combat Engineers.

Of all Army officers in FY 1997 with a COS, 1,582 officers had completed JPME, which was slightly more than the 1,566 recorded for FY 1996. A total of 1,059 officers with a COS had been designated as JSOs; 2,122 had been named JSO nominees; 1,505 officers were JSO nominees who had not completed JPME; 1,062 were JSO nominees serving in a JDA; and 6 were JSO nominees who had completed a JDA and were currently attending JPME. The number of JSOs with COSs who had already served or were serving in a second joint assignment increased from FY 1996 to FY 1997. Of field-grade officers, 198 had already served in a second joint assignment, of which 69 were critical joint positions, and 158 were currently serving in a second joint assignment, of which 76 were identified as critical joint positions. Nineteen general officers had already served in a second joint assignment, with 10 in a critical joint position, and 12 general officers were currently serving in a second joint assignment, with8 filling critical joint positions.

After being designated JSOs, Army officers in FY 1997 received first assignments as follows: 82 to command positions; 12 to Headquarters, Department of the Army; 1 to a critical Joint Staff position; 3 to other Joint Staff positions; 8 to other critical JDA positions; 29 to other JDA positions; 4 to PME (professional military education) positions; 25 to other operations; and 28 to other staffs. For general officers, the length of a JDA tour averaged 25.5 months, while field-grade officers remained in their positions for an average of 33.7 months. In FY 1997, nearly twice as many officers as in FY 1996 were unable to fulfill the normal JDA tour length of 36 months because of a new JDA assignment overseas, a COS reassignment, or retirement. A total of 1,004 officers were unable to serve 36 months in a JDA assignment in FY 1997, compared with 516 officers in FY 1996. At the end of FY 1996, 34.9 percent of all DOD JDA positions were filled by 3,241 Army officers.

Because of the stringent criteria required to designate an officer as a JSO, waivers were often needed for various reasons. The 1,393 waivers

awarded to field-grade officers in FY 1997 were significantly fewer than the 1,847 permitted in FY 1996, while the 169 given to general officers in FY 1997 were almost equal to the 167 awarded in FY 1996. For departing a JDA position, 1,098 field-grade and 33 general officers received waivers, while another 76 field-grade and 48 general officers had their minimum JDA tour lengths waived. An additional 202 field-grade officers received waivers for JSO designation, and 46 officers received waivers because they were promoted to general officer rank. Of the 270 Army officers who graduated from the JPME Phase II at the Armed Forces Staff College in FY 1997, 20 percent had not completed the resident PME Phase I, while 20 percent had completed the nonresident PME Phase I. Promotion rates for joint officers remained much higher than the board average for the Army competitive category in FY 1997. For various types of assignments, the FY 1997 active Army joint officer promotion rates by rank are compared with the board average in *Table 19*.

Table 19—Active Army Joint Officer Promotion Rates, Fiscal Year 1997

Assignment	Major General	Brigadier General	Colonel	Lieutenant Colonel	Major
Joint Staff	80	10	53	88	—
Joint Specialty Officer	50	2	59	100	—
Service Headquarters	75	2	45	75	92
Other Joint Positions	67	3	33	64	86
Board Average	49	3	39	60	74

Army officers who served in the Acquisition Corps were also a source of special attention. DOD continued to implement the Defense Acquisition Workforce Improvement Act (DAWIA) in FY 1997 in an effort to improve its management of the acquisition workforce. The DAWIA permitted only Acquisition Corps members to hold critical acquisition positions (CAP). A total of 5,304 CAPs in the Army were occupied by lieutenant colonels, colonels, general officers, and civilians in the grades of GS–14 and GS–15 and in the Senior Executive Service. Civilians filled 4,549 of these CAPs, while military personnel served in 755. Systems planning, research, and development CAPs required the skills of nearly half of the civilians, with 2,359 assigned. The greatest concentration of military service members, 463, was in acquisition management. The number of personnel in the Acquisition Corps in FY 1997 was 5,234, both military and civilian, with the largest number working in systems planning, research, development, and engineering, and the next highest grouping in program management.

As with JSOs, members of the Acquisition Corps sometimes needed waivers to certain requirements. A total of 504 received exceptions to the

educational requirements in FY 1997, with all but one granted on the basis of the applicant possessing ten years of acquisition experience, while one was granted for passing an exam. During FY 1997 a total of 1,227 Army personnel participated in acquisition education, with 975 funded through the DOD Tuition Reimbursement Program and the remaining 252 serving as interns. No individuals required certification by an Acquisition Career Program Board in FY 1997 in lieu of a baccalaureate degree, continuing the Acquisition Corps pursuit of excellence in its members.

Army acquisition program managers (PM) were required to serve minimum tour lengths, usually four years, in a manner similar to JSOs. During FY 1997 the average length of assignment for PMs was thirty-eight months, which did not meet the Army's goal. Of the five PMs who were reassigned during the fiscal year, three had served their full term and two had not. The Army also granted waivers or exceptions to other acquisition workforce personnel in FY 1997. Of the fifty-eight granted, forty-nine were for humanitarian reassignments or discharges, and the remainder for reassignment in the government's interest, promotion, or selection to general officer.

During FY 1996, the promotion rate for Army officers in the Acquisition Corps was consistently higher than in the Army competitive category (all Army officers except those who belong to specialty corps), except to the rank of lieutenant colonel. Promotions to lieutenant colonel in the Acquisition Corps advanced beyond the Army competitive category rate in FY 1997, but the promotion rate to colonel for Acquisition Corps members dropped considerably, from 47.2 percent in FY 1996 to 31.7 percent in FY 1997, which was significantly below the Army competitive category rate of 42.2 percent. In addition, the differences in promotion rates for general officers lessened from FY 1996 to FY 1997. The promotion rates of active Army officers in the Acquisition Corps and in the Army competitive category are in *Table 20*.

Table 20—Active Army Officer Promotion Rates, Fiscal Year 1997

Rank	Acquisition Corps (Percent)	Army Competitive (Percent)
Major General	50.0	46.1
Brigadier General	1.9	1.8
Colonel	31.7	42.2
Lieutenant Colonel	62.5	59.9

Civilian Personnel

The Total Army relies on highly qualified and motivated civilians to provide administrative, logistical, and base support, particularly in depot maintenance, supply, acquisition, transportation, training, medical care, research and development, engineering, and facilities programs, allowing military forces to train and conduct combat operations. In addition, civilians possess many critical skills often needed during operational deployments. As the drawdown has taken place, civilian personnel working for the Army have acquired a greater responsibility in contributing to the Army's mission. To ensure that the continued decrease in personnel did not negatively affect efficiency and effectiveness, the Army Civilian Personnel Administration/Management Strategic Plan for FYs 1997 and 1998 was developed. The plan provided a framework for creating programs, policies, automated systems, and management philosophies that would help leaders manage the civilian workforce better. In addition, civilian workforce issues would be integrated more fully into the Army's planning and programming process. Civilian personnel systems were being redesigned to make them more mission-oriented, flexible, cost-effective, results-oriented, and performance-based. Performance measures and objectives were established to assess programs already in place.

To develop a civilian personnel system that will support Force XXI and the Army After Next, the Civilian Personnel Management XXI concept plan was created. Under this plan, the Army reviewed civilian personnel authorities and requirements to determine the lowest level to which they could be delegated. In several cases, the local commander was delegated to exercise a particular authority and was further permitted to redelegate all or part of the authority. Local commanders would be given authority to approve position classification without the requirement for concurrent budget authority; regularly scheduled standby duty pay; annual premium pay for excess administrative work; training agreements; advanced-in-hire rates; conversion of positions to the competitive service; submission of waiver requests for air traffic controllers; and reports of Intergovernmental Personnel Act agreements. MACOM commanders would receive authority to approve training plans and agreements for accelerated promotions. Civilian Personnel Management XXI will be staffed formally during FY 1998.

The civilian workforce, along with military forces, has declined steadily in numbers throughout the drawdown, dropping 37 percent during FYs 1989–97. To fulfill the QDR requirement for the civilian workforce to reach 202,300, the Army planned in FY 1997 to reduce the number of civilians by 6,000 persons in FY 1998; 8,000 in FY 1999; and another 8,000 in FY 2000 to reach 216,000, a 47 percent reduction since FY

1989. Accomplishing these reductions will continue to occur through the Voluntary Early Retirement Authority and available separation incentives. Fewer than 4,500 civilians have been involuntarily separated since FY 1989. The Army will focus on outsourcing and privatization to further reduce the number of civilians in accordance with the QDR. Other reductions have occurred through transfer of functions to non-Army organizations, downsizing, efficiency initiatives, base closures and consolidations, reengineering initiatives, and reevaluation of workloads.

To adapt to the decreased resources specified in the National Performance Review, DOD directed the military services in November 1993 to eliminate full-service civilian personnel offices on-site and to switch to a regionalized civilian personnel service system by FY 1999. Through this process, the number of personnel supported by each employee in the civilian personnel field will increase to 88 in FY 1998 and to 100 after FY 2001. During FY 1997, the number of civilian personnel administrative employees decreased from 4,624 to 4,365, a 40 percent decline from 7,248 personnel in FY 1990. The Army redesigned its civilian personnel offices to establish regional civilian personnel operations centers (CPOC), achieving economies of scale by providing services that did not require the physical presence of clients. Small staffs remained on-site to serve as part of a management team and advise commanders.

The CPOC plan was devised to include seven geographically based regions in CONUS and three overseas. CPOCs in Seckenheim, Germany (Europe Region), and Fort Belvoir (National Capital Region) were fully operational in FY 1996, while those at Fort Benning (Southeast Region), Aberdeen Proving Ground (Northeast Region), and Fort Riley, Kansas (Southwest Region), which were opened and began initial operations in FY 1996, became fully operational in FY 1997. Additional CPOCs were opened in Taegu, South Korea (Korea Region), and Fort Richardson, Alaska (Pacific Region), in FY 1997 and were fully operational by the end of the fiscal year. Two CPOCs began initial operations in FY 1997 at Rock Island Arsenal (North Central Region) and Redstone Arsenal (South Central Region) and were scheduled to be fully operational by September 1998. Fort Huachuca, Arizona (West Region), was selected in September 1997 as the tenth CPOC location and will begin regionalized operations in March 1998.

Approximately 80 percent of all civilian personnel were being served by a regionalized CPOC at the end of FY 1997. The reduction of personnel specialist positions and the requirement to regionalize before automated systems and tools were fully implemented caused some problems, providing a poor perception of and adversely affecting customer service, but the Army has taken steps to implement corrective action. Because regionalization changed procedures that had been in place for fifty years,

the Army dedicated significant resources to reassure customers, enhance the image of CPOCs, eliminate backlogs, and improve services. To oversee and manage the daily operations of all CPOCs in CONUS and to provide guidance for all CPOCs, the Army established the U.S. Army Civilian Personnel Operations Center Management Agency at Aberdeen Proving Ground in July 1997. The Army Center for Human Resource Management was realigned under this umbrella organization. In addition, the Army chose to regionalize training for civilian personnel administrators, establishing Classroom XXI facilities with the latest training equipment at each CPOC.

The Army continued to provide programs to develop civilian leaders. In April 1997 DOD established the Defense Leadership and Management Program. This new initiative is expected to prepare, certify, and continuously educate civilians to create a highly capable, diverse, and mobile population of senior leaders who can work throughout DOD. The first competitive selection process for entry into the program was announced in August 1997. In another initiative, the Army conducted a thorough assessment of its Army civilian leadership training in FY 1997 with funding from the Office of the Assistant Secretary of the Army for Manpower and Reserve Affairs. The Training and Doctrine Command (TRADOC) assessed the effectiveness of the Civilian Common Core Leadership Training Program by examining all training to determine whether correct competencies were being taught and to identify gaps or areas that overlapped. Upon completion of the study, TRADOC reported that, although civilian leadership training was an effective and progressive program, it required some improvement. A working group developed a strategy of short- and long-term solutions to ensure the continued professional growth and development of Army civilians.

Incorporating the newest technology, the Army made extensive improvements to Civilian Personnel On-Line, a worldwide website dedicated to civilian personnel administration. A new Personnel Management Information and Support System provided a better search capability, while a Civilian Personnel Regulatory Library offered regulations, pamphlets, policies, and guidance. The site also included a regionalization site with information on CPOCs and modernization issues. To ease application for training, the *FY 98 Catalog of Army Civilian Training, Education, and Professional Development Opportunities* was posted online, with the required forms. The inclusion of a vacancy announcement system allowed civilians immediate access to information on available jobs throughout the Army. In addition, the Army created an Online Position Description Library that consisted of a database of standardized position descriptions. When downloaded and used in personnel actions without being edited, these position descriptions reduced processing time. During FY 1997, sixty-four hundred position

descriptions were approved for use throughout the Army and fifteen hundred more were awaiting MACOM approval.

Army civilians have become an increasingly important element in supporting operational deployments. More than 28,000 civilians were stationed in other countries during FY 1997. On any given day, more than 600 were deployed in support of military operations on a worldwide basis. Nevertheless, the number of civilians providing direct support to military operations declined by 3,000 during FY 1997. Approximately two hundred civilians deployed in support of Operation JOINT GUARD. At the same time, the demographics of Army civilians changed from an average 43-year-old with 13.5 years of service in FY 1989 to a 45.6-year-old with 16.2 years of service in FY 1997. Civilian personnel who were eligible for retirement at the end of FY 1996 numbered 14,369, or 6 percent of the civilian workforce.

Special Topics

The Army strives to ensure equal opportunity and fairness for soldiers and their families based on merit, fitness, capability, and potential, regardless of race, color, gender, national origin, or religion, and to provide an environment free of harassment. In securing this goal, the Army's primary challenge is to place the required number of equal opportunity personnel in the field and to restore trust and confidence in the equal opportunity system. Recognizing that discrimination negatively affects unit cohesion and the individual soldier, the Army developed a mandatory command climate survey for company commanders so that they could more easily assess the equal opportunity environment within their units. The Army has also developed a new survey tool that focuses exclusively on equal opportunity. In Army programs and administrative tools, the Army has emphasized leadership and training to improve equal opportunity.

To teach cadets how to become leaders who treat others with dignity and respect, USMA developed a human relations program called Respect for Others. The Military District of Washington (MDW) adopted the program and introduced it at the installation level as the Consideration for Others program in early 1997. In April 1997 the CSA directed that the MDW program be used as a model and implemented throughout the Army as a component of Character Development XXI. The goal of the program was to foster a positive command climate, eliminate all forms of harassment and discrimination, and develop a more respectful culture in which to work.

A revised Army regulation requires MACOMs to develop a training and development plan for equal opportunity personnel and to place them on the personal staff of commanders. The number of equal opportunity

advisors, about 350 in FY 1997, will be increased to 500 by May 1999, and their rank will also be increased. The regulation further requires that interactive training on the prevention of sexual harassment take place in small groups twice each year and command climate assessments be conducted annually and within ninety days of a change of command. In other changes, the regulation set guidelines to eliminate or reduce reprisals against complainants, witnesses, and alleged perpetrators before, during, and after investigations.

The Army periodically conducts a Sample Survey of Military Personnel to track soldier attitudes toward, and experiences with, discrimination and sexual harassment. While 24.9 percent of all female soldiers reported encountering some sexual harassment in spring 1995, this percentage declined to 21.4 in spring 1997. Of female officers, who traditionally experience fewer episodes of sexual harassment than female enlisted personnel, 17.1 percent reported sexual harassment in 1995, while only 10.9 percent did so in 1997. The percentage of all female enlisted personnel reporting sexual harassment decreased from 26.4 in 1995 to 23.5 in 1997. The Army also prepares a Military Equal Opportunity Assessment that evaluates the equal opportunity climate on a yearly basis, covering ten areas: recruiting and accessions, composition of the force, promotions, professional military education, separations, augmentation and retention, assignments, discrimination and sexual harassment complaints, utilization of skills, and discipline. Results from this annual assessment are provided to senior Army and DOD leaders. *Tables 21* and *22* show the number of sexual harassment and equal opportunity discrimination complaints, respectively, filed in the previous three calendar years and the number and percent of complaints substantiated.

Table 21—Sexual Harassment Complaints, 1994–1996

	1994	1995	1996
Complaints Filed	512	424	355
Substantiated Complaints	146	165	156
Percent Substantiated	29	39	44

Table 22—Equal Opportunity Discrimination Complaints, 1994–1996

	1994	1995	1996
Complaints Filed	691	429	615
Substantiated Complaints	165	77	110
Percent Substantiated	24	18	23

Members of Congress, particularly the Congressional Black Caucus, are concerned about any unfair treatment of minorities. Their frequent requests for demographic data on Army personnel have compelled the Army to track changes in minority demographics and equal opportunity on an ongoing basis. In February 1997 the Defense Manpower Data Center conducted a survey among all military personnel on race relations and equal opportunity; results, however, were not available as of the end of FY 1997. The Secretary of the Army's Senior Review Panel on Sexual Harassment issued recommendations in September 1997 to strengthen equal opportunity policies and programs and to improve human relations in the Army. In that same month, the Army released its Human Relations Action Plan, which detailed the tasks it would accomplish to implement the task force's recommendations.

When the Army removed its restrictions in combat aviation in 1993, women gained an additional career field. A new rule in 1994 specified that women could serve in any position not expected to engage in direct ground combat; as a result, thirty-two thousand positions became available to women. In FY 1997, however, women remained excluded from all Infantry, Armor, Special Forces, and Ranger assignments, as well as some Field Artillery and Air Defense Artillery positions. During the fiscal year, the Army studied the issues of whether to open to women positions in multiple launch rocket system units, in special operations aviation, as maneuver battalion S2s (intelligence officer), and as command sergeants major to general officers, but did not make any changes. In FY 1997 the Army had one female lieutenant general, Claudia M. Kennedy, and the first female command sergeant major to work for a three-star general. A female Army soldier also stood guard for the first time at the Tomb of the Unknown Soldier.

In an effort to prevent Army members from demonstrating racist, sexist, or extremist beliefs, the Army has identified certain tattoos as prohibited. In Army Regulation 670–1, *Wear and Appearance of Army Uniforms and Insignia*, tattoos that are exposed while in Class A uniform or that would detract from a soldierly appearance are not authorized. In Army Regulation 40–501, *Standards of Medical Fitness*, tattoos that would limit effective performance of military service are a cause to reject applicants for military service. Within these limitations, soldiers are permitted to display tattoos on exposed skin while wearing Class B or utility uniforms. Army Regulation 670–1, however, is being revised to prohibit tattoos that are offensive, vulgar, profane, sexist, gang-related, or racist, regardless of where they are located on the body. Army recruiters evaluated questionable tattoos worn by 494 applicants in FY 1997 and rejected 60 individuals for military service. At Fort Benning, Georgia, the only training center to separate soldiers from the service for illegal or objectionable tattoos, sixteen soldiers were dismissed from the Army in FY 1997. In August

1997 a Process Action Team was formed at the direction of the CSA to review uniform issues, including tattoos.

The Army worked in FY 1997 to eliminate perceived discrimination in other areas. On the basis of a review of scientific evidence and conferences with military and civilian research psychologists, the Army decided in FY 1997 to revise the Army Physical Fitness Test (APFT) standards. Minimum requirements to pass the APFT would be based on persons who scored at the 10th percentile in a study in 1996, while scores required to achieve the highest rating would be based on those in the study who had scored at the 90th percentile. The Army's goal was to establish gender equity on the APFT, in response to male soldiers who, for the twelve years' duration of the old standards, had complained that the standards for male and female soldiers were different and, therefore, not equal. Although scientific evidence had long demonstrated that the average female was not capable of performing to the same physical standards as the average male, the Army believed that women in the 1980s had improved their physical capabilities and could now perform to a higher standard. By raising the standards for women on the APFT, the Army planned to decrease the differences in standards for males and females, reflecting an equal effort by both genders.

The number of sit-ups required by males and females would be the same, with no differentiation in number based on gender. Women, who had been permitted longer periods of time in which to complete the two-mile run and who could obtain a maximum score by running slower than many men, would now be required to run the event in the same time. Female soldiers, however, would not be required to complete as many push-ups to achieve the highest score, as the 1984 standards were not established scientifically. In the new APFT, minimum standards for the two youngest age groups would not be relaxed, while new age groups would be established for those who were 26–52 years old, 57–61 years old, and more than 62 years old. "Fail, pass, badge, and max" would remain the identifiers for an individual's performance on the APFT. The Army also planned to relax selected maximum scores to enable the top 10 percent of the Army to receive a Physical Training badge—those who scored a total of 285 points out of 300 in three events and at least 90 on each event. To continue wearing the badge, a soldier must attain a similar score on each subsequent test. The Army has established a training period of one-quarter before the first new APFT is given for women to reach the more difficult standards.

Another special group that requires Army attention is the military retiree community. The Army Retiree Council meets once yearly to discuss issues of concern to the retiree community and reports on them to the CSA. The 37th meeting in 1997 was preoccupied with retiree military health care, which remained the greatest concern for all military retirees. On the basis of the promise of long-term medical care that the military

has long used to recruit and retain soldiers, the council asked that military retirees, who shouldered the heaviest and most dangerous burdens of the nation's defense, receive the same lifetime health care provided to civilian retirees. The Military Medical Benefits Amendments of 1966 authorize health care for military retirees, dependents, and survivors for whom a military treatment facility (MTF) is not available. The council noted that one-third of the Military Health Service System had been eliminated during the drawdown, with 58 military hospitals closed and another 17 scheduled to be reduced to clinics in FY 1998.

Nearly all of the council's requests dealt with TRICARE: reduce the catastrophic cap to $3,000 from $7,500; permit TRICARE Prime enrollees to receive care in different regions; extend TRICARE Prime beyond an MTF's catchment area (servicing area); raise reimbursement rates and provide timely reimbursements to attract quality health care providers; eliminate the requirement for all providers to file claims for beneficiaries to reduce the number of providers refusing to accept TRICARE Standard; require Medicare providers to accept TRICARE Standard; provide TRICARE Prime to all beneficiaries over 65 living in an MTF catchment area; permit retirees outside of a catchment area to join the Federal Employees Health Benefits Program; and expand the DOD mail order pharmacy program to include all retiree beneficiaries. In addition, the council requested that the nonappropriated dental plan being implemented on 1 October 1997 for military retirees be improved and that retirement services at installations receive continued funding and support.

5

Force Development

Blueprint for the Future

There were two major influences on Army force structure in FY 1997. First, the Army made great strides in Force XXI, the process intended to transform the Army into a technologically superior force that would use the most advanced systems to attain information dominance, a key pillar of success on the future battlefield. Second, the Quadrennial Defense Review (QDR) undertook a comprehensive review of active and reserve component Army forces.

The processes associated with the Force XXI Campaign and the Army After Next (AAN) have produced new concepts of land warfare that will have radical implications for the Army's organization, structure, operations, and sustainment. The deployability and sustainability of this future force will be enhanced by equipment that is lighter, more durable, and more easily maintainable. Decisive operations will result from the development and widespread employment of new information technologies that will provide all elements of the force a common operational picture. Protection of the force will be improved by these same information technologies; and the resulting common operational picture will include new, more sophisticated sensors and platforms; quicker, more capable intelligence processors; and warfighting systems that are easier to employ. To enable the conduct of operations across the operational spectrum and to reduce lift requirements, Army units are being made more flexible and modular to permit more tailorable force packaging. To realize the visions of Force XXI and the AAN, the Army has focused its efforts on providing soldiers and combat systems with information technology and other enhancements while pursuing long-term research on, and development of, successor technologies for the future force.

In support of the first AAN annual cycle, The Army Materiel Command (AMC) initiated and conducted a number of activities. The command created a technology team to provide technical advice during the winter war game in January and February. In addition, AMC organized integrated idea

teams, or multidisciplinary groups of technologists to evaluate innovative concepts, and convened a team on tactical and operational mobility. AMC also sponsored a technology workshop in March to study robotic applications in mid- to high-intensity operations and military operations in urban terrain; conducted a study of fuel efficiency and alternatives and presented its findings in a white paper for the chief of staff of the Army (CSA); and established the Army Technology and Concepts Network, an Internet-based electronic network for the Training and Doctrine Command (TRADOC) and AMC to use in collaborating with the national science and technology community. AMC is partnering with TRADOC, the assistant secretary of the Army for research, development, and acquisition, and the Office of the Deputy Chief of Staff for Operations and Plans to align technology-based investments to support the AAN.

The first annual cycle of the AAN concluded with a capstone report, *Knowledge and Speed*, signed by the CSA on 1 August 1997. This report focuses on probable geopolitical realities, evolving military art and science, human and organizational behavior issues, and technology.

The QDR reaffirmed the need for ten active Army divisions to execute two nearly simultaneous major-theater wars with moderate risks and suggested that force reductions could lead to a reduction in overseas presence and forward deployments. Although the QDR, having analyzed the capabilities of U.S. forces to fight and win on the Korean peninsula and in Southwest Asia in 2006, determined that the current military force structure was adequate, it also stated that a larger force would be necessary if the enemy uses chemical weapons or shorter warning times occur. At the same time, the multiple smaller-scale contingency operations that U.S. forces have been required to conduct in the 1990s have increased the operational deployment of military units. The demand has not been limited to types of units, which are few in the force structure, but has affected more common types of units as well, particularly headquarters elements that have been tasked more heavily than their subordinates.

Digitization is the means by which the Army expects to achieve information dominance, which is a necessity for the future smaller Army to obtain battlefield dominance. The Army Digitization Office integrates technology and digital communications from the sustaining base to tactical and strategic levels; identifies programming requirements; evaluates digitization efforts; and works closely with other services and coalition partners to ensure interoperability. Through modern communications and computers, digitization is providing commanders, planners, and operators of combat weapons systems the ability to rapidly acquire and share information. Combat operations are being revolutionized as improved awareness of the battlefield environment drastically changes the operating tempo and the manner in which battles are conducted.

For Army XXI to be an information-based force, the Army must maintain the technological edge not only in weapons systems, but also in its capability to communicate and exchange information. To ensure that all systems possess interoperable information technologies, the Army is upgrading or modifying current systems and setting new requirements for future systems. Once digitization is complete, command and control will be integrated fully and extend from the strategic level to the soldier in a foxhole, with battlefield information shared simultaneously at all levels in near real time. Digitization will result in a more synchronized force, a more rapid and effective decision-making capability and a reduction in logistics stockpiles at port facilities that will enable a commander to maintain initiative and momentum once engaged with the enemy. In addition, with each tank, helicopter, support vehicle, and soldier possessing access to immediate, two-way battlefield information, confusion will diminish and the potential for fratricide will decrease.

Full-spectrum dominance, the shared goal of *Army Vision 2010* and *Joint Vision 2010*, will be accomplished partially by increasing the effectiveness of light forces and reducing heavy-lift requirements. At the same time, the Army is inserting technology and conducting recapitalization to extend the life of existing systems. A focus on technological advances will enable the Army to determine what capabilities will be needed for the AAN and to develop the leap-ahead capabilities that will be required for full-spectrum dominance in the future. One effort to increase the Army's mobility involves improving lethality so that "one round—one kill" becomes a reality and reduces the logistics burden imposed by ammunition resupply. Autonomous platforms will play a central role in the AAN, decreasing the number of operators required and permitting operations in high-risk environments.

The *U.S. Space Command Vision 2020* recognizes challenges for space and missile defense in trying to achieve full-spectrum dominance. National missile defense had been regarded as a technology readiness program but was recently redesignated as a deployment readiness program, increasing the priority of space and missile defense as an element of national defense. The Space and Missle Defense Command's (SMDC) participation in AAN warfighting games showed not only that battlefield success will rely on space operations in 2020 but also that, at times, space operations will determine the outcome. During the 1997 AAN winter war game, the space reconnaissance and counter-reconnaissance battles were recognized as critical for national victory. Prominent issues that have emerged include space control, space policy, space reliability, and space vulnerability.

Space-based systems will affect the future of warfare by providing another dimension for the battlefield. The Army's approach to communications, command and control, and geopositioning systems—and nullifying enemy attempts at countering them—will be influenced by space-based

communications systems, as well as research and development, available in the commercial sector. The most recent achievements include antisatellite technologies, laser destruction of short-range rockets, and fielding of the joint tactical ground station. Providing space support and institutionalizing it in tactical operations has gained increased emphasis. Tactical space-support soldiers have deployed to crises and contingency operations, including Operation JOINT GUARD, to provide space capabilities to warfighting commanders and to provide training to joint warfighters. Space-support teams ensure that Army forces have access to, among other capabilities, enhanced global communications, multispectral imagery, and small weather receivers. In addition, they complement the Tactical Exploitation of National Capabilities Program by bringing intelligence products from national and theater sources directly to the tactical commander.

Information dominance relies upon space-based systems and space products, particularly satellite systems. Among the military services, the Army is the largest consumer of space products. As a result, situational awareness on the battlefield has improved vastly; telemedicine has been expanded to soldiers in a combat zone; movement of supplies and assets into a theater is better managed; and a variety of operations at high tempo can be maintained. To be effective on the ground in future wars, the Army must have up-to-date space products, including weather forecasts, logistics management and tracking, precision navigational aids, multispectral and hyperspectral terrain analysis and mapping, and missile launch warning and sensor cueing. To ensure that these products are available in the future, the Army provides input into the development of future space-based systems. The Army is acquiring 700,000 GPS (Global Positioning System) receivers, which will be installed on precision-guided munitions, weapons platforms, and vehicles. Strategic reconnaissance will be essential for planning and conducting deployment, lodgment, deception, and information operations for the force-projection army.

Space and Missile Defense Command Vision 2010 posits that space and missile defense will be the defining factor in future war, requiring increased national emphasis. SMDC plans to provide the best space and missile defense capabilities and field them to the joint warfighter as rapidly as possible. In working towards full-spectrum dominance, SMDC signed a memorandum of agreement in February 1997 with TRADOC that assigned proponency for specified Army space and national missile defense issues to SMDC. SMDC is responsible for integrating space doctrine with training, leader development, organization, materiel, and soldier solutions throughout the Army and within appropriate joint agencies. Within SMDC, the Force Development and Integration Center works with TRADOC to develop space and missile defense operational concepts and requirements and then field them for testing.

SMDC was also authorized to establish a Space and Missile Defense Battle Laboratory (SMDBL) to plan and conduct missile defense warfighting experiments, as well as emphasize advanced technology development. In conjunction with SMDBL and the Force Development and Integration Center, the SMDC Space Technology Integration Office is developing and executing a long-range research and development program based on future space warfighting concepts and related operational capabilities. SMDC was also designated as the Army's primary point of contact for national missile defense, providing the Army with a lieutenant general, the SMDC commander, to speak on its behalf with The Department of Defense (DOD).

Force Development

After a reduction of two active Army divisions in FY 1996, the number of divisions remained stable in FY 1997, with ten active and eight Army National Guard (ARNG) divisions in the force structure. ARNG separate brigades, which had declined from 24 to 22 by FY 1996, were reduced in FY 1997 to 18. In addition, the active Army retained five Special Forces groups and the Ranger Regiment, while ARNG maintained two Special Forces groups.

Under the guidance of the deputy chief of staff for operations and plans, the Army in FY 1997 completed the biennial Total Army Analysis 2005 process, designed to develop the force structure necessary to meet two nearly simultaneous major-theater wars. In addition to providing greater precision and clarity for the force structure anticipated for 2005, the process also improved procedures that will help determine future force structure requirements. The Total Army warfighting requirement was recalculated, and allocation rules were updated.

A significant part of the Force XXI process includes advanced warfighting experiments (AWE), providing the opportunity for soldiers to develop and test new equipment. Since May 1994 six AWEs have been conducted. The 4th Infantry Division (Mechanized), located at Fort Hood, Texas, was designated as the Army's Experimental Force (EXFOR) to test innovations in Force XXI. The EXFOR 1st Brigade Task Force, composed of a tank battalion and mechanized battalion from the 4th Infantry Division (Mechanized) and a light infantry battalion from the 25th Infantry Division (Light), formed Task Force XXI. Preparations for the Task Force XXI AWE began in June 1996, and it was conducted at the National Training Center (NTC) at Fort Irwin, California, from16 to 29 March 1997.

The Task Force XXI AWE was the largest and most significant experiment in Army history. In a massive and complex operation at Fort Hood, the Army installed and integrated nearly 5,000 pieces of new

equipment, including 1,200 appliqué (add-on) computers, on or in nearly 1,000 vehicles of all types in the brigade task force inventory. During the fiscal year, the EXFOR trained more than 2,600 soldiers on a wide variety of equipment at all levels. Field exercises were conducted at the squad, platoon, company, battalion, and brigade task force levels, providing a tremendous amount of data and new insights. In December 1996 the 1st Brigade participated in an opposing forces exercise at Fort Hood that involved 5,000 soldiers and included three offensive missions, two defensive missions, and one future scenario. The exercise demonstrated that the appliqué computers worked well at all levels and provided continuous, enhanced situational awareness of the battlefield through information obtained from the brigade reconnaissance troop, unmanned aerial vehicles (UAV), the OH–58D Kiowa Warrior, the Joint Surveillance and Target Attack Radar System, and the All-Source Analysis System.

In late February 1997 the brigade task force was loaded onto trains and deployed to NTC, arriving in early March. NTC Rotation 97–06 involved 5,000 soldiers, 1,200 contractors, and 1,400 vehicles that engaged in two weeks of exercises involving traditional and anticipated future missions. As a digitized heavy force, Task Force XXI was designed to evaluate new systems, equipment, operational concepts, organizational designs, advanced technologies, doctrine, and tactics during realistic combat operations against a highly competent opposing force in the AWE. More than seventy items or processes were tested. Information collected during the AWE is now being analyzed by TRADOC and will assist the Army in defining specific requirements in implementing Army XXI. The performance of equipment and soldiers represented a revolution in digitization.

One of the most important outcomes of AWE was a vastly improved situational awareness of the battlefield. At the same time, the Army learned that not everyone needed the same battlefield information simultaneously. The tactical Internet coupled the Enhanced Position Location Reporting System (EPLRS) and Single Channel Ground and Airborne Radio System (SINCGARS), enabling every platform to transmit its positional and command-and-control data to all other battlefield elements. The appliqué computers provided a visual representation of the battlefield, with a further advantage that voice communications remained free from traditional transmissions about unit locations. Commanders from platoon through division level were able to identify, with precision, the battlefield positions of their unit, friendly forces, and enemy forces, enabling a more rapid and exact projection of combat power, a better integration of heavy and light forces, and a quicker redeployment of logistics. Although sensors could detect enemy forces without difficulty, the AWE demonstrated that fusing the information from multiple sources presented a challenge that the Army is currently working to overcome. Recognizing that leaders must be taught

how to use information obtained from the digitized battlefield, the Army is revamping its curricula at training institutions to ensure that training in information management and digitization is provided.

The quality of maintenance that resulted from allowing contractors on the battlefield to maintain their equipment led to impressive performances of equipment prototypes and a reexamination of the future role of contractors on the battlefield. Of the equipment used, 85 percent provided significant contributions to combat operations, 10 percent required additional work, and 5 percent did not work at all. The UAVs were particularly successful in their reconnaissance role, allowing commanders to gain and maintain contact with the enemy and forcing the enemy to change its battle rhythms. Providing early warning, the air defense artillery architecture enabled the task force to shoot down 81 percent of all incoming enemy aircraft. Expectations were exceeded by the AH–64 Longbow Apache, which used advanced systems to validate enemy locations and maintain situational awareness, and the AH–64D Apache, which exhibited increased levels of lethality and survivability. With only half of more than sixty new manuals discovered to be useful, the Army is currently engaged in rewriting the documents. Lack of confidence in logistics support occurred because maneuver commanders were encumbered with planning or executing combat service support for their units. The AWE identified logistics situation reports as needing improvement and total asset visibility as vital for battlefield success. In addition, Task Force XXI helped the Army identify eleven items of equipment or technology to purchase under the Warfighting Rapid Acquisition Program.

With the results from Task Force XXI AWE and follow-on experiments, the Army will determine future force structure, materiel requirements, organization, training, leader development, and doctrine. The center of the Army's digitization efforts resides in III Corps, with the 4th Infantry Division set to emerge as the first interim digitized division and the 1st Cavalry Division as the second. Although the Army had planned to digitize III Corps by 2006, the digitized corps will be fielded two years earlier, in 2004. Many of the digitization systems already exist or will be fielded to the 4th Infantry Division (Mechanized) as part of the normal modernization process. These include SINCGARS, EPLRS, Army Tactical Command and Control System (ATCCS), the M1A2 Abrams tank, and the M2A3 Bradley Fighting Vehicle.

Since March 1997 the Army has engaged in Division XXI, an AWE to finalize the architecture for the first digitized division, and will announce the results in February 1998. Under the Division XXI AWE, testing of the interim divisional design and operational concept, battle command information requirements, and combat support concepts began in June 1997. The AWE will culminate 9–13 November 1997 with the Division XXI

BCTP (Battle Command Training Program), a multiechelon, integrated experiment emphasizing division-level battle command and incorporating command post simulation tools developed at Fort Leavenworth to train senior leaders. In addition to developing the Force XXI Battle Command and Information Operations requirement, the AWE is also expected to determine operational requirements for Division XXI operations.

The centerpiece of the Army's effort to digitize the force is the Force XXI Battle Command Brigade and Below (FBCB2) initiative, a key component of the Army Battle Command System that interfaces with ATCCS at the brigade and battalion level. The contract for FBCB2 was awarded in January 1995, and the system was fielded in February 1997 to Task Force XXI. Computers capable of displaying digital maps, with icons representing vehicles moving in near real time across the battlefield, will provide situational awareness without the requirement for soldiers to enter data. The system includes four basic computers: a commercial laptop version, a ruggedized version (able to withstand heavy wear and tear), a militarized version, and the Dismounted Soldier System Unit. The first three are vehicle mounted; the fourth can be carried by the individual soldier. All members of a unit or team will have access to the same data.

The FBCB2 system consists of hardware devices and software programming. In one form of installation, standard software is embedded or built into modern computers located on the Army's newest vehicles, such as the M1A2 Abrams tank and the M2A3 Bradley. In the other form, stand-alone installation, a set of hardware devices—including a computer, digital radios, GPS receiver, and mounting equipment—is added to sixty different types of Army vehicles. Ten percent of all Army vehicles will have the embedded installation, while 90 percent will have the stand-alone installation. Although the software is standard, it is produced in two segments. Both types of FBCB2 installation possess the back-end segment of the software, which includes the capability for messages, algorithms, and vehicle-to-vehicle interface. The front-end segment of the software, which includes the map and graphic display capability, is used only in the stand-alone installation; vehicles with embedded installation of FBCB2 must have additional software for performing the front-end role. The Embedded Battle Command, which provides the software for situational awareness and command and control in vehicles with the embedded installation, will receive additional front-end software in the future.

In an initiative to accelerate the combat development process, the Army has established battle laboratories where operational requirements can be determined more quickly through warfighting experiments. The battle laboratories—Mounted Maneuver, Dismounted Battle Space, Depth and Simultaneous Attack, Battle Command, Combat Service Support, Maneuver Support, Air Maneuver, and Space and Missile—provide an

opportunity for military users and developers of military equipment to study science and technology and focus research on warfighting priorities.

Training

In 1973 the U.S. Army began to reexamine its warfighting doctrine and institute changes through new training processes. This training revolution was propelled by the creation of TRADOC in July 1973 and motivated by lessons learned from the Arab-Israeli War in October 1973. The Army developed performance-oriented training, the plan-prepare-execute-assess-retrain methodology, capstone doctrinal training manuals, standardized training, and combat training centers (CTC). The inclusion of highly trained observer-controllers, an after-action review process, and the Multiple Integrated Laser Engagement System greatly improved live exercises. In addition, other large-scale exercises were conducted in the Army's effort to meet the challenge of fighting and winning against a numerically superior military force.

The Army trains in three modes of simulation: live, virtual, and constructive simulation. Soldiers deploy to the field, train on actual equipment, and are exposed to weather and terrain in live training, the results of which are assessed through simulation. In virtual training, individuals, crews, and units train on systems that replicate their combat systems, such as aircraft flight simulators. Constructive simulation displays units and equipment as icons on a computer screen. New technologies have permitted realism in live training, while virtual simulators have allowed units to train without firing tank rounds and before deploying for live exercises. With the rapid growth in computer-based battle simulations, constructive simulation has proven the most cost-effective way to train commanders and their staffs. In addition, a thorough examination of Army training methodology is occurring to find the best balance between the three types of simulation. With the NTC, the Joint Readiness Training Center (JRTC), Combat Maneuver Training Center (CMTC), and the BCTP at the forefront, units are developing comprehensive strategies for training in the twenty-first century. The Combined Arms Training Strategy, which defines the resource requirements for the most important live training tasks, such as flying hours and operating tempo (OPTEMPO) miles, is being redesigned.

Army Training XXI is the Army's approach to meeting the requirements of warfare in the twenty-first century. The strategy includes three fundamental elements: Warmod XXI, Warfighter XXI, and Warrior XXI. Under Warmod XXI, training will be conducted to ensure that soldiers know how to operate new equipment, and training support products will be digitized. Collective training will take place through Warfighter XXI,

which will also synchronize the three elements, and Warrior XXI will consist of institutional and self-development training. Eight initiatives under Warrior XXI will guide leader development programs: Total Army School System (TASS), Classroom XXI, Distance Learning, Infrastructure/ Communications, Automations/Digitization, Training Development, Diagnostics, and Deployable Training (Institutional).

The critical effort in all of these initiatives is that of the Army Distance Learning Program, which, when completed, will enable 95 percent of all active and reserve soldiers to attend standardized training in a distance learning classroom within one hour's drive of their home station. Through distance learning, soldiers will be able to complete required training when deployed, reducing the time they spend away from their families or their duty assignments and reducing costs to the Army. In addition to supporting Army civilian training and the Army Continuing Education System, the Army Distance Learning Program has been identified as the prototype for DOD's distance learning initiative. For the tasks that cannot be taught through distance learning, proponent schools are modernizing classrooms under Classroom XXI to be completely compatible with distance learning classrooms and to serve a dual purpose for resident courses. The proponent school will also use Classroom XXI facilities to develop course curricula for use in TASS—an integrated system composed of active Army schools, former U.S. Army Reserve (USAR) schools, and ARNG state military academies. In each of seven TASS regions, most proponent schools will have a functionally aligned TASS battalion that they will accredit.

The Army provides training resources to meet levels of readiness as measured by OPTEMPO. OPTEMPO is used to estimate the funds necessary for tempo (the number of miles driven per vehicle per year or the hours flown per flight crew per month) and the costs of a unit's tactical training. The funds are then provided to major commands (MACOM) for further distribution to individual units. Direct costs for POL (petroleum, oil, and lubricants), repair parts, and depot-level repair, as well as indirect, recurring operating costs for civilian pay, travel, rail transportation, OCIE (organizational clothing and individual equipment), NBC (nuclear, biological, and chemical) supplies, and ADP (automated data processing) contracts are considered when determining funds necessary for ground OPTEMPO. The ground OPTEMPO requirement of 800 miles describes the total miles needed to execute an annual training program at a C–1 or C–2 level of readiness (the two highest of five levels) for a tank battalion. The flying hour program requirement of 14.0 hours was established to enable an aviation unit to achieve this level of readiness and is driven by the unit's Mission Essential Task List and Army regulatory requirements.

Ground OPTEMPO in FY 1997 continued to occur below programmed levels. Although execution of ground OPTEMPO increased slightly from

FY 1996 to FY 1997 for the M1A1 Abrams tank, it decreased for both the M2 Bradley Infantry Fighting Vehicle and the M3 Bradley Cavalry Fighting Vehicle, as shown in *Table 23*. USAR executed only 38 percent of its OPTEMPO requirement in FY 1997, while ARNG and active Army executed 58 and 82 percent, respectively. *Table 24* depicts the required and executed OPTEMPO for the active and reserve components for fiscal years 1996 and 1997.

Table 23—Combat Vehicle Optempo Requirement and Execution, Fiscal Years (FY) 1996 and 1997

Combat Vehicle	Requirement	FY 1996 Execution	FY 1997 Execution
M1A1 Abrams Tank	800	642	654
M2 Bradley Infantry Fighting Vehicle	934	806	729
M3 Bradley Cavalry Fighting Vehicle	1309	835	631

Table 24—Total Army Ground Optempo Requirement and Execution, Fiscal Years (FY) 1996 and 1997

Component	FY 1996 Requirement	FY 1996 Execution	FY 1997 Requirement	FY 1997 Execution
Active Army	800	642	800	654
Army National Guard	288	157	288	167
United States Army Reserve	200	184	200	76

Of the 998,950 flying hours programmed for FY 1997, 95.4 percent, or 952,999 hours, were flown. The active Army flew 32.7 percent of the hours flown, which resulted in an execution of the flying hour program of 14.1 hours per flight crew per month. The active Army has now reduced the overall funding of the flying hour program from 14.5 hours to 14.0 hours, although attack aircraft will continue to be funded at 14.5 hours. *Table 25* indicates the required and executed flying hour program for FYs 1996 and 1997.

Table 25—Flying Hour Program Requirement and Execution, Fiscal Years (FY) 1996 and 1997

Component	FY 1996 Requirement	FY 1996 Execution	FY 1997 Requirement	FY 1997 Execution
Active Army	14.5	14.5	14.5	14.1
Army National Guard	8.1	5.7	9.0	4.4
United States Army Reserve	9.0	6.1	8.0	5.0

A new initiative, Operational Readiness (OPRED), focuses on the needs and requirements of the force-projection Army. Incorporating the new Army policy that near-term readiness consists of more than unit training funds, OPRED funding will reflect the total cost of preparing a unit to go to war. In addition to OPTEMPO funding, OPRED will pay for associated costs, such as training aids, devices, simulators, and simulations; ranges; training areas; supply and maintenance operations and support; and power-projection facilities. Under OPRED, the programs will be linked so that readiness elements of the Army budget can be better defended within DOD and before Congress.

Eleven Combined Arms Training strategies have been revised and developed as a baseline for Battalion Level Training Models, used to determine training resource requirements. The Standard Army Training System is being revised and will provide commanders with an improved capability to plan and execute training with available resources. A recently concluded update of AR 220–1, *Unit Status Reporting*, includes some OPRED reporting items.

Contingency operations have increased personnel tempo. In long-term operations, the rotation of units affects four of the same type at any given time. While one unit is conducting the mission, another is recovering from it, and a third is preparing for it. A fourth unit is in support, providing personnel replacements, combat support, and combat service support for the deployed unit, and observer/controllers and opposing force personnel to train the other two units. The average number of soldiers deployed on a daily basis, categorized as skill tempo, was 31,326 during FY 1997. The military occupational specialties (MOS) with individuals who spent the most time away from home station on deployments were bridge crewmember (12C), imagery ground station operator (96H), psychological operations specialist (37F), concrete and asphalt equipment operator (62H), and radar repairer (35M).

In a significant initiative during FY 1997 to improve readiness in the Total Army, reserve component combat support and combat service support units were integrated into CTC rotations with active Army maneuver units. The Army's CTCs are BCTP at Fort Leavenworth; CMTC; JRTC at Fort Polk; and NTC. The Army's objective through BCTP is to train all active Army division and corps staffs every two years, train all ARNG division staffs every three years, and conduct 14 annual rotations through Brigade Battle Command and Battle Staff training, a subset of BCTP. During FY 1997, the Army conducted 2 corps and 6 division warfighter exercises, 11 reserve component rotations through Brigade Battle Command and Battle Staff training, and 12 Operations Group Delta Joint Task Force exercises. At CMTC, the goal is to train 5 U.S. brigade task forces annually, which was accomplished in FY 1997, and 3 German and 4 other Allied units (British, French, or Dutch) each year. Ten units are expected to rotate each year through JRTC and NTC, with 9 from the active Army and the tenth, an Enhanced Separate Brigade, from ARNG, and 10 rotations through each of these CTCs occurred in FY 1997. Four new training facilities were built in FY 1997: a close combat tactical trainer (CCTT) at Fort Stewart for $6.0 million; an urban training complex for armored vehicles at Fort Knox for $13.0 million; a range control facility at Fort Drum for $3.8 million; and a CCTT at Fort Hood for $5.9 million.

The Army also conducts some of its institutional training overseas. The Jungle Operations Training Center (JOTC), located at Fort Sherman, Panama, provides training for eleven battalions from the United States each year. JOTC is equipped to train light infantrymen, airborne soldiers, Rangers, air assault troops, and U.S. Marine Corps infantrymen. In addition, engineer jungle warfare training and aircrew survival courses are taught at JOTC. During FY 1997, five hundred paratroopers belonging to the 1st Battalion, 505th Infantry Regiment, 82d Airborne Division, from Fort Bragg, North Carolina, spent five months in Panama, first training at JOTC and then serving as a contingency security force for U.S. Army, South (USARSO). In addition, JOTC provides an important opportunity for military-to-military programs in the U.S. Southern Command (SOUTHCOM). Latin American and Caribbean nations send members of their armies to JOTC to learn U.S. Infantry jungle operations. At the same time, jungle instructors from these nations are integrated into JOTC's school cadre. On a routine basis, a regional platoon is attached to the U.S. Infantry battalions rotating through JOTC, enabling the U.S. soldiers to train beside jungle experts. During FY 1997, JOTC hosted platoons from Belize, Bolivia, El Salvador, Guatemala, and Venezuela.

The Army's approach to initial entry training has changed substantially, in accordance with Character Development XXI. In the past, a soldier attended 8 weeks of basic combat training (BCT) and then 4 to 52 weeks

of advanced individual training, or received one station unit training (OSUT) of 12 to 18 weeks while remaining at one post and in one training unit. In FY 1997 the Army added an additional week of training to both BCT and OSUT to teach Army history and values. Each of the six Army values (honor, integrity, courage, respect, selfless service, and duty) was designated as the theme for one week during training, during which time the commanders, drill sergeants, and school cadre emphasized that value through discussions of Army history and use of training aids. The Army is in the planning stages of adding a Warrior week to BCT and OSUT to ease the transition of trainees from their civilian past to soldier future. In this three-day exercise, trainees will operate in a simulated combat environment as a team, moving their location, communicating, and firing weapons. Following a ceremony and long-distance march, the trainees will receive an Esprit de Corps breakfast. During FY 1997, a total of 64,596 soldiers completed BCT and 58,346 graduated from initial MOS training.

Army training is conducted also for future soldiers. From May to August 1997, the U.S. Army Cadet Command trained sixty-five thousand cadets from colleges and universities throughout the United States in thirteen cycles of the Reserve Officers Training Corps' advanced camp at Fort Lewis. Preparing cadets and officer candidates for service in the active Army, ARNG, and USAR, the advanced camp provided intensive leadership development and military training. In 1997, TRADOC held a Future Battle Conference at Fort Hood, attended by U.S. and Israeli commandants of their respective infantry, armor, aviation, field artillery, air defense artillery, and engineer schools, to discuss changing doctrine and techniques, particularly the Force XXI process and Israeli modernization and organizational changes.

Each Army MACOM participated in major military exercises, whether single-service, joint, or combined, during FY 1997 to maintain or increase readiness, as well as to enhance U.S. presence in other regions of the world and improve military-to-military relations. The Forces Command (FORSCOM) orients its training strategy around CTCs and a comprehensive premobilization training program for reserve component units. During FY 1997 more than 45,000 FORSCOM soldiers participated in fifty major exercises, such as Blue Flag, Bright Star, *Fuertes Defensas* (Defense Forces), Roving Sands, and Ulchi Focus Lens. In the world's largest joint tactical air operations exercise, Roving Sands 97, all U.S. military services, as well as those from Germany, Canada, and the Netherlands, participated in a nine-day exercise in an area covering 30,000 square miles between Fort Bliss, Texas, and Roswell, New Mexico, including the White Sands Missile Range in New Mexico. Of the 20,000 participants, 10,500 were Army soldiers, including a theater missile defense element. SMDC was

fully integrated into ROVING SANDS and was able to provide ballistic missile defense and force protection.

The Defense Against Weapons of Mass Destruction Act of 1996 requires federal agencies to implement programs to respond to an NBC attack. Army soldiers deployed to Denver, Colorado, in June 1997, as Response Task Force—West to participate in MEASURED RESPONSE 97–2, a federal, state, and local exercise to train local civilian emergency response agencies to handle an NBC attack. The Army task force included command, control, communications, and intelligence personnel and equipment; liaison and medical personnel; and chemical and biological technical escort and response elements.

Other events enhanced U.S. interoperability with foreign militaries. About 2,100 soldiers from FORSCOM and the U.S. Army Special Operations Command participated in COOPERATIVE NUGGET from June to July 1997 at the JRTC as part of the North Atlantic Treaty Organization's (NATO) Partnership for Peace (PfP) program. COOPERATIVE NUGGET, designed to foster interoperability, trained platoons and companies in peacekeeping and humanitarian relief tactics, techniques, and communications procedures. A total of 4,000 individuals, including 1,000 military personnel from four NATO countries and eighteen PfP nations, participated in the exercise. United States troops included cavalry, aviation, medical, combat support, and special forces personnel. In another significant step towards improving military relations, the CSA hosted meetings with the Commander of the Guangzhou Military Region from the People's Republic of China during a visit by the Chinese Minister of Defense to the United States, and with his designated counterpart from China, the Deputy Chief of the General Staff, in the first such exchange since 1988.

On 1 June 1997 SOUTHCOM assumed responsibility from the U.S. Atlantic Command for U.S. military forces operating in the Caribbean Basin and the Gulf of Mexico, expanding USARSO's area of responsibility to include thirty-two sovereign nations and twelve protectorates in Latin America and the Caribbean, except for Mexico. In FY 1996 USARSO's responsibility was limited to nineteen nations. USARSO, which provides disaster relief response, counterdrug support, and international training programs, is composed of 2,300 soldiers and 2,000 civilians who host 25,000 ARNG and USAR troops annually in multilateral programs. In *NUEVOS HORIZONTES* (New Horizons) 97, SOUTHCOM sponsored engineer and medical field training exercises (FTX) in Panama, Belize, and Bolivia from January through June 1997 to increase regional civil-military cooperation and promote democratic institutions. In Panama, engineers renovated, constructed, or improved seven schools, two clinics, four kilometers of road, and four wells, while medical personnel provided health care to civilians in several locations.

Engineers constructed and renovated schools and roads in Belize and built health clinics in Bolivia.

Other exercises took place in the Atlantic Command area of responsibility. Two hundred paratroopers from the 82d Airborne Division deployed to Haiti in April 1997 for FAIRWINDS 97, a one-week contingency readiness exercise involving 1,200 personnel, in which they learned to protect U.S. forces conducting humanitarian and civic assistance missions. During JUNGLE WARRIOR, a rotational battalion training exercise from April 1996 to May 1997, SOUTHCOM received an in-theater contingency infantry force while one of its units was being reconstituted. In other military-to-military exchanges, SOUTHCOM hosted the Conference of the American Armies, attended by representatives from Canada and fourteen Latin American armies, as well as observers from Mexico and nine other Latin American and Caribbean nations. To build personal relationships with senior military leaders and demonstrate USARSO's training and sustainment program, USARSO hosted commanding generals from Colombia, Ecuador, Guatemala, Paraguay, and Guyana in its Distinguished Visitor Program during FY 1997. The Latin American Communications Conference, held in Puerto Rico in April 1997 and attended by signal officers from sixteen nations, resulted in a reference manual of common terms and included a command post exercise (CPX) that examined communications issues identified during *FUERZAS ALIADAS* (Allied Forces) and *FUERZAS UNIDAS* (United Forces), two peacekeeping operations.

Third U.S. Army provides the U.S. Central Command (CENTCOM), responsible for a geographic area that spans northeast Africa and Southwest Asia, with its Army element, Army Forces Central Command (ARCENT). In a theater of operations, ARCENT's responsibility is to provide support and infrastructure for Army, joint, and combined forces. Each year during BRIGHT STAR, one of CENTCOM's major exercises, U.S. and Egyptian forces conduct maneuvers with France, Germany, Italy, the United Kingdom, and Persian Gulf nations. The exercise is complemented by the U.S.–Egyptian Senior Land Commanders' Exchange Program, in which a U.S. Army division commander spends ten to fourteen days with an Egyptian division, observing operations and sharing information, and then hosts a return visit to his division by the Egyptian division commander. Through INTRINSIC ACTION, a near-continuous presence of an Army battalion task force rotating through a four-month exercise in the Kuwaiti desert, CENTCOM enhances regional stability and the U.S. ability to deploy quickly to the region. Each task force, which consists of three cavalry troops, a field artillery battery, and an engineer company, conducts coalition training with similar Kuwaiti army units and participates in tank gunnery ranges, engineer breach operations, and artillery firing. In FY 1997, a total of 3,100 soldiers were deployed from Fort Hood in three

rotations, drawing equipment from war reserve combat equipment pre-positioned at ARCENT-Kuwait. In another military-to-military program, ARCENT units participated with Pakistani forces in Pakistan for two weeks in June 1997 in INSPIRED GAMBIT 97, an exercise that focused on training in individual, squad, and platoon combat skills.

In the United States European Command (EUCOM), which covers an area of responsibility comprising 83 nations on 3 continents, 1,220 United States Army, Europe (USAREUR), soldiers participated in 15 PfP exercises in 11 countries with the military forces of 12 NATO and 24 PfP nations during FY 1997. In addition, the George C. Marshall European Center for Security Studies in Garmisch, Germany, provided a tailored, advanced professional education on democratic institutions and values for military and civilian officials from NATO and PfP nations. United States troops joined those from seven Central Asian countries in CENTRAZBAT, a PfP human assistance and peacekeeping exercise held in September 1997 in the United States, Kazakhstan, and Uzbekistan. Forty Central Asian paratroopers teamed with a U.S. airborne battalion in conducting the longest airborne operation on record, leaving Fort Bragg and jumping into Kazakhstan, where they linked up with other Central Asian paratroopers and ground forces. In USAREUR's Joint Contact Team Program, to promote a civilian-controlled military in a democracy, nearly 900 U.S. soldiers traveled to 14 countries, and U.S. units hosted 311 foreign delegations in 638 military-to-military contacts.

USAREUR's major combat element, V Corps, relies upon a multiechelon training strategy to train its units in conventional warfare. VICTORY STRIKE in FY 1997, employing the 1st Armored Division and two separate brigades, trained V Corps headquarters to function as a joint task force (JTF) and evaluated six other separate corps brigades. V Corps demonstrated strengths, gained from its experience in Operation JOINT ENDEAVOR, in command and control, deliberate river-crossing operations, and employment and control of Army aviation and tactical air. USAREUR units returning from JOINT ENDEAVOR practiced warfighting skills at Taborfalva Training Area, established in Hungary by the 7th Army Training Command and the Hungarian government. To prepare communities for planned and unplanned deployments, USAREUR created the Family Support System Mobile Training Team, and, in April 1997, before a planned deployment to Africa, trained and certified Southern European Task Force rear detachment commanders, family support liaison personnel, Family Assistance Center personnel, and family support group volunteers.

Within the U.S. Pacific Command (PACOM), the United States Army, Pacific's (USARPAC) responsibility encompasses 60 percent of the world's population in forty-one countries across sixteen time zones, carried out by 35,600 soldiers and civilians stationed throughout the Pacific region. The

commander in chief, PACOM, executes national military strategy in the region to enhance security, maintain stability, and terminate any conflict on terms favorable to the United States. USARPAC provides theater command and control of Army forces, many of which will be deployed from the continental United States (CONUS) in the event of conflict. Thirty-seven thousand U.S. Forces Korea soldiers, from Eighth Army, and 700,000 Republic of Korea (ROK) soldiers form the Combined Forces Command (CFC) to counter the threat to stability from the Democratic People's Republic of Korea and to control coalition forces if deterrence fails. To improve its joint and combined counterfire capability, CFC published a manual to provide guidance and assign responsibility to component commanders. In addition, the CFC operations plan for defense of Korea was revised and is being staffed by the ROK and U.S. governments.Created following the update of the theater campaign plan, an Army service component command will organize, equip, train, maintain, and sustain Army forces, improving Army warfighting capability.

PACOM conducts a variety of exercises. Its major strategic mobility exercise, COBRA GOLD—a joint and combined training exercise designed to train a contingency JTF—improves combat readiness and interoperability, enhances security relations, and demonstrates U.S. resolve in the region. COBRA GOLD was conducted in the Kingdom of Thailand in May 1997 with approximately twenty-seven thousand Thai and U.S. forces, of whom two thousand were U.S. soldiers and mostly from USARPAC, engaging in a CPX, a cross-training exercise, an FTX, and a combined-arms force demonstration. Another joint and combined exercise, TANDEM THRUST, takes place every eighteen months to two years as a CPX and an FTX. Located in Australia for the first time in 1997, TANDEM THRUST began in February and ended in March, with active Army and reserve component soldiers conducting interoperability training with Australian forces and participating in squad and platoon live-fire exercises and combined live-fire drills. Additional joint and combined exercises were KEEN EDGE in Japan and BALIKATAN in the Philippines. To improve interoperability and warfighting skills, YAMA SAKURA, a bilateral CPX involving Japan and the United States, took place from January to February 1997. In an annual bilateral exercise designed to teach winter warfare and Arctic survival skills, U.S. Army soldiers trained from February to March 1997 in Hokkaido, Japan. As part of the Joint Combined Exchange Training program, active and reserve soldiers deployed in July 1997 to Indonesia to teach trainers how to conduct advanced airborne, reconnaissance, and infantry training, and to the Maldives to teach infantry, urban combat, and land navigation skills.

ULCHI FOCUS LENS, conducted to test operations plans for the defense of South Korea, is one of three major joint and combined exercises conducted annually by U.S. and ROK forces, in conjunction with the ROK

National Mobilization Exercise ULCHI. The largest exercise of its kind in the world, ULCHI FOCUS LENS is a theater-wide CPX conducting warfare from the tactical to the strategic level. It stresses command and control and uses a sophisticated worldwide simulations network based on advanced communications hardware. More than eighty-three hundred soldiers from Eighth Army and other MACOMs participated in ULCHI FOCUS LENS 97 in Korea in August. To train ROK and U.S. personnel to receive units from CONUS in an emergency deployment in defense of South Korea, the CPX RSOI (Reception, Staging, Onward Movement, and Integration) took place in April 1997, with 900 U.S. soldiers participating, resulting in improved command and control. RSOI-TURBO CHALLENGE, another major exercise involving the United States and South Korea, took place in April 1997 with Eighth Army elements, other Army units, and the U.S. Transportation Command simulating strategic deployments into Korea. FOAL EAGLE, the third major joint and combined exercise in Korea, focused on mobilization, rear-area security, and special operations.

USARPAC conducts numerous military-to-military contacts in the region. It hosts the Pacific Armies Management Seminar (PAMS), designed to facilitate and enhance interactions among armies in the Asia-Pacific and Indian Ocean regions and to discuss training for unconventional missions. From the initial seminar in 1978, with representatives from nine nations, the PAMS held in Hawaii in April 1997 had grown to include attendees from forty-one nations. Military delegates from Vietnam and Uzbekistan attended for the first time in FY 1997. USARPAC also initiated the Expanded Relations Program (ERP), consisting of senior officer visits, staff information exchanges, conferences, humanitarian assistance, individual and unit training exchanges, and bilateral and combined exercises, with other countries in the Asia-Pacific region. Included in the ERP are ULCHI FOCUS LENS, FOAL EAGLE, and RSOI in Korea, as well as YAMA SAKURA, NORTHWIND, and ORIENT SHIELD in Japan. The ERP also encompassed the annual visit by a Command and General Staff College team, which in FY 1997 traveled to India, Nepal, Bangladesh, Sri Lanka, and Pakistan. USARPAC representation on the Mutual Defense Board with the Philippines and the annual PACOM staff talks with Indonesia, Malaysia, and Singapore were some of ERP's activities. In addition to TANDEM THRUST, Australia hosted a visit by the CSA and engineer readiness training exercises. The latter also occurred in the Marshall Islands, Tonga, and Fiji. The INDO-US Executive Steering Group is another USARPAC initiative and is designed to develop and approve army-to-army programs between India and the United States and enhance relationships between senior leaders. In one civic action project, 58 engineer soldiers from Hawaii were assigned to Micronesia from July through November 1997 to build a school, a warehouse, and a classroom.

Deployed Operational Forces

At the end of FY 1997, the Army had 125,000 soldiers stationed permanently as its forward force in other nations. Seventy-five percent of the Army remained in CONUS, while 13 percent was stationed in Europe, 10 percent in the Pacific, and 2 percent elsewhere. In addition, 32,000 soldiers were deployed temporarily in seventy countries. Of the deployed soldiers, 12,000 in twenty-four countries had been provided by FORSCOM, with 6,000 stationed in Bosnia. Operation JOINT ENDEAVOR, for which U.S. troops were mobilized in 1995 to support NATO's monitoring of the Dayton Peace Accords in Bosnia, was extended by the National Command Authorities in December 1996 as a stabilization force and renamed Operation JOINT GUARD. The stabilization force (SFOR) was composed of thirty-nine nations, including Russia, during FY 1997. Between 9,000 and 11,000 U.S. soldiers participated in JOINT GUARD, a EUCOM operation, at any one time in Bosnia, Croatia, or Hungary, monitoring and controlling warring factions, providing security, coordinating international relief, aiding displaced persons to return to their country, and restoring or establishing government institutions.

The U.S. contribution to JOINT GUARD is centered in the Multinational Division (North). Although built initially around the headquarters and the 3d Brigade of the 1st Infantry Division, the Multinational Division, located in Tuzla, Bosnia, includes many other U.S. active and reserve forces on six-month rotation tours, as well as three multinational brigades—Russian, Turkish, and Nordic-Polish. The political advisor, the translator, the civil engineer, and the operations officer advise the division commander on the proper allocation of military resources. Video teleconferencing and wide data networks permit real-time situational awareness and facilitate split-base operations and decisive application of power. New peace and information operations tactics, techniques, and procedures were created with each new operations order as the simultaneous political, economic, and civil-military tasks were conducted. In August 1997, eighteen hundred members of the 2d Armored Cavalry Regiment at Fort Polk, Louisiana, deployed to Europe to replace the 1st Infantry Division as the primary U.S. combat force in Bosnia. Members of the 1st Infantry Division are scheduled to redeploy to CONUS in early October after a transition period with the 2d Armored Cavalry Regiment.

In addition to JOINT GUARD, EUCOM was responsible for other operations. One of its primary operational missions was Task Force ABLE SENTRY, in which USAREUR soldiers participated in the UN (United Nations) Preventive Deployment peacekeeping mission in the former Yugoslav Republic of Macedonia. Although the mission—to which an infantry, cavalry, or armor battalion task force deployed every six months to

conduct border patrols—was scheduled to end in May 1997, the UN Security Council extended the mission mandate for an additional six months. During Operation SILVER WAKE in FY 1997, USAREUR evacuated civilian displaced persons from Albania to Italy. Another noncombatant evacuation operation occurred in Operation NOBLE OBELISK, when 2,509 persons, including 454 American citizens, were safely removed from Freetown, Sierra Leone, following a military coup. A Special Forces team supported the operation by providing regional expertise and security for U.S. citizens before the ships arrived for evacuation. Although USAREUR soldiers from the Southern European Task Force deployed in March 1997 to the Congo and Gabon for Operation GUARDIAN RETRIEVAL, another noncombatant evacuation, the mission was handed over to the Marine Corps in April, and the Army task force returned to Italy. In June 1997 eight Army Special Operations Forces (SOF) soldiers assisted in the evacuation of 57 noncombatants from the Congo. USAREUR continued to support the Beirut Air Bridge, a communications link with the American Embassy in Beirut, Lebanon, through a forward aviation detachment stationed on Cyprus. In addition, USAREUR soldiers participated in the UN Military Observation Group in Monrovia and Operation GUARDIAN ASSISTANCE in Rwanda.

In the SOUTHCOM area of responsibility, the Army carried out a variety of operations. Sixty U.S. soldiers and four UH–60 helicopters continued to provide support to the Military Observer Mission Ecuador and Peru (MOMEP) in JTF SAFE BORDER in the disputed region between the two countries. Originally established for ninety days in March 1995, SAFE BORDER was extended until December 1997. The United States, Argentina, Brazil, and Chile operate MOMEP, with each country responsible for a specific staff function along the 78 kilometers of the contested border. Army Special Operations Forces provide critical communications in the rugged mountainous terrain and canopy jungle, as well as language skills, cultural knowledge, and interpersonal skills. Operation SUSTAIN LIBERTY, in which a military police company spends six months protecting U.S. installations in Panama, continued with two rotations during FY 1997. JTF BRAVO was established in Honduras in 1984 to conduct and support joint and combined operations and, during FY 1997, coordinated the presence of U.S. forces in Belize, Guatemala, El Salvador, Honduras, Nicaragua, and Costa Rica. *FUERZAS ALIADAS*, a peacekeeping and humanitarian operation, was conducted in El Salvador; *FUERZAS UNIDAS* was a peacekeeping operation in Brazil in which UN forces fully participated; and the UN Mission in Guatemala, with two U.S. officers assigned, monitored the surrender of weapons before national elections.

The primary focus of U.S. Army operations in the CENTCOM area of responsibility in FY 1997 was enforcing the sanctions that the UN had imposed upon Iraq in the early 1990s. Following a terrorist attack

in June 1996, CENTCOM had developed a plan for force protection and relocation. In Operation DESERT FOCUS in August, CENTCOM had moved Army forces to more defensible locations and had provided an infantry battalion to secure Patriot missile sites and other U.S. facilities. DESERT FOCUS now refers only to the force protection mission conducted by the infantry battalion. Following Saddam Hussein's attack on Kurds in northern Iraq in August 1996, U.S. forces had deployed to Kuwait in Operation VIGILANT THUNDER to preclude retaliatory strikes against Kuwait when the UN conducted missile strikes against Iraq in Operation DESERT STRIKE in September. In January 1997 the UN implemented Operation NORTHERN WATCH, a no-fly zone prohibiting Iraqi aircraft in the skies of northern Iraq above the 36th parallel. The northern boundary of the existing Operation SOUTHERN WATCH, enforcement of a no-fly zone in southern Iraq, had been expanded from the 32d to the 33d parallel in September 1996. Army personnel participated in both NORTHERN WATCH and SOUTHERN WATCH during FY 1997. The U.S. part of the NORTHERN WATCH force operates as part of EUCOM. CENTCOM controls the U.S. part of the SOUTHERN WATCH force. EUCOM supports Operation SOUTHERN WATCH by occasionally deploying forces in support of the operation. EUCOM provides forces and logistic support to CENTCOM as needed during both routine and contingency operations.

To facilitate a rapid transition to war, ARCENT has established three small, forward command and control activities that also provide vital contributions in peacetime. ARCENT-Kuwait, outside Kuwait City, coordinates and supports joint and combined training in Kuwait, oversees the pre-positioned Army War Reserve–5 combat stocks, and provides command-and-control and force protection for assigned and attached Army forces in Kuwait. Preparing to receive its second battalion task force set of pre-positioned equipment (PPE), ARCENT-Qatar is refining its procedures for activating its set of equipment and improving its relations with the military forces of Qatar. The PPE at ARCENT-Kuwait and afloat, added to the brigade set and division base of PPE planned for ARCENT-Qatar, will provide the division PPE envisioned by the commander in chief, Central Command (CINCCENT). In addition, ARCENT-Qatar provides installation services for all U.S. military forces in Qatar. Command and control of Patriot units from FORSCOM and Europe, present under Operation PROVIDE COVER, as well as all Army forces in Saudi Arabia, Bahrain, and Qatar, is provided by ARCENT-Saudi Arabia, which is also responsible for theater ballistic missile defense for key military and civilian facilities. Under Operation DESERT FALCON, seven hundred USAREUR air defense artillery soldiers arrived in Saudi Arabia in May 1997 for six months. CINCCENT's plan to deter regional aggression in the Persian Gulf is predicated on maintaining seven ships afloat as a supply

depot, including a port opening package, a heavy brigade set of Army Prepositioned Stocks–3 (Afloat), and a divisional support base.

The U.S. Army was involved in numerous multinational operations. During the fiscal year, three infantry battalions began and (or) ended six-month rotational tours with the Multinational Force and Observers in the Sinai, an independent (non-UN) peacekeeping mission established in 1979 to help monitor the demilitarized zone and provisions of the peace treaty between Israel and Egypt that pertain to the Sinai. Two officers remained assigned to the UN Truce Supervision Organization in Jerusalem that supports peacekeeping operations throughout the Middle East, while eight officers were stationed with the UN Mission for the Referendum in the Western Sahara to monitor elections and supervise the ceasefire between Morocco and Polisario insurgents.

Ten percent of USARPAC's force was deployed in FY 1997. JTF Pacific Haven took place on Guam, where sixty-six hundred Kurdish evacuees were sheltered before being relocated to the United States by the end of April 1997. Most USARPAC soldiers were infantry, military police, and K9 dog team personnel whose mission was to provide security for the evacuees, although other soldiers gave administrative, medical, engineering, public affairs, psychological operations, civil affairs, and linguistic support. Established in 1992 to investigate, identify, and recover the remains of Americans unaccounted for in Southeast Asia, JTF Full Accounting, with its headquarters in Hawaii and detachments in Laos, Vietnam, Thailand, and Cambodia, continued in FY 1997. Through the efforts of sixty soldiers, remains were recovered at five of six sites excavated in Vietnam in April 1997. Another hundred soldiers and civilians conducted an additional Full Accounting operation in Vietnam in August. In Laos, thirty-five soldiers excavated nine sites between April and June 1997 in the thirty-third operation in that country.

USARPAC conducted numerous other missions. One of them was JTF Marathon Pacific. Undocumented immigrants who had been intercepted in the Pacific Ocean were transferred to Wake Island, where USARPAC units provided security, sustained the immigrants, and processed them before they were flown back to China. In another humanitarian mission, Army medical and forensic personnel from Hawaii were deployed to Guam in August 1997 as part of an Emergency Response Team following the crash of Korean Airlines Flight 801. The medical team included two critical-care nurses, a general surgeon, two orthopedic surgeons, two operating room nurses, and an anesthesiologist, while the forensic team consisted of one radiologist and three radiology technicians.

Under the Chemical Weapons Convention, all stockpiled U.S. chemical weapons are required to be demilitarized by 2001. The U.S. Army Chemical Activity, Pacific, has had the responsibility for security,

storage, and transportation of all chemical munitions on Johnston Atoll, eight hundred miles southwest of Hawaii, and in the last seven years has demilitarized more than 2.7 million pounds of the chemical weapons stored on the island. The first Chemical Weapons Convention Inspections on Johnston Atoll began in August 1997. Teams from the Organization for the Prohibition of Chemical Weapons, the On-Site Inspection Agency, and the U.S. Army Chemical Activity, Pacific, conducted preinspection briefings. Two teams then inventoried the contents of thirty storage bunkers, and a third team inspected documents and reviewed the inventory. The U.S. Army Chemical Activity was found to be in complete compliance with the Chemical Weapons Convention.

In 1993 DOD was designated as the lead federal agency to detect and monitor the illegal aerial and maritime transit of drugs into the United States. DOD's counterdrug policy enhances federal and host-nation programs and supports federal, state, and local drug law enforcement agencies (DLEA). The Army's counterdrug budget in FY 1997 was $276 million, a $46 million increase since FY 1996, with $117 million allotted to the active Army, $10 million to USAR, and $149 to ARNG. During FY 1997 the Total Army provided more than 4,000 soldiers daily for operational and nonoperational support to civilian DLEAs and MACOM commanders. About 170 soldiers and civilians were assigned to counterdrug JTFs, and 21 were detailed to federal agencies. Primary Army missions within the United States included linguist and intelligence support, as well as road and fence construction along the Southwest border. The secretary of defense, however, suspended all Army reconnaissance, surveillance, and monitoring operations in July 1997 after a marine shot a civilian during a counterdrug intelligence mission. Total Army aviation assets were programmed to fly 46,000 hours in support of the counterdrug program in the United States, with some fixed-wing and rotary-wing aircraft on loan to the U.S. Customs Service.

As of the end of the third quarter of FY 1997, soldiers had participated in 67 counterdrug deployments from CONUS. Support to other nations consisted of counterdrug training, transportation aboard U.S. aircraft, intelligence, mission planning, and reconnaissance. In addition to supporting counterdrug missions in nine Latin American countries and select Caribbean nations, the Army conducted counterdrug training in Southeast and Southwest Asian countries. In the bilateral military-to-military program between the United States and Mexico, the Army provided instructors for new Mexican counterdrug special forces units; conducted pilot and aviation maintenance training; and established an airmobile capability for Mexican counterdrug units. Counterdrug training for Mexican instructors began in FY 1996 and will continue through September 2000, with 126 personnel trained each year. Seventy-three UH–1H helicopters, with a two-year supply of spare parts and aviation ground

support equipment, were transferred to Mexico by the end of FY 1997 for the Mexican counterdrug program, with the Army providing training for pilots, aviation maintenance personnel, and other support personnel at TRADOC schools. The Army expects to train 450 Mexican pilots per year through 2001 at the Spanish language rotary-wing course that it operates for foreign militaries and DLEAs. To support sustainment training of Mexican pilots, the Army is currently installing in Mexico a UH–1H flight simulator that will be operational in April 1998.

The Army is the lead agency for providing military support to civilian authorities during natural disasters and, since February 1997, for international and special events. In FY 1997 the Army provided 5,297 active Army soldiers; 12,325 ARNG soldiers; 133 USAR soldiers; and 1,419 soldiers from the U.S. Army Corps of Engineers (USACE) for disaster relief or special-event support during 12 instances affecting 21 states. The largest number of soldiers, 5,276, was provided to support the 1997 Presidential Inaugural in January 1997 in Washington, D.C. The Army's Director of Military Support (DOMS) planned the DOD ceremonial and contingency support, led the interagency coordination process, and planned responses to terrorist threats and other emergencies. Eight hundred Army soldiers provided security; 279 served on the Armed Forces Inaugural Committee; and 1,636 participated in the swearing-in ceremony, the presidential escort, the inaugural parade, presidential honor cordons, and inaugural balls. Army units in the parade included the Old Guard; the U.S. Army Field Band from Fort Meade, Maryland; the 80th (USAR) Institutional Training Division Band; the District of Columbia National Guard; the Military District of Washington ceremonial band and choruses; and U.S. Military Academy cadets. An additional 1,125 soldiers supported 35,000 Boy Scouts at the National Scout Jamboree at Fort A. P. Hill, Virginia, from 28 July to 6 August 1997, providing logistical, security, transportation, medical, engineer, and communications support.

Once a Presidential Disaster Declaration has been approved, the DOMS sends a defense contracting officer to the afflicted area to validate all military support requirements and to assign missions to the appropriate unit. A total of 4,576 soldiers provided relief efforts during Hurricane Fran from September through October 1996 in South Carolina, North Carolina, and Virginia; 4,153 in March 1997 during Ohio River flooding; 3,074 in April 1997 during floods in North Dakota, South Dakota, and Minnesota; and 1,287 during flooding in the Northwest in January 1997. The USACE spent $12 million to fight floods in three states, building levees around hospitals and homes.

The Defense Against Weapons of Mass Destruction Act of 1996 authorizes federal resources, training, and technical assistance to state and local emergency management personnel who provide the first response to

weapons of mass destruction (WMD) terrorist incidents. As the executive agency for DOD, the Army created the Domestic Preparedness Section within DOMS to implement program requirements, developed a training and exercise program, created a federal response team, and completed an inventory of assets. During FY 1997, the Army assessed response procedures in 27 cities and will complete reviews in a total of 120 cities by October 1999. After the initial visits, the Chemical and Biological Defense Command from Aberdeen Proving Ground, Maryland, provided one week of training for firefighters, law enforcement personnel, and emergency medical service personnel. Training will be completed in all cities by the end of FY 2001.

The Army's Technical Escort Unit, established in 1943 to handle WMD and biological and chemical materials, provided support for thirty chemical or biological emergencies in FY 1997 and was assigned to assist the Federal Bureau of Investigation, the Environmental Protection Agency, the Department of Transportation, and the Bureau of Alcohol, Tobacco, and Firearms. DOMS also directed explosive ordnance disposal support in twelve separate missions during the year for the Department of Justice, the District of Columbia, Texas, California, Michigan, Maryland, the Saudi Arabian ambassador, and the Afghanistan Embassy.

Special operations forces provide yet another tool for the military. Army SOF, consisting of Special Forces, Rangers, special operations aviation, psychological operations (PSYOP), and civil affairs (CA), composed nearly 70 percent of DOD's SOF personnel in FY 1997. Special Forces soldiers train and assist foreign military and paramilitary forces in unconventional warfare, internal defense, special reconnaissance, counterterrorism, and humanitarian assistance operations. In addition, they can conduct joint or combined operations in remote, rural, or urban environments during peace or war. During FY 1997 the Army had two Special Forces groups, one Ranger regiment, one special operations aviation regiment, one active and two reserve PSYOP groups, and one active CA battalion and three reserve CA commands.

EUCOM established the African Crisis-Response Initiative, one peculiarly SOF mission, to prepare African nations to respond within thirty days with limited peacekeeping or humanitarian relief operations. In the initiative, Special Forces mobile training teams trained an infantry battalion, combat support units, and combat service support units. Senegal and Uganda received training in July 1997, with training planned for Mali, Malawi, Ethiopia, and Ghana in FY 1998.

When the mission in Bosnia switched from implementation force to SFOR, Army SOF participation increased. Special operations forces in Bosnia are subordinate to the SFOR through the Combined Joint Special Operations Task Force. The task force provides a Special Operations

Command and Control Element to each Multinational Division to control SOF Joint Commission Observer Teams, which maintain communications between all factions and SFOR commanders, in the division's sector. Liaison Coordination Elements work for the multinational battalions, providing linguist support and secure communications. The Joint Civil Military Operations Task Force provides SFOR with a civil-military capability to promote cooperation with the local population, agencies, and national government, and to respond to humanitarian, safety, and health emergencies. Through the Joint Psychological Operations Force, PSYOP personnel provide SFOR with the capability of supporting treaty implementation, deterring armed resistance, disposing of unexploded munitions, and ending the NATO mission. In addition, SOF personnel attached to NATO and non-NATO units provide a rapid response capability, combat search and rescue, personnel recovery, and special reconnaissance. Each rotation in support of JOINT GUARD included approximately 300 CA soldiers, a decrease from FY 1996 in JOINT ENDEAVOR, as other NATO nations have provided CA assets. A CA capability in JOINT GUARD is expected to continue until July 1998. At the end of FY 1997, a total of 167 PSYOP soldiers were deployed in support of JOINT GUARD. Their numbers are anticipated to increase in FY 1998, and their presence is expected to continue beyond the announced June 1998 end date of the operation.

United States ambassadors and country teams rely on SOF expertise. In 1997 SOF deployed to 144 countries, with a weekly average of 4,690 personnel on 303 missions to 69 countries. SOF personnel directly support an embassy's objectives through foreign forces training, joint exercises, humanitarian assistance, civic actions, demining programs, counterdrug programs, counterterrorism, noncombatant evacuation operations, and military liaison teams. A survey of sixty-five embassies indicated strong satisfaction in FY 1997 with the skills, knowledge, and performance of SOF personnel. Supporting one embassy objective, in the PACOM area of responsibility, was JTF BEVEL EDGE, an exercise designed to plan for noncombatant evacuation operations from Cambodia. With one Special Forces company and one special operations aviation platoon deployed to Thailand, the Army provided seventy-two personnel to BEVEL EDGE in July 1997. Through the IRIS GOLD exercise series conducted with Kuwaiti SOF, Army SOF personnel are present permanently in Kuwait, rotating one Special Forces company every 120 days. IRIS GOLD runs concurrently with INTRINSIC ACTION and takes advantage of training opportunities available in the larger exercise. During IRIS GOLD 97, SOF standardized the close air support, communications, and contingency procedures for each rotation.

SOF personnel continued to support the U.S. Support Group-Haiti and the American Embassy with PSYOP, CA, and Special Forces teams

during FY 1997. A PSYOP Military Information Support Team, on its sixth rotation of personnel from the United States, is expected to continue to provide support on a long-term basis. CA soldiers from a Ministerial Advisory Team helped advance U.S. objectives with the Haitian government and assisted various Haitian ministries. The Special Forces Command (Airborne) deployed one Special Operations command and control element to support three assessment teams conducting analysis of eighteen remote sites.

In the PACOM area, SOF supported Operation PACIFIC HAVEN, the evacuation from northern Iraq of sixty-six hundred Kurds, many of them employees of the U.S. government or of U.S.-based nongovernmental organizations. From September 1996 to April 1997, SOF provided a headquarters support team, three CA tactical support teams, and one PSYOP military information support team.

SOF carried out a variety of other operations. CA personnel conducted thirteen Professional Development Seminars in eleven South American countries and supported force protection and antiterrorism activities in Saudi Arabia. Psychological operations personnel supported counterdrug activities in Egypt, Cambodia, Thailand, and U.S. SOUTHCOM countries and conducted demining training in Eritrea, Ethiopia, Yemen, Namibia, Mozambique, Rwanda, and Guatemala. Forty SOF soldiers deployed to Laos and Cambodia to conduct medical training, leadership courses, community awareness programs, and demining training in a year-long program that began in October 1996.

Civilians are an increasingly important element in the Army's force structure, principally performing logistics, maintenance, communications, intelligence, and mapping services and working most often in equipment and weapons systems maintenance. A new Army regulation governing the use of U.S. citizens contracted to support or augment deployed Army forces is being written, and Department of the Army (DA) pamphlet 715–16, *Contractor Deployment Guide*, will be released in February 1998. New provisions will ensure that contractors will receive standardized field support comparable to that of soldiers, particularly with respect to requirements, accountability, and deployment processing. Because some DA civilians and contractors are considered emergency essential and are deployed more frequently than in the past to contingency locations, a new policy was developed in FY 1997 that addresses their carrying pistols and wearing uniforms. An emergency essential DA civilian may be issued for self-defense a 9-mm. or .45-caliber pistol with standard ammunition, if authorized by the theater commander, and will be required to wear a uniform. Contractors are not excluded from being issued pistols, but the practice is discouraged. Contractors may be issued uniforms but are not required to wear them.

Military Intelligence

With the advances in computer power and fiber optics, as well as the increased application of space for intelligence purposes, the Army's military intelligence effort has been revolutionized. As a result of the QDR and functional area assessments, the Office of the Deputy Chief of Staff for Intelligence (ODCSINT) remained confident in FY 1997 that the Intelligence and Electronic Warfare Battlefield Operating System would retain critical capabilities to support commanders at every echelon. To achieve efficiencies at every level, the Intelligence and Security Command and the U.S. Army Intelligence Center and School are analyzing every aspect of Army intelligence. In one initiative, the final draft of Volume IV, *Intelligence Support to C2 Protect*, of the Army *C2 Protect Library* was completed at the end of FY 1997. Volume VI, *Threats and Vulnerabilities*, is being updated to include information operations and their capabilities. The Army was also involved in the first National Intelligence Estimate ever dedicated to information warfare, signifying its rising importance to the national defense. Through partnerships with national, DOD, and Army intelligence organizations; participation in intelligence operations and experiments; and new initiatives, the Army will remain fully engaged in developing information warfare. The Army also participated in the intelligence community's efforts to define and develop the National Security Agency's Unified Cryptologic Architecture and the Future Imagery Architecture by leveraging national capabilities to provide improved support to Army tactical intelligence.

The Task Force XXI AWE, which included the largest deployment of intelligence soldiers since Operation DESERT STORM, validated the Army Intelligence XXI concept, intelligence architecture, and intelligence systems. Personnel from military intelligence units provided intelligence collection and analysis support for echelons above division. In addition to the UAV, which provided commanders with the ability to see the battlefield, the Intelligence and Electronic Warfare Common Suite provided unsurpassed signals intelligence. Using the Advanced Quickfix helicopter, the Guardrail Common Sensor, and heavy and light versions of the Ground-Based Common Sensor, intelligence units were able for the first time to provide commanders with target intelligence based on accurate communications interception and direction finding. The prototype of the Common Ground Station provided near-real-time downlinks from theater and national assets to Task Force XXI, displaying the information on a single screen, while the ASAS provided analysts with tools to fuse sensor input into an intelligence product. The introduction of the six-member Analysis and Control Team, which provides direct intelligence support to a maneuver brigade, created the first opportunity for commanders at brigade

and below to see the battlefield in near real time. The Land Information Warfare Activity, created in FY 1996 to assess friendly vulnerabilities, collected data against Task Force XXI during the AWE. After analysis, the data will be used to assess current and future threats to Force XXI. The Battlefield Planning and Visualization System prototype provided commanders with real-time, high-resolution data overlaid on a three-dimensional battlefield and allowed them the ability to plan and rehearse their operations in a virtual environment.

Although the Army has been unable to portray intelligence in models and simulations in the past, DOD is now providing funds to build this capability. ODCSINT was engaged in FY 1997 in developing the Joint Simulations System, the Joint Warfighter Simulation System, the Warfighter Simulation System (WARSIM) 2000, the WARSIM 2000 Intelligence Module, Intelligence and Electronic Warfare Tactical Proficiency Training, and the Combat Synthetic Training Assessment Range. At the same time, the Army was selected to lead a joint intelligence effort to develop conceptual models for all military intelligence collection systems that will be in the field in FY 1999 or expected to be fielded later. During FY 1997, the Army completed conceptual models of nine Army intelligence collection assets and draft conceptual models for the remaining three assets. These models will be the basis for the software developed for the WARSIM 2000 Intelligence Module.

One of greatest strengths of military intelligence is its linguist capability. The Army conducted a bottom-up review of its foreign language capabilities in FY 1997. Towards the end of the fiscal year, numerous initiatives were undertaken to improve foreign language support. A General Officer Steering Committee was established to review and manage the actions from the review, as well as other language issues in the Army.

In another assignment for the military intelligence community, ODCSINT in FY 1997 was responsible for ensuring that all Army intelligence systems were year 2000 compliant. This responsibility included all Army Tactical Intelligence and Related Activities and systems funded by the National Foreign Intelligence Program in both the active Army and the reserve components.

6

Reserve Forces

Force Structure

The Army National Guard's (ARNG) 8 divisions, 15 Enhanced Separate Brigades, 3 other brigade-sized combat elements, and these units' associated combat support and combat service support forces, are assigned to missions that include easing active Army personnel tempo (PERSTEMPO) in peacetime operations, providing rotation forces for extended contingencies, responding to domestic emergencies, and providing a deterrent to destabilizing international forces. Existing operations plans, however, do not call for ARNG divisions to participate in major-theater wars. During the Cold War, ARNG divisions served as an important strategic reserve, but with the end of that conflict the need for a large strategic reserve has declined. The Quadrennial Defense Review (QDR) considered the following missions for ARNG divisions: protect rear-area security in the combat theater; provide replacements for units deployed to small-scale contingency operations; support deployment of active Army units and mobilization of Enhanced Separate Brigades; and perform state missions. The secretary of defense approved the QDR's conclusion that these missions could be accomplished with a smaller U.S. Army Reserve (USAR) and ARNG.

Total Army Analysis 2003, one in a series of biennial processes used to determine the force structure necessary to support warfighting commanders in chief (CINC) of the unified combat commands, was conducted in 1995. Through the analysis, the Army determined that it required an additional 124,800 spaces in combat support and combat service support to meet the National Military Strategy. In May 1995 the Commission on Roles and Missions of the Armed Forces recommended that reserve component forces with lower priority tasks be eliminated or reorganized to fill higher priority shortfalls. As a result of the Army National Guard Division Redesign Study, which the secretary of the Army approved in May 1996, during FYs 1999–2012 ARNG is to convert up to twelve combat brigades and support elements from two divisions (47,300 combat positions) to the required combat support and combat service support structure. Funding

was approved in FY 1997 to procure necessary equipment by FY 2007, and a plan to implement the conversion three years early, by FY 2009, is currently being staffed. The original funding requirement of $4 billion was amended to $5 billion in the FYs 1998–2003 Program Objective Memorandum, with $468 million allocated for ARNG, $192 million for USAR, and $83 million for the active Army.

Of the 45,000 troop reduction in the reserve components by the end of FY 2001 that the QDR recommended and the secretary of defense directed, ARNG is required to decrease its personnel by 38,000, while USAR will lose 7,000 soldiers. As a result of the QDR, changes were made to the Total Force Policy, which focuses on the relevance of units to meet the National Military Strategy and the capability of forces to perform across the spectrum of war. Having determined that some of its forces were uncommitted—belonging to the strategic reserve, not assigned missions, or designed for unique requirements—the Army agreed that a smaller force structure could be achieved. These reductions will be taken primarily from the 66,432 ARNG and 6,298 USAR personnel categorized as uncommitted force structure. Total Army Analysis 2005, held in September 1997, determined the standard requirements code and unit identification code for the reductions scheduled through FY 2000, which may ultimately affect units in 38 of all 54 states and territories. Total Army Analysis 2007 will later identify which force structure positions will be eliminated during FYs 2001–02. The personnel reductions required by the secretary of defense as a result of the QDR are indicated in *Table 26.*

Table 26—Reductions Under the Quadrennial Defense Review, Fiscal Years 1998–2002

Component	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001	Fiscal Year 2002	Total
Army Reserve			3,000	2,000	2,000	7,000
Army National Guard	5,000	5,000	7,000	10,000	11,000	38,000
Total	5,000	5,000	10,000	12,000	13,000	45,000

Despite the reduction in personnel, ARNG received an increase in funding to pay its costs. The FY 1997 President's Budget included requests for $3.25 billion for National Guard Personnel, Army (NGPA), and $2.2 billion for Operations and Maintenance, Army National Guard (OMNG). Congress increased the NGPA appropriation by $23.9 million for schools,

special training, and basic allowance for quarters. Because of increased operating tempo (OPTEMPO), the Department of Defense transferred an additional $13 million to ARNG. An additional congressional transfer of $125.8 million into NGPA for the counterdrug program resulted in a total obligation authority of $3.4 billion for NGPA. Congress also expanded the OMNG budget by $35.1 million for increased training operations, ground OPTEMPO, and depot maintenance and $11 million for information management and distance learning. During FY 1997, an additional $21 million was transferred into OMNG from the counterdrug program and $25.3 million from the Defense Environmental Restoration account. With $2.6 million in decreases enacted by Congress, OMNG received a net increase of $89.7 million and a total obligation authority of $2.3 billion.

Although 416 units with 29,443 spaces were inactivated during FY 1997, other force structure actions limited the reductions to 10,606 spaces. ARNG retained a balanced structure of combat, combat support, and combat service support units, while USAR became more focused on combat support, combat service support, and specialized units. ARNG contained 57 percent of the Army's combat force with its 8 divisions, 15 Enhanced Separate Brigades (including one armored cavalry regiment), 2 separate brigades, and a scout group. At the end of FY 1997, USAR provided 30 percent of all combat support units, 45 percent of all combat service support units, 100 percent of all training and exercise divisions, 100 percent of all railway units, 100 percent of all enemy prisoner-of-war brigades, 97 percent of all civil affairs units, 86 percent of all psychological operations (PSYOP) units, 70 percent of all medical units, and 62 percent of all chemical and biological defense capability.

ARNG continued in FY 1997 to equip its fifteen Enhanced Separate Brigades, which began a transition to the warfighting structure in FY 1996. Expected to be fully operational by FY 1999, the Enhanced Separate Brigades will be organized and equipped to deploy within ninety days after mobilization and for compatibility with active Army divisions. During FY 1997, the readiness level for the Enhanced Separate Brigades increased 5 percent owing to a 2 percent increase in qualified personnel, a 13 percent increase in equipment on hand, and a 2 percent increase in training. By the end of FY 1999, the Enhanced Separate Brigades will have received the M1A1 Abrams tank and the Bradley Infantry Fighting Vehicle, as well as Single Channel Ground and Airborne Radio System (SINCGARS) radios.

In a renewed commitment to rely on the reserve components, DOD directed the military services to integrate their active and reserve components into a "seamless Total Force." In one initiative, the Army designed composite units, belonging to USAR organizations, composed of soldiers from all Army components and other military services. Active Army and full-time support USAR personnel assigned to composite units

provide an immediate response cell during mobilization and deployment. In one composite unit, the 310th Chemical Company (Biological Integrated Detection), four platoons, the company headquarters, and support elements belong to USAR, while one operational platoon belongs to the active Army. In another example, USAR's 3d Medical Command includes twenty-nine active Army and two hundred USAR positions. The Army intends to expand the number of composite units in the future, particularly in combat service support, filling subordinate elements with USAR soldiers and critical individual requirements with active Army personnel. By using composite units, the active Army estimates it will be able to transfer some missions to USAR and reduce its force structure by six thousand positions.

In another initiative, as part of the Army National Guard Division Redesign Study, the Training and Doctrine Comand (TRADOC) examined the concept of creating two Active Component/Army National Guard Integrated Divisions to increase integration between the active and reserve components and to bridge the gap between the Army's earliest and latest deploying units. Each composite division, a multistate organization, would consist of an active Army division headquarters, not currently scheduled to deploy in time of war or crisis, and three ARNG Enhanced Separate Brigades, the principal combat maneuver forces of the Army's reserve components. Once formed, the integrated division would be a new deployable force, either as a complete unit or as individual Enhanced Separate Brigades. The Forces Command (FORSCOM) leads the Implementation Process Action Team in developing the plan, which will be presented to the Secretary of the Army in December 1997, to form the integrated divisions.

USAR is the most utilized reserve component in all of DOD, providing 71 percent of all reserve component deployments for JOINT GUARD. Following a review of wartime staffing, the Joint Staff created Joint Reserve Units to integrate personnel into unified command staffs to meet wartime mission requirements. The Army contributes active ARNG/USAR personnel, individual mobilization augmentees (IMA), and Troop Program Unit soldiers to the Joint Reserve Units. Of the 1,940 USAR soldiers deemed necessary to serve in Joint Reserve Units, 350 were in the U.S. Atlantic Command, 373 in the U.S. European Command (EUCOM), 530 in the U. S. Pacific Command (PACOM), 311 in the U.S. Central Command (CENTCOM), 192 in the U.S. Southern Command (SOUTHCOM), 109 in the U.S. Special Operations Command, 1 in the Strategic Command, 34 in the Space Command, and 40 on the Joint Staff.

In planning to meet two nearly simultaneous major-theater wars, the Army provides tiered funding, personnel, training, and equipment to its units on a "first to fight" basis. Tier 1 units, which include force support package (FSP) units, special operations support package units, CONUS

support package units, and early deployers, are highly trained, first to receive resources, and ready to deploy by dates designated in CINC operations plans. To ensure that Tier 1 units are at a high state of readiness at all times, the Army provides them with 100 percent funding for Operations and Maintenance, Army Reserve; 100 percent fill of full-time support personnel; high priority for training school allocations; and equipment enhancements. Tier 2 units and lower receive resources that coincide with their mobilization missions or their position on major operations plan time-phased force deployment data lists.

FSP 1 units support 4-⅓ divisions, 1 full corps headquarters, and 1 theater slice (elements of a theater army); and FSP 2 units support 1 division, 1 partial corps headquarters, and 1 theater-opening slice. The Total Army has 1,134 FSP units, with 363 coming from USAR and 209 from ARNG. In FY 1997 a 3 percent decline in FSP readiness occurred because of a 2 percent decline in the number of qualified soldiers and a 3 percent decline in equipment on hand (owing to reorganization or modernization). Four FSP ARNG units are deployed currently in support of JOINT GUARD. The newly formed contingency support package (CSP) consists of a minimum number of deployment support units required to deploy FSP 1 units or 4-⅓ divisions. Of the Total Army's 69 CSP units, 60 belong to USAR and 6 to the active Army.

To economize, the Army has devised an Associate Transportation Company (ATC). In peacetime, "truckless" truck companies in USAR will be formed with a full complement of personnel and, for training purposes, with vehicles to equip one platoon. When unit training is necessary, personnel will use vehicles belonging to a comparable truck company located in their geographical area or will borrow the vehicles. During wartime or in response to a regional contingency, personnel from selected active Army truck companies will be deployed without their vehicles, drawing pre-positioned trucks and equipment at their arrival location. After mobilization, a truckless truck company will assume responsibility for the equipment left behind by the deployed active Army unit, arriving in theater 15 to 45 days after the conflict or contingency begins. The Army is in the process of activating its first truckless truck company in FY 1998 and expects to have three units operational by October 2003. The ATC concept is expected to reduce costs for truck units, make better use of available equipment on hand, and eliminate the need for complete truck fleets in both the active Army and USAR.

Strength and Personnel Management

At the end of FY 1997, the end-strength objective for ARNG was 367,000 personnel. With 370,046 soldiers on the roster, ARNG had

achieved 100.8 percent of its objective. The total strength included 40,756 officers and 329,290 enlisted personnel. With an attrition rate of nearly 11 percent, the number of officers had declined by 1,078 since FY 1996 and was below ARNG's objective for FY 1997. Of 9,732 warrant officers authorized, only 8,171 were assigned. To increase the number of officers, Congress authorized the Army National Guard Combat Reform Initiative, which allows selected active Army lieutenants to separate from active duty for assignment to a ARNG unit.

To improve personnel strength, ARNG consolidated two military occupational specialties (MOS), those of recruiter and retainer (someone who worked to retain soldiers in the force), into a new MOS called strength maintenance. This action, coupled with aggressive high school recruiting programs, the conduct of training to improve strength maintenance, and selected reserve incentive programs, enabled ARNG to exceed its accession goal of 59,262 enlisted personnel by 107 percent in FY 1997. Of ARNG's 63,495 accessions, 28,378 (106.4 percent of the objective) were nonprior service (NPS) and 35,117 (107.7 percent of the objective) were prior service. During the same period, 62,349 personnel left ARNG and 41,957 reenlisted. Of the latter, 11,185 soldiers had completed their first term of enlistment and 30,772 were career soldiers.

Eighteen percent of all full-time military personnel in USAR were engaged in recruiting efforts during FY 1997, a program funded by $30 million. Less than 1 percent of USAR soldiers were involved in retention efforts, however, and USAR experienced an attrition rate more than 30 percent. USAR is currently studying methods to reduce its high attrition and to improve its recruiting methods, focusing on eliminating redundancies and creating efficiencies. In one initiative, the UASR has deployed contractor personnel to Europe to offer USAR opportunities to soldiers leaving active duty. The Selected Reserve Incentive Program for FY 1997 offered a $2,500 enlistment bonus for NPS accessions into high-priority units, a $5,000 civilian-acquired skills program bonus for NPS accessions, a $2,500 reenlistment/extension bonus, a bonus for enlistees with a remaining military service obligation, and a student loan repayment program for NPS enlistees.

Educational programs remained a strong incentive in recruiting and retaining soldiers, lowering the attrition rate by 3 percent in FY 1997. More than 11,000 ARNG soldiers received tuition assistance, which provides 75 percent of the cost for college courses, during FY 1997. During the year ARNG offered a one-time reimbursement fee of $75 for soldiers who obtained an evaluation for possible college course credit of their military education and training, their previous college credits, and any college-level examination scores. The soldiers also received a degree plan for obtaining an associate's or bachelor's degree through the External Degree

program. In a specific initiative to enhance recruiting and retention, ARNG administered free College Level Examination Program and other standardized tests to soldiers and their spouses. The Service-members Opportunity Colleges, which support their local ARNG communities by limiting residency requirements to 25 percent of the required courses for soldiers, worked with ARNG throughout the fiscal year to enroll new accredited colleges and universities in the program. The Montgomery G.I. bill remained another educational incentive, offering a soldier about $7,500 for undergraduate, graduate, vocational, or flight training after completion of a six-year enlistment. ARNG also provided Army Distance Learning and External Degree programs to soldiers to obtain a baccalaureate or graduate degree at their home station, reimbursing the soldiers for up to 75 percent of their cost for courses they completed.

As combat arms forces shifted to ARNG, and USAR focused on executing combat support and combat service support missions, the Active Guard Reserve (AGR) program needed to be reorganized to meet changing requirements. Under the AGR, trained active or reserve component soldiers can apply for active duty, full-time positions in ARNG or USAR to organize, administer, recruit, instruct, and train selected reserve units and personnel, retaining the same benefits as active Army counterparts. To ensure advancement opportunities in the AGR, the Career Management Decision Support Model was developed to provide officers in the right skills and quantities. ARNG is currently seeking to increase promotion opportunities for career AGR enlisted and officer personnel, which will provide subsequent promotion opportunities for junior personnel.

To provide a cadre of military technicians and AGR soldiers to perform most daily operations in the reserve components, Congress established the Full-Time Support Program. Personnel requirements for the Full-Time Support Program are determined by analyzing the workloads of staffs in training support, recruiting, maintenance, and readiness management work centers, while pay grades are decided on the basis of classification studies. Congress provides full-time support authorization levels through the National Defense Authorization Act to states and territories based on the philosophy of providing resources to those units that will be first to fight. As a result, a greater percentage of full-time support personnel are assigned to FSP units and Enhanced Separate Brigades. Only 9 percent of all USAR personnel are full-time support, the lowest level of any DOD reserve component and one that will decrease as authorizations for full-time support personnel decline throughout the military. ARNG, with 13.3 percent full-time support personnel in its force, has the second-lowest level. Full-time support composes 17.2 percent of the Marine Corps Reserve, 23.1 percent of the Air Force Reserve, 26.1 percent of the Navy Reserve, and 31.5 percent of the Air National Guard.

Equipment modernization and more contingency missions have increased the need for military technicians, particularly to maintain complex new equipment. Congress authorized 22,798 AGR soldiers and 25,500 military technicians for ARNG in FY 1997. As of 30 September 1997, a total of 22,655 of the former and 24,689 of the latter were assigned, less than authorized strength in both categories, with significant reductions programmed for the future. Even with nearly all authorized positions filled, however, the AGR could meet only 62 percent of all valid requirements. Of the 44,115 validated military technician requirements in ARNG, only 56 percent were filled; furthermore, ARNG must eliminate 2,000 military technicians by the end of FY 2001. To achieve the reduction in AGR authorization levels required by Congress, the Temporary Early Retirement Authority was used in FY 1997 to provide $14.2 million in transition benefits to support the early retirement of 260 soldiers. With additional decreases of 488 and 930 personnel scheduled for FYs 1998 and 1999, respectively, and continued reductions during FYs 2000–02, funding of the Temporary Early Retirement Authority will be essential.

Under the Reserve Associate Support Program, which began in FY 1997 with 100 USAR soldiers, USAR is working to improve its warfighting capabilities at the same time that it helps to reduce shortfalls in the active Army. Soldiers who enlisted under the program completed their initial entry training in USAR and were then assigned to active Army units for the remainder of a two-year training obligation. During the active duty period, the soldiers will complete Skill Level 1 training tasks before being assigned to a USAR unit, where they will serve an additional four years. This program will improve USAR readiness by providing it with soldiers who are fully trained in critical skills and can be assigned to force package units.

In another program, called Active Duty Special Work, ARNG brings individuals on active duty to perform special projects such as command and staff visits, annual medical and dental screenings, training operations, new weapons systems conversions, studies, training site and exercise support, mission support, development of course curricula and software, and administrative support. During FY 1997, 1,340 ARNG soldiers participated in Active Duty Special Work.

Reengineering of personnel support continued during FY 1997, as the U.S. Army Reserve Personnel Command prepared to replace the Army Reserve Personnel Center in FY 1998, consolidating personnel management functions from four agencies into one. Through new work processes and enhanced technology, the new command will decrease civilian and military personnel positions by five hundred. The personnel electronic record management system, which converts paper and microfiche records to electronic data and permits instantaneous access to records by multiple users, was initiated in FY 1996 and completed in FY 1997. In addition,

an integrated workstation was created that combines word processing, electronic forms, and other services to improve customer service. During FY 1997, ten special staff projects on personnel were completed, in addition to studies of unique and specialized organizations, such as the National Interagency Counterdrug Institute, the Aviation Classification and Repair Activity Depots, and the Operational Support Airlift Command.

The Reserve Officer Personnel Management Act, the first major change in reserve officer personnel management in forty-two years, became effective on 1 October 1996, consolidating laws governing reserve components; streamlining reserve officer promotions, tenure, and separations; and standardizing active and reserve component officer management as much as possible. Time-in-service requirements for promotion were eliminated, a best-qualified policy for promotion replaced that of fully qualified, promotions based on position vacancies were eliminated except in special cases, and promotion confirmation by the Senate was eliminated below the rank of colonel. Promotion for second lieutenants after serving twenty-four months in grade was authorized, while accelerated promotions for serving in a captain's position were eliminated. A requirement was instituted for an officer above the rank of major to have three years' time in grade to retire voluntarily, but only six months if involuntarily retired. Mandatory retirement was announced for colonels with 30 years of commissioned service and lieutenant colonels with 28 years; involuntary separation would occur for officers below the rank of lieutenant colonel who were not selected for promotion on two occasions. ARNG worked in FY 1997 to retain the ability to promote officers on the traditional date recognized by states and to keep state promotion eligibility for lieutenant colonels not selected for promotion by a mandatory promotion board.

Training and Readiness

To support the shift in the National Military Strategy from full to partial mobilization planning, the Total Army Training System created USAR division (institutional training) (DIVIT) and division (exercise) (DIVEX). Seven DIVITs provide initial entry training, one-station unit training, MOS qualification and refresher training, and professional development training. The professional development training includes the Primary Leadership Development Course, the Advanced Noncommissioned Officer Course, the Combined Arms and Services Staff School, and the Command and General Staff Officers Course. During the year, USAR prepared for an expanded mission to conduct Reserve Officers Training Corps (ROTC) basic and advanced summer camps. In addition, USAR soldiers from DIVITs will begin serving as ROTC instructors at three universities in fall 1997 in a trial program. Five DIVEXs use lane-training

techniques to improve the tactics and technical skills of units. They also use the Brigade Command and Battle Staff Training program to plan, conduct, and execute staff training for combined arms, combat support, and combat service support units. During FY 1997, DIVEXs provided lane training to 405 reserve component units and Brigade Command and Battle Staff Training to 167 units.

The training strategy in the reserve components focuses on premobilization and postmobilization. To take better advantage of the personnel structure within the active and reserve components, a new training organization is being established. As of 1 October 1997, an interim training organization will consolidate all active Army personnel who provide training support to reserve component units into battalions assigned to training support brigades that belong to the CONUS armies. In addition, the regional training detachments for ARNG Enhanced Separate Brigades are being reassigned from the active Army division with which they were associated to the training support brigades. Although the DIVITs and DIVEXs will be retained through FY 1999, the Army is preparing for a significant change in FY 2000. Beginning 1 October 1999, five training support divisions, which will be completely integrated active component/reserve component organizations, will be formed from USAR's five DIVEXs to dedicated training support to all components of the Total Army.

ARNG completed full implementation of the Total Army School System (TASS) in FY 1997, with elements operational in each of the fifty-four states and territories. Of the 41,594 soldiers not available for deployment at the end of FY 1997, a total of 27,087 were engaged in required training, an increase in training of 5 percent since the end of FY 1996. ARNG, active Army, and USAR have signed a memorandum of understanding to facilitate support between components for TASS schools. TASS is shifting from a reliance on traditional institutional training to distance learning. Through the Army Distance Learning Program, TASS, and the Total Army Training System, standardized training is being established for all components, redundant training is being eliminated, and resources are being used more efficiently. Training links have been established between proponent schools, TASS sites, and ARNG armories, with 32 distance learning classrooms opened in FY 1997. By the end of FY 1998, 204 distance learning classrooms will be operational, and, by the end of FY 1999, a total of 600. After providing each soldier with a classroom within an hour's drive, the Army will begin to extend distance learning into soldiers' homes through electronically deliverable training products. ARNG is presently providing training developers and funds to supplement the efforts of proponent schools to redesign paper-based courses into ones that can be presented electronically.

The Multi Media Branch at Fort Rucker, Alabama, remained one of ARNG's premier distance learning centers in FY 1997. With unique capabilities in aviation and safety training, visual information, and education, the Multi Media Branch, which has supported ARNG for twenty-five years, has developed a state-of-the-art distance learning broadcast studio that uses satellite technology to transmit its courses. During the fiscal year, the Multi Media Branch provided MOS reclassification training through distance learning for ARNG soldiers transferring into air traffic control. In support of ARNG's safety program, the Multi Media Branch produced visual information products on aeromedical research, industrial hygiene, occupational safety and health, risk management, and radiological protection.

The Visual Information Support Center (VISC) in Nashville, Tennessee, however, with 2,000 visual information products, possesses ARNG's largest selection. It is ARNG's production center for various visual information products, including regional multimedia imaging, banners, posters, and duplication of videotapes and compact disks. The VISC, composed of personnel with audio, video, scripting, editing, and graphic design skills, created products in FY 1997 on recruiting and retention, drug demand reduction, public affairs, and other subjects for various DOD agencies and state organizations. In addition to producing training and public service announcements, the VISC also documented a variety of ARNG events and provided audiovisual support to training courses, workshops, and disaster relief efforts. During the fiscal year, thirteen states received funding to purchase digital photography systems for official Department of the Army photos, increasing ARNG's employment of visual information technology. Since FY 1994, when the Environmental Protection Agency directed that federal agencies terminate chemical photo processing, twenty-two states have obtained this funding.

During the fiscal year, ARNG initiated several new training management procedures. The Training, Readiness, and Operations, Unit Planning, Execution, and Resourcing System aligns unit training plans with state and national training goals, defines funded and unfunded training plans, and identifies funds made available by changes to plans. Through the Army Training Resource and Requirement System Funding Allocation Model, ARNG training resource managers are able to determine the training costs for an individual soldier to attend a certain course at a specific training site. ARNG is also developing the Institutional Training Resource Model to identify operating costs associated with a particular program of instruction at a given training site. During FY 1997 ARNG began to develop a training requirements generator to assist in identifying training requirements during the Structure Manning Decision Review and budgeting processes. The program will be operational in FY 1998. Although ARNG improved its management of available training course slots for NPS enlistees in FY

1997, it continued to work with TRADOC and U.S. Total Army Personnel Command through the Training Requirements Arbitration Panel process to obtain the right training for its soldiers at the appropriate time. To track and adjust its utilization of school training quotas, ARNG implemented the Training Utilization Model.

To provide combat training for all of its units, ARNG developed the combat training center (CTC) integrated training strategy during FY 1997. The strategy incorporates every CTC program—National Training Center (NTC), Combat Maneuver Training Center (CMTC), Joint Readiness Training Center (JRTC), Battle Command Training Program (BCTP), and Brigade Command and Battle Staff Training—and Division Warfighter Exercises. Aligning ARNG divisions, combat support, and combat service support with the Enhanced Separate Brigades, ARNG has integrated its training program among the three training domains over an eight-year cycle, during which maneuver and gunnery training will be conducted along with individual and crew training. Under the BCTP, fourteen ARNG brigades and two ARNG divisions participated in Division Warfighter Exercises, constructive simulations that provided commanders and staffs the opportunity to synchronize battlefield tasks through the application of computer technology, saving the costs associated with a full live exercise. In an effort to use available resources to train lower-priority units, the Battle Focused Training Experiment was conducted in August 1997 at the Training and Training Technology Battle Lab at Fort Dix, New Jersey. Using aggressive opposing forces and observer-controllers in a training scenario that focused on multiechelon and individual training, the battle lab created an experience similar to a CTC rotation. To augment the NTC support battalion, ARNG provided ten maintenance units during FY 1997 for general support and direct support maintenance.

To provide better training at a much lower cost, ARNG is procuring additional training aids, devices, simulators, and simulations, and linking simulators and simulations to support a common synthetic theater of war. Through the interactive synthetic theater of war, soldiers and leaders will receive coaching and feedback throughout the training scenario. Simulators have been used so successfully in ARNG armor and cavalry units that the technology has been expanded to encompass infantry and cavalry units possessing Bradley Fighting Vehicles. During FY 1997, ARNG developed and tested the Full-crew Interactive Simulation Trainer–Bradley prototype. In addition, the following simulation systems were procured and fielded during the fiscal year: 7 Engagement Skill Trainers, with a mix of simulated crew-served weapons; 54 Armor-Full-crew Interactive Simulations Trainers; 20 JANUS staff/maneuver trainers; 29 Guard Unit Full-crew Interactive Simulation Trainer-II forward observer trainers; and 10 Digital Systems Test and Training Simulators for field artillery units.

ARNG also provided support for the successfully completed Mobile-Close Combat Tactical Trainer Limited Users Test.

In support of training requirements for the Enhanced Separate Brigades, ARNG continued its Unit Training Initiative in FY 1997. Five ARNG divisions provided twelve battalion task forces to serve as opposing forces against eight Enhanced Separate Brigades during FORSCOM lane training exercises, increasing the opportunity for realistic training for both the Enhanced Separate Brigades and the divisional units. In addition to delineating which divisions provided battalion task forces, identifying division locations, noting the Enhanced Separate Brigade supported by each division, and providing the locations of each Enhanced Separate Brigade, *Table 27* demonstrates the wide scope of geographical areas engaged in such programs.

Table 27—Divisional Training Support to Enhanced Separate Brigades, Fiscal Year 1997

Division	Division Location	Enhanced Separate Brigade	Brigade Location
28th Infantry Division (Mechanized)	Pennsylvania	218th Infantry Brigade (Mechanized)	South Carolina
28th Infantry Division (Mechanized)	Pennsylvania	30th Infantry Brigade (Mechanized)	North Carolina
29th Infantry Division (Light)	Virginia, Maryland, Massachusetts	53d Infantry Brigade (Light)	Florida
34th Infantry Division (Mechanized)	Minnesota, Iowa, Illinois	39th Infantry Brigade (Light)	Arkansas
34th Infantry Division (Mechanized)	Minnesota, Iowa, Illinois	116th Armored Brigade	Idaho, Montana, Wyoming
42d Infantry Division (Mechanized)	New York, New Jersey, Vermont, Massachusetts, Delaware, Connecticut	27th Infantry Brigade (Light)	New York
49th Armored Division	Texas	115th Armored Brigade	Mississippi
49th Armored Division	Texas	256th Infantry Brigade (Mechanized)	Louisiana

ARNG and USAR soldiers were both heavily involved in exercises during FY 1997, both in CONUS and overseas. USAR supported ROVING SANDS with 15,594 soldiers; 3,655 soldiers were rotated through NTC; and another 3,512 through JRTC, including aviation personnel. Throughout the fiscal year, USAR deployed 11,091 soldiers to 50 nations to participate in various military exercises. In HEAVEN STORM, soldiers from USAR's 555th Quartermaster Platoon (Mortuary Affairs), located in Dover, Delaware, deployed to Puerto Rico in July to engage in a joint training exercise for military morticians. The exercise also included the active Army's 54th Quartermaster Company from Fort Lee, Virginia, and USAR's 246th Quartermaster Battalion, 331st Quartermaster Company (Mortuary Affairs), and 551st Quartermaster Company (Mortuary Affairs) from Puerto Rico. During HEAVEN STORM, mortuary specialists processed simulated casualties in a mock chemical environment.

A total of 23,163 ARNG soldiers deployed overseas for training during FY 1997. Nearly half, or 10,856, were sent to U.S. SOUTHCOM; 8,274 to EUCOM; 2,680 to PACOM; 1,226 to the Atlantic Command; and 127 to CENTCOM. ARNG readiness levels increased 3 percent during FY 1997, with a 4 percent increase in personnel readiness, a 4 percent increase in equipment on hand, a 2 percent increase in equipment readiness, and a 1 percent increase in training. With two ARNG divisions reaching the highest readiness level in FY 1997, all ARNG divisions were at the highest level. ARNG sent 1,044 soldiers to Europe to train with active Army elements in BCTP and CMTC exercises. In addition to three company exchanges with the United Kingdom and Germany that provided training and familiarization with allied military doctrine and tactics, thirteen ARNG officers, as part of the Individual Exchange Program, were assigned to British or German military units during their two weeks of annual training. The Minnesota Army National Guard, which had established a formal unit exchange program with the Norwegian National Guard in FY 1996, sent a company to Norway in FY 1997 to train in winter warfare operations. In NORTHERN VIKING 97, 400 ARNG soldiers from New York and Pennsylvania deployed to Iceland to participate in an Atlantic Command joint exercise designed to test air defenses, ground operations, and force protection capabilities of the Iceland Defense Force and U.S. forces in Iceland and the Azores.

In the Pacific theater, ARNG personnel deployed to South Korea, Japan, Malaysia, and Thailand in support of JCS (Joint Chiefs of Staff) exercises FOAL EAGLE, FREQUENT STORM, ULCHI FOCUS LENS, KEEN EDGE, NORTHWIND, and COBRA GOLD. As it does each year, ARNG deployed 2,300 soldiers to conduct CASCADE PEAK, a computer simulation exercise that was part of YAMA SAKURA, a JCS-directed exercise. ARNG also sent Special Forces medics to the Central Identification Laboratory in Hawaii to support the identification of remains from Southeast Asia. As an example of the

support that ARNG provided for foreign military sales around the world, the Texas Army National Guard provided CH–47D helicopter training and aircraft support to the Republic of Singapore.

ARNG sent soldiers to U.S. SOUTHCOM to participate in the JCS exercises *Nuevos Horizontes* 1997 (Belize), *Nuevos Horizontes* 1997 (Panama), and *Fuerzas Defensas* (Defense Forces). During these exercises, ARNG personnel built roads and worked on nation assistance projects in Panama, Guyana, Costa Rica, and Belize. In addition, seven medical readiness-training exercises took place in Guatemala, Ecuador, Costa Rica, Guyana, and Belize, with 210 ARNG soldiers providing medical care, dental care, and preventive medicine for local inhabitants. A total of 498 Special Forces soldiers from ARNG participated in Joint Combined Exchange Training in Belize, Bolivia, Venezuela, Ecuador, Honduras, Panama, and Surinam. ARNG personnel also conducted assessment visits, traveling contact team visits, and familiarization tours to Belize, Ecuador, and Panama through the State Partnership Program, emphasizing aviation support and search and rescue operations. The program will expand in FY 1998, with four new nations. As occurs annually, 500 ARNG soldiers from Puerto Rico deployed to the Dominican Republic, Jamaica, and Barbados in the Small Unit Program. Another 650 ARNG soldiers deployed during the fiscal year to Panama to attend the Jungle Operations Training Center.

Within CONUS, in another annual exercise, ARNG soldiers participated in Golden Cargo, which was initiated to assist in the consolidation of missions under the Industrial Operations Command. Through Deep Look, ARNG units participated in joint training from their home stations through computer data links, focusing on interoperability with other military services without incurring any deployment costs. ARNG personnel also improved interoperability by training with Alaskan-based forces in JCS exercises Cope Thunder and Northern Edge. Through medical innovative readiness training projects, ARNG medical personnel provided health care to 72,000 civilians in economically, socially, or geographically disadvantaged communities in twenty-two states during FY 1997. The program will be expanded to thirty or thirty-five states in FY 1998.

Mobilization

The Army Mobilization Operation Planning and Execution System—planning and preparation, alert, home station, mobilization station, and port of embarkation—sets the objectives for mobilizing reserve component units in five phases. Depending on the size of the reserve component unit, arrival at the port of embarkation for travel to a contingency area or theater of operations is expected to take place 15 to 91 days following mobilization, as depicted in *Table 28*.

Table 28—Mobilization Objectives for Reserve Component Units

Entity	Planning and Preparation	Alert	Accession	Mobilization Station	Port of Embarkation
Individual	*M to M+5	M	n/a	M+6 to M+21	M+22
Small Combat Service Support Unit	M-5 to M	M	M to M+3	M+4 to M+14	M+15
Large Combat Support/Combat Service Support Unit	M-7 to M	M	M to M+3	M+4 to M+30	M+31
Combat Brigade	M-7 to M	M	M to M+31	M+4 to M+90	M+91

*M is mobilization day.

Members of the Selected Reserve may be mobilized for a period of 270 days under the presidential selected reserve call-up (PSRC), which is authorized under Title 10 of the United States Code. Most of the reserve component units mobilized under PSRC for JOINT ENDEAVOR and JOINT GUARD served the 270 days allowed by law, although reservists filling medical positions in United States Army, Europe (USAREUR), to replace personnel deployed to Bosnia were activated for only 140 days. During FY 1997, backfilling of USAREUR positions ended as reserve medical units were mobilized for 270 days and sent directly to Bosnia to replace the rotating medical units.

The Individual Ready Reserve remained a significant element in the Total Army's ability to respond to a contingency. Of the 320,000 members of the Individual Ready Reserve in FY 1997, a total of 25,000 had served on active duty within the previous 24 months. The Army identifies soldiers who have been on active duty in the last 12, 18, or 24 months and relies upon them to fill individual requirements or replace casualties in time of war. With such recent active-duty experience, these soldiers usually require very little postmobilization training before being deployed to a theater of operations. To improve flexibility and increase access to soldiers with critical MOSs, the pending National Defense Authorization Act for Fiscal Year 1998 would allow the mobilization of 30,000 members of the Individual Ready Reserve under the PSRC. Such a measure would also eliminate the inefficiency of activating several units, each containing an insufficient number of soldiers with critical skills, and combining their personnel resources for a contingency.

Persons designated as IMAs are assigned to positions in advance of mobilization and can be mobilized under PSRC. Two thousand were mobilized for JOINT ENDEAVOR and JOINT GUARD. Of the 11,362 IMAs

authorized in USAR in FY 1997, a total of 921 participated in annual training with their predetermined active Army unit. IMAs provide the Army with its only capability to provide predetermined individual staff reinforcements or the ability to expand in response to CINC requirements. In addition to proposing that the IMA pool be expanded, USAR developed a proposal in FY 1997 to use a two-tiered IMA program to meet CINC and Army component requirements. IMA soldiers mobilized under PSRC will be members of the Selected Reserve, while soldiers not required until after partial or full mobilization will be members of the Individual Ready Reserve. This plan will provide an increased role for individuals, a higher level of flexibility, and increased OPTEMPO and PERSTEMPO savings. Through a combination of PSRC mobilizations, annual training, and inactive duty for training, reserve components were able to offset 8 million man-days of active Army PERSTEMPO in FY 1997, reducing operational costs. The Army also engaged in FY 1997 in a plan to combine IMA office personnel, USAR support hospitals, and installation medical support units into one organization to support an active Army installation hospital. Such an integrated organization would increase the installation's ability to provide health care and would reduce medical costs.

During FY 1997, a total of 6,948 reserve component soldiers (2,354 ARNG; 4,536 USAR; and 58 IMAs) were mobilized in support of JOINT ENDEAVOR and JOINT GUARD. The majority of units deployed to Bosnia provided civil affairs, PSYOP, public affairs, firefighting, military history, rear area operations, military police, aviation, and infantry support. Additional reserve component personnel augmented or backfilled USAREUR staffs and units in Germany, contributing postal, movement control, public affairs, military intelligence, finance, and personnel administration support. A small number of reserve component units were activated to support CONUS mobilization stations and to backfill deployed units. Since the beginning of JOINT ENDEAVOR in December 1995, a total of 15,074 soldiers (4,503 ARNG; 10,164 USAR; and 407 IMAs) have been mobilized from 465 reserve component units to support the operation in Bosnia and Hungary.

ARNG soldiers also deployed in support of Task Force ABLE SENTRY as part of the United Nations Preventive Deployment Force in Macedonia. An ARNG combat support/combat service support slice, consisting of 65 soldiers from Colorado, Illinois, and Missouri, deployed to Macedonia in August 1997 as part of the 1st Armored Division's Task Force 1–6. The deployed soldiers—military police, aviation, and engineer personnel—will be replaced in January or February 1998 by a new element of 52 soldiers. An additional 3,090 ARNG soldiers were deployed to Europe in support of the USAREUR Equipment Maintenance Program and the

Combat Equipment Group-Europe, while 170 stationed at Camp Darby, Italy, provided maintenance support for Army war reserve equipment.

Under its State Partnership Program, ARNG participated in EUCOM's Joint Contact Team Program, presenting a role model of a military force subject to civilian authority for Central European and former Soviet Union countries. Through the program, ARNG personnel taught military members of partner countries how to provide support to civilian authorities during civil emergencies and natural disasters and offered assistance on recruiting, retention, reserve training, mobilization, building a professional noncommissioned officer corps, and engineering exercises. During FY 1997, ARNG sent traveling contact teams, seminar participants, and state adjutant generals and governors to visit partner countries in Central Europe and the former Soviet Union, as well as hosting 134 familiarization tours within CONUS. Approximately 390 ARNG soldiers deployed to participate in 198 events in Albania, Belarus, Bulgaria, the Czech Republic, Croatia, Estonia, the Republic of Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Slovakia, Slovenia, and Ukraine. The cost of the program was $17.3 million. In addition to thirteen Military Liaison Teams, ARNG provided five personnel to serve as regional program managers at EUCOM headquarters. The State Partnership Program also hosted the National Interagency Counterdrug Institute Seminar on Military Support to Civil Authorities for twenty Central European and former Soviet Union partner nations.

A total of 2,100 ARNG soldiers from military police units were deployed worldwide in FY 1997 for force protection, installation security, and law enforcement activities, while nearly 4,500 conducted humanitarian and civic assistance projects in various host nations, building or rehabilitating a total of 21 schools, 7 clinics, 3 community centers, 4 wells, and 22 kilometers of farm-to-market roads. Another thousand ARNG soldiers deployed to U.S. Army, South, to provide organizational and direct support maintenance at the theater and equipment maintenance site. During Operation PATRIOTS MOVE, 6,589 soldiers moved the 35th Air Defense Artillery Brigade from Fort Lewis to Fort Bliss, using ships, trains, and trucks.

Reserve Component Support to Civil Authorities

Most reserve component support to civil authorities relates to the counterdrug effort, which increased significantly during FY 1997 for both USAR and ARNG. USAR units and personnel constructed roads and fences along the Southwest border and provided linguists and intelligence analysts to U.S. and foreign drug law enforcement agencies, conducting 178 missions with 1,785 soldiers. ARNG soldiers assisted in marijuana detection and eradication, inspected container cargos at ports of entry, and

conducted aerial and ground reconnaissance. In addition, they provided transportation, engineer, linguist, intelligence, aviation, and drug demand reduction support. ARNG completed about 9,500 counterdrug operations during the year in all 54 states and territories, with 3,000 soldiers involved on a daily basis.

With passage of the Defense Against Weapons of Mass Destruction Act of 1996 (commonly called the Nunn-Lugar-Domenici legislation), USAR acquired a new and significant mission. In addition to containing the majority of the Army's chemical and medical units, USAR can contribute a multitude of transportation, quartermaster, communications, civil affairs, and engineer assets in response to a terrorist incident involving weapons of mass destruction (WMD). To improve its ability to provide military support to civilian authorities in such cases, USAR has appointed State Emergency Preparedness Liaison Officers, Regional Emergency Preparedness Liaison Officers for Federal Emergency Management Agency (FEMA) regions, and Emergency Preparedness Liaison Officers to serve with each U.S. numbered army. USAR established a Weapons of Mass Destruction Domestic Preparedness Branch in Atlanta, Georgia, to oversee all of USAR's WMD initiatives.

USAR's primary initiative involves the use of its DIVITs, each of which is aligned along FEMA boundaries and has a medical brigade and chemical battalion capable of providing trained instructors. The Chemical and Biological Defense Command, responsible for overseeing the training initiative under the Nunn-Logar-Domenici legislation to train the first responders in WMD terrorist incidents, provides accreditation to instructors in the DIVITs. A core group of USAR instructors is currently augmenting instructors from the Chemical and Biological Defense Command in providing the first week of training to first responders. Each USAR WMD training team includes soldiers with extensive nuclear, biological, and chemical (NBC) backgrounds and with civilian experience in law enforcement, firefighting, hazardous materials, or emergency medical service. The teams are capable of providing mobile team training, distance learning, or instruction through local USAR centers. Two USAR efforts will decrease the current cost of training city officials and their first responders. Each DIVIT will be restructured to include a WMD battalion capable of offering initial, sustainment, and exercise training for first responders. In addition, five simulation brigades have been tasked to develop and execute simulation training for city officials and first responders.

Throughout FY 1997, ARNG units from forty-five states performed 214 domestic support missions, which included law enforcement support, medical evacuation, search and rescue, provision of emergency power and communications, road and debris clearance, security and patrolling, flooding relief support, provision of emergency shelter and potable water,

and general aviation support. ARNG's most significant operations in natural disaster relief during the year occurred as a result of Hurricane Fran in North Carolina, Hurricane Hortense in Puerto Rico and the Virgin Islands, and flooding in the Midwest and the Ohio River Valley. ARNG members also participated in the 1997 Presidential Inaugural, serving as security and ceremonial personnel and providing equipment. In the Benedum Airport Project, an ARNG Innovative Readiness Training Project in FY 1997, ARNG engineers assisted the West Virginia Airport Authority. Engineer units also contributed to the Navajo Nation Building Project, reconstructing Blue Canyon Road between Sawmill and Fort Defiance in Arizona. During REEFEX, ARNG soldiers stripped decommissioned tactical vehicles and dropped them in preapproved locations off the coast of New Jersey to establish artificial reefs to prevent coastal erosion and to provide a home for marine life. ARNG members, beginning a five-year involvement, participated in the organization and planning of a road construction project that will benefit the Netlakatla Indian community in Alaska.

Equipment and Maintenance

Both USAR and ARNG made significant strides towards conserving resources. In keeping with the Revolution in Business Affairs, the Guard Management Control Process Administrators trained 1,017 program managers and administrators in FY 1997, a 54 percent increase over FY 1996. At the beginning of the year, ARNG had identified 21 areas in which improvements needed to be made in efficiency and economy. By the end of FY 1997, only 4 had been completed and 7 new areas identified, leaving a total of 24 areas requiring improvement. In one program, the Guard Materiel Management Center in Lexington, Kentucky, conducted Internet searches of surface and air Class IX parts that were available from Defense Reutilization and Marketing Offices worldwide and redistributed them to ARNG units, posting results on a web page. USAR reengineered its financial management and business practices, resulting in a decrease of negative unliquidated obligations from $28 million in FY 1996 to $3 million in FY 1997. ARNG further improved its financial situation by reducing its unliquidated obligations from $10.8 million to $5,000 during FY 1997. Only 8 percent of all Army unmatched disbursements resulted from ARNG, which processed $6.2 billion in total net disbursements during the year.

Having determined that the first-to-fight units should be the first to receive resources, the Army has begun to provide a higher priority of funding in both the active and reserve components for combat service support units required to deploy early. In the past, trucks, medical items, and other key combat service support often did not receive procurement funding because they did not have a high enough priority. Even though the active

and reserve components were being integrated along force structure lines, DOD budgeting had not been reformed to reflect the changes. The Army consolidated all service requirements in 1996 into a single administrative process, which placed reserve requirements on an equal footing with active Army requirements. Nevertheless, shortfalls in essential equipment that existed in FY 1997 in the reserve components are predicted to continue as budgets decline. USAR experienced an equipment-on-hand readiness rating of C–3 or higher in 85 percent of its units.

The Army's current policy on equipping its force relies heavily on redistribution of equipment, modifications, smart business practices, and procurement. In FY 1997, the reserve components received the following equipment through redistribution or cascading: M1A1 Abrams tanks, Bradley Infantry Fighting Vehicles, M113A3 Personnel Carriers, Multiple Launch Rocket Systems, CH–47D transport helicopters, UH–60 helicopters,night vision devices, field kitchens, transporter bridges, and tactical wheeled vehicles. Much of the equipment, however, is old and approaching the end of its life cycle. The reserve components are also scheduled to receive new Patriot missiles, Avenger missiles, Global Positioning System equipment, tactical wheeled vehicles, the Palletized Load System, heavy equipment transporters, NBC equipment, SINCGARS radios, All-Source Analysis Systems, M40 protective masks, Reverse Osmosis Water Purification Units, M916A2 Tractors, 120 mm. mortars, and UH–60 helicopters. Fielding of the Paladin field artillery system to units at echelons above division will begin with three battalions in FY 1998. Five battalions will be fielded in FY 1999 and one in FY 2000. Five additional battalions of Paladin will be fielded to Ehanced Separate Brigades in FY 2000 and one in FY 2001. In addition, the UC–35 was fielded to USAR in FY 1997—the first jet aircraft to join the fixed-wing fleet. By the end of FY 1998, USAR aviators will be flying two UC–35 jet aircraft. To ensure that its soldiers can operate the new acquisitions, ARNG instituted an extensive New Equipment Training Program.

To extend the service life of equipment and improve or modernize its systems, USAR relies on depot maintenance. FY 1997 programs encompassed converting 1,800 generators to diesel; rebuilding 222 generators; rebuilding 151 D7–F bulldozers; upgrading and rebuilding 89 rough terrain cargo handlers; converting trailers; refurbishing and upgrading computers; modernizing trailers and tankers; remodeling 1,500 high-mobility, multipurpose wheeled vehicles; remodeling 5-ton trucks; and remodeling and upgrading watercraft and marine equipment. Most of these systems will be rebuilt or remanufactured to original specifications or conditions under the Extended Service Program.

All maintenance on Army equipment conducted above the direct support level is called sustainment maintenance. With implementation of

the Integrated Sustainment Maintenance program in May 1996, all Army organizations and activities conducting general support maintenance or above were combined into the National Sustainment Maintenance Management Office at Rock Island Arsenal, Illinois. Integrated sustainment maintenance (ISM) focuses on rebuilding equipment on production lines at central locations rather than repairing components locally or purchasing new components. The national office coordinates regional sustainment maintenance, facilitates the transition to war, and supports contingency operations. Regional sustainment maintenance management offices have been created at Fort Bragg, North Carolina, and Fort Hood, Texas, and in USAREUR, with others to be opened in U.S. Army, Pacific, and Korea.

The major commands (MACOM), with an ISM control cell at the Army National Guard Readiness Center in Arlington, Virginia, provide oversight of the program in eight local sustainment maintenance management areas (Texas, Nebraska, Utah, Ohio, Maine, Pennsylvania, Mississippi, and North Carolina). The MACOMs established local sustainment maintenance management offices, with 22 fielded by the end of FY 1997 and another 13 planned for FY 1998. Within each region, repair activities that provide quality repairs at the least cost have been identified as centers of excellence, which receive awards to repair specific components through a competitive bid process. Of 117 such activities, 19 belong to FORSCOM, 18 to TRADOC, 77 to ARNG, and 3 to USAR. Planning for similar maintenance activities overseas will continue in FY 1998.

Through the Retrograde of Equipment from Europe program, excess Army equipment from Europe is redeployed, repaired, and redistributed. ARNG operated five program repair sites in FY 1997: Fort Riley, Kansas, for wheeled and tracked vehicles; Camp Shelby, Mississippi, for wheeled and tracked vehicles; Piketon, Ohio, for engineer and wheeled equipment; Fort Indiantown Gap, Pennsylvania, for M3A2 Bradley Fighting Vehicles and wheeled vehicles; and Camp Withycomb, Oregon, for communications and electronics equipment. Seventy-five percent of the 315 personnel working at the sites are ARNG personnel, while the rest are state or federal civilian employees.

In an effort to maintain operational readiness of more than 2,400 ARNG aircraft, 500 aircraft were refurbished during FY 1997, and 220 of the oldest aircraft were retired. Improvements to ARNG aviation maintenance program were initiated with the creation of the Aviation Classification and Repair Activity Depot 21 project. Regional centers, rather than obtaining costly parts from the Army wholesale supply system, will conduct component part repairs on aircraft and return them to service with a lesser expenditure of funds. In addition, ARNG reorganized its support of expensive Stock Funded Depot Level Repairables for aviation

by concentrating them in regions. Under another initiative the Army Aviation Support Facility (AASF) 2000 project studied what organization will be necessary to support new aircraft being fielded to ARNG units. After determining the facilities, support equipment, tools, personnel structure, training, and mission that will be necessary to maintain readiness of all ARNG aircraft, selected AASFs began testing the project's recommendations. With AASFs linked electronically with the National Guard Bureau, ARNG fielded an electronic transmission of real-time aircraft readiness data through the Aviation Logistics Module 1352 report, enabling more efficient use and management of this critical resource.

In September 1997 all Army components participated in the DOD Aviation Safety Stand Down, during which safety training was conducted and a commander's evaluation of unit safety was generated in every unit. Despite dwindling resources in the flying hour program, ARNG continued to lead the rest of DOD in aviation safety, with a Class A through C accident rate of only 2.76 percent. In addition, the number of Class A through C ground accidents decreased by 5 percent during the fiscal year. Of the ground accidents, only 30 percent involved vehicles (19 percent Army and 11 percent privately owned), while 65 percent were personal injury accidents. With a disproportionate number of fatal injuries occurring from vehicular accidents, however, ARNG launched an aggressive national safety awareness campaign and unit training to reduce their occurrence.

In one initiative to enhance aviation readiness and safety without incurring high costs, ARNG developed an Aviation Reconfigurable Manned Simulator that can be programmed to resemble each helicopter in ARNG's inventory. The prototype was demonstrated in FY 1997 and will be used in the Division XXI Aviation Task Force during the November 1997 advanced warfighting experiment. ARNG anticipates initiating a contract at the end of FY 1998 for six collective training suites of the simulator system.

Upgrading software and hardware requires an initial investment of funds that will eventually result in cost savings and efficiency. During FY 1997 ARNG purchased Windows NT, Microsoft Backoffice, and Microsoft Office 97 Professional as its standard network server and office automation software and fielded the products to all fifty-four states and territories. These programs enable ARNG systems to interact with the Reserve Component Automation System and the Joint Technical Architecture. To replace an outdated twelve-year-old automated system, ARNG purchased the Hewlett Packard 9000 K260 computer system. ARNG will complete its transfer of the database of records, with maintenance required by congressional legislation, to the new system by the middle of FY 1998. At that time, ARNG will begin to save $3.5 million in yearly maintenance costs. Newly responsible in FY 1997 for the Army's Mobilization Movement Control (MOBCON) system, ARNG moved the Wang mainframe computer from

Fort McPherson, Georgia, to the Army National Guard Readiness Center in Arlington, Virginia, where it is transferring MOBCON to Windows NT in an operation that should be complete by February 1998.

One of the methods by which USAR has reduced costs is the Shop Smart Program. Until recently, all base operations support was required to be provided by active Army military installations, requiring USAR units to travel long distances to obtain basic supplies and services. With base closures and the downsizing of the active force, this situation worsened. In addition, all supplies purchased through the Defense Logistics Agency acquired a 23 percent surcharge. A significant change permits USAR units to purchase items directly from local vendors, providing large savings when buying repair parts at fleet prices throughout the national commercial parts infrastructure, in addition to eliminating the Defense Logistics Agency surcharge. Some national agreements with major manufacturers offer a "corporate purchase rate" to USAR, decreasing its costs.

Both ARNG and USAR operate and must maintain a vast inventory of installations and facilities. ARNG consists of 3,735 units in 2,700 communities on 3,360 installations in 54 states and territories. In addition, ARNG supported the operation and maintenance of more than 18,000 training, aviation, and logistical facilities. USAR occupied 1,300 facilities, consisting of 2,800 buildings and structures with an average age of 33 years, and operated additional installations with another 2,600 buildings averaging 47 years old. During FY 1997, $179.5 million was awarded from various years' appropriations for 50 major construction projects, which will help USAR to modernize, maintain, and repair its facilities infrastructure. The FY 1997 appropriation of $78 million for major construction encompassed 16 projects in Arkansas, Iowa, Kansas, Louisiana, Massachusetts, Missouri, Texas, and Wisconsin. Of the appropriation, $52 million is allotted for major construction, $20 million for planning and design, and $5.5 million for unspecified minor construction. The FY 1999 appropriation of $71.3 million for USAR military construction will fund the construction of three new USAR centers in Michigan, Utah, and Virginia and an Aviation Support Facility in Virginia; revitalization of facilities in Colorado, Massachusetts, and New York; purchase of a leased facility in Ohio; acquisition of land for a future project; and construction of an airfield crash rescue station and improved machine gun range at Fort McCoy, Wisconsin.

Because of a congressional increase in funds, ARNG was able to obligate $203.5 million for real property maintenance (RPM) in FY 1997, although this was $23 million less than in FY 1996. RPM funds were used to pay the costs for facility operations and projects; engineering services; utilities; and minor construction, maintenance, repair projects, and supplies necessary to extend the useful life of ARNG facilities. In FY

1988, ARNG's RPM fund provided $3.41 per square foot to operate and maintain its facilities; this amount dwindled to $2.95 in FY 1997, or $2.30 in constant FY 1988 dollars.

USAR commands and controls six major installations, of which two (Fort McCoy and Fort Dix) are power-projection installations. Relying on USAR to manage these power-projection installations relieves active Army installations of simultaneously supporting the mobilization of the USAR while deploying active Army units. FY 1999 RPM for USAR was funded at only 38 percent of its $158.9 million requirement, creating a shortfall of $58.1 million. This continued inadequacy in RPM funding has led to deterioration of USAR facilities, forcing unit commanders to spend other mission dollars on RPM. Repairs to critical components, such as structure, roofs, plumbing, and electrical and heating and air conditioning systems, have been continually deferred. Health, safety, property security, training, readiness, recruiting, retention, and quality of life have all been negatively affected.

ARNG's Environmental Program focuses on four major areas: compliance, restoration, pollution prevention, and conservation. During FY 1997 ARNG removed or upgraded 400 underground storage tanks that had not met Environmental Protection Agency standards. In addition, it reduced the number of violations at ARNG facilities 25 percent by upgrading vehicle wash-racks at 85 facilities, conducting 14 air-quality emissions surveys, constructing 58 hazardous waste storage buildings, building 52 spill containment structures, installing 75 oil and water separators, and completing the cleanup of petroleum spills and contaminated indoor rifle ranges. In a new initiative, ARNG in FY 1997 created at each state headquarters an environmental management cell that provided environmental awareness training and rapid response to environmental issues. A new software program, Windows Compliance Assessment and Sustainment Software, provided installation commanders with a tool to identify compliance problems, develop a correction plan, estimate costs, analyze causes and trends, perform risk management, and track progress.

Pollution prevention and restoration projects also received considerable attention. ARNG spent $2 million on pollution prevention projects, exceeding DOD's goal for reducing hazardous waste generation.

With respect to conservation in FY 1997, ARNG completed 2 environmental impact statements; 21 environmental assessments; 2 instruction manuals on managing training lands; 20 surveys on threatened and endangered species; 7 surveys on cultural resources; 12 surveys on biological resources; and 4 natural resource management plans. In addition, 26 natural resource management plans were initiated. Through the Environmental Program, ARNG aggressively implemented the Integrated

Training Area Management Program at forty-three separate locations, with the goal of including all primary training sites by FY 1999. The Geographical Information Services (GIS) system, an analytical support package that assists in developing realistic training to meet environmental requirements, was in place in thirty-one states, with ten having been added in FY 1997. ARNG was selected to operate one of the Army's four GIS regional support centers in FY 1998. Throughout FY 1997, ARNG spent $26.5 million conducting 22 preliminary assessments of sites for possible contamination, 13 site inspections, 10 remedial investigations to determine the extent of contamination, and 16 remediation projects to eliminate contamination. These activities, part of the Installation Restoration Program, were also initiated at an additional 136 sites in FY 1997.

7

Logistics

Management and Planning

In keeping with *Army Vision 2010*, the Army continued its Revolution in Military Logistics during FY 1997. To support a highly mobile force, Army logistics is being transformed from a system of large stockpiles, little visibility of goods while in transit, and slow or unresponsive distribution to a system with small stockpiles, high visibility of goods in transit, and an improved distribution system. The Revolution in Military Logistics encompasses radical changes in three areas: force projection, force sustainment, and technology application. Increased strategic mobility, enhanced support to individual soldiers, and improved business practices are essential for Army logisticians to be able to support missions across the full spectrum of military operations. With industry as its partner, the Army has focused on attaining information supremacy, integrating systems, and redesigning its organizations to create a single, seamless logistics system. Logistics initiatives that will provide real-time, global visibility and management of logistics resources and capabilities include joint total asset visibility, in-transit visibility, battlefield distribution, velocity management, and the integrated combat service support system.

Partnerships between the government, industry, and academic institutions will decrease the high costs and lengthy procurement cycles for many military items through contract reform, innovative production practices, and new research. As the Army's reliance on the defense industry grows, logistics planning and execution will require the full participation of the industry. At the end of FY 1997, the commercial sector operated ten Army logistics facilities, maintained two inactive Army plants, and leased sections of the Anniston Army Depot, Alabama. All of these actions reduced the Army's overhead costs.

During FY 1997 the service announced the Army Wholesale Logistics Modernization Program, which envisions outsourcing the existing dated system to a private sector contractor that will gradually introduce modern information technology. Anticipated benefits include reducing wholesale logistics inventories by billions of dollars, increasing supply availability,

cutting logistics system response time significantly, and improving readiness. The U.S. Army Communications-Electronics Command has the lead on the program.

To ensure that logistics initiatives are in line with *Army Vision 2010* and to guide the logistics process, the Army Strategic Logistics Plan was created. Priorities for Army resources and requirements have been set in the plan, which provides objectives for the near term, midterm, and long term. To incorporate the Revolution in Military Logistics, the Army Strategic Logistics Plan was rewritten during FY 1997 and will be completely revised by the end of October 1997. The plan provides senior logisticians a framework for establishing the logistics infrastructure needed to accomplish the Revolution in Military Logistics as the Army proceeds from Force XXI initiatives to the Army After Next (AAN).

With the Installation XXI concept, the Army intends to develop effective and economical installation services aligned to support and maintain military forces at an appropriate readiness level. Installation XXI will be achieved through the successful implementation of *Installation Vision 2010*, which establishes policy and doctrinal guidance for planning, programming, and operating Army installations. Through *Installation Vision 2010*, the Army plans to correct deficiencies in installations and their services that have occurred as a result of inadequate funding. Army installations today experience high levels of mobilization, training, deployment, sustainment, and redeployment of troops, creating a more insistent demand that aging and deteriorating infrastructures be significantly improved.

Because most continental United States (CONUS) installations have been designated as power-projection or supporting platforms, installation management is one element in the Army Strategic Mobility Program (ASMP). The ASMP's Strategic Mobility Infrastructure Program provides funds to improve the infrastructure at power-projection installations. To ensure that military forces and their equipment can be deployed within established guidelines, rail systems, airfields, ports, storage facilities, depots, and warehouses must be modernized, expanded, and improved. In addition, the ASMP calls for an expansion in Army equipment pre-positioned afloat on ships, an increase in rail cars and containers, automation of the deployment process, modernization of watercraft, and improved deployment training. Under the Strategic Mobility Infrastructure Program, projects costing $56 million in Military Construction, Army, funds were initiated at Fort Benning, Georgia; Fort Lewis, Washington; Fort Campbell, Kentucky; and the Port of Concord, California, in FY 1997.

Additionally, of five construction projects awarded in FY 1997, the Army was upgrading and extending the Charleston Naval Weapons Station Pre-position Facility and Wharf, South Carolina, to support its pre-positioned equipment afloat; and upgrading ammunition facilities at

West Coast ports. The U.S. Army Corps of Engineers (USACE), using $2 million from Operations and Maintenance, Army (OMA), funds, improved facilities at the Hawthorne Army Depot, Nevada; the Blue Grass Army Depot, Kentucky; Fort Eustis, Virginia; and the Crane Army Ammunition Activity, Indiana.

The installation status report (ISR) provides an installation commander with a more accurate depiction of the condition and maintenance requirements of facilities. Before the ISR, a commander relied on the vastly understated backlog of maintenance and repair as the measure of an installation's condition and justification for future funding. Nevertheless, installations did not receive sufficient funds to fill even their minimally stated requirements, resulting in severe deterioration over the years. Using the ISR in 1996, the Army began estimating the total funds needed to eliminate long-standing deficiencies and to upgrade facilities to modern standards. Using cost algorithms to determine how much money would be needed to bring Army facilities to acceptable levels, the ISR demonstrated that previous requirements had been severely underestimated. In FY 1997 ISR data analysis indicated that the cost to bring all Army facilities, except for family housing, to a C–1 condition would be $25.7 billion. In contrast, the last reported estimate under the previous system was only $3 billion.

The creation of the assistant chief of staff for installation management (ACSIM) in 1993 provided a single proponent for base operations (BASOPS) of 269 Army installations throughout the world. ACSIM conducts oversight of $100 billion of real property and 12 million acres of land. The cost of BASOPS, $10 billion annually, is 16 percent of the Army's total budget and one-third of its discretionary funds. Most BASOPS activities occur in the civilian world—building and road maintenance, obtaining and distributing supplies and material, and managing equipment maintenance—and the Army has determined which should remain under Army operation and which should be contracted to civilian firms. Despite its importance, however, only 81 percent of all BASOPS requirements were funded in FY 1997, further contributing to the difficulty in improving installation infrastructure.

An important element of power projection is the ability to transport goods. During DESERT STORM, commercial rail cars for moving Army equipment and ammunition to ports of embarkation were inadequate in number and response time. The Defense Freight Railway Interchange Fleet (DFRIF), which provides flatcars to transport heavy DOD equipment and tankers to move bulk petroleum, oil, and lubricant products, pre-positioned part of its fleet at the Forces Command (FORSCOM), the Training and Doctrine Command, and the Industrial Operations Command ammunition depots and plants to solve the problem. In 1993 the Army established the ASMP Rail Program, in which the acquisition of 1,090 rail cars was

directed to supplement the DFRIF pre-positioned cars. By the end of FY 1997, the Army had purchased and modified 590 used rail cars for use at Force Support Package 1 ammunition depots and plants. The ASMP Rail Program also funded railroad track maintenance, new tracks, hardstand construction, and the purchase of container-handling equipment.

Total asset visibility is one logistics initiative that provides better stewardship of Army assets and improved command and control. It enables the Army to continually track the flow of equipment and supplies so that the right item arrives at the right location at the right time. Total asset visibility is currently being used in Bosnia and Europe, providing real-time information on equipment inventory in depots, contractor facilities, and units, as well as in transit between locations. Using total asset visibility, the Army is able to redistribute assets instantaneously, divert assets that are in transit, and avoid buying and repairing unnecessary items.

In another initiative, the Army ceased funding the Department of the Army Movements Management System–Redesign (DAMMS–R) in June 1997 other than to resolve year 2000 problems. Transportation Coordinator's Automated Information for Movements System II (TCAIMSII), which will transmit intertransit visibility to the Global Transportation Network, was designated as the successor to DAMMS–R. The Movement Tracking System (MTS), which currently transmits transportation movement data of Army cargo directly to the Global Transportation Network, is scheduled to interface with TCAIMSII in FY 2000. The MTS consists of commercial satellite tracking technology acquired under an Office of the Deputy Chief of Staff for Logistics (DODCSLOG) initiative and installed in selected United States Army, Europe (USAREUR), transportation units.

Under velocity management, the Army strives to guarantee timelines for delivery of supplies and equipment to units, thereby reducing administrative requirements, decreasing stockage costs, and improving delivery times. Success is measured by the order-ship time, or the number of days from when a customer submits a requisition until the item arrives at the appropriate supply support activity. The Army did not, however, meet any of its velocity management goals in FY 1997. Although the goal was to achieve an order-ship time of 5 to 8 days for items within CONUS, the actual order-ship times ranged from 14.4 to 27.5 days. For supplies and equipment transported overseas by air, the order-ship time goal of 15 days was exceeded, with actual order-ship times from 17.9 to 23 days. Nevertheless, order-ship times have gradually improved each year, with the greatest reduction occurring among items shipped overseas. A Velocity Management Group, made up of senior Army logisticians, worked extensively with Army installations and Defense Logistics Agency to synchronize cycle times, provide dedicated transportation support, and eliminate wasted time.

In another effort at streamlining logistics operations, the Task Force on Equipment Reduction and Redistribution created the *Automatic Disposal List*, which was in its third year of publication in FY 1997. The list identifies equipment that can be turned in for easy and quick disposal by modified table of organization and equipment (MTOE) and table of distribution of allowances (TDA) units without gaining prior approval from the National Inventory Control Point, as was previously required. Equipment on the *Automatic Disposal List* may be relinquished in an "as is" condition as long as its disposal will not create a shortage in the unit. Units must dispose of their equipment through their supply support activity and, if an MTOE or TDA equipment shortage will be created, must obtain permission from the nearest colonel in their chain of command. The *Automatic Disposal List* includes weapons systems, systems requiring demilitarization, and systems in precious metal recovery programs.

The Logistics Civil Augmentation Program (LOGCAP) was devised to augment organic and traditional logistical support provided to warfighting commander in chiefs (CINC), foreign governments, and international organizations through long-term contractual support that could be activated in peacetime, contingency situations, or war. Readily available civilian contractors would provide needed combat support and combat service support, offer a rapid contracting capability, and assist in constructing and operating bases and logistics camps for deployed troops during the first 180 days of a contingency. Other support would include weapons systems maintenance, materiel management, transportation, and port operations. In the contingency planning documents, the contractor would specify requirements, resources, costs, timelines, and quality-control measures.

The first comprehensive LOGCAP support contract, administered by USACE, was awarded to Brown & Root Services Corporation in 1992 and ended on 2 August 1997. Brown & Root supported six contingency operations (Somalia, Rwanda, Saudi Arabia/Kuwait, Haiti, Italy, and Bosnia) at a cost of $823.6 million. Its support to Operation JOINT GUARD was extended under the sole-source Balkans Sustainment Contract managed by USAREUR and USACE. On 1 October 1996, the Army Materiel Command (AMC) became responsible for administering the next LOGCAP contract, which was awarded to DynCorp (Aerospace), Inc., on 30 January 1997. This AMC support contract focuses on peacetime contingency planning that will provide logistical, engineering, and construction support as needed by CINCs. The doctrine for LOGCAP planning, acquisition, and utilization has been incorporated into Army publications and programs of instruction. During FY 1997 the LOGCAP regulation, Army Regulation 700–137, was under revision.

To maintain a daily capability to respond to crises as part of crisis response cells or crisis action teams, ODCSLOG operates a Logistics

Operations Center within the Army Operations Center. The Logistics Operations Center was staffed with four personnel in FY 1997: the officer in charge (a colonel), two briefing officers (lieutenant colonel or major), and an administrative officer (General Schedule [GS]–12). During crises the cell was augmented with other personnel from ODCSLOG, AMC, the Office of the Surgeon General, and the Military Traffic Management Command. In addition to providing logistics support to the Army Operations Center, the Logistics Operations Center tracks projects, operations, and tasks for the deputy chief of staff for logistics.

In response to changes in the post–Cold War NATO (North Atlantic Treaty Organization) environment, the NATO Land Forces Logistics Working Group established NATO's operational logistics support doctrine in the draft Allied Joint Logistics Publication–4, *Allied Joint Logistics Doctrine*. The working group also decided that Standardization Agreement 2406, Allied Logistics Publication–9, *Land Forces Logistics Doctrine*, required revision to reflect the doctrine in the new draft publication. Originally ratified in 1993, the revision of *Land Forces Logistics Doctrine* in FY 1997 changes logistics support in multinational operations to a collective rather than a national responsibility. The revision will be presented to the working group in April 1998 and, after a national review by working group members, will be ratified and implemented.

Maintenance

During 1997 only five maintenance depots and eight ammunition plants remained in the Army depot system. Developing and producing advanced weapons systems and military equipment had largely devolved to the commercial defense industry. Except for depot facilities at Watervliet, New York, and Rock Island, Illinois, the Army depot system had been transformed into providing only rebuild and maintenance of major-end items. Depot maintenance has become the Army's strategic maintenance sustainment base, capable of filling equipment shortages, modernizing the force, and ensuring equipment readiness for 25 percent of new equipment procurements. Nevertheless, the depot requirement in FY 1997 for $931 million was funded at 77 percent, leaving $214 million of maintenance requirements unfunded. Although the defense industry has become interested in conducting rebuild and overhaul work, legislation limits the percentage of depot maintenance conducted in the private sector to 40 percent. Congress in 1996 defeated the Department of Defense (DOD) proposal to lift this restriction, but at the end of FY 1997 was considering DOD's request to amend the legislation to allow the defense industry to perform 50 percent of depot maintenance.

The Army is currently in the process of consolidating core depot maintenance capabilities at organic depots to improve efficiency and to

complete the non-core depot maintenance workload. The Base Realignment and Closure Commission (BRAC) in 1995 recommended, and Congress approved, switching the tactical missile guidance system mission from Letterkenny Army Depot to Tobyhanna Army Depot, both in Pennsylvania, or to the private sector. Moreover, BRAC stated that all maintenance missions not pertaining to the Bradley Fighting Vehicle should be moved from Red River Army Depot, Texas, to other depot maintenance facilities, or the private sector. As statutory restrictions hampered implementation in 1996, the Army decided against privatizing the tactical missile guidance system mission. Red River would retain the Bradley and the Multiple Launch Rocket System, while the M113 Armored Personnel Carrier and the M9 Armored Combat Engineer Vehicle would be moved to Anniston Army Depot and the AH–64 Apache Armament Subsystem to the Corpus Christi Army Depot, Texas, by FY 1999. During FY 1997, the Army worked to move the towed/self-propelled combat vehicle mission from Letterkenny Army Depot to Anniston Army Depot by FY 2000.

The readiness status of sixteen major weapons systems provides a baseline for the Army to assess its ability to sustain intense combat operations for a lengthy period. The percentage of time in which each weapons system is fully mission capable is an indicator of readiness and readiness trends. For aircraft, the goal is 75 percent fully mission capable, except for the UH–60, for which the goal is 80 percent. For all other equipment, the goal is 90 percent. During FY 1997 all systems exceeded their goals, resulting in a vast improvement from FY 1996, when five systems did not meet their goals. Moreover, the fully mission-capable rate of every system either improved or remained the same; none decreased. Far more significant, however, was the tremendous increase in readiness of several systems. The M1A2 Abrams tank increased its fully mission-capable rate from 71 percent to 95 percent; the UH–60 helicopter from 69 to 81 percent, the AH–64 helicopter from 64 to 85 percent, the OH–58D from 75 to 87 percent, and the CH–47D helicopter from 70 to 77 percent. The fully mission-capable rate for each of the sixteen systems is shown in *Table 29*.

Another key indicator of unit readiness is the unit equipment on hand. The Army's goal is to attain an S–3 rating for its equipment on hand, but, at the beginning of FY 1997, 537 units had a rating below S–3. By identifying excess equipment in one unit, the Army can redistribute the equipment to meet a shortfall in another unit, allowing an improvement in overall readiness at minimal cost. The Army established goals for FY 1997 of bringing 56 units to the S–3 readiness level and redistributing $1 billion worth of equipment. Throughout the fiscal year, however, the Army redistributed $2 billion of equipment to the reserve components, resulting in 314 units reaching or exceeding the S–3 readiness level.

Table 29—Fully Mission-Capable Rates, Fiscal Year 1997

Weapons system	Actual (Percent)	Goal (Percent)
M1A1 Abrams Tank	92	90
M1A2 Abrams Tank	95	90
M2 Bradley Infantry Fighting Vehicle	95	90
M3 Bradley Cavalry Fighting Vehicle	94	90
M109 Howitzer	96	90
M198 Howitzer	95	90
Multiple-Launch Rocket System	95	90
Patriot Missile	96	90
Avenger Missile	98	90
HEMTT (Heavy Expanded Mobility Tactical Truck)	90	90
HMMWV (High-Mobility, Multipurpose Wheeled Vehicle)	94	90
HMMWV (Tow)	97	90
AH–64 Helicopter	85	75
OH–58D Helicopter	87	75
CH–47D Helicopter	77	75
UH–60 Helicopter	81	80

Sustainment

Following Operation DESERT STORM, the 1992 DOD Mobility Requirements Study established a framework for force projection operations, and DOD dedicated funds to improve the sealift, airlift, pre-positioned equipment, and installation infrastructure. Under the ASMP, the Army must be able to deploy 1 light brigade within 4 days; 3 divisions (1 light, 1 air assault, or 1 airborne division delivered by air and 2 armored divisions delivered by sea) within 30 days; and 2 more divisions plus corps and theater support elements within 75 days. In the 1995 Bottom-Up Review Update, Army pre-positioned equipment was deemed a necessity to meet early warfighting requirements, provide a U.S. presence overseas, and facilitate force projection. The Global Pre-positioning Strategy meets these timelines by stationing seven sets of unit equipment for heavy brigades in the U.S. Central Command, U.S. Pacific Command, and

U.S. European Command areas of responsibility. The Army is currently completing its redistribution of existing pre-positioned equipment from Europe to Qatar and Korea, as well as continuing to support forces deployed to Bosnia with pre-positioned equipment. All of these sets are stored in climate-controlled warehouses, with some equipment being modernized and digitized to meet Force XXI timelines. The Army War Reserve Support Command, a subordinate element of AMC, manages the Army Pre-positioned Stocks (APS) program. In recent reviews, the General Accounting Office (GAO) has criticized the Army for maintaining excess equipment in the pre-positioned sets and for its level of equipment readiness. The GAO is currently conducting another study on all DOD pre-positioned equipment. *Table 30* shows the equipment and locations for each numerically designated APS.

Table 30—Army Pre-positioned Stocks (APS), Fiscal Year 1997

Designation	Number and Type of Equipment	Location
APS–1	War Reserve Sustainment Stocks 11 Operational Project Stocks (unique equipment sets)	Continental U.S.
APS–2	3 Brigade Unit Equipment Sets War Reserve Sustainment Stocks Operational Project Stocks	Germany, Belgium, Luxembourg, Netherlands, Italy, Norway
APS–3	1 Brigade Unit Equipment Set War Reserve Sustainment Stocks	Afloat on 16 ships
APS–4	1 Brigade Unit Equipment Set War Reserve Sustainment Stocks Operational Project Stocks	Korea, Japan
APS–5	2 Brigade Unit Equipment Sets War Reserve Sustainment Stocks	Kuwait, Qatar

Operational projects are tailored sets of equipment and supplies configured for specific operations, such as field hospitals, port opening operations, airdrop resupply, base camps, mortuary affairs, pipeline operations, bridging, and hot and cold weather clothing. War reserve sustainment stocks enable initial and reinforcing units to operate in a theater for 30 to 45 days. Because of unfunded requirements, however, APS–5 sites have critical shortfalls of repair parts necessary to maintain operations in the first few days of a contingency. To expedite time upon arrival at an APS site, units are issued automated battlebooks on CD–ROM

that describe the assets on hand, provide a schematic of the ship or land storage facility, and explain procedures for drawing equipment.

The APS–3 equipment is being transferred to the new large medium-speed roll-on/roll-off ships, which, in addition to humidity control, have greater capacity and higher speed than the ships currently being used. This will result in fewer ships, decreased force closure times, and enhanced equipment readiness. As of the end of FY 1997, the Army had completed a maintenance cycle of APS–3 equipment on a container ship, an ammunition ship, and a heavy lift pre-position ship.

In April 1996, while developing its acquisition strategy for container ships, the Military Sealift Command requested that the Army quantify its requirements for containers of munitions pre-positioned afloat. The Army currently uses three lighter aboard ships (LASH), stationed at Diego Garcia in the Indian Ocean, to pre-position combat loads of sustainment ammunition afloat for three corps. The ammunition is stored on pallets and placed on seventy barges (each measuring 60 x 26 x 10) on each LASH. Unloading is accomplished by splashing the barges overboard into the sea, pushing the barges to shore with shipboard tugs, and separating the pallets. Container ships offer a faster sailing time (24 knots compared with 16 for the LASH), faster off-loading time (24 hours compared with 2 weeks for the LASH), direct delivery to the user with minimum handling and pilferage, better protection from the weather, partial or selective unloading of munitions, and a quick resupply capability. Two container ships can hold the Army's pre-positioned ammunition, saving $10 million per year in leasing costs. In addition, replacing palletized ammunition with containerized ammunition will save $6 million per year. The Army approved the plan in FY 1997 to pre-position ammunition on container ships and will execute the transfer from the LASH vessels in FY 1999.

Funded under ASMP as the Force Projection Container Initiative and designed to revolutionize how the Army will load, transport, and distribute munitions and supplies, the third generation of the Palletized Load System flatrack (removable cargo bed) is being developed. In March 1996 the Army began evaluating prototypes of the container roll-in/out platform (CROP) that can be inserted and transported inside a commercial container. By June the Army decided to use all FY 1997 flatrack funding ($65.5 million) to purchase CROP flatracks. The CROP flatrack consists of a 16.5-ton capacity wheeled vehicle prime mover with self-load and -unload capability, a 16.5-ton capacity trailer, and a flatrack. Within minutes, the flatrack can be picked up and loaded or unloaded from a container, allowing for rapid movement, relocation, and storage. Contracts were awarded in July 1997 for a total of 15,788 CROP flatracks for pre-positioning at ammunition depots and plants, for use with APS–3, and for training purposes. In September 1997 the Army began to develop a

CROP model for loading Multiple-Launch Rocket System (MLRS) rocket pods and 155-mm. projectiles, which will reduce unloading times to 5 minutes for any type of load, saving 40 to 55 minutes. After validation and testing, the Army will begin to use CROP flatracks in unloading APS–3 munitions stocks when container ships replace LASH ships in FY 1999. A loaded CROP flatrack inside a container will provide additional security and safety over previous flatrack designs.

Cognizant that it must improve quality of life for its soldiers as an important element of sustainment, the Army during FY 1997 awarded 19 projects to improve family housing and made additional awards to renovate or construct 10,607 barracks spaces. Of the 3,400 units of family housing programmed for revitalization or replacement, the Army revitalized or replaced 1,746 units but is still not on track to meet its 35-year-cycle requirements. Funding shortages continued to impair the Army's ability to meet its quality-of-life objectives.

The Army did obtain increased funding to construct, upgrade, and modernize barracks in the Whole Barracks Renewal Program to provide accommodations for single soldiers comparable to those for married soldiers and to what was available in the civilian community. By 2012 the Army plans to provide barracks that provide one room per soldier, a bathroom shared by two soldiers, walk-in closets, new furnishings, additional parking, landscaping, and the separation of living space from administrative offices. In the Barracks Upgrade Program, the same amenities will be produced, although the living spaces will be slightly smaller. As of FY 1997, a total of 23 projects have been awarded to contractors; $149 million was obligated for barracks upgrade during the year. All barracks will be upgraded by 2008 in CONUS, 2010 in Europe, and 2012 in Korea.

Major improvements are also continuing in the Soldier System, the family of integrated systems for the individual soldier consisting of everything that is worn, carried, or consumed in a tactical environment. Developments in individual equipment; weapons; clothing; subsistence items; and command, control, communications, computers, and intelligence system are enhancing a soldier's survivability, lethality, sustainment, and ability to communicate. The Army has developed a cohesive plan for coordinating the development of Soldier System items in the near term, midterm, and long term. Through the Soldier Enhancement Program (SEP), which capitalizes on items available commercially, such as small arms, night vision devices, individual soldier radios, clothing, and individual equipment, solutions can be fielded eighteen to twenty-four months after a concept materializes. Enhancements to clothing and individual equipment (CIE) often require research, development, test, and evaluation (RDTE) that lasts more than thirty-six months. About twenty new SEP/CIE items are under development each year, and in FY 1997

these included lightweight equipment, ballistic and laser eye protection, modular body armor, a modular load system, improved protection with reduced weight, and improved chemical protective clothing.

About 100 to 125 projects for the Soldier System are in various stages of RDTE each year, requiring significant investments in science and technology. Many of these projects fall under the Warrior programs: Land Warrior, Mounted Warrior, and Air Warrior. Land Warrior is the first generation integrated fighting system for dismounted combat soldiers, improving survivability and capabilities for night operations. Each soldier will have an integrated computer/radio; enhanced protective clothing and individual equipment; integrated headgear with helmet-mounted display and image intensifier; and a modular weapon system with a thermal weapon sight, infrared laser aiming light, laser rangefinder, digital compass, video camera, and close-combat optic. The Land Warrior system will include an embedded Global Positioning System (GPS) and an advanced load-carrying capability. With the ability to communicate on the battlefield and to report information in real time through digital and video media, each soldier will contribute to and possess enhanced situational awareness. With an early operational experiment completed in early FY 1997, fielding of Land Warrior is planned for FY 2000. Mounted Warrior is a developmental program that will increase the capability of a crew and fighting platform to identify, locate, and destroy targets under all environmental conditions; improve survivability; and permit operations to be tailored to meet specific missions. Maximizing developments made in other programs, particularly Land Warrior, Air Warrior will develop new and improved aviation life support equipment for rotary-wing aviators. A contract was awarded for Air Warrior in May 1997.

In another initiative that will improve sustainment and quality of life for soldiers, the Army has developed the Army Field Feeding System—Future. At the company level (enhanced), the new system adds an M–59 range to the kitchen for cooking in forward areas. The M–59 does not use gasoline and, therefore, improves safety. With this new system, the Army has given its forward units the capability to prepare and distribute a cooked meal every day rather than every third day.

Security Assistance

United States national security and military strategies are supported through the security assistance program, which promotes the development or maintenance of a military capability sufficient for other nations to defend themselves from aggressors, thereby decreasing the likelihood of U.S. military involvement on their behalf. In addition to improving regional and world stability, the security assistance program improves the

U.S. economy by supporting the defense industrial base. The U.S. Army Security Assistance Command conducts security assistance through foreign military sales in other countries and with international organizations.

Throughout the fiscal year, progress occurred on a variety of foreign military sales programs. The Army delivered AN/TPQ–37 Firefinder artillery locating radars to Korea and began preparing the first 6 of 29 MLRS launchers for delivery in August 1998. Coproduction of 555 M1A1 tanks continued in Egypt and should be completed in 1998. The Army fielded 315 M1A2 Abrams tanks to Saudi Arabia and 245 to Kuwait. In addition, 8 Patriot firing units were delivered to Saudi Arabia in FY 1997, with another 14 to be delivered in FY 1998. Delivery of Patriot firing units to Kuwait, which began in FY 1996, continued throughout the year and will end in FY 1998.

At the end of FY 1997, the most significant Army security assistance programs that were awaiting approval by the State Department included CH–47D helicopters to Greece ($376 million) and Egypt ($149 million); MLRS rocket pods to Israel ($30 million); AN/TPQ–36(V)9 Firefinder mortar locating radars to Turkey ($26 million); and the potential coproduction in Egypt of the M88A2 Recovery Vehicle ($250 million). Additionally, Congress was reviewing a number of programs at the end of the fiscal year: OH–58D helicopters to Taiwan ($172 million); AH–64D helicopters to Kuwait ($800 million); and Stinger missiles to Korea ($45 million). Other programs under consideration by foreign countries included Patriot infrastructure to Japan ($7 million); Bradley system support to Saudi Arabia ($532 million); Hawk missile training and materiel to Greece ($131.7 million); Dual Mounted Stinger to Taiwan ($21 million); Stinger training and support to Korea ($186 million); M60A3 tanks to Thailand ($100 million); and 90-mm. turret weapons system to Saudi Arabia ($1.1 million).

The Foreign Assistance Act of 1961 provides the President with the ability to support foreign policy programs without seeking additional legislative authority or budgetary appropriations. Through a drawdown authority, the president can direct that U.S. government equipment and services be transferred to other nations to assist in emergencies, military contingencies, peacekeeping, counterdrug missions, and humanitarian operations. Although there is a limit on the dollar amount of equipment and services that may be transferred in a given fiscal year, Congress does not reimburse the military services for the equipment they are directed to transfer. In the Army, funds for execution of the presidential drawdown authority are taken from the OMA account; in FY 1997 the Army spent $34.9 million for drawdown activities. The largest transfers were made to Jordan ($9.5 million), Bosnia ($10.1 million), and Mexico ($8.7 million). Equipment and services provided to Jordan and Bosnia were part of a

long-term expansion of military capabilities in those countries, while those delivered to Mexico were in support of counterdrug efforts. Drawdown programs have negatively affected the Army's OMA funds and remained a serious concern throughout FY 1997.

Developing nations are not the only ones to receive security assistance from the United States. The Army participates in material-technical cooperation with industrialized nations to improve the compatibility of their military forces and to foster cooperation with respect to armaments. The Office of the Deputy Undersecretary of the Army for International Affairs (ODUSA [IA]) works with other nations to eliminate duplication, share risk, and reduce costs of developing weapons systems by cooperating and sharing technology. At the end of FY 1997, the Army had 100 bilateral and multilateral international cooperative research and development agreements and 280 data and professional exchange agreements in place with thirty-one countries.

ODUSA (IA) also serves as the point of contact for the Army with members of the Washington Foreign Military Attaché Corps and accredited 168 foreign military attachés from 86 countries during FY 1997. In addition to providing diverse support services to the attachés, ODUSA (IA) hosted visits from high-ranking foreign military and civilian personnel throughout the year. The organization represents the Army on international affairs issues involving other government agencies and multinational organizations. During FY 1997 ODUSA (IA) was involved in, among others, the following programs: Treaty Implementation Planning (Panama), International Commemorations, Vietnamese Commando Compensation, Harvard University Executive Seminar for General Officers from Russia and the Ukraine, Global Humanitarian Demining, and the 1999 Washington NATO Summit.

Research, Development, and Acquisition

In the near term, from FY 1998 to FY 2003, the Army will concentrate its efforts on ensuring that combat capabilities exceed those of potential enemies; funding research and development to support the AAN; retiring old systems that are expensive to maintain and inserting technology into others to extend their useful lives; and achieving information dominance by 2010. During the midterm period, from FY 2004 through FY 2010, the Army will continue to emphasize information dominance, insert technology, and replace old equipment. The Army expects in the long term, from FY 2011 to FY 2020, to invest in science and technology to maintain battlefield dominance. Despite the fact that increased funding for modernization will be needed to achieve full-spectrum dominance, the Army was not forced to cancel any major weapons systems in FY 1997. To support higher priority

modernization efforts, the Army has lengthened the development period or limited the procurement of other weapons systems.

Each of the eleven programs approved for the Warfighting Rapid Acquisition Program (WRAP) in FY 1997 supports the Army's digitization and modernization plans, providing new technology to soldiers as quickly as possible. Funds of $5.6 million are being used in FY 1997 to develop a laser range designator for the Striker Mobile Scout, a scout vehicle based on the high-mobility multipurpose wheeled vehicle (HMMWV), with automated targeting and day/night observation capabilities. Twenty-five prototypes of the digitized Mortar Fire Control System, which will permit integration with other artillery fire control data systems on the battlefield, were being developed with $5 million in FY 1997 funds. A total of twenty prototypes of the Gun Laying Positioning System, which will decrease the time for positioning field artillery guns, were under development for $3.5 million in FY 1997 monies. Another $5 million of WRAP funds are purchasing fifteen prototypes of the Lightweight Laser Designator Rangefinder, a portable, day/night, all-weather laser designator and target locator. A virtual battlefield measuring 300 kilometers in width and depth, the Combat Synthetic Training Assessment Range is being developed for $1.2 million to provide tactical combat training for brigade commanders.

Of the remaining projects, FY 1997 WRAP provided $3.4 million to accelerate by twenty-one months the fielding of the Army Airborne Command and Control System, which will provide enhanced situational awareness for commanders from brigade through corps through improved communications and mobility. A total of $5.84 million is helping to build nineteen prototypes of the Avenger Slew-to-Cue system, which detects, targets, and engages enemy aircraft automatically with Stinger missiles. Two divisions will receive 432 prototypes of the Palletized Load System Enhanced, which provides the capability to pick up and transport 20-foot containers without a flatrack, owing to $3 million in FY WRAP funds. Appliqué, a digital battle command information system that provides situational awareness information in near real time to tactical leaders, received $4.3 million for integration into M1A2 and M2A3 brigades. The Tactical Internet, which was developed for use during the Task Force XXI advanced warfighting experiment (AWE) and is the primary data link in Force XXI, was funded with $8 million in FY 1997 for further development of advanced digital transmission, particularly with respect to the Enhanced Position Location Reporting System and the Single Channel Ground and Airborne Radio System (SINCGARS). The final FY 1997 WRAP project, Radio Frequency Technology, will provide the ability for the Army to track material through the distribution system.

A number of new systems continued under development in FY 1997, particularly in the arenas of air defense, missiles and artillery, intelligence

assets, support vehicles, and command-and-control systems. The Theater High-Altitude Area Defense (THAAD) system, which will form the upper tier of theater air defense while Patriot and other systems provide the lower tier, flew seven flight tests at White Sands Missile Range from April 1995 through March 1997 and conducted successful demonstrations during ROVING SANDS in April 1997 and the Task Force XXI AWE. The first unit is scheduled to be equipped with THAAD in FY 2006. A contract for $80 million was awarded in October 1996 for the multinational Medium Extended Air Defense System, which will neutralize tactical ballistic missiles and unmanned aerial vehicles with ranges of less than 1,000 kilometers. The first U.S. unit will be equipped with the system in FY 2007, while it will appear in Germany and Italy in FY 2005.

With respect to missiles and artillery systems, the Crusader field artillery system remained the Army's top priority ground combat system under development in FY 1997, as 824 separate subsystems were being procured and fielded. Numerous initiatives in acquisition reform have saved the Army $4.5 billion in development costs in the Crusader program. In comparison with the system it replaces, Crusader will require a smaller crew and provide greater range, rate of fire, accuracy, survivability, and mobility. Crusader will begin production in FY 2003 and be fielded in FY 2005. In May 1997 the Army Systems Acquisition Review Council approved full-rate production (FRP) and a three-year procurement contract for the Javelin antitank missile system, a portable weapon providing digital fire-and-forget technology for early-entry forces, dismounted infantry, combat engineers, and scouts that will replace the Dragon missile system. Low-rate initial production (LRIP) began in FY 1996. A seven-missile flight test of the Line-of-Sight Antitank system, which incorporates forward-looking infrared radar (FLIR), an improved fire control system, a laser communications link, and improved target and missile tracking, occurred at White Sands in January 1997. Developed for the HMMWV chassis, the system will be funded in the FY 1998 budget as an advanced concept technology demonstration (ACTD) program.

Intelligence assets have become more critical as the Army moves towards information dominance. The RAH–66 Comanche helicopter, which completed its first flight with retracted landing gear in February 1997, will be the Army's only armed reconnaissance system that can operate in any weather, day or night, in high altitudes or high humidity; that is highly survivable and mobile; and that has an integrated targeting capability. The second prototype is currently under development and is scheduled for its first flight in September 1998. The Advanced Quickfix, a heliborne system that will provide brigade and armored cavalry regiments with an organic electronic warfare capability, entered LRIP in FY 1996. With three models in production at the end of FY 1997, the Advanced Quickfix will be tested

in FY 1998, at which time a decision on FRP will be made. In May 1996 a contract was awarded for a two-year ACTD of the Joint Tactical Unmanned Aerial Vehicle Outrider, which will provide brigade commanders with the ability to conduct reconnaissance, surveillance, and target acquisition more than 100 kilometers behind the forward line of own troops (FLOT). Six outrider systems, each consisting of four air vehicles, a ground control system, modular mission payloads, a ground data terminal, launch and recovery equipment, and other ground support equipment, will be produced. Eight successful operational flights were conducted in FY 1997.

No matter how technologically advanced the Army becomes, it must continue to have a fleet of modern support vehicles. The Grizzly M1 Breacher, which entered the engineering and manufacturing development (EMD) phase in December 1996 and is based on the M1 tank chassis, will provide a capability for breaching simple and complex obstacles for maneuver forces on the move. The EMD phase ended in FY 1997 for the Bradley Fire Support Team (BFIST) Vehicle Thunderstrike, an integrated fire support system on a Bradley chassis that will replace the M981 on an M113 chassis. LRIP is scheduled in FY 1998 for the M7 BFIST located on the Bradley A2ODS (Operation Desert Storm) version and FRP in FY 1999, whereas the M7A1 BFIST located on the Bradley –A3 is scheduled to begin the EMD phase in FY 1998, LRIP in FY 2002, and FRP in FY 2003. In September 1996 the Army approved LRIP for 46 command-and-control vehicles to be delivered from FY 1997 through FY 2000 to replace the M577 and M1068. Five preproduction vehicles received quality testing of critical subcomponents during the fiscal year. The Wolverine (heavy assault bridge), mounted on an M1 chassis, received approval in March 1997 to enter LRIP and will provide the Army with the capability to support an M1 force over gaps up to twenty-four meters in width. The fielding of 10,843 medium tactical vehicles that began in FY 1996 continued during FY 1997, providing the Army with new 2.5- and 5-ton trucks on a common chassis. Production contracts for the 5-ton van and tanker models will be awarded in FY 1998.

The need to obtain information dominance has increased the requirement for improved command-and-control systems. The Standardized Integrated Command Post System (SICPS) with five variants (tent, rigid-wall shelter, M1068 tracked vehicle, 5-ton expandable van, and HMMWV) remained under various stages of development and production. Housing the Army Tactical Command and Control System maneuver control, the forward area air defense command-and-control system, the advanced field artillery tactical data system, and the combat service support control system in all variants, SICPS was fielded in FY 1997 in the 5-ton expandable van version. The Global Command and Control System, which provides a fused picture of the battlefield to corps and joint task force commanders, became

operational on 30 August 1996. The automated system receives, correlates, and displays the tactical situation with weather, force position, and battle plan overlays, facilitating combat planning. A contract was awarded in FY 1997 for the Global Broadcast Service, a joint defense acquisition program that will augment other military satellite communications by providing continuous, high-speed, one-way multimedia information, including imagery, maps, weather data, logistics information, and air taskings. The Shortstop Electronic Protection System, designed to provide surveillance against indirect fire munitions, was tested under live fire at Yuma Proving Ground in summer 1997. A decision on fielding the system to Korea to meet an urgent requirement will be made after studying the test data. The Close Combat Tactical Trainer, a system of combat vehicle simulators that employs interactive technology to present a simulated battlefield to the crew, conducted a limited user test at Fort Hood during FY 1997.

Programs to upgrade Army systems also occurred throughout the fiscal year, especially for combat vehicles, missiles, aircraft, and information-gathering equipment. A system enhancement program is continuing to improve the M1A2 Abrams tank and eliminate the inventory of older M1s by providing a digital computer capability, a gunner's primary sight, FLIR upgrades, and a thermal management system. The Bradley–A3 version entered into LRIP for 35 vehicles in FY 1997, with an option to purchase an additional 18 or more in FY 1998; an FRP contract for 76 vehicles is expected in FY 1999. A major upgrade of 914 M109A2/A3 155-mm. self-propelled howitzers to the Paladin M109A6 continued in FY 1997. With an onboard ballistic computer, a position/navigation system, automatic gun positioning, and digital communications with SINCGARS, Paladin will be able to receive a fire mission on the move, stop, occupy a firing position, compute firing data, unlock and point its cannon, deliver fire day or night, and move within 60 seconds.

The Army continued with numerous changes for its missile systems. One of the most important upgrades continued to be a system of improvements to the engagement control station, radar, communications, and missile of the Patriot system, leading to the Patriot Advanced Capability 3 (PAC–3). Conducted during FYs 1992–2006 at a cost of $1.8 billion for development and $4.2 billion for production, PAC–3 is currently in production for radar enhancements; improved classification, discrimination, and identification of targets; and upgraded communications equipment at the battalion level. The development of the new missile and improvements in detection and surveillance are currently in the EMD phase, with production scheduled to begin in FY 1998. A total of $28.5 million was provided for PAC–3 procurement and $45.1 million for RDTE in FY 1997. The second year of a three-year demonstration and validation phase for the Stinger Block II, which will eliminate clutter that reduces the Stinger's ability to

acquire targets, occurred in FY 1997, financed with $10.9 million. The Longbow Hellfire system, the Army's first fire-and-forget precision missile for attack helicopters, began LRIP in July 1997. The Army will procure 1,056 Longbow Hellfire systems, whose missiles are guided by radio frequency and can operate in any environmental condition, as the primary armament for the AH–64D Longbow Apache and the RAH–66 Comanche helicopters. The Tube Launched, Optically Tracked, Wire Guided (TOW) missile system is being replaced by the Follow-on to TOW missile system, which will include an improved target acquisition system and a fire-and-forget capability at greater ranges than the TOW. During FY 1997 potential contractors conducted hardware performance demonstrations in preparation for the EMD phase beginning in FY 1998.

Modernization of Army aircraft was also accomplished through upgrades in FY 1997. For thirteen years the Army has been replacing OH–58A/Cs and AH–1 Cobra helicopters in air cavalry squadrons and light contingency forces with OH–58D Kiowa Warriors. The Army's objective is to acquire 411 OH–58Ds; during FY 1997, a total of 185 were being upgraded into the Kiowa Warrior configuration, which includes a mast-mounted sight, a thermal imaging system, low-light-level television, a laser rangefinder/designator, and an embedded GPS navigation system. In an effort to convert all 1,150 of the current CH–47D Chinook helicopter engines to a more powerful configuration that can lift an additional 3,900 pounds of payload, the Army in February 1997 authorized the EMD phase of the CH–47D Chinook Engine Upgrade Program and a LRIP of 115 engine conversion kits and aircraft modification hardware. Deliveries of the new CH–47D–714A engine will begin in late FY 1998.

Enhancements to information-gathering equipment continued to gather momentum. A contract for FRP of the AN/TPQ–36(V)8 Firefinder mortar-locating radar, which is currently in the production stage, was awarded in August 1996. A program to upgrade the antenna transmitter group of the AN/TPQ–37 artillery locating radar, which entered a milestone decision phase towards the end of the fiscal year, is likely to be under contract in late FY 1998. Under LRIP that began in March 1997, second-generation FLIR technology is being inserted into new and existing platforms and will contribute towards fulfilling the Army's objective to "own the night." The program will initially equip five platforms with the upgraded FLIR technology: the M1A2 gunner's primary sight, the M1A2 commander's independent thermal viewer, the M2A3 improved Bradley acquisition subsystem, the M2A3 commander's independent viewer, and the long-range advanced scout surveillance system. Another system to use second-generation FLIR technology is the Improved Target Acquisition System for TOW, increasing its target acquisition and engagement ranges. With an LRIP contract awarded on 30 September 1996, the first unit equipped with

the system will be fielded in early FY 1998. The Warfighter Information Network, the Army's communications, automation, and information system for the twenty-first century, will connect fighters in foxholes to CONUS power-projection bases using digital networks, cellular telephones, military satellites, unmanned aerial vehicles, and other technologies. A prototype divisional set of equipment is currently under development and will be available for Division XXI AWEs in FY 1998.

Even with limited funds, the Army persevered with a variety of developmental programs, the most important residing in the areas of missiles and information gathering. The Joint Precision Strike Demonstration program is developing an all-weather, day/night, precision strike missile capability to attack any target, especially from extended ranges, and is currently evaluating advanced precision strike technologies. The objective of the MLRS guided rocket advanced technology demonstration (ATD) is to acquire a low-cost guidance and control system for the extended-range MLRS free-flight rocket. Concepts from the guided MLRS ATD have been included in associated ACTDs, and the EMD phase will begin in FY 1998. A test bed for Rapid Terrain Visualization, an ACTD program that will provide three-dimensional computer-generated scenes of the battlefield, was established at Fort Bragg, North Carolina. During its first year, the program was used in six exercises. On 14 October 1996, the United States and the United Kingdom formally agreed to develop jointly the Future Scout and Cavalry System during a 3-½-year ATD. The U.S. Army will acquire 1,100 of the new vehicles, beginning in FY 2005, to replace the M3 Bradley, considered to be too large for scout operations, and the HMMWV, which is too vulnerable; neither vehicle has adequate sensors for reconnaissance. The Joint Countermine ACTD, which focuses on achieving seamless amphibious operations among all military services, was led by the Army in FY 1997, with the primary focus on shallow water, beach, reconnaissance, and breaching operations. The Army incorporated its close-in, man-portable mine detector ATD, which integrates infrared and ground penetrating radar, and the off-route smart-mine clearance ATD.

Army research laboratories play an important role in the RDTE process. In FY 1997 researchers from the Cold Regions Research and Engineering Laboratory (CRREL) worked at the South Pole to demonstrate the feasibility of excavating a subsurface snow tunnel for the future U.S. South Pole station. CRREL also provided increased remote sensing capabilities to USACE districts, improving water resources management and emergency flood support operations. The Topographic Engineering Center (TEC) participated in the Division XXI AWE with its Digital Topographic Support System Multispectral Imagery Processor in both a 5-ton and a HMMWV version, demonstrating how topographic support can enhance the view of the battlefield. In addition, TEC personnel assisted the Army

Space Program Office in developing the Tactical Exploitation System, the next-generation multi-intelligence system and worked with the National Reconnaissance Office on Eagle Vision II, a system of satellites that will receive, process, and disseminate imagery products. The first civil works digital project notebook, which provides project information on 4,000 Army civil works projects, was created by TEC and available to users on desktop computers.

The Waterways Experiment Station (WES) provided $50 million of support to the Navy, Air Force, and other DOD agencies, including military hydrology and engineering support to forces deployed to Bosnia. A major WES success in FY 1997, development of a probe to detect subsurface radioactive contaminants, produced $800,000 in savings for one site and is projected to save millions of dollars in the future. A further $30 million in rehabilitation costs were avoided when a new procedure developed by WES determined that six water intake towers were structurally sound and did not need repair. WES performed more than $100 million of research support for 207 customers and negotiated 20 Cooperative Research and Development Agreements during the year. In addition, WES initiated an outreach program for 100 minority students to interest them in a science or engineering career. To enhance its abilities, WES acquired nearly $30 million in new facilities for high performance computing, initiated operation of the world's most powerful centrifuge, and began construction of two major facilities for hazardous waste and analytical chemistry research.

8

Support Services

Morale, Welfare, and Recreation

One of the most critical programs in ensuring a good quality of life for soldiers, civilians, and their families is Morale, Welfare, and Recreation (MWR), through which social, recreational, and fitness opportunities are provided. The U.S. Army Community and Family Support Center (CFSC), a field operating agency of the Office of the Assistant Chief of Staff for Installation Management, oversees MWR programs under the auspices of the MWR Board of Directors. The board, composed of the commanders of Forces Command (FORSCOM), Training and Doctrine Command (TRADOC), Eighth U.S. Army, Army Materiel Command, United States Army, Europe (USAREUR), and United States Army, Pacific (USARPAC), as well as the sergeant major of the Army, monitors the financial status of MWR and approves major nonappropriated fund (NAF) construction. FY 1997 proved to be the most financially successful year for MWR in recent years, exceeding budget predictions with a net income before depreciation of $75.8 million, versus $65.1 million in FY 1996. In addition, the stringent financial requirements placed by the board for FY 1999 were met two years early by installations and major commands.

New guidance was issued in FY 1997 that changed some ways in which MWR operated. In July 1997 commanders received authority to use appropriated funds (APF) for MWR programs, which are normally conducted through NAF. CFSC worked with the Department of the Army (DA) and Department of Defense (DOD) to develop guidance that would meet legal and accountability requirements; DA guidance for implementation is likely to take place in FY 1998. The MWR Board of Directors approved the receipt of earnings from tobacco sales in commissaries as a new source of income for Army MWR funds. The DA also approved an MWR initiative to sell commercial advertising on the Internet as an additional method for generating income to support programs for soldiers. The Army stipulated that all equipment, staff, computer servers, and other support must be paid for by NAF; websites with advertising must not appear official; and no paid advertising may appear on websites funded with APF.

Approval for entering into public-private ventures was given in FY 1997, allowing installations the opportunity to obtain partners in the private sector to supplement MWR facilities and services without capital investments from NAF. In exchange for access to MWR's market and a long-term land lease, the private-sector partner agrees to finance, build, operate, or maintain an MWR facility or program. MWR has established partnerships with municipalities and private businesses to construct twenty-four facilities—car washes, guesthouses, golf courses, outdoor recreation facilities, family entertainment centers, and movie theaters—that will save the Army $150 million while improving support to soldiers.

In another type of business venture, CFSC negotiated the sale of two golf courses at Fort Ord, California, to the city of Seaside, California. Special legislation permitted the Army to sell the property as a result of the realignment of Fort Ord under base realignment and closure (BRAC). This was the first occasion in which an MWR activity was sold to the private sector at fair market value. The revenues received from the sale were paid to the Presidio of Monterey, California, for support of local MWR programs.

To meet the needs of Force XXI, an MWR strategic action plan set out the initiatives that program managers must pursue to meet Army performance improvement criteria (APIC) and satisfy customers. APIC provide a mechanism through which installations and organizations can assess their strengths and weaknesses with respect to customer satisfaction. All Army installations must conduct their first annual APIC assessment during FY 1998. Adapted from the Malcolm Baldridge National Quality Award criteria, APIC have been integrated into the Army Communities of Excellence program, which assesses excellence in Army installations based on continuous improvement in customer service and satisfaction.

As another measure of the quality of MWR offerings, the Army conducted a survey in FY 1997 that depicted the rate at which beneficiaries used the MWR programs and services. The Army hopes to increase the usage rates to the goals shown in *Table 31*.

In one of its restructurings, the Army in May 1996 created the CFSC Hospitality Directorate as an umbrella organization for all lodging functions in the service. In August 1997, another reorganization established the separate Army Lodging Directorate. The new organization is responsible for overseeing 25,000 rooms at 101 locations, including temporary lodging, guesthouses, and recreational lodging on Army installations. In addition, the Lodging Directorate manages the Army Lodging Success Program through the Army Central Reservation Center. At the Armed Forces Recreation Centers in Bavaria, Germany, the deployment of soldiers to Bosnia and Hungary decreased patronage, while a series of special reduced-rate vacation packages to reunite deployed soldiers with family members contributed to the net loss of $1.2 million. During 1997

the Dragon Hill Lodge, Seoul, Korea, received the Silver Award from the Educational Institute of the American Hotel and Motel Association for its achievements in measuring customer service, meeting customer service performance standards, and providing certification and education opportunities for hotel staff. The success of the Dragon Hill Lodge is indicated by its 98.9 percent occupancy rate and a net income of $6.1 million in FY 1997.

Table 31—Usage Rates of Morale, Welfare, and Recreation Facilities, Fiscal Years 1997 and 1999

Program/Service	Fiscal Year 1997 Usage Rate	Fiscal Year 1999 Goal
Fitness Centers	72.5	76.1
Intramural Sports	20.2	21.2
Child Development Services	11.8	12.4
Libraries	53.1	55.8
Outdoor Recreation Services	35.8	37.6
Youth Services	13.9	14.6
Swimming Pools	46.2	48.5

The Army Family Action Plan (AFAP)—a grassroots program that involves active duty, reserve, and retired soldiers, along with civilians and family members—is one of the Army's most effective methods to achieve change. By participating in AFAP-sponsored conferences, these individuals can raise issues and recommend solutions that will affect their own quality of life, providing commanders with insight into the areas that need improvement. Most AFAP issues are resolved at local levels, creating improvements for Army-wide communities on a continuing basis. The remaining issues are forwarded for resolution to DA, where they result in changes to legislation and improvements in policy, programs, and services. During fourteen years of existence, the AFAP process has resulted in fifty pieces of legislation providing quality-of-life benefits to all of the services. Delegates to the March 1997 biennial AFAP Planning Conference voted a tax-deferred military savings plan as their top issue.

Army Family Team Building (AFTB) is a program coordinated by CFSC to enhance the preparedness of soldiers and their family members. Through three training tracks—active-duty soldiers, civilian personnel, and family members in both the active and reserve components—AFTB ensures that everyone associated with the active component can receive information that will facilitate an adjustment to Army life, mobilization

and deployment, and personal and professional development. The soldier track is conducted on five levels (pre-entry, entry, junior leader, leader, and senior leader) at TRADOC schools, with a revision of programs of instruction having occurred by July 1997. The Directorate of Civilian Personnel conducts a correspondence course for selected civilians who may deploy or their supervisors. CFSC coordinates the family member track, taught by family member volunteers who are trained as Master Trainers at Levels I, II, and III, which correspond to the various degrees of exposure attendees have had to the Army. AFTB training is attended on a voluntary basis and cannot be required. At the headquarters level, the U.S. Army CFSC implemented the AFTB Senior Spouse Leadership Seminar at Leavenworth, Kansas, and the Army War College. A total of 655 volunteers were trained in the seminar and the Master Trainer Course. At the local level, about 21,400 family members participated in Levels I, II and III. Levels I and II were translated into Spanish, German, and Korean during the year, with Level III scheduled for translation the following year.

In response to lessons learned from Operation Desert Storm, CFSC instituted the Operation Ready program to prepare soldiers and families for deployment, homecoming, and reunion. CFSC provided familiarization training on Operation Ready procedures in FY 1997 to 300 Army Community Service (ACS) staff members, Family Support Group (FSG) members, and rear detachment commanders and is also preparing a FSG leader's guide.

ACS contains five core competencies, or readiness cells, as outlined in its strategic action plan: mobilization/deployment readiness, family advocacy/exceptional family member programs, relocation readiness, financial readiness, and employment readiness. During a deployment or emergency, ACS expands its services to become the Family Assistance Center (FAC), which is responsible for providing assistance, guidance, information, and referral to units, soldiers, civilians, and family members. Trained professionals from key community agencies—the Dependent Eligibility Enrollment Reporting System, Finance, the Staff Judge Advocate, the Red Cross, Social Work Services, and others as needed—are available within or to the FAC. A specially designated Homecoming and Reunion Team assists installations in preparing for the return of deployed soldiers and their integration back into family life. In addition to training the FSG to refer family members to necessary outreach services and information, the ACS in FY 1997 conducted the first ACS Directors' Training Exercise Without Troops, focusing on resolving problems that may arise during deployment.

MWR also supported soldiers during deployment and mobilization, with the first group of MWR civilian specialists assigned to Bosnia and Hungary for 120 days in 1996. At the end of FY 1997, a total of 69

volunteer MWR specialists were present in theater, supporting soldiers serving in Operation JOINT GUARD. To boost morale, provide a creative outlet, and develop artwork representative of soldiers, MWR sponsored the Operation JOINT ENDEAVOR/JOINT GUARD cartoon contest between August 1996 and March 1997. The first place winners, chosen from 100 entries in two categories (novice and accomplished) and four divisions (black and white single frame, black and white strip, color single frame, and color strip), received $500.

The concerns of an Army force with 63 percent married service members, most of whom have children, and 4 percent single parent service members necessitate offering affordable, high-quality Child Development Services (CDS) and Youth Services. Since passage of the 1989 Military Child Care Act, the Army has focused on improving quality, availability, and affordability of child care services. Nevertheless, in FY 1997 the Army could meet only 64 percent of its members' requirements for child care. This is expected to increase to 65 percent in FY 1998, which will meet the DOD goal. To meet the demand, the Army encouraged the use of off-post child care programs and authorized care for special-needs children in Family Child Care homes. At the beginning of FY 1998, the NAF subsidy per child care space will be reduced from $200 to $100, and APF will provide $100 per child care space; when the NAF subsidy is phased out entirely in FY 2000, the subsidy will be supported completely by APF. Patron fees will continue to pay the remainder of the costs.

In response to a presidential directive in April 1997 for military services to share information on their child care programs with the private sector, the Army provided training, resource materials, a speaker's bureau, and fifty-five documents for potential distribution. Recognizing that an increasing part of the nation's youth is at a higher risk for teen pregnancy, substance abuse, violence, academic underachievement, and health disorders, the Army is transforming its Youth Services to provide more than the traditional sports and recreational activities. On 1 September 1997 the DA established a requirement for installation commanders to publish a home-alone policy identifying the circumstances under which a child younger than twelve years old can be left at home without supervision. The policy must include times in which children are not in school, such as school vacations, and should include input from CDS and Youth Services staff, the family advocacy office, housing personnel, and the provost marshal.

In June 1997 the First Annual Supporting the Military Child Conference was held at Fort Hood, jointly sponsored by Fort Hood and the Killeen Independent School District, Texas, and attended by one hundred participants. Conferees hoped to develop a system to support students of military families who transfer to a new school district; an alliance of school districts; mutual support between school districts and military installations;

and procedures for sharing information between school districts with military students. Participants found that a lack of standardization results in an inefficient transfer of academic records and students; delays in interpreting student transcripts and frequent loss of credit; inability to distinguish between different types of schools; inadequate communication systems between the school, the military, and parents; and inconsistent education as a result of widely divergent curricula. Conference participants agreed to establish a system linking legislation, policies, and resources; a clearinghouse for issues and information; an action plan; and an executive steering committee.

In Army entertainment, the service obtained exclusive rights to stage the international premiere of *A Tale of Cinderella*, which took place on 4 April 1997 in Vicenza, Italy. The New York producer, composers, and lyricist flew in for the opening night, which was attended by high-ranking military personnel, Italian dignitaries, and media representatives. The Army, with 1,700 performances of 200 plays and musicals worldwide, is the largest theater producer in the world.

Creating efficiencies in the service's sports program, the Army World Class Athlete Program was formed into a military detachment stationed at Fort Carson, Colorado, where soldiers could use nearby top training facilities for boxing, wrestling, Tae Kwon Do, and other sports. In addition, the move provided the opportunity to train and compete at the U.S. Olympics training complex in Colorado Springs, Colorado.

The Army Athletes of the Year for FY 1997 were Specialist Niambi Dennis and Staff Sergeant James Todd Graves. Dennis was the first soldier in two decades to win the national track and field title. She was also named the Armed Forces Female Athlete of the Year, sharing the title with a Navy athlete. Graves, a member of the U.S. Army Marksmanship Unit (AMU), won national titles in skeet, trap, and double trap and has competed twice in the Olympics. This was the second consecutive year that an AMU soldier was named the Army Athlete of the Year. Staff Sergeant Cassandra H. Howard, a basketball player, was inducted into the Amateur Athletic Union; this was the first time that a soldier had received this high honor.

Health and Medical

Of the five interdependent Army Medical Department (AMEDD) imperatives—readiness, organization, managed care, quality/efficiency, and technology—medical readiness is of the utmost importance. To ensure the ability to keep soldiers healthy and fit, AMEDD sought to maintain a full spectrum of services for deployment, provide routine medical and dental care, procure and train the right mix of health care providers, assess and acquire technology, and obtain sufficient resources. With an increasingly

severe shortfall in health care providers, especially of physicians and dentists in reserve component units, correcting medical readiness deficiencies was AMEDD's top priority in FY 1997. The task was made more difficult, however, when the medical recruiting mission was moved to the U.S. Army Recruiting Command. To alleviate the shortage, AMEDD continued to introduce initiatives to integrate the reserve components into the total AMEDD force.

Although AMEDD has conducted a radical reengineering over the last four years, creating a streamlined organization by "rightsizing" organizations with an efficient combination of skills, future refinements and adjustments are expected. In addition to creating seven regional medical commands that helped to integrate smoothly all medical units, AMEDD is now reevaluating the number and locations of the commands and planning to realign them with Army corps. Training infrastructure not linked to medical readiness will be reduced. In another initiative, AMEDD is considering the possibility of combining the Office of the Surgeon General and the U.S. Army Medical Command in San Antonio, Texas. The two organizations are complementary, and the single-staff study will determine the most efficient way to reduce duplication without eliminating functions.

Like all other Army organizations, AMEDD is building its organization to meet the requirements of a smaller, faster, and more flexible force under the tenets of Force XXI. At the AMEDD center and school, a medical reengineering initiative is aligning medical assets with the new Army structure and warfighting doctrine. In addition, AMEDD is developing capability-based contingency teams to provide specialized skills for handling chemical-biological incidents, burns, stress management, and preventive medicine. Immediately upon notification of a contingency operation, designated teams will be sent to the area of operations and begin providing medical care while awaiting the arrival of larger teams. Having recognized that coalition warfare will occur more frequently in the future, AMEDD has initiated efforts to cooperate with the military medical organizations of other nations to facilitate an understanding of each other's capabilities and deficiencies.

To keep pace with the modernization concepts of Army XXI and to compensate for shrinking resources, AMEDD continued in FY 1997 to focus on researching and integrating technology, as it has done for the last decade. Advanced communications technology has proven particularly vital in providing health promotion information to soldiers wherever they are stationed and is expected to improve the dissemination of nutritional information and motivational messages so that soldiers can attain healthier lifestyles. One of the most important new applications of technology on the battlefield will be the UH–60Q medevac (medical evacuation) helicopter,

which will increase AMEDD's ability to remove casualties quickly and provide medical care en route to military treatment facilities (MTF). The prototype for a small personnel-status monitor has been developed and will assist medical personnel in identifying, locating, and removing from the battlefield personnel who exhibit signs of physical distress before serious illness or injury occurs.

Preventive medicine has proven to be a true force multiplier, minimizing the number of deaths and injuries not attributed to battlefield loss. The Center for Health Promotion and Preventive Medicine at Aberdeen Proving Ground, Maryland, has been directly responsible for the low rate of illness and injury among the soldiers deployed to Bosnia by providing information that helped keep troops well. Although these individuals served in harsh conditions, where environmental pollution was prevalent and a medical infrastructure was virtually nonexistent, fewer complained of sickness than did soldiers in the continental United States (CONUS). The Center for Health Promotion and Preventive Medicine has now turned its attention towards educating soldiers in CONUS to switch to healthier lifestyles.

The use of illegal drugs in the Army remained a concern, particularly since the rate of specimens testing positive increased from 0.99 percent in FY 1996 to 1.14 percent in FY 1997. The rate in the active Army rose from 0.61 percent to 0.77 percent; in the Army National Guard (ARNG) from 2.93 percent to 3.04 percent; and in the U.S. Army Reserve (USAR) from 2.52 percent to 2.59 percent. The rate in the civilian workforce declined from 2.51 percent to 2.35 percent. Nevertheless, the Army drug-testing program remained an active and aggressive means to deter illegal drug use and to provide a legal defense for removing drug abusers from the force. The number of specimens tested and the number and percentage proved to be positive for each Army component during FY 1997 (*Table 32*).

Table 32—Army Drug Testing Program, Fiscal Year 1997

	Active Army	Army National Guard	U.S. Army Reserve	Civilian	Total
Specimens Tested	1,024,585	155,881	53,829	9,186	1,243,481
Positive Specimens	7,874	4,739	1,394	216	14,223
Percent Positive	.77	3.04	2.59	2.35	1.14

To reduce high-risk behavior, the Army has instituted a Risk Reduction Program, which was originated by Fort Campbell's Army Drug and Alcohol Prevention Control Program office in 1993 to reduce an unusually high level of incidents. At the end of FY 1997, the Risk Reduction Program, implemented at twenty-two FORSCOM, TRADOC, USARPAC, and

U.S.Army, South, installations, reached 52 percent of all Army soldiers. Consolidating all readily available data on sundry incidents—driving while intoxicated/driving under the influence, crimes against persons or property, child or spousal abuse, sexually transmitted diseases, financial problems, and others—an incident rate is computed for each battalion on a quarterly basis. Division and installation commanders receive information on an installation level, while brigade commanders receive information on each subordinate battalion. Battalions with the highest risk profiles are designated to receive interventions for the next two quarters, which may include prevention education, leader training, and counseling of troops by leaders. Using the Risk Reduction Program, high-risk behaviors have been reduced. At the same time, economies in personnel have accrued as human services staff can focus on targeted battalions and unit leaders can rely more heavily on installation staff members.

The Installation Prevention Team Training course, implemented in 1996, was another effort to reduce high-risk behavior on an installation-wide basis. Developed by the U.S. Army Center for Substance Abuse Programs, this three-day course provides instruction to teams of key installation personnel authorized to commit installation resources for substance abuse prevention. Each team developed an integrated Installation Prevention Plan and briefed it to the installation commander upon its return. By the end of FY 1997, a total of 400 military and civilian personnel from 43 installations had been trained in 14 iterations of the course. These personnel represented installation functions such as drug and alcohol prevention control, safety, Equal Employment Opportunity, Provost Marshal, ACS, Civilian Personnel Office, Chaplaincy, preventive medicine, social work services, family advocacy, and the Judge Advocate General. In 1997 a five-day course was developed for ARNG.

The military has followed the civilian sector in using the HMO (health management organization) concept. The Army has worked extensively with the Office of the Assistant Secretary of Defense (Health Affairs) to tailor TRICARE, the HMO system that will replace CHAMPUS (Civilian Health and Medical Program of the Uniformed Services), for different segments of the Army population. All active duty soldiers will be enrolled at no cost in TRICARE Prime, which ensures medical care at the nearest MTF. Retirees and family members may sign up for TRICARE Prime for $230 per individual and $460 per family. With the least cost, TRICARE Prime provides the least choice of provider. Under TRICARE Extra, beneficiaries receive discounts when using the preferred provider network; under TRICARE Standard, they pay the highest costs but have free choice of any authorized provider. Neither TRICARE Extra nor TRICARE Standard includes an enrollment fee. With contracts for the last three regions awarded in September 1997, all twelve TRICARE regions

will be operational in May 1998. A demonstration of TRICARE Prime Remote, providing TRICARE Prime to persons serving at locations far from an MTF, is taking place in one of the regions.

TRICARE has a mail order pharmacy option, but on 5 August 1997 DOD announced the award of a contract to Merck-Medco Managed Care, Inc., to implement a National Mail Order Pharmacy (NMOP) program. Although this was a best-value procurement in which technical merit was more important than price, DOD expects to save money by maximizing the use of "Best Federal" pricing of up to fifty percent below wholesale prices. This pricing is not available to the TRICARE contractors. Services under the contract are to begin on 6 October 1997. Eventually, all TRICARE beneficiaries will be able to use NMOP, but it is currently limited to active duty members; CHAMPUS beneficiaries in Alaska or Puerto Rico or with military overseas addresses; some TRICARE Prime beneficiaries; and some Medicare-eligible beneficiaries. Active duty soldiers will pay nothing, but their family members will pay $4 per filled prescription; all other beneficiaries will pay $8.

Army retirees have long been concerned about the loss of CHAMPUS, and now TRICARE, eligibility when they turn 65 years old and are forced to use Medicare. The Budget Reconciliation Act of 1997 authorized a demonstration of Medicare subvention beginning 1 February 1998. The Army is currently working in concert with other DOD entities to support a test program that can later be implemented, with a memorandum of agreement due to Congress on 1 November 1997. The test will be conducted at six locations and, if successful, will be extended to all CHAMPUS-eligible or TRICARE-eligible beneficiaries, providing them medical care comparable to what they received before turning 65 years of age.

Army Chaplaincy

The Chaplain Corps was deeply involved in Army XXI modernization and the Army After Next initiatives during FY 1997, particularly with integrating new technology. Having relocated from Fort Monmouth, New Jersey, as a result of the base closure process in FY 1996, the Army Chaplain Center and School at Fort Jackson, South Carolina, moved into its new state-of-the-art Chaplain School complex, with completely modern computers and communications, in April and May 1997. The complex was formally dedicated on 23 July 1997 and named Watters Hall in memory of Charles J. Watters, a Roman Catholic priest and Army chaplain who was posthumously awarded the Medal of Honor for his actions in the Vietnam War.

One of the primary issues for the chaplaincy during FY 1997 concerned the integration of reserve component chaplains with the active Army.

Reserve component chaplains have been sent to Bosnia to support JOINT GUARD and are working beside active Army chaplains. Lessons learned about the training needs of both reserve component and active Army chaplains for mobilization and deployment are being integrated into new training strategies at the Chaplain Center and School.

Army Pay

The most significant change in FY 1997 with respect to Army pay was the integration of pay and personnel functions. Finance and personnel functions were automated thirty years ago with separate systems, although both used many of the same data elements. In today's era of constrained resources, such duplication is too expensive to maintain. Moreover, the high operating tempo experienced by Army units today necessitates a more accurate and timely system. As a result, the Army decided to combine pay and personnel. The new system, which will be fielded in FY 1998 and will support deployed units as well as those at home, is expected to eliminate many mobilization problems, serve all Army components, reduce debt and fraud, provide better controls, improve customer service, and increase database reconciliation and accuracy.

Army Housing

Improving housing for married and single soldiers remained the Army's most important objective in its effort to provide a better quality of life. Two separate avenues are being used to ensure that soldiers have adequate living accommodations. Under replacement, existing housing units are demolished and new units are constructed to replace them. Through revitalization, existing units are renovated to current standards. In both approaches, energy conservation, infrastructure, and neighborhood improvements are included. The Army projected a need to replace or revitalize 3,400 Army family housing (AFH) units during FY 1997 but was only able to upgrade 1,746, falling far short of its requirement. The AFH Construction Program executed in FY 1997 is given in *Table 33*.

As a result of insufficient funding to cover the cost of bringing AFH units to current standards or constructing an additional 10,322 housing units, the Army began an effort to privatize all AFH replacement and revitalization by the end of FY 2003 under the authority of the 1996 Military Housing Privatization Initiative Act. This legislation allows the military services to contract with the private sector to operate, maintain, improve, and construct military housing. Analysis had shown that privatization could fix the deficiencies in AFH in five to ten years, while the Army had no hope of ever doing so on its own. The Army established

a Capital Venture Initiative (CVI) team in FY 1997 and obtained DOD approval to develop Fort Carson as a CVI project, with a contract to be awarded in FY 1998. Over a five-year period, the contractor will build 840 new houses and revitalize 1,824, owning and operating the inventory and collecting rent from the occupants in an amount not to exceed their housing allowance. The CVI team started on a new project at Fort Hood, Texas, and developed fifteen additional projects during FY 1997. If approved by DOD, these new projects will affect 52,971 AFH units, 63 percent of the Army's family housing.

Table 33—Army Family Housing Construction Program, Fiscal Year 1997

Installation	Number of Units	Project Type
Fort Bragg, North Carolina	88	Replacement
Fort Hood, Texas	140	Replacement
Fort Campbell, Kentucky	102	Revitalization
Fort Polk, Louisiana	250	Revitalization
West Point, New York	14	Revitalization
Fort Leavenworth, Kansas	300	Revitalization
Fort Monroe, Virginia	70	Revitalization
Fort Rucker, Alabama	228	Revitalization
Fort Bliss, Texas	64	Replacement
Tobyhanna Army Depot, Pennsylvania	42	Revitalization
Schofield Barracks, Hawaii	54	Replacement
Fort Richardson, Alaska	48	Revitalization
Fort Wainwright, Alaska	52	Revitalization
Vicenza, Italy	76	Revitalization
Baumholder, Germany	64	Revitalization
Stuttgart, Germany	120	Revitalization
Mannheim, Germany	136	Revitalization

The 1996 Military Housing Privatization Initiative Act applied only to AFH in CONUS. In overseas areas, AFH is currently on a cycle in which replacement or revitalization will not occur for 130 years. If the Overseas Housing Authority receives approval to privatize such activities, the Army

believes AFH can be placed on a cycle of 30 to 40 years, a significant improvement. In January 1997, the chief of staff of the Army and the secretary of the Army approved a proposal to transfer all foreign-area housing to the Overseas Housing Authority by FY 2003. DOD approval is expected in early FY 1998, and the proposal will then be submitted for congressional enactment in FY 1999 legislation.

In the effort to improve Army housing, the Army's highest priority among facilities remained the Army Barracks Program. At the end of FY 1997, a total of $2 billion was invested in the design or construction of 82 barracks projects at 23 CONUS and 21 overseas installations that will provide new or renovated accommodations for 22,000 soldiers. Contracts were awarded in FY 1997 to replace or revitalize 10,607 barracks spaces, meeting the Army's goal of 10,600 spaces as outlined in the Barracks Modernization Plan. The FY 1997 construction program included $270 million for barracks modernization of 5,000 spaces that will be ready for occupancy in FY 1998. Many of the Army's barracks built between 1975 and 1985 can be renovated under the Barracks Upgrade Program, using Operations and Maintenance, Army, funds, rather than replaced under the Whole Barracks Renewal Program, requiring military construction funds. APF and host-nation funds are being used overseas to bring existing barracks to current standards. For the first time since the late 1980s, two new barracks are being built in Germany. In all cases, DA is providing $40 million a year to purchase new furnishings for all renovated or newly constructed barracks facilities.

Army Safety Program

Safety has become an increasing concern as Army personnel resources hae declined. During FY 1997 the DA's Casualty Operations Center received reports of 502 deaths among Army personnel. Of these, 297 deaths were among soldiers in the active and reserve components, 35 among civilians, 88 among retirees or separatees (who had left active duty in the previous 120 days), and 82 among persons on the Temporary/ Permanent Disability Retired List. Among the components, 226 deaths occurred in the active Army, 34 in USAR, and 37 in ARNG. This was a significant decrease from FY 1996, when 380 soldiers and 40 civilians died. In addition, 95 soldiers were reported as seriously or very seriously injured or ill in FY 1997. Of the soldiers who died in FY 1997, illness accounted for 77 deaths, homicide for 19, suicide for 50, accidents for 146, and undetermined causes for 5. Training-related accidents caused 60 of the accidental deaths: vehicle accidents, 11; parachute accidents, 4; aircraft accidents, 14; physical training accidents, 15; heart attacks, 8; and other types of accidents, 8.

The Army must sometimes conduct Line of Duty Investigations (LODI) to determine whether an injury or death was within the bounds of an individual's military service. Timely processing is essential to ensure that survivors of the deceased receive appropriate benefits from the Department of Veterans Affairs. In addition, for soldiers being separated under the Physical Disability System, the Army attempts to avoid paying unnecessary medical bills, pay, or allowances. In FY 1997 the Army received 301 LODI cases due to death and closed 300; received 1,366 cases for Physical Evaluation Boards and closed 787; received 429 cases due to disease or injury and closed 530; and received and closed 9 cases for the Army Board for Correction of Military Records.

Army and Air Force Exchange Services

Although gross income for the Army and Air Force Exchange Services (AAFES) increased from $6.9 billion in FY 1996 to $7.2 billion in FY 1997, earnings from retail, food, service, mail order, and concession sales declined from $348 million to $337 million. From this profit, a total of $232 million was distributed to the military services for MWR and other programs. The Army, which had received $132.9 million in FY 1996, collected $139.1 million, despite the reduced profits.

AAFES continued to support U.S. personnel serving in contingency operations around the world. In Haiti, one retail store remains present to support the U.S. Support Group-Haiti and the American Embassy until the mission in that country is complete. With the opening of a new retail store at Al Jaber Air Base, Kuwait, and a new retail store with food service and gift shops at Prince Sultan Air Base, Saudi Arabia, AAFES was operating nine retail stores and three smaller activities in those two countries at the end of the fiscal year. In Bosnia, AAFES operated seventeen retail stores, including two new ones in Sarajevo. In support of the 3,000 Army, Air Force, and Marine Corps troops deployed to Egypt for 45 days during Bright Star, AAFES worked with Third U.S. Army to establish and operate facilities at four separate locations. AAFES was also present supporting USAR and ARNG soldiers in El Salvador and Honduras as they performed humanitarian missions.

Expanding on the need to provide low-cost quality eyewear, eye exams, and contact lens exams and fittings in Europe, AAFES proceeded with its development of vision centers that would provide customers with glasses at one-half to two-thirds the price they were previously paying. The first vision center was constructed at Coleman Barracks, Germany, and opened in July 1997, staffed with licensed optometrists and opticians. Servicing 45,000 customers, the laboratory can provide same-day service for most standard orders and safe polycarbonate lenses for children at the

same price as plastic lenses. In September 1997 the optometry service at Vogelweh converted from a contract arrangement to an AAFES vision center, with the optical shop to follow suit in summer 1998. A third vision center will open in December 1997 at Mainz-Kastel and a fourth in Würzberg in 1999.

Command Information

During the fiscal year, the Office of the Chief of Public Affairs sponsored thirty media representatives on nine trips to Bosnia and Hungary to ignite regional media interest and educate Americans on the Army's mission. The media representatives were linked with soldiers from their hometowns who were currently deployed to Bosnia or Hungary. As a result, more than one hundred stories later appeared in fifteen media markets. In support of soldiers deployed or stationed overseas, the Hometown News Service created traveling teams that collected more than seven thousand individual greetings from service members on videotape and disseminated them as television spots in the United States in the Holiday Greetings Program.

The official magazine of the U.S. Army, *Soldiers*, changed its format in 1997. Under a new printing contract, the magazine's size was reduced from 56 to 48 pages, and one-third of the black-and-white pages were eliminated. The new format allows for full color to be used on the cover and on 16 pages, while the remaining 32 pages will be printed in two colors (black plus an additional color). The January 1997 issue was published as *The Soldiers Almanac*, with 56 pages of full color. With digital photography increasing in quality and with contract photo laboratories becoming more affordable, *Soldiers* closed its darkroom. Soldiers Online, the Internet site for the magazine, was a source of information for 2.5 million visitors during FY 1997.

The Army provided personnel, equipment, advice, or locations for various films and television shows. *Air Force One*, *Contact*, *Batman*, *Wild America*, *Saving Private Ryan*, *Thin Red Line*, and *Asteroid* all drew on such support.

Army Tuition Assistance Program

As a means to support readiness, recruitment, retention, and quality of life, the Army Continuing Education System offers educational opportunities for soldiers, civilians, and family members. In FY 1997, the program was delivered by 117 Army education centers and 151 Army learning centers, including locations in Honduras, Southwest Asia, Bosnia, and Macedonia. The Army Tuition Assistance policy in FY 1997 reimbursed every eligible soldier for 75 percent of the tuition cost for

fifteen semester hours. The Tuition Assistance funding limit for noncredit courses increased from $750 to $1,200 per fiscal year. An increase in the number of soldiers enrolled in Tuition Assistance increased in FY 1997 to 215,000 from 200,000 in FY 1996, which had itself decreased from 236,000 in FY 1995 owing to the large number of USAREUR soldiers deployed to JOINT ENDEAVOR.

In other educational changes, Public Law 104–276, enacted 6 October 1996, provided soldiers the opportunity to switch from the Veterans Educational Assistance Program to the Montgomery G.I. Bill, which provides a larger amount of financial assistance. Half of the twenty-one thousand soldiers eligible for the conversion did so; the opportunity expires on 8 October 1997. The Army also raised the maximum amount of student loans that can be reimbursed under the Army Loan Repayment Program from $55,000 to $65,000. Army Emergency Relief reversed a long-standing policy, permitting a pilot test of providing education assistance to spouses in USAREUR for the academic term that began in fall 1997.

Total Army Quality

Since its adoption as the Army's management philosophy in 1992, Total Army Quality has evolved into a leadership tool for change. APIC enhance Total Army Quality by providing a means for planning, assessing, and training; raising performance expectations; and establishing common performance criteria. For the third year in a row, the Army won the Presidential Award for Quality, the federal government equivalent to the Malcolm Baldridge National Quality Award. In 1997 the U.S. Army Infantry Center and Fort Benning received the award.

9

Special Functions

Construction, Facilities, and Real Property

In addition to its usual activities, the U.S. Army Corps of Engineers (USACE), like many Army organizations, deployed assets overseas to support contingency operations and other activities. In Bosnia, USACE personnel helped to meet requirements for needed facilities, real estate, and logistics. They worked with United States Army, Europe (USAREUR) (Forward), and the 1st Armored Division to integrate the corps' engineering and construction contracting expertise into Operation JOINT GUARD. In the U.S. Central Command area of responsibility, USACE provided program management, design, and construction expertise for Operation DESERT FOCUS, relocating U.S. forces from congested urban areas to facilities where they could be more easily protected. In other efforts, USACE is constructing an air base in Egypt and building barracks, training facilities, ammunition bunkers, and runways in Latin America, as well as renovating hospitals in various countries. In the United States, USACE recently completed the new Brooke Army Medical Center in San Antonio, an eight-story, $288 million hospital completed within budget and ahead of schedule.

To improve its workflow and maintain a geographic balance, in FY 1997 USACE streamlined its divisions and realigned some subordinate offices. In one initiative, USACE established a reinvention center for district installation support at its Fort Worth, Texas, district office. The USACE director of military programs structured his staff along major command (MACOM) lines, establishing an advocate for each MACOM within his headquarters at the assistant director level. In another initiative, a USACE representative was assigned to each major installation, located with the director of public works, to reinforce the partnership between the two activities. USACE began conducting video teleconferences in FY 1997 with selected directors of public works to ensure that the full range of support that installations require can be provided. Having established that life-cycle management principles are now an integral part of USACE operations, USACE will support an installation's facility or environmental project from beginning to end.

Like other Army organizations, USACE has developed a strategic vision and plan to enable it to serve the Army and the nation efficiently and effectively as the transition occurs from Force XXI to the Army After Next. The commander, USACE, and other senior leaders will frequently assess the progress made towards achieving concrete milestones in the command action plan. To rectify the past situation in which USACE engineering, infrastructure, and real estate capabilities have been overlooked or underutilized during mobilization, USACE has established three initiatives. It is working more closely with the Training and Doctrine Command and the U.S. Army Engineer Center and School to recognize USACE's battlefield role in joint and Army doctrine, to refine mobilization capabilities and procedures, and to use technology to improve teamwork and customer service. In the technology initiative, USACE is restructuring itself into a virtual organization that can respond to customers without regard to their location and whatever their needs. In future years, USACE will be conducting massive changes in its organizations, processes, corporate culture, and technology to achieve this virtual capability.

With respect to technology, the Directorate of Information Systems for Command, Control, Communications, and Computers formed a year 2000 (Y2K) Project Team in 1996 to focus on computers, networks, software, and telecommunications. In spring 1997 several MACOMs began independently to develop and issue guidance for their subordinate commands and installations with respect to their non-information technology infrastructure. MACOMs pushed Headquarters, Department of the Army (HQDA), to address Y2K non-IT issues, particularly the responsibilities of a MACOM with organizations located at another MACOM's installation, the creation of a central repository of infrastructure compliance information, and the designation of one HQDA agency as a point of contact for infrastructure issues. The information technology infrastructure was defined as computers, networks, and telecommunications, with the non-information technology infrastructure defined as installation systems such as heating and air conditioning, traffic lights, and fire alarms. Computers used primarily for word processing and e-mail were designated as information technology systems, while those that ran sewage plants or environmental controls were classified as non-information technology. In September 1997 the Office of the Assistant Chief of Staff for Installation Management (OACSIM) agreed to host a meeting with the MACOMs to discuss Y2K and installation non-information technology infrastructure.

During FY 1997 a major effort occurred at Force Command (FORSCOM) installations to manage costs through activity-based costing, a new performance-based approach implemented by OACSIM to determine the costs of installation base operations services. Establishing the program required the training of installation personnel, the development

of an automated database of installation service costs, and participation in a Managerial Costing Steering Committee. The XVIII Airborne Corps, designated to implement the prototype of activity-based costing for FORSCOM, reengineered its installation organizational structure into core business areas. FORSCOM fielded activity-based costing to all XVIII Airborne Corps installations in FY 1997 and began fielding models to III Corps units in summer 1997. A comprehensive managerial costing training package was developed by the assistant secretary of the Army for financial management and comptroller and will be available on CD–ROM and the Internet.

In another effort to reduce costs, the Army has been steadily working since 1985 to decrease its energy consumption by 30 percent by 2005. By using the latest technologies and energy-efficient equipment, implementing utility partnership programs and other cooperative projects with private firms, reducing electrical power consumption, and increasing the amount of natural gas consumption with respect to other fuel sources, the Army expects to attain its goal. By FY 1997, the Army had decreased its energy consumption since 1985 by 20.9 percent; a 2 percent reduction occurred between FY 1996 and FY 1997. The Army used the savings accrued through reduced energy consumption to pay for higher fuel costs.

In addition to concern about energy consumption, the Army, as one of the largest property owners in the United States, must also keep abreast of fluctuations in real estate prices. In FY 1997 USACE provided extensive real estate appraisal support for the Army, particularly with respect to U.S. Army Reserve (USAR) centers, the Community and Family Support Center, USAREUR, and the potential acquisition of the Kahuku Training Range, Hawaii. In addition, real estate appraisal support was provided to numerous USACE civil works projects, especially ecosystem restoration efforts in southern Florida. USACE also conducted real estate appraisal support for other federal agencies, such as the Defense Logistics Agency and the Immigration and Naturalization Service.

The Army also requires services similar to those provided by real estate agents. USACE provided assistance in relocating U.S. Army Southern Command headquarters from Panama to Miami by executing an interim lease for 150,000 square feet of office space costing $1.7 million in annual rent. For force protection of the headquarters, USACE obtained congressional approval to lease adjacent land. To support the relocation of personnel, USACE initiated lease actions for 60 unaccompanied personnel housing units, 62 family housing units, and 8 key and essential housing units in Miami. In other military acquisitions, USACE began the process of leasing 100,000 square feet in Southbridge, Massachusetts, for training, administration, lodging, and dining operations. The new lease will provide a facility for the Department of Defense (DOD) Executive

Management Training Center conducted under the auspices of the Defense Financing and Accounting Service and the Defense Leadership and Management Program.

When military and federal civilian homeowners are unable to sell their homes owing to the adverse effect on the market of a base closure or realignment, the Homeowners Assistance Program provides some financial assistance, sometimes through the outright purchase of homes. The secretary of the Army is the DOD Executive Agent for the program, which is administered by USACE for all military services and defense agencies. To determine market impacts and appraise homes of qualified applicants, USACE provided extensive real estate appraisal support. USACE acquired 540 homes and provided financial assistance to 840 other homeowners near 20 military installations in continental United States (CONUS) and Europe. The purchased homes were resold for $83.1 million, which will be used to fund future benefits under the program. In FY 1997 implementation of the program was approved for Oahu, Hawaii; McClellan Air Force Base, California; Seneca Army Depot, New York; China Lake Naval Weapons Test Station, California; Philadelphia Naval Shipyard, Pennsylvania; and San Diego Naval Facilities, California.

The USACE Contingency Real Estate Support Team, composed of realty specialists, appraisers, and attorneys who volunteer to serve from various corps division and district offices, provided real estate and facility acquisition support to obtain lodging, administrative, hardstand, covered storage, and maintenance space during exercises and contingencies. Team personnel prepared the real estate parts of contingency operations plans and participated in MACOM, Unified Command, and Joint Chiefs of Staff exercises and conferences in FY 1997. Additionally, team personnel continued their deployment in Bosnia, supporting Army units participating in JOINT GUARD. Four members were deployed on 120-day tours to Bosnia, living with Army personnel and acquiring real estate and facilities for units serving in Bosnia. The team worked for the real estate office of the USAREUR deputy chief of staff for engineering.

Under the Civil Works Program, USACE develops, manages, protects, and enhances water and related land resources, in cooperation with federal, state, and local agencies, to reduce flood damage, restore the environment, and improve commercial navigation. USACE provides planning, engineering, environmental, recreational, research, and real estate services to federal and civilian agencies in peacetime and during emergencies. To carry out one of the Civil Works Program's primary roles, that of protecting U.S. waters, USACE regulates the discharge of dredge and fill material.

In FY 1997 USACE operated and maintained 12,000 miles of commercial navigation channels and 275 navigation lock chambers;

maintained 299 deep-draft and 627 shallow-draft harbors; and operated 383 major lakes and reservoirs, 75 hydroelectric power plants (24 percent of the nation's hydroelectric plants), and 4,330 recreation areas at 456 USACE local protection projects. Visits to the recreation areas generated $10 billion in income and provided 600,000 jobs. During FY 1997, an additional 491 Civil Works projects were under construction.

The FY 1997 Civil Works Program appropriation was $4.107 billion, including an additional $585 million passed in supplemental appropriations in June 1997 for emergency operations. Funds were distributed as follows: $1.082 billion for general construction; $1.866 billion for general operations and maintenance; $330 million for the Mississippi River and tributaries; $154 million for general investigations; $101 million for the regulatory program; $425 million for flood control and coastal emergencies; and $149 million for other projects. USACE also received $198.9 million, primarily through cost-sharing agreements, in nonfederal cash contributions.

Congress had directed USACE to reduce its division offices from 13 to not less than 6 or more than 8, and this was accomplished in April 1997. The Ohio River and North Central Divisions were combined to create the new Great Lakes and Ohio River Division; the Lower Mississippi Valley Division was renamed the Mississippi Valley Division; the St. Paul and Rock Island Districts were transferred from the North Central Division to the Mississippi Valley Division; the New England Division became a district under the North Atlantic Division; the North Pacific and Missouri River Divisions were combined to form the Northwestern Division; the Alaska District transferred to the Pacific Ocean Division; and the Albuquerque District was transferred to the South Pacific Division. USACE will continue to restructure the divisions in the future to achieve savings.

Normally, only three or fewer major river basins experience major storms in one year, resulting in an average of $4.3 billion in damages. During FY 1997 severe storms hit eight major river basins that affect half of the United States. USACE participated in major emergency operations involving flooding in northern California and western Nevada; flooding of the Ohio and Mississippi River Basins; flooding in the state of Washington; flooding in North Dakota, South Dakota, and Minnesota; a tornado in Arkansas; high water at Devils Lake, South Dakota; flooding of the James River in South Dakota; and high water and flooding of the Great Lakes. Because of USACE water projects, flood damages in FY 1997 were limited to $8.9 billion, while $45.2 billion in damages were estimated to have been prevented. The efforts of USACE helped to hold down the number of flood-related fatalities to ninety-eight—a 10 percent increase over the annual average of eighty-nine for the preceding ten-year period—in a year with an unusually high incidence of flooding.

Through the Flood Plain Management Services Program, USACE helps states, Native American tribes, and local governments to develop and execute plans to reduce flood damages. During FY 1997 USACE provided 42,000 responses to requests for assistance. USACE also performed 82 studies of water resources for 34 states and 10 studies for 9 Native American tribes, providing technical assistance and planning guidance for wetlands identification, environmental restoration, water supply, water quality, and flood damage reduction. A total of $315,700 was spent on studies pertaining to the beneficial uses of dredged material, while $10.3 million was spent on project modifications to improve the environment. Of the latter, 4 projects were completed, 9 projects were approved for construction, and 23 new studies were initiated.

In its capacity of protecting U.S. waters, USACE regulates construction and other work in navigable waterways and controls the discharge of dredged or fill material under the Federal Water Pollution Control Act Amendments of 1972. In December 1996, USACE implemented new nationwide permits to improve protection of wetlands, with Nationwide Permit 26 (accounting for 15 percent of all permits) limiting the amount of fill in water to three acres of material instead of the ten acres that had previously been allowed. In FY 1997 USACE regulatory offices approved 5,062 standard permits and 2,985 letter permits, and denied 200 permits. USACE approved 38,006 activities under regional general permits and 39,943 activities under nationwide permits.

The Mississippi River Basin drainage area affects 41 percent of CONUS. Although USACE operates a large number of reservoirs, levees, floodways, and flow diversion structures in the basin for flood control and navigation, advanced tools were recognized as essential to improve operation and management during extreme natural conditions. In FY 1997 USACE completed development of a computer simulation model for the entire Mississippi River Basin, from St. Paul, Minnesota, to the Gulf of Mexico, that can predict flood flows and provide real-time information on how to minimize damage. The model is divided into six areas or reaches, each of which can be run independently by the responsible division or district office or integrated into an entire picture. Forecasting river stages in real time, the model can also help evaluate the effects of alternate levees or construction and levee breaches during flood stages. The Floodplain Management Assessment Study used the model to evaluate levee alternatives during flood stages. Two districts have applied to use the model for real-time flood forecasts, and USACE is developing new applications of the model for the Remote Sensing and Geographical Information Services Center.

The Water Resource Development Act of 1996 established the National Dam Safety Program and required the Federal Emergency Management

Agency to submit an implementation plan to Congress within 270 days. As one of the major owners of dams among federal agencies, USACE served on the team preparing the plan, basing its input on its Civil Works Dam Safety Program. The plan established an Interagency Committee on Dam Safety, to which the USACE Dam Safety Officer became the DOD representative.

Environmental Protection

The Army recognizes that environmental stewardship is an integral part of its military mission and works to integrate environmental values into Army missions, as well as to implement cost-effective measures that protect the environment while still enabling military operations, installation management, and the fielding and acquisition of material. Environmental stewardship is accomplished through compliance, conservation, pollution prevention, and restoration. Compliance ensures that all applicable federal and state regulations have been met; conservation fosters the deliberate management of natural and cultural resources; pollution prevention reduces future compliance costs; and restoration removes existing contamination to protect people and the environment.

One of the Army's objectives has been to reduce its environmental program costs by 25 percent from FY 1996 to FY 2003 through an increased emphasis on pollution prevention, which would reduce the costs of compliance. During FY 1997, however, compliance costs were $591 million, as compared with $589 million in FY 1996, demonstrating little change. After FY 2003, the Army expects to achieve a sustained annual reduction of $200 million in environmental costs. As one indication of compliance, the Army received 217 new enforcement actions in FY 1997, continuing the decrease from previous years. In FY 1996 the Army received 221 new enforcement actions; in FY 1995, 320; and in FY 1994, 360. These reductions are attributed to the improved awareness of environmental responsibilities among Army installations and their compliance with statutory regulations, as well as the establishment of Regional Environmental Offices.

One of the most important compliance issues concerns underground storage tanks. As required by the Resource Conservation and Recovery Act of 1976, the Army has been working to eliminate by 22 December 1998 the number of underground storage tanks not in compliance with regulatory standards. From a high of 5,436 tanks not in compliance in FY 1994, the Army has reduced the number to 1,440 in FY 1997. During the fiscal year, the Army developed several initiatives to assess the underground storage tank program status and focus resources to ensure compliance no later than 30 September 1998.

A new area in which the military must meet compliance was established during FY 1997. After years of coordination with the military services and DOD, the Environmental Protection Agency (EPA) published the Military Munitions Rule in February 1997. The rule identifies when military munitions are considered hazardous waste and establishes procedures for their safe storage and transportation. A joint service Munitions Rule Implementation Council developed an interim policy for DOD implementation of the new rule, which became effective in August 1997. The interim policy was coordinated with state regulators to identify state concerns and gain state adoption of the final rule.

The Army continued to exert efforts towards conservation and pollution prevention. One of the Army's strategies for conservation is to develop and implement integrated natural resources management plans at all appropriate installations by FY 2000. These plans will provide for the sustained use of Army property to conduct the mission, to achieve an appropriate quality of life, and to provide for recreational opportunities. At the end of FY 1997, 40 of 189 installations possessed approved plans. In another strategy, the Army required its installations to develop and implement integrated cultural resources management plans by FY 2001 for the protection of historic and archaeological assets. Approved plans were in place at the end of FY 1997 at 51 of 176 installations. A third strategy required the completion of pollution prevention plans at Army installations and MACOMs. By the end of FY 1997, 141 of 164 installations and 11 of 13 MACOMs had an initial draft of their plan completed. An additional strategy called for the development of relative risk evaluations for contaminated sites to determine the cost of and to establish the priority for restoration. About 50 contaminated sites remained without such risk assessments in FY 1997 but are expected to be completed in FY 1998.

In another conservation initiative, the Department of Defense Appropriations Act for 1997 required each service to review its historic quarters, provide a plan for removing all but the most significant from the inventory, and describe statutory obstacles that would prevent implementation of the plan. In December 1997 the assistant chief of staff for installation management approved implementation of the Historic Quarters Cost Reduction Strategy, which would reduce historic property management costs through a Regulatory Affairs Plan, a Maintenance and Repair Cost Control Plan, and an Inventory Reduction Plan. The Regulatory Affairs Plan will streamline and internalize Army compliance with the National Historical Preservation Act. Under the Maintenance and Repair Cost Control Plan, the true costs of historic building management will be determined to maximize the use of funds. The Inventory Reduction Plan proposes to retain historic buildings that support installation activities

while removing those that lack strong historic significance, are unusable, or are not economically viable.

Important initiatives have also been developed to assist the Army in pollution prevention. The hazardous material management program (HMMP) is a commander's program that uses the best business practices throughout the life cycle of hazardous materials on an installation, from procurement to disposal, to reduce risks to personnel and the environment and to ensure compliance with federal, state, and local laws. Through HMMP, installations will reduce their purchases of hazardous materials, improve tracking of hazardous materials, monitor the shelf life of hazardous materials more effectively, and eliminate unnecessary hazardous material disposal costs. All Army installations are required to implement an HMMP by FY 2003; by the end of FY 1997, 48 of 160 installations had implemented some type of an HMMP. The Hazardous Substance Management System (HSMS), a software and hardware system that was implemented in FY 1996, is a DOD automated system that manages, tracks, and reports hazardous material, enabling an installation to retain effective control of its hazardous materials. At the end of FY 1997, ten installations were using HSMS for at least one tenant organization, and an additional seventeen installations were implementing the system.

Following a decision in 1996 to decentralize the functions of the Defense Environmental Restoration Account to the individual military services, the Army accepted complete responsibility for and implemented its installation restoration program. The Army Environmental Center delegated management of execution of the environmental restoration program to MACOMs in 1997. During the first year of decentralized operations, MACOMs exceeded expectations in executing planned activities, reducing high relative risk sites, and developing closer relations with regulatory agencies. On the National Priorities List of the Environmental Restoration program, the Army at the beginning of FY 1997 had 35 installations designated, of which 23 belonged to the active Army and 12 were installations being closed or realigned under base realignment and closure actions. Nine sites, at which all construction is expected to be completed by FY 2000, were proposed in FY 1997 for the National Priorities List. These installations are Schofield Barracks, Hawaii; Fort Dix, New Jersey; Sacramento Army Depot, California; Aberdeen Proving Ground (Michaelsville Landfill), Maryland; Lone Star Army Ammunition Plant, Texas; Tooele Army Depot, Utah; Louisiana Army Ammunition Plant; and Fort Lewis and Umatilla Army Depot, Washington.

The secretary of defense selected numerous Army installations and personnel as recipients of the 1997 Environmental Security Awards to be presented in April 1998. Fort Sill, Oklahoma, won the Environmental Quality Award for a nonindustrial installation; Maj. Donald F. Archibald

of the 133d Preventive Medicine Detachment in Heidelberg, Germany, received the individual award. The Pollution Prevention Award for a nonindustrial installation was awarded to Fort Carson and Pinon Canyon Maneuver Site, Colorado. Jaycee W. Turnquist of Fort Hood won the individual award for recycling, while the Riverbank Army Ammunition Plant, California, won the Environmental Cleanup Award in the installation category. For the Natural Resources Conservation Award given to a large installation, Fort Stewart/Hunter Army Airfield, Georgia, was the winner. Fort Hood received the Cultural Resources Management Award given to an installation, and Alan J. Wormser of the Texas Army National Guard received the individual award. Other Army installations and individuals received honorable mentions in the categories in which they were not the winners of the DOD award.

Small and Disadvantaged Business Utilization

The DOD has established goals for the value of prime contracts that military services must award to small businesses and small disadvantaged businesses. Since the creation of the DOD Small Business Program nine years ago, the percentage and value of procurement contracts awarded to small businesses has substantially increased, despite the fact that government contracting has decreased in nearly every area. In FY 1997, 28.8 percent of all Army procurement contracts were awarded to small businesses, accounting for $7.6 billion. Of the small business contracts, 9.6 percent of them, worth $2.56 billion, were awarded to small disadvantaged businesses. In addition, the Small Business Subcontracting Program achieved success during FY 1997. Of the total $2.5 billion subcontracted by prime contractors, $1.7 billion was awarded to small businesses, $260 million to small disadvantaged businesses, and $211 million to women-owned small businesses.

Contributing to the success of the Small Business Subcontracting Program is the DOD Pilot Mentor-Protégé Program. The program encourages prime contractors to serve as mentors to develop the technical and business capabilities of small disadvantaged business owners and other eligible candidates so that they can succeed as DOD contractors. Mentors, who receive reimbursement of costs or credit towards subcontracting goals, develop and implement a developmental assistance plan to help the protégé compete for DOD prime and subcontract awards. The Army has approved thirty-three mentor-protégé agreements, with mentors representing environmental, manufacturing, telecommunications, and health care industries.

Under the DOD Pilot Mentor-Protégé Program, the Army has created the 8(a) Graduate Pilot Mentor-Protégé Program. Firms that have graduated

from the Small Business Administration's 8(a) program, designed to assist small disadvantaged businesses, and other successful small disadvantaged businesses are recruited to mentor emerging 8(a) firms. Although mentors under the DOD program normally must have an active subcontracting plan, this requirement has been waived to permit up to ten 8(a) graduates to serve as mentors. Five mentor-protégé agreements have been approved under this new Army initiative.

Within DOD, the Army provides the most technical and financial assistance to historically black colleges and universities (HBCU) and minority institutions (MI). The Army has established a goal of providing HBCU/MIs with 5 percent of the total funds it awards to institutions of higher learning. In FY 1997, for the eighth consecutive year, the Army surpassed its goal by awarding 9.2 percent, or $38.4 million, to HBCU/MIs. Although this was a slight decrease of 0.2 percent of all funds the Army awarded to institutions of higher learning in FY 1996, the total amount disbursed to HBCU/MIs increased significantly, by $10.4 million. The amount of funding ranged from $30,000 to more than $2 million for 38 HBCUs and 12 MIs. The Army Medical Research and Material Command allocated more than 6 percent of its FY 1997 breast/prostate cancer research funds to HBCUs and MIs. Multiyear funding has continued to support centers of excellence at Contra Costa College, California; Tuskegee University, Alabama; and Grambling University, Louisiana. Each center of excellence has specialized in an area of scientific research of interest to the Army. Contra Costa supports math, science, and engineering programs; Tuskegee, advanced materials; and Grambling, advanced simulation.

Legal Affairs

Following allegations of sexual misconduct against drill instructors at Aberdeen Proving Ground and noncommissioned officers at Fort Leonard Wood, Missouri, Secretary of the Army Togo D. West Jr. on 22 November 1996 announced the formation of a nine-member Senior Review Panel on Sexual Harassment to conduct a comprehensive review of the service's policies on sexual harassment and current processes. Secretary West also directed the Army Inspector General to investigate and assess current sexual harassment policies and procedures at all basic and advanced individual training installations and throughout the Army's training base. Already intense news media coverage of these events increased in February 1997 when Sgt. Maj. Brenda Hoster filed charges of sexual misconduct and harassment against Sergeant Major of the Army Gene C. McKinney, a member of the Senior Review Panel. McKinney was subsequently suspended from his duties and had a preliminary hearing to determine whether he should be court-martialed The Office of The Judge Advocate

General (OTJAG) provided support for the panel's work, responded to congressional inquiries, coordinated corrective actions, and prepared materials for related chain teaching.

Of the major courts-martial in FY 1997, one series involved the allegations of sexual misconduct at Aberdeen Proving Ground. From November 1996 to the end of FY 1997, an investigation of 47 drill sergeants and cadre members was conducted to determine their involvement in sexual misconduct with basic trainees before 1 January 1997. Five drill sergeants and a company commander were tried and convicted by court-martial, with sentences ranging from a two-grade reduction in rank to 25 years confinement and a dishonorable discharge. Some charges were not substantiated by the investigation; but for those substantiated, the individuals received nonjudicial punishment, an adverse evaluation, a letter of reprimand, counseling, a bar to reenlistment, or a discharge.

Another major court-martial, conducted by the 3d Infantry Division, found Spc. Michael New guilty of disobeying an order to wear a United Nations badge, patch, and beret. New had claimed the order was illegal because it violated the 13th Amendment to the Constitution. He further claimed that the order to deploy to Macedonia to support a UN operation was unconstitutional. The U.S. District Court in the District of Columbia and the District of Columbia Circuit Court refused to stop the court-martial, and New was sentenced to a bad-conduct discharge.

The total number of courts-martial declined for the sixth consecutive year, and the number of nonjudicial punishments increased for the first time in ten years. Although the rate of courts-martial per every 1,000 soldiers declined in FY 1997 from FY 1996, the rate of nonjudicial punishments per 1,000 increased from 74.18 in FY 1996 to 82.21 in FY 1997. The continued decline in courts-martial since FY 1992 and the sudden increase in nonjudicial punishments that occurred in FY 1997 are given in *Table 34*.

Table 34—Courts-Martial and Nonjudicial Punishment, Fiscal Years 1992–1996

	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
General Court-Martial	1,165	915	843	825	789	741
Bad-Conduct Special Court-Martial	543	327	345	333	329	312
Special Court-Martial	70	45	32	20	28	32
Total Courts-Martial	1,778	1,287	1,220	1,178	1,146	1,085
Nonjudicial Punishment	50,066	44,207	41,753	38,591	36,622	39,907
Army Strength	665,800	586,149	556,684	524,043	493,700	485,400

The Army acted as the Executive Agent for the Joint Service Committee on Military Justice, which conducted a required annual review of the Manual for Courts-Martial (MCM) and proposed and evaluated amendments to the Uniform Code of Military Justice and the MCM. Ten proposed changes to the MCM were published in the *Federal Register* in May 1997, with the most significant ones creating a limited psychotherapist-patient privilege, increasing the penalty for hate crimes, and recognizing the offense of reckless endangerment. By July 1997 the committee had reviewed public comments submitted on the proposed changes.

The Army and the other services staffed a proposed executive order that would provide Article 32 investigating officers the authority to investigate uncharged crimes discovered during an investigation. The order would also remove the limit on punishment that a federal court could impose on a civilian witness who refused to appear or testify before a court-martial. In other changes, the order would reduce the delay in punishment taking effect, terminate pay for soldiers serving certain sentences in confinement, authorize the transfer of pay to dependents of a confined soldier for up to six months, and make flight from apprehension a criminal offense. Moreover, the order would change carnal knowledge to a gender-neutral offense and allow certain prior acts of sexual misconduct to be admitted into evidence.

In 1995 the secretary of defense directed the service secretaries to conduct functional exchanges with the Chinese People's Liberation Army (PLA), particularly with respect to military jurisprudence. Although discussions were conducted, visits were initially postponed. On 26 February 1997, General Dennis J. Reimer met with his counterpart, Lt. Gen. Kui Fulin, and agreed to initiate such contacts. Although the PLA proposed in April 1997 that a Military Justice Delegation be sent to China during August 1997, the visit was scheduled for 14-21 September 1997. Judge Advocate General Maj. Gen. Walter B. Huffman led a delegation of four judge advocate specialists in military justice and international and operational law on the first legal counterpart visit to China to develop the framework for future bilateral exchanges. The Chinese lawyers were particularly interested in acquisition and contract law, international and operational law, and the Law of War. A reciprocal visit by Chinese military lawyers to the United States is scheduled for May 1998.

The Standards of Conduct Office performed its dual mission of providing policy guidance for the Army's ethics program and oversight of the Army's professional responsibility program. In October 1996 the Standards of Conduct Branch conducted the third annual Ethics Counselor Workshop at The Judge Advocate General's School, Army, in Charlottesville, Virginia, providing training to 190 ethics attorneys from all military services. In addition, the branch processed 386 written actions and 2,759 oral inquiries that addressed the misuse of government

resources and position, gifts, conflicts of interest, travel gratuities, gifts of travel from nonfederal sources, relations with and support to private organizations, job-hunting, and post-government employment restrictions. Attorneys in the branch also reviewed 657 public and 456 confidential financial disclosure reports to identify and prevent conflicts of interest between official duties and private financial interests. As part of its oversight of attorney conduct, the Professional Responsibility Branch processed 23 professional misconduct inquiries involving Army lawyers. Seventeen of the cases were unfounded. Of the six cases in which professional misconduct was found, three involved only minor or technical violations of attorneys' ethical rules. Approximately one-third of the inquiries concerned the conduct of trial or defense counsel, while one involved allegations against a military judge.

The Contract Appeals Division represents the Army in all appeals before the Armed Services Board of Contract Appeals (ASBCA) and in all bid protests, except those pertaining to the Army Materiel Command or USACE, brought before the General Accounting Office (GAO). The number of appeals declined from 392 in FY 1996 to 255 in FY 1997, and the bid protests numbered 195 in FY 1996, compared with 206 in FY 1997. The division also supervised and supported the Army Bonds Team, which reviewed and approved 4,429 payment and performance bonds on Army contracts. The Army Bonds Team, created in 1935, will be eliminated on 1 October 1997, at which time bonds will be forwarded to the field without review; the division is, however, requesting a change to the Army Federal Acquisition Regulation Supplement to require local legal review.

In January 1997 the Court of Federal Claims obtained jurisdiction over post-award protests, and Cubic Applications, Inc., filed the first lawsuit that same month protesting to GAO and seeking injunctive relief against the Army's $25.9 million award to Logicon RDA for warfighting simulation services at various USAREUR battle simulation centers. Both the protest and the request for injunctive relief were denied. In the *Appeal of Loral Aerospace Corp.*, in which Loral sought $40 million, the ASBCA held that the claim for alleged deficiencies in the technical data package was denied because of a contractual requirement for the contractor to review and correct any deficiencies. Loral appealed the decision to the Court of Appeals for the Federal Circuit. The ASBCA has not yet reached a decision in the *Appeal of McDonnell Douglas Electronics Corp.*, in which the contractor requested $41 million during a March 1997 trial in connection with a classified contract. The Court of Appeals for the Federal Circuit affirmed in FY 1996 the ASBCA ruling that refused to award McDonnell Douglas $15 million in another appeal on a classified contract.

The Defense Appellate Division provides appellate defense counsel to accused persons in the criminal appeals process, providing representation

before the U.S. Army Court of Appeals (754 soldiers in FY 1997), the U.S. Court of Appeals for the Armed Forces (330 soldiers in FY 1997), and the U.S. Supreme Court. In *United States* v. *Loving*, division counsel represented Sgt. James Murphy in a capital case before the U.S. Court of Appeals for the Armed Forces. Murphy had been tried in Frankfurt, Germany, in 1987 and convicted of the premeditated murder of his wife, her son, and his son. The case was argued in May 1997, and a decision has not yet been made.

OTJAG's Environmental Law Division represents the Army in lawsuits involving the environment. In *Chemical Weapons Working Group, et al.*, v. *United States, et al.*, several public interest groups sought to close operations at the Tooele Chemical Demilitarization Facility in Utah. The plaintiffs had filed motions in October 1996 for an expedited appeal and a stay pending the appeal; the U.S. Court of Appeals for the 10th Circuit granted the motion for an expedited appeal but denied the motion for a stay and, subsequently, in April 1997 denied the appeal. The plaintiffs filed consolidated motions in January 1997 in the U.S. District Court for a stay pending appeal and a second preliminary injunction, both of which were denied in March 1997. In June 1997 trial was set for 17–28 August 1998, and in July plaintiffs filed a second complaint.

In May 1997 EPA Region IX assessed monetary penalties against Fort Shafter, Hawaii, for violations of underground storage tank regulations in its first such assessment against a DOD facility. DOD maintained that EPA could not issue field citations to federal agencies. The Environmental Law Division advised Fort Shafter to pay the penalty under protest while the dispute is pending resolution by the Department of Justice. In another issue, in July 1997 the state of Alaska charged two Army officers formerly assigned to the 2d Battalion, 1st Special Forces Group (Airborne), Fort Lewis, with environmental criminal charges for diesel fuel spills that had occurred during February 1996. Although a command investigation found that the officers had conducted field training according to standard procedure, they were advised to request representation from the Department of Justice.

The Litigation Division continued to defend against a wide range of lawsuits challenging Army decisions, programs, and activities. By the end of FY 1997, under *Au Dong Quy, et al.*, v. *United States*, 281 Vietnamese nationals began receiving payment on their claims to recover lost wages from clandestine operations they conducted during the Vietnam War. In a continuing lawsuit, *C. S. McCrossan Construction Co. Inc.* v. *Cook, et al.*, the plaintiff claimed that the Small Business Administration 8(a) program violated his equal protection rights. In June 1997, an order was issued declining to dismiss the suit. As a result of *Stenson* v. *Tose*, in which the Department of Justice denied representation to a contract doctor accused by the plaintiff of conducting a degrading and improper exam

at a military entrance processing station (MEPS), physicians at 14 of the 63 MEPS refused to conduct preinduction physical exams. To rectify the situation in which these doctors were viewed as independent contractors, the FY 1998 National Defense Authorization Act defined them as federal employees entitled to medical malpractice immunity. Under *Whitely, et al.* v. *United States*, an award of $1.2 million was made to the estate of a British Army member who died in a traffic accident in Georgia while in a van driven by an active duty U.S. Army soldier, although the decision has been appealed. In *Vallier, et al.* v. *Jet Propulsion Lab, et al.*, plaintiffs alleged that toxic substances released by laboratory facilities over the past fifty years caused injuries. The Army has assumed the lead in litigating a third-party complaint filed by the laboratory against the United States, for whom the laboratory operated exclusively.

A number of military personnel litigation cases also continued or began during FY 1997. One of the most celebrated cases was *Cammermeyer* v. *Perry*, in which Col. Margaret Cammermeyer, who was involuntarily separated from the Army National Guard (ARNG) on the basis of her admission that she was a lesbian, claimed that the homosexual exclusion policy of the military, in place before 1994, deprived her of equal protection and violated her rights to privacy and free speech. On the basis of a ruling that the homosexual exclusion policy was unconstitutional, Cammermeyer was reinstated in ARNG; the government filed an appeal in September 1995. The Army believed that *Meinhold* v. *Department of Defense*, a similar case involving a Navy officer, would vacate the decision that the homosexual exclusion was unconstitutional. Cammermeyer voluntarily retired in March 1996, however, and a court held in October 1996 that the question of constitutionality was moot since the Army had already eliminated the homosexual exclusion policy.

Able v. *United States, et al.* was filed, challenging the constitutionality of the new homosexual policy, known as "don't ask, don't tell, and don't pursue," on behalf of six plaintiffs, three of whom were members of USAR or ARNG. Following a ruling in March 1995 by a district court that the policy was unconstitutional with respect to the First and Fifth Amendments, the government appealed the ruling. The court reversed and vacated the decision with respect to the First Amendment in July 1996 and remanded the case to the district court to consider the constitutionality of the prohibition against engaging in homosexual acts. On 2 July 1997 the district court ruled that the policy violated equal protection. The government's appeal remained pending at the end of FY 1997. Under *Holmes* v. *California Army National Guard*, a former lieutenant claimed in February 1995 that his discharge under the new homosexual policy was unconstitutional. The district court held in March 1996 that the policy violated equal protection and the First Amendment and directed reinstatement of Holmes. In September 1997 the

government's appeal was resolved in a decision that upheld the validity of the new policy.

In *Holley* v. *United States*, 1st Lt. John Holley, a probationary officer, claimed that his discharge for incidents of misconduct was invalid without a hearing. The U.S. Court of Federal Claims agreed and ordered him reinstated. The government appealed the decision, concerned about the impact on all eliminations without hearings of probationary officers and enlisted soldiers with less than six years. On 19 September 1997, the U.S. Court of Appeals for the Federal Circuit found that Holley had been properly discharged. In August 1996, *Schism, et. al.* v. *The United States of America* was filed to require the military to provide free medical care to retirees at military medical facilities. The case remained pending at the end of FY 1997. In *Christian, et. al.* v. *United States*, the plaintiff filed a class action lawsuit on behalf of all Army competitive category lieutenant colonels who were selected for early retirement by the FY 1992 Selective Early Retirement Board, maintaining that the procedure was invalid. Oral argument on the case will begin in October 1997.

The major issue in FY 1997 in civilian personnel litigation was sexual harassment. In *Murphy et al.* v. *West*, female employees of the Army Research Laboratory in Adelphi, Maryland, filed a class action lawsuit alleging numerous instances of sexual harassment by a senior-level manager and gender discrimination in employment opportunities. The lawsuit was dismissed because of the plaintiffs' failure to exhaust administrative solutions. Another class action lawsuit, *Soto et al.* v. *West*, alleged sexual harassment and discrimination by thirteen plaintiffs on behalf of 1,000 women who had worked at Fort Bliss, Texas. The Army defeated the class action lawsuit, and the court dismissed the personal claims of twelve plaintiffs. The thirteenth plaintiff's claim was pending decision at the end of the fiscal year.

The Army Procurement Fraud Division resolved 414 cases during FY 1997, with 1,060 cases remaining open at the end of the fiscal year, and recovered $27.7 million, which was significantly less than in previous years. The trend of fewer indictments and convictions was due to an increased emphasis by the Department of Justice on health care fraud rather than procurement fraud. In the most important case of FY 1997, fifty firms and individuals were found to be participants in a nationwide surety fraud scheme in which worthless bid, performance, and payment bonds were offered as surety in numerous USACE and other federal contracts. Millions of dollars in losses and excess procurement costs were avoided, and all of the firms and individuals involved in the scheme were debarred from working with the Army.

The Army Claims Service compensates parties injured by all DOD civilian activities, all DOD operations in 26 foreign countries, and Army

activities and operations. Knowing that they will be compensated for damages, other nations are more willing to allow U.S. deployment of forces on their soil. In FY 1997 the Army Claims Service and field offices settled over 66,777 claims for a total of $81.5 million, of which 60,294 were claims for property damage valued at $42.3 million and 6,483 were personal injury claims valued at $39.2 million. The Army Claims Service generated about $31.5 million by recovering $17.8 million from property carriers and $13.7 million from third parties responsible for medical injuries or property damage to soldiers. The Claims Service will soon begin compensating European countries for 50 years of environmental pollution by U.S. forces at 630 closed military sites, at a cost of $800 million to be paid between FYs 2000 and 2005.

In FY 1997 the Office of the Chief of Legislative Liaison (OCLL) engaged in a variety of activities involving Congress. OCLL arranged numerous trips to Army installations for congressional staff members to talk with soldiers, commanders, and family members on readiness and quality of life. In particular, OCLL coordinated extensively to ensure that congressional members and their staffs would attend the advanced warfighting experiment at Fort Irwin, California, in March 1997. OCLL also remained closely involved with congressional members and their staffs in responding to issues resulting from the Quadrennial Defense Review. The sexual harassment issues that began to arise in November 1996 required an intensive effort by OCLL to provide information to congressional members and the public. In addition, OCLL provided liaison support to the secretary of the Army's Senior Review Panel on Sexual Harassment. OCLL also worked closely with Congress, particularly the Senate Veterans' Affairs Committee, on issues pertaining to Gulf War illness. Continued operation of the School of the Americas at Fort Benning became a controversial issue, but OCLL input helped to ensure that congressional funding continued. OCLL's Field Operating Agency, the Congressional Inquiry Division, responded to 31,041 letters and more than 100,000 telephonic requests from congressional members on behalf of their constituents concerning military records, awards, financial matters, personnel issues, and assignments. The division also notified Congress of 789 contracts worth more than $5 million each that had been awarded by the Army.

Inspector General Activities

The mission of The Inspector General (TIG) and the U.S. Army Inspector General Agency is to inquire into the state of discipline, efficiency, economy, morale, training, and readiness throughout the Army. During FY 1997 the Assistance Division of TIG's office handled 2,383 Inspector General action requests (IGAR), of which 1,276 were requests

for assistance and 1,107 were allegations. The IGARs were submitted by military members (39 percent), unknown sources (35 percent), and civilians (26 percent). The largest percentage of the IGARs (31 percent) was concerned with personal conduct, such as sexual harassment, racial discrimination, and nonsupport of family. Nineteen percent of the IGARs involved command or management of organizations, which included caring for soldiers and family members, storage and shipment of property, and exercising command influence. Military personnel management issues such as recruiting, reassignments, evaluation reports, promotions, separations, and awards and decorations composed 14 percent of the requests. Eight percent of the IGARs were concerned with civilian personnel management, including management and employee relations, recruitment, placement, promotions, and awards. Health care issues, which encompassed in- and out-patient care, medical records, veterans' health care, and medical evaluation boards, composed 4 percent of the IGARs. Another 4 percent involved acquisition issues, including policies and procedures, contract administration, contract surveillance, and competition. Of the total IGARs, 100 were DOD whistleblower cases. The White House referred 64 requests to the Inspector General, 130 to Congress, and 85 to senior Army or DOD leaders. There were also 538 DOD Hotline requests. The Investigations Division in TIG's office received 648 allegations against general officers, senior executive service civilian employees, and other officials in high-visibility positions. Of the thirty-seven formal investigations completed, approximately 8 percent were substantiated, with abuse of authority as the most frequent allegation.

10

Conclusion

The Army's Principal Achievements and Problems

The international security environment presented numerous diverse threats to the United States during FY 1997. A number of countries possessed the means and desire to threaten U.S. vital interests, and many persisted in improving their offensive capabilities. Some nations pursued the development or acquisition of nuclear, biological, or chemical weapons. In various parts of the world, destabilization became a clear threat as governments failed, nations lost stability, or internal conflicts arose. United States interests and individual citizens were particularly threatened by transnational problems, such as terrorism, the illegal drug trade, illegal arms trafficking, international organized crime, uncontrolled migrations of displaced persons, and environmental damage. With recent advances in technology, some of these threats have increased in importance. The greatest potential threat to the United States and global security, however, remained the possession or potential possession of weapons of mass destruction (WMD) by terrorists, international crime organizations, and hostile governments or their representatives.

The United States was coming to terms with the new international security environment in FY 1997. Thousands of U.S. soldiers rotated in and out of Bosnia on primarily six-month tours, serving in an area in which peacekeeping skills, rather than warfighting skills associated with high intensity conflict, were of paramount importance. Their responsibilities included monitoring and controlling warring factions, providing security, coordinating international relief and reconstitution, aiding displaced persons to return to their country, and restoring or establishing government institutions. The Army had been reluctant in the early 1990s to conduct numerous peacekeeping or humanitarian operations but had gradually come to accept that the threat had changed. Instead of the behemoth, superpower Soviet Union, a disparate group of smaller states scattered throughout the world in various hot spots became the primary focus. Army leaders and soldiers began to recognize that not only could they contribute to world security through such operations, they could also

hone individual and unit skills in live operations. Joint and combined operations have become commonplace as U.S. soldiers serve in Bosnia as part of the Multinational Division (North). During the Cold War, only those soldiers who were stationed in Germany participated in REFORGER (Return of Forces to Germany). Those who were stationed in the Pacific region had a consistent opportunity to work with military personnel from other nations.

At the end of the fiscal year, 32,000 Total Army soldiers were deployed to 70 countries. Between 9,000 and 11,000 troops supported Operation JOINT GUARD at any one time in Bosnia, Croatia, or Hungary during FY 1997. The Army also participated in the United Nations (UN) Preventive Deployment peacekeeping mission in the former Yugoslav Republic of Macedonia. Task Force ABLE SENTRY, an infantry, cavalry, or armor battalion task force, conducted border patrols in six-month rotations. Total Army soldiers participated in other UN missions around the world, most notably the Military Observer Mission Ecuador and Peru, under the auspices of Joint Task Force (JTF) SAFE BORDER; the UN Military Observation Group in Monrovia, Liberia; the UN Mission in Guatemala; the UN Truce Supervision Organization in Jerusalem; and the UN Mission for the Referendum in the Western Sahara. In addition, U.S. soldiers served with the non-UN Multinational Force and Observers in the Sinai. Through Operation SUSTAIN LIBERTY, military police companies rotated into Panama to serve for six months protecting U.S. installations. Army personnel participated in numerous other peacekeeping operations in Honduras, El Salvador, and Brazil. Through various operations in the U.S. Central Command region, such as DESERT FOCUS, VIGILANT THUNDER, NORTHERN WATCH, and SOUTHERN WATCH, Army soldiers assisted in protecting U.S. forces and preventing Iraqi retaliatory strikes. Government instability required the Army's assistance in conducting noncombatant evacuation operations from Sierra Leone, the Congo, and Albania. Soldiers also helped evacuate 6,000 Kurdish displaced persons from Guam to the United States in JTF PACIFIC HAVEN. During any given week, an average of 4,690 Special Operations Forces personnel were deployed to 69 countries in support of 303 missions.

Within the United States, Army soldiers supported drug law enforcement agencies (DLEA) in the counterdrug program and supported counterterrorism efforts. More than 4,000 troops were assigned on a daily basis to assist civilian DLEAs as well as major commands, and Army aircraft flew 46,000 hours on behalf of the counterdrug program. The Army primarily provided intelligence, linguist, aviation, or Special Forces personnel, in addition to specialized equipment. All Army reconnaissance, surveillance, and monitoring support was suspended in July 1997, however, when a U.S. marine shot a civilian in a counterdrug operation. In a new

initiative to combat terrorist incidents involving WMD, the Army created a Domestic Preparedness Section and provided personnel to evaluate the programs and train the first response teams of major cities throughout the United States.

The most significant training program during the fiscal year was the advanced warfighting experiment (AWE) at Fort Irwin, California, in March 1997. The selection of the 4th Infantry Division (Mechanized) as the experimental force (EXFOR) allowed for the fielding of thousands of pieces of new equipment and systems to the unit at Fort Hood, Texas, before the experiment. Months of training, practice, and field exercises culminated in the month-long experiment at the National Training Center at Fort Irwin, where the Army collected voluminous amounts of data that it is currently analyzing. New technologies took center stage in the experiment, particularly those of computer, intelligence, simulation, and information systems, creating the first complete, real-time situational awareness of the battlefield that will help to eliminate friendly fire and the fog of war in the future. Through the AWE, the Army has also expedited new product development and acquisition. It identified eleven weapons systems that Congress then agreed to fund for immediate fielding, bypassing the traditionally long process for incorporating new systems into the inventory. By using the EXFOR and examining its performance in the experiment, the Army will be able to restructure its divisions for the twenty-first century. The Army has been conducting Division XXI, another AWE, since March 1997 to finalize the architecture for the first digitized division.

Despite its successes, the Army encountered a number of problems during the year. Sexual harassment and misconduct were primary concerns. National publicity focused on the allegations against the Sergeant Major of the Army; the drill instructors at Aberdeen Proving Ground, Maryland; and numerous other drill instructors and soldiers in various other locations. Although the Army recognized that a problem existed and took steps to eradicate behavior and attitudes that it deemed unacceptable, these public charges and their subsequent investigations rocked the Army's belief that its soldiers adhered to traditional Army values. By instituting Character Development XXI, the Army hoped to instill in new recruits the basic values of honor, courage, respect, integrity, loyalty, duty, and selfless service, particularly respect towards others. Moreover, although the number of sexual harassment complaints in FY 1997 declined, the number that was substantiated increased, perhaps indicating that the Army's longstanding previous behavior of discounting sexual harassment claims had been transformed into accepting their possible validity and then conducting appropriate investigations.

Army Posture

Retaining technological superiority in the future Army remains imperative. The Army has been forced to rely on recapitalization of equipment to bring aging equipment to modern standards and, in FY 1997, set a goal of recapitalizing 75 percent of all equipment by 2012. Although recent budgets have not permitted sufficient modernization, the Army budget will begin to provide increased funds for modernization in FY 1999 for the first time since 1985. With an eye towards the future, the Army plans to concentrate its efforts on sustaining a combat capabilities overmatch in the near term, funding research and development through FY 2003 to support the Army After Next. Old systems that are expensive to maintain will be retired, and technology will be inserted into other systems to extend their useful lives. During the midterm years, from FY 2004 through FY 2010, the Army will continue these programs and concentrate on information dominance, which it expects to achieve by 2010. In the long term, from FY 2011 to FY 2020, the Army will invest in new science and technology research and products to maintain battlefield dominance.

One of the Army's key priorities will always be its military readiness. Surprisingly, despite the emphasis on Operation JOINT GUARD, other operations, and the AWE, the fully-mission-capable rate of the Army's sixteen major-weapons systems dramatically improved from FY 2096. In that year, the M1A2 Abrams tank, the Heavy Expanded Mobility Tactical Truck transporter, the AH–64 helicopter, the CH–47D helicopter, and the UH–60 helicopter had not met the Army's readiness goals. Moreover, the M1A2, the AH–64, and the UH–60 had been significantly below their fully-mission-capable readiness goals. By the end of FY 2097, each of the sixteen major-weapons systems had met or exceeded its readiness goal.

The Army participated in or conducted numerous exercises that tested equipment, personnel, doctrine, organization, and operational skills, both within the United States and overseas. Through its partnership exercises, the Army provided a valuable contribution towards maintaining or attaining international security. Most nations around the world have as their major military force an army; and army-to-army contacts have become increasingly important as a means to develop goodwill, friendship, and binding ties between other nations and the United States. Moreover, both large-scale and smaller, unit exercises have enabled the U.S. Army and foreign armies to learn how to work together in peacetime in the eventuality that a crisis or contingency demands such a combined venture in the future. While conducting such training, Army soldiers have also contributed towards nation building in lesser developed countries, conducting medical or engineer missions that vastly improve the health or lives of the local populace.

Although the Army has nearly reached its personnel levels as recommended by the 1993 Bottom-Up Review (BUR), the Quadrennial Defense Review (QDR) completed in 1997 resulted in another series of personnel cuts that began in FY 1997 and will continue through FY 2006, eliminating 93,700 service members and civilians from the Army. This will result in an additional decrease of 7 percent over the next ten years in an Army that has already been decimated by personnel reductions and is at its smallest size since the end of World War II. The proliferation of peacekeeping and humanitarian operations that Army soldiers have been asked to conduct has affected negatively their quality of life, requiring the average soldier to be away from his home station and his family for extended periods each year. The Army is attempting to decrease the personnel tempo for active duty soldiers, who sometimes serve on repeat tours around the globe, by incorporating U.S. Army Reserve and Army National Guard personnel into operations whenever possible.

Quality of life has gained in importance with each year that the size of the Army has decreased. To retain quality soldiers, the Army knows that it must provide a semblance of the life that soldiers and their families could obtain in the civilian world. Under the Whole Barracks Renewal Program and the Barracks Upgrade Program, increased funding did permit for the construction, upgrade, and modernization of barracks that provided accommodations for many single soldiers of a quality equal to that of married soldiers. By 2012, the Army intends to have replaced completely all of its barracks spaces so that each soldier has a private room, a stark contrast to conditions before the beginning of the Whole Barracks Renewal Program in 1992, when three or four enlisted soldiers were crammed into small, dingy rooms with dilapidated furniture and forced to use community showers and toilets. Additionally, the state of family housing also improved as the Army turned to privatization to revitalize and replace units for married service members and their families. Despite the Army's best efforts, however, most accommodations available for service members range from extremely old to ancient.

Glossary

AAA	Army Audit Agency
AAFES	Army and Air Force Exchange Service
AAN	Army After Next (program)
AASF	Army Aviation Support Facility
ACES	Army Continuing Education System
ACIPS–G	Army Casualty Information Processing System–G
ACS	Army Community Service
ACSIM	assistant chief of staff for installation management
ACTD	advanced concept technology demonstration
ADA	Army Declassification Activity
ADP	Automated Data Processing
AEA	Army Enterprise Architecture
AFAP	Army Family Action Plan
AFH	Army family housing
AFM	Army Flow Model
AFTB	Army Family Team Building (program)
AGR	Active Guard Reserve
AIMS	AAA (Army Audit Agency) Information Management System
AIT	Advanced Individual Training
AMC	Army Materiel Command
AMEDD	Army Medical Department
AMIS	Accession Management Information System
AMU	Army Marksmanship Unit
AOA	Army Operational Architecture
APF	appropriated funds
APFT	Army Physical Fitness Test
APIC	Army performance improvement criteria
APS	Army Pre-positioned Stocks (program)
AR	Acquisition Reform
ARADS	Army Recruiting and Accession Data System
ARBA	Army Review Boards Agency
ARCENT	United States Army Forces, Central Command
ARISS	Army Recruiting Information Support System
ARNG	Army National Guard

ARPERSCOM	Army Reserve Personnel Command
ASA	Army Systems Architecture
ASA (FM&C)	assistant secretary of the Army for financial management and comptroller
ASA (M&RA)	assistant secretary of the Army for manpower and reserve affairs
ASA (RD&A)	assistant secretary of the Army for research, development, and acquisition
ASAS	All-Source Analysis System
ASBCA	Armed Services Board of Contract Appeals
ASMP	Army Strategic Mobility Program
ASVAB	Army Services Vocational Aptitude Battery
ATC	Associate Transportation Company
ATD	advanced technology demonstration
ATRRS	Army Training and Requirements System
AVCSA	Assistant Vice Chief of Staff of the Army
AWE	advanced warfighting experiment
BASOPS	base operations
BCT	basic combat training
BCTP	Battle Command Training Program
BES	budget estimate submission
BFIST	Bradley Fire Support Team
BRAC	base realignment and closure
BUR	Bottom-Up Review
C2	Command and Control
C^4/IT	Command, Control, Communications, and Computer/Information Technology
C4I	Command, Control, Communications, Computers, and Intelligence
CA	civil affairs
CAP	critical acquisition position
CAPRMIS	Capability Requirement Management Information System
CAPRMIS–R	Capability Requirement Management Information System–Redesign
CCTT	Close Combat Tactical Trainer
CD–ROM	computer disk–read only memory
CDS	Child Development Services
CENTCOM	Central Command
CFC	Combined Forces Command
CFO	Chief Financial Officer

CFSC	Community and Family Support Center
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CIE	clothing and individual equipment
CIF	Central Issue Facility (system)
CINC	Commander in Chief
CINCCENT	Commander in Chief, Central Command
CINCPAC	Commander in Chief, Pacific Command
CMTC	Combat Maneuver Training Center
CONUS	continental United States
COS	Critical Occupational Skills
CPOC	civilian personnel operations center
CPX	command post exercise
CROP	container roll-in/out platform
CRREL	Cold Regions Research and Engineering Laboratory
CSA	chief of staff of the Army
CSP	contingency support package
CTC	combat training center
CVI	Capital Venture Initiative
DA	Department of the Army
DAMMS–R	Department of Army's Movements Management System–Redesign
DAWIA	Defense Acquisition Workforce Improvement Act
DCIPS	Defense Casualty Information Processing System
DCSLOG	Deputy Chief of Staff for Logistics
DCSPER	Deputy Chief of Staff for Personnel
DEPTEMPO	deployment tempo
DEROS	date of estimated return from overseas
DFAS	Defense Finance and Accounting Service
DFRIF	Defense Freight Railway Interchange Fleet
DISC[4]	Directorate of Information Systems for Command, Control, Communications, and Computers
DIVEX	division (exercise)
DIVIT	division (institutional training)
DJAS	Defense Joint Accounting Service
DLA	Defense Logistics Agency
DLEA	drug law enforcement agency
DOD	Department of Defense
DOMS	Director of Military Support
DOPMA	Defense Officer Personnel Management Act
DPAS	Defense Property Accounting System
DPG	Defense Planning Guidance

DPI	Data Processing Installation
DWI/DUI	Driving While Intoxicated/Driving Under the Influence
EC	electronic commerce
EDC	economic development conveyance
EDI	Electronic Data Interchange
EE	emergency essential
EMD	engineering and manufacturing development (phase of the life cycle
EOH	Equipment On-Hand
EPA	Environmental Protection Agency
EPLRS	Enhanced Position Location Reporting System
ERP	Expanded Relations Program
ETS	estimated time of separation
EXFOR	Experimental Force
FAC	Family Assistance Center
FBCB2	Force XXI Battle Command Brigade and Below
FEMA	Federal Emergency Management Agency
FIST-B	Full-Crew Interactive Simulation Trainer-Bradley
FLIR	forward-looking infrared radar
FLOT	forward line of own troops
FMFIA	Federal Managers' Financial Integrity Act
FORSCOM	Forces Command
FRP	full-rate production
FSG	Family Support Group
FSP	force support package
FTX	field training exercise
FY	fiscal year
GAO	General Accounting Office
GIS	Geographical Information Services
GPRA	Government Performance and Results Act
GPS	Global Positioning System
GWDP	Gulf War Declassification Project
HBCU	historically black college and university
HEMTT	Heavy Expanded Mobility Tactical Truck
HMMP	Hazardous Material Management Program
HMMWV	high-mobility multipurpose wheeled vehicle
HMO	health management organization
HQDA	Headquarters, Department of the Army

HSMS	Hazardous Substance Management System
HSS	Headquarters Support System
I³A	Installation Information Infrastructure Architecture
IBM	International Business Machines Corporation
ICDT	Inter-Component Data Transfer
IGAR	Inspector General action request
IMA	individual mobilization augmentee
IMPAC	International Merchant Purchase Authorization Card
INSCOM	Intelligence and Security Command
ISA–St. Louis SPI	Information Support Activity–St. Louis Software Process Improvement Program
ISA-USAREC	Information Support Activity, United States Army Recruiting Command
ISM	integrated sustainment maintenance
ISR	Installation Status Report
IT&E	Integrated Test and Evaluation
JCS	Joint Chiefs of Staff
JDA	joint duty assignment
JOINS	Joint Optical Information Network System
JOTC	Jungle Operations Training Center
JPME	joint professional military education
JPMO	Joint Program Management Office
JRISS	Joint Recruiting Information Support System
JRTC	Joint Readiness Training Center
JSO	joint specialty officer
JSTARS	Joint Surveillance and Target Attack Radar System
JTA–A	Joint Technical Architecture–Army
JTCC	Joint Transportation Corporate Information Management Center
JTF	joint task force
JWOD	Javits–Wagner–O'Day
LASH	lighter aboard ship
LMSR	large medium-speed roll-on/roll-off
LODI	Line of Duty Investigation
LOGCAP	Logistics Civil Augmentation Program
LOGTAADS	Logistics—The Army Authorization Document System
LRA	local reuse authority
LRIP	low-rate initial production

MACOM	major command
MCM	Manual for Courts-Martial
MDW	Military District of Washington
MEPCOM	Military Entrance Processing Command (system)
MEPS	military entrance processing station
MI	minority institution
MILES	Multiple Integrated Laser Engagement System
MLRS	Multiple-Launch Rocket System
MOBCON	Mobilization Movement Control
MOBLAS	mobilization-level application software
MOMEP	Military Observer Mission Ecuador and Peru
MOS	military occupational specialty
MPA	Military Personnel, Army
MTF	military treatment facility
MTOE	modified table of organization and equipment
MTS	Movement Tracking System
MWR	Morale, Welfare, and Recreation (program)
NAF	nonappropriated fund
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NCO	Noncommissioned Officer
NGPA	National Guard Personnel, Army
NMOP	National Mail Order Pharmacy (program)
NPR	National Performance Review
NPS	nonprior service
NTC	National Training Center
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OASA (FM&C)	Office of the Assistant Secretary of the Army for Financial Management and Comptroller
OAVCSA	Office of the Vice Chief of Staff of the Army
OCIE	Organizational Clothing and Individual Equipment
OCLL	Office of the Chief of Legislative Liaison
ODCSINT	Office of the Deputy Chief of Staff for Intelligence
ODCSLOG	Office of the Deputy Chief of Staff for Logistics
ODCSPER	Office of the Deputy Chief of Staff for Personnel
ODUSA (IA)	Office of the Deputy Undersecretary of the Army for International Affairs
OER	officer evaluation report
OERS–E	Officer Evaluation Reporting System–Enhanced (database)

OMA	Operations and Maintenance, Army
OMAR	Operations and Maintenance, Army Reserve
OMB	Office of Management and Budget
OMF	Officer Master File
OMNG	Operations and Maintenance, Army National Guard
OPLAN	Operations Plan
OPMD	Officer Personnel Management Directorate
OPMS	Officer Personnel Management System
OPRED	Operational Readiness
OPTEC	Operational Test and Evaluation Command
OPTEMPO	operating tempo
OSD	Office of the Secretary of Defense
OST	OPTEC System Team
OSUT	one station unit training
OTJAG	Office of The Judge Advocate General
PAC–3	Patriot Advanced Capability–3
PACOM	Pacific Command
PAMS	Pacific Armies Management Seminar
PCS	permanent change of station
PEO	Program Executive Officer
PERSCOM	Total Army Personnel Command
PERSINSCOM	Personnel Information Systems Command
PERSINSD	Personnel Information Systems Directorate
PERSTEMPO	personnel tempo
PES–A	Personnel Enterprise System–Automation
PfP	Partnership for Peace
PLA	People's Liberation Army (Chinese)
PM	program[, project, and product] manager
PME	professional military education
POL	petroleum, oil, and lubricants
POM	Program Objective Memorandum
PPBES	Planning, Programming, Budgeting, and Execution System
PPE	pre-positioned equipment
PSRC	Presidential selected reserve call-up
PSYOP	psychological operations
QDR	Quadrennial Defense Review
RDTE	Research, Development, Test, and Evaluation
RETROEUR	European Retrograde of Equipment
ROK	Republic of Korea

ROTC	Reserve Officers Training Corps
RPM	real property maintenance
RSN	Recruiting Services Network
RSOI	Reception, Staging, Onward Movement, and Integration
RVPS	Retiree Volunteer Preassignment System
SARSS–O	Standard Army Retail Supply System–Objective
SBC	Service Based Costing
SEP	Soldier Enhancement Program
SFOR	stabilization force
SICPS	Standardized Integrated Command Post System
SIDPERS	Standard Installation/Division Personnel System
SINCGARS	Single Channel Ground and Airborne Radio System
SKILLTEMPO	skill tempo
SMDBL	Space and Missile Defense Battle Laboratory
SMDC	Space and Missile Defense Command
SMP	Strategic Management Plan
SOF	Special Operations Forces
SOFTACS	Special Operations Forces Tactical Assured Connectivity System
SOI	Security Office Interface
SOUTHCOM	Southern Command
SPBS–R	Standard Property Book System–Redesign
SPI	Software Process Improvement
SSDC	Space and Strategic Defense Command
TADSS	Training Aids, Devices, Simulators, and Simulations
TAEDP	Total Army Equipment Distribution Program
TAPDB	Total Army Personnel Database
TAPDB–AO	Total Army Personnel Database–Active Officer
TAPDB–R	Total Army Personnel Database–Reserve
TAPSYS	Total Army Personnel System
TASS	Total Army School System
TCAIMSII	Transportation Coordinator's Automated Information for Movements System II
TDA	Table of Distribution and Allowances
TDY	Temporary Duty
TEC	Topographic Engineering Center
TENCAP	Tactical Exploitation of National Capabilities Program
TEU	Technical Escort Unit
THAAD	Theater High-Altitude Area Defense

TIG	The Inspector General
TOPMIS	Total Officer Personnel Management Information System
TOPTUS	Total Officer Personnel Transaction Update System
TOW	Tube Launched, Optically Tracked, Wire Guided (missile system)
TRADOC	Training and Doctrine Command
UAV	unmanned aerial vehicle
UN	United Nations
UCMJ	Uniform Code of Military Justice
USACE	U.S. Army Corps of Engineers
USAISC–USMEPCOM	United States Military Entrance Processing Command–United States Army Information Systems Command
USAR	U.S. Army Reserve
USARC	United States Army Reserve Command
USAREC	United States Army Recruiting Command
USAREUR	United States Army, Europe
USARPAC	United States Army, Pacific
USARSO	United States Army Forces, Southern Command
USEUCOM	United States European Command
USFK	United States Forces Korea
USMA	United States Military Academy
USMEPCOM	United States Military Entrance Processing Command
USSOUTHCOM	United States Southern Command
VISC	Visual Information Support Center
VTC	Video Teleconferencing Capability
WARSIM	Warfighter Simulation System
WES	Waterways Experiment Station
WMD	weapons of mass destruction
Y2K	year 2000

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Appendix. Organization of the Department of the Army, 1997