Department of the Army Historical Summary

Fiscal Year 1994

CENTER OF MILITARY HISTORY
UNITED STATES ARMY
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Fiscal Year 1994

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DEPARTMENT OF THE ARMY HISTORICAL SUMMARY

FISCAL YEAR 1994

1

Introduction

Highlights of the Army's Activities

In fiscal year (FY) 1994, the Army faced exacting challenges and wide-scale transition. As the service continued post–Cold War downsizing and force reductions, it encountered increasingly varied obligations and missions. Secretary of the Army Togo D. West, Jr., registered grave concern that "as the Cold War has ended, the world has become a more complex and dangerous place. Our daily commitments now encompass disaster relief along the banks of the Mississippi and in Georgia, peacekeeping operations in Somalia, humanitarian assistance in Rwanda and Zaire, and a deterrent presence on the Korean peninsula." The Army witnessed a 300 percent increase in operational deployments after the end of the Cold War, with soldiers and civilians deploying to more than seventy countries in 1994. While the Army continued downsizing, soldiers, civilians, and units faced the prospect of being sent on repeated deployments to carry out combat operations and operations other than war.

A steep decline in resources threatened to aggravate the difficulties of responding to a variety of complex and dangerous challenges. Financially, the Army's Total Obligation Authority (TOA) dropped 36 percent between FY 1989 and FY 1994. The service's share of the Department of Defense (DOD) budget also decreased over the same period. With shrinking budgets and fewer resources, Army leaders faced difficult choices between supporting operational readiness programs and making needed investment in modernization programs in order to sustain a high-quality force.

Army leaders chose to advance planned personnel cuts to preserve some crucial modernization programs, such as the RAH–66 Comanche armed reconnaissance helicopter and the self-propelled 155-mm. Advanced Field Artillery System (AFAS). The Army's rationale for pursuing this course was explained by the Deputy Chief of Staff for Operations and Plans (DCSOPS). He stated that "we have learned the cost of letting the Army's modernization programs stagnate between wars in the past. We have also learned that the cost, in terms of soldiers' lives, is

too high to do so again." Meanwhile, the budget submission for personnel provided for a reduced active component strength of 540,000 soldiers and 341,177 civilians by the end of FY 1994. This figure represented an additional reduction of 35,000 soldiers from the revised FY 1993 active duty end strength and 15,800 civilians from the 1993 strength.

Army leaders faced a major problem in keeping readiness programs adequately funded throughout the year. Contingency operations in particular presented special resource challenges because they were funded from operating accounts. Unanticipated resource challenges led to a pejorative ripple effect throughout the Army. The Army canceled training, reduced vehicle and equipment maintenance, restricted spare parts purchases, and deferred real property maintenance. These actions adversely affected readiness, modernization, and quality-of-life programs.

Recognizing that eradicating unnecessary obstacles to service increases readiness, the Army undertook significant measures in FY 1994 to expand opportunities for women. The role of women enlarged due to a change in DOD policy. In response to guidance from the Secretary of Defense to the services to open more specialties and assignment opportunities to women, active Army representation of women grew to 13 percent by the end of the fiscal year, up 0.5 percent from the start of the year.

Another way of boosting readiness was to make progress in preventing and eradicating sexual harassment and racial and ethnic discrimination. The service continued to examine ways to reduce sexual harassment and complaints of racial and ethnic discrimination. The Army also sought to address better the issue of homosexuals in the Army by implementing new homosexual conduct policy. Under the new policy, sexual orientation will not be a bar to service unless manifested by homosexual conduct. Although homosexual conduct may be a basis for rejection for enlistment, appointment, or induction, the Army will not ask or require its applicants to reveal their sexual preference.

During the fiscal year the Army recognized the need to take significant steps in its transformation from a forward-positioned Cold War army of eighteen active divisions to a power-projection force of twelve active divisions based largely in the United States. In breaking away from the Cold War mold, the Army faced the imposing task of reducing itself in size and placing more responsibility for support on the reserve components. The Army worked to forge a new partnership with the reserve components, one that better leverages the strengths of the Army National Guard (ARNG) and the United States Army Reserve (USAR). The DCSOPS underscored the importance of this new partnership in noting that "central to the Army's ability to execute future missions is improved access to the reserve components." Under terms of a major restructuring agreement, the Guard would continue to provide the U.S. Army's principal combat

reserve forces, with combat service and combat service support units divided between the Guard and the Army Reserve. To improve the Guard's ground combat capability, the Army plans to associate fifteen enhanced brigades from the ARNG with active units for training. ("Enhanced" units are those that will receive sufficient resources and training to enable them to begin deploying to a crisis within ninety days of mobilization.)

Perhaps more important than redefining the relationship between the active and reserve components, the Army moved from being a threat-based force to a capabilities-based force; and from an army with roots in the industrial age to an army actively exploring the promise of the information age. As the Chief of Staff, Army (CSA), looked to the future, he held the conviction that information-age technology would revolutionize the way the Army conducts military operations. In line with this reasoning, the Army began establishing the conceptual foundations for a future information-age force called Force XXI. At the heart of the Army's vision for Force XXI was the belief that in the future information will be almost as important as ammunition. In its desire to produce a future force that can achieve decisive victory, the Army began developing plans to overmatch its adversaries by integrating state of the art information technologies with its weapon systems. This integration is called digitization. The mission of overseeing and coordinating the integration of Army battlefield digitization activities went to the newly created Army Digitization Office (ADO). Efforts to develop Force XXI represented the first step in a dramatic move toward reconceptualizing and redesigning the Army at all echelons.

Along with efforts to adopt postindustrial technology, the Army revised its modernization concepts. Army modernization was no longer about systems but about capabilities. The Army made the initial steps to bring the power of the information age to logistics and sustainment. Working with the Air Force and the Navy, the Army initiated strategic mobility programs vital to the nation. Operational planning concepts based on force generation, adaptive planning, and innovative force packaging from readiness pools became hallmarks of the post–Cold War transformation.

Fielding new and improved management and information systems also played a pivotal role in facilitating the Army's transition to a more efficient post–Cold War power-projection force. The fielding of the Replacement Operations Automation Management System (ROAMS), which better manages personnel flow in military operations and emergencies, and the improved Mobilization Manpower Planning System (MOBMAN), which better supports mobilizations and planning in personnel management, highlighted the trend in major management and information initiatives during the year.

As the Army changed, the role of Army installations also changed. Recognizing the long-standing need to improve the efficiency of instal-

lation management, the Army created the Office of the Assistant Chief of Staff for Installation Management (OACSIM) in FY 1994. More than ever, installation readiness had an important impact on Army readiness. Army installations became power-projection platforms from which forces are launched and supported in the field. Installations directly supported the Army's ability to recruit and retain high-quality soldiers and civilians, to train and maintain the force, and to project and sustain the force. Recruitment and retention of high-quality soldiers and civilians are directly related to high-quality housing; medical support; morale, welfare, and recreation facilities and activities; post exchanges; commissaries; and family programs. The training and maintenance of the Total Force are tied to the ability of Army installations to provide ranges, training facilities, simulators and training devices, general support maintenance, and depot maintenance and repair, as well as other vital logistical support.

To augment installations as power-projection platforms, the Army invested in rail and airfield upgrades, improved warehousing capabilities, and upgrades to other deployment facilities. Despite these investments, repeated underfunding in base operations adversely affected Army installations during the fiscal year. Installation commanders continued the practice of diverting funds from operational tempo (OPTEMPO) accounts to pay for essential services.

Environmental stewardship remained a high priority for the Army in FY 1994. The service spent $1.7 billion in this important area, a sum equal to 53 percent of the amount the Army spent on OPTEMPO. Guided by an environmental strategy emphasizing compliance, restoration, prevention, and conservation, the Army continued to make progress in the protection and preservation of natural and cultural resources.

During the fiscal year the Army continued to transform its financial management practices to conform to the Chief Financial Officers (CFO) Act of 1990. As the first pilot project participant in the DOD, the Army broke new ground with initiatives that revised physical inventory policy, valuation of assets, identification of outcome-oriented performance measures, and management control. Readiness underscored the Army's focus throughout this process.

The Army also made significant advances in changing its business practices. In implementing initiatives of the National Performance Review (NPR), the Army made a concerted effort to cut red tape by waiving restrictive regulations that impeded good business practices. The Army moved ahead in eliminating nonproductive costs and improving the development, testing, acquisition, and fielding of new systems. During FY 1994, off-the-shelf, nondevelopmental items were being purchased at significant savings over the old, red-tape-encumbered system.

National Military Strategy

In July 1994 the Clinton administration issued the new *National Security Strategy of Engagement and Enlargement.* This document recognized that the end of the Cold War fundamentally changed America's security imperatives, bringing more diverse dangers in the world than in the past while providing unparalleled opportunities to make the United States safer and more prosperous. Focusing on these threats and opportunities, the new strategy's goals concentrated on sustaining national security with military forces that are ready to fight, to bolster America's economic revitalization, and to promote democracy abroad. The document envisioned making a difference in the world through engagement, carefully tailored to serve U.S. interests and priorities, and enlargement, fostering the community of market democracies while deterring and containing a range of threats to the United States, its allies, and American interests. There are three central components of the strategy: to enhance U.S. security by maintaining a strong defense capability and promoting cooperative security measures, to work to open foreign markets and spur global economic growth, and to promote democracy abroad. U.S. military capabilities are critical to the success of this strategy, which envisions robust and flexible military forces that can deal with major regional contingencies, provide a credible overseas presence, counter weapons of mass destruction, contribute to multilateral peace operations, and support counterterrorism and other national security objectives. A trained and ready, highly versatile Army is key to achieving these national goals.

As the United States moved from a Cold War strategy of containment to a post–Cold War strategy of engagement and enlargement, the Army remained focused on maintaining a well-armed, well-trained, and ready strategic force, serving the nation at home and abroad, capable of decisive victory. That vision guided the Army in its efforts to surmount the many challenges that lay ahead.

2

Organization, Management, and Budget

Organizational Changes

Two new major organizations were added to the Army Staff in FY 1994. Both represented significant milestones in the Army's modernization efforts. General Order No. 8 formally established the Office of the Assistant Chief of Staff for Installation Management (OACSIM) as a staff agency within the Headquarters, Department of the Army (HQDA), on 1 October 1993. The OACSIM's responsibilities included the promulgation of policy and integration of doctrine pertaining to the planning, programming, and operation of Army installations.

Beginning in the 1970s, significant political, economic, and social changes complicated management of installations and magnified the need for central focus and direction. Installation and garrison commanders were ill equipped to deal with the flood of environmental legislation, social issues such as child care and spousal abuse, and dramatic resource reductions and base closures while trying to build a force based in the continental United States (CONUS). Throughout the 1980s and early 1990s a number of studies cited serious problems and inefficiencies in installation management and a lack of emphasis by HQDA. A common finding in all these studies was the absence of a proponent at the Department of the Army (DA) level with knowledge of functional policies and requirements and the authority to coordinate and integrate the two. Recommendations to correct systemic deficiencies varied from establishing a Base Operations Command to creating a single organization on the Army Staff. The Army's senior leadership established the OACSIM as a DA-level proponent to correct these deficiencies. Withdrawn from specified organizations and reassigned to the OACSIM were selected functions and resources: installation and environmental policy from the Chief of Engineers; installation management functions from the Management Directorate, Office of the Chief of Staff, Army (OCSA); the mission of the Base Realignment and Closure (BRAC) Office from the OCSA; the mission of the U.S. Army Commercial Activities Management Agency from the OCSA; Installation Support

Modules (ISM) and the major command (MACOM) Internal Support Modules Program from the U.S. Army Decision Systems Management Agency; the mission of the U.S. Army Community and Family Support Center (CFSC) and the Army Family Liaison Office from the Office of the Deputy Chief of Staff for Personnel (ODCSPER); the mission of the U.S. Army Toxic and Hazardous Materials Agency (redesignated as the U.S. Army Environmental Center under the OACSIM) from the Army Corps of Engineers; the mission of the U.S. Army Environmental Office (redesignated as the Office of the Director, Environmental Programs, under the OACSIM) from the Chief of Engineers; housing and facilities policy functions and natural and cultural resource functions from the U.S. Army Engineering and Housing Support Center; intraservice, interservice, interdepartmental, and interagency support functions and the Base-level Commercial Equipment Program from the Office of the Deputy Chief of Staff for Logistics (ODCSLOG).

The establishment of a second new organization on the Army Staff, the Army Digitization Office (ADO), was another significant modernization reform. The trend leading to the establishment of the office began in the early 1990s, as Army modernization faced an uncertain future. The end of the Cold War presented the Army with challenges of modernizing in an austere fiscal environment defined by force structure reductions and dramatic shifts in strategic mission and worldwide deployment. In addition, the Persian Gulf War revealed the need for greater synchronization of military forces. Rapid advances in technology offered the Army an opportunity to meet these challenges better. Several Army weapon systems were upgraded to use the capabilities of emerging digital information technologies, and initial results from testing these digital capabilities were very encouraging.

Following the Persian Gulf War, the CSA identified the need to digitize the battlefield, a primary underpinning of Army modernization requirements, by the turn of the century. In the spring of 1993, the Vice Chief of Staff, Army (VCSA), directed that the concept of Horizontal Technology Integration (HTI), integrating high-payoff technologies throughout the entire force, be institutionalized to increase force effectiveness.

Traditionally, the Army's main effort for developing command and control (C2) systems employed a top-down approach. Various Battlefield Functional Area proponents developed individual automated C2 systems for corps-level operations down to the brigade. These systems were based on principles of vertical integration. This approach restricted the capability of gathering tactical information and created an unfilled requirement at lower echelons to integrate and share critical information within and throughout Battlefield Operating Systems. With the proliferation of battlefield automation, coupled with the speed at which tactical missions

need to be accomplished, the decision to digitize the battlefield through HTI would enable the Army to increase the breadth and depth of command and control through near real-time situational awareness as well as reduce the risks of fratricide.

In the summer of 1993 the Ad Hoc Working Group for the Digitization of the Battlefield investigated various strategies to digitize the Army. Among the objectives it identified was the digitization of a brigade by 1996 and of a division by 1998. In the fall of 1993 the Deputy Chief of Staff for Operations and Plans (DCSOPS) directed that an effort be undertaken to study the requirements, cost, and test and evaluation needs and to propose a management plan for digitizing the battlefield. On 22 December 1993, a special task force reported its results to the CSA. Following this report, the CSA commissioned a second special task force in January 1994 to refine the recommendations and establish the organization and charter of an ADO. The VCSA and the Army Acquisition Executive approved the ADO charter on 9 June 1994. It prescribed the ADO mission to oversee and coordinate the integration of all Army battlefield digitization activities. The ADO became the VCSA's instrument for digitization activities throughout MACOMs and the Army Acquisition Executive's instrument for providing guidance, assistance, and direction in acquisition matters related to digitization.

During FY 1994 the Army also continued to execute the decisions reached in the BRAC process. By the end of the fiscal year, the Army had closed seventy-four of seventy-seven installations scheduled for closure by the 1989 BRAC Commission. One of these, the Presidio of San Francisco, was transferred to the Department of the Interior in October 1994, with Sixth U.S. Army continuing to occupy facilities on the Presidio under a special permit. Of 656 overseas closures announced through October 1994, the Army executed 493 full and 37 partial closures in Europe; 17 full and 7 partial closures in Korea; and 1 closure in Panama. Under the 1991 BRAC recommendations, the Army closed the Woodbridge Research Facility of the Harry Diamond Laboratory in Virginia; closed Fort Ord, California, and transferred two land parcels to the University of California; closed Sacramento Army Depot, California; completed the move of the 5th Infantry Division from Fort Polk, Louisiana, to Fort Hood, Texas; and initiated the move of the 10th Special Forces Group from Fort Devens, Massachusetts, to Fort Carson, Colorado.

Army civilian personnel services underwent a major reorganization during the fiscal year. In accordance with DOD plans to consolidate and streamline civilian personnel services throughout, the Army began establishing regional Civilian Personnel Operations Centers (CPOCs). The Army planned to establish ten regional CPOCs, seven in CONUS and three overseas. As CPOCs are established, Army installation Civilian

Personnel Offices are to be reduced and reorganized to provide assistance as individual advisory centers.

Two regional CPOCs began operations in FY 1994: the National Capital Region, Fort Belvoir, Virginia, and the U.S. Army Europe Region, Seckenheim, Germany. The Army identified the remaining eight CPOC regions as the Southeast Region, the Northeast Region, the South Central Region, the Southwest Region, the West Region, the Korea Region, and the Pacific Region. The locations of CPOCs in the remaining eight regions are to be determined.

Management and Information Systems

In June 1992 the Joint Staff published *C4I for the Warrior*, which addressed joint force operational/interoperability issues. This initiative was the centerpiece of the effort to achieve a unified and global C4I (Command, Control, Communications, Computers, and Intelligence) system to support the requirements of the joint warfighter, consistent with national security plans and DOD policy. The Army responded to this initiative with the publication of *The Army Enterprise Strategy*. The strategy provided the single, unified vision for the Army C4I community in two documents: *The Vision*, published in July 1993, explained the Army Enterprise Principles; and *The Army Enterprise Implementation Plan*, published in August 1994, identified the tasks to be accomplished in order to achieve the goals of *The Vision*.

Among these tasks was the development of a technical architecture. To facilitate this development, the Army Science Board conducted an eight-month study, beginning in January 1994, that examined the Army's vision of the future, including combat doctrine, organization, materiel, and the growing need for information management to support the Army in the twenty-first century. The study recommended developing a technical architecture that identified a common set of standards to guide the definition, design, and development of the Army's Battle Command systems. The Army then organized the Technical Architecture Task Force in September 1994 with the mission of providing the first version of the technical architecture by December of that year.

Army personnel management benefited from two notable automation improvements during FY 1994. The Army made the Mobilization Manpower Planning System (MOBMAN) more flexible in supporting mobilizations and planning analyses. The Army also fielded the Replacement Operations Automation Management System (ROAMS) to manage personnel flow better in military operations and emergencies.

The MOBMAN is the Army's sole system for compiling all the information needed to support HQDA military manpower analyses that identi-

fy expected personnel surpluses and shortfalls for specific scenarios, operation plans, and contingencies. It compares the total requirements (force structure and net casualty replacement needs) with the anticipated total supply of trained manpower available, including reserve component personnel. Because it was originally designed to support only full mobilization planning analyses, MOBMAN lacked the flexibility of meeting the Army's post–Cold War needs.

The Army enhanced MOBMAN in FY 1994 to increase its flexibility in supporting partial mobilization planning analyses. The enhanced MOBMAN can provide quick-response (24–72 hours) operational support analyses that focus on deploying forces on Time-Phased Force Deployment Data. This capability supports the HQDA ODCSPER Manning Analysis of Readiness and Supportability process that allows the ODCSPER to participate in formulating ODCSOPS decisions for the supportability of contingency and operational plans. For planning, MOBMAN also gained the capability of supporting analyses for all levels of mobilization. These analyses are part of the ODCSPER Mobilization Manning Plan process that identifies likely sources of individual manpower to fill Army personnel shortfalls.

ROAMS, the Army's other personnel automation initiative, also provided greater flexibility in support of contingency and operational plans. One of the U.S. Total Army Personnel Command's (PERSCOM) major missions upon execution of an Operation Plan (OPLAN) approved by the Joint Chiefs of Staff or of military operations in support of an emergency is to manage individual non–unit-related personnel flow to the theater and ensure that supported units are maintained at an acceptable personnel strength level. To meet these challenges, PERSCOM developed ROAMS to assist the supporting Army Component Commander (ACC) in projecting individual manpower needs for specified periods and to track manpower movement to the theater of operations during OPLAN execution. ROAMS interfaces with the Total Army Personnel Database (TAPDB) to obtain personnel data related to assigned replacements. Three program modules in ROAMS support this mission: (1) Automation of the Theater Shelf Requisitioning Process (AUTOREP); (2) Non–Unit-Related Personnel Flow Computer Assisted Program (FLOWCAP); and (3) Automation of the Casualty Analysis Process (AUTOCAP).

AUTOREP sorts casualty replacement data and generates data on replacements and filler personnel. AUTOREP generates data on personnel by comparing the theater's wartime personnel requirements with the peacetime authorizations. It displays the filler data in the area of concentration (AOC) and the military occupational specialty (MOS) and by rank. The program sorts projected aggregate casualty information by personnel category, AOC and MOS, and grade and rank for a specified theater of

operations to predict the number of replacements required over time. The ACC is tasked to pre-position a theater replacement list at PERSCOM as part of the planning process.

FLOWCAP supports the PERSCOM mission by managing the flow of individual filler and casualty replacement personnel to the theater of operations. It provides the CONUS Replacement Centers (CRCs) the capability to manage, schedule, control, and track the flow of replacement personnel from the CRC through the aerial port of embarkation. It provides manifest data for the Air Mobility Command and advance arrival information for the ACC. It also generates internal reports for the CRCs to manage and process replacements at the CRC.

AUTOCAP provides the capability to adjust the difference between projected and actual requirements. This difference is based on the projected casualty estimate of non–unit-related personnel flow to the theater of operations as captured in FLOWCAP. It is also based on actual casualty data supplied from the Army Casualty Information Processing System. AUTOCAP allows the ACC or PERSCOM the ability to adjust future projected casualty requirements based on OPTEMPO, OPLAN changes and updates, and changes in structure or policy.

In FY 1994 the Army began developing automated system improvements to streamline civilian personnel processes in accordance with DOD regionalization plans. Army systems under development included the Personnel Action system to process and track personnel actions; the Core Document system to classify civilian positions; the Automated Reduction-in-Force system to process reduction-in-force actions; the Retirement system to process retirement actions; the Training system to process and track employee training; the Standard Automated Inventory and Referral system to track job vacancies and employee referrals; and the Injury and Unemployment Compensation system to track and process injury and unemployment compensation actions. The Army also continued refining the Army Civilian Personnel System (ACPERS) database of civilian personnel positions and employees. The Army is working on evolving ACPERS into the Defense Civilian Personnel Data System, which eventually will link into the Defense Civilian Payroll System.

During the fiscal year the Army completed fielding of the Army Food Management Information System (AFMIS). The AFMIS automates installation food service and troop subsistence activity processes. Automating these processes meets a congressional mandate that the Army and the other services automate their worldwide food service programs because of subsistence fraud, waste, and abuse identified in a 1981 Defense Audit Service audit. Software development began in 1981 but, due to three processing concept changes, system deployment did not begin until 1990.

The Army completed fielding approximately one-third of its total fifty-seven AFMIS sites in 1994. AFMIS consists of four modules: (1) Troop Issue Subsistence; (2) Troop Issue Subsistence Activity–Warehouse; (3) Installation Food Advisor; and (4) Dining Facility Operations. In addition, AFMIS is mandated to automate dining facility head counts. But, because there is no standard DOD identification card, the Army did not begin developing this module during the fiscal year.

The Army Information Systems Selection and Acquisition Agency (ISSAA) awarded four major contracts in FY 1994. One contract award, potentially worth $15.4 million, went to provide nonpersonal technical services to support Keystone, an automated personnel system aiding 3,000 Army users in enlistments, reenlistments, and assignments. One contract, potentially worth $249.4 million, went to provide the next generation of bar code equipment and services, as well as related technologies, to the DOD and the Coast Guard. Another contract, potentially worth $98.8 million, went to provide the Program Executive Officer for Standard Army Management Information Systems (STAMIS) with commercial off-the-shelf computer equipment and support services to meet worldwide tactical requirements. ISSAA also awarded a contract, potentially worth $135 million, to provide the Battle Command Training Program (BCTP) at Fort Leavenworth, Kansas, with automation equipment to support more than forty computer-based simulations annually.

Army automated intelligence capabilities also continued to evolve in FY 1994. On 29 October 1993, the Defense Acquisition Science Board awarded a contract for an upgraded Block II All Source Analysis System (ASAS). The ASAS is a modular, tactically deployable, computer-assisted Intelligence and Electronic Warfare (IEW) processing, analysis, reporting, and technical control system consisting of evolutionary sets of hardware and software modules that perform system operations management and security, communications processing and interface, input message processing, intelligence processing and reporting, target identification and nomination, and intelligence collection management. The Army System Acquisition Review Council approved the fielding of twelve Block I systems on 29 July 1993. An ASAS variant, the ASAS-Extended (ASAS-E), provides ASAS capability to additional units not scheduled to receive Block I ASAS. ASAS-E uses the Army Tactical Command and Control System Common Hardware/Common Software Support and provides open architecture, assured interoperability, and growth capability. Block I and ASAS-E systems will be upgraded with Block II enhancements beginning the second quarter of FY 1995.

Another intelligence initiative, the Force Integration Master Planner (FIM), is an automated decision support system and force analysis model. It provides Plans, Programs, and Budgeting System (PPBS) analytical

support for current and future IEW systems and force structure throughout intelligence functional areas. These areas include collection, processing, and dissemination. The purpose of the FIM is to validate the objective architecture in the Army Intelligence Master Plan by providing empirical data to support resource decisions in the IEW mission area.

In FY 1994 the FIM consolidated approximately fifty databases. This consolidation of databases is the basis for the power of the FIM. Previously, not all these databases were available in one place. Their seamless integration provides for improved IEW resource planning. The database information is used by force integration planners and combat and materiel development officers to plan and program the IEW force structure. It enables retrieval and assessment of all available pertinent information for a particular analysis. The FIM provides the user with the ability to assess many options rapidly.

With the continuing evolution of the capabilities of the Organizations and Cost Analysis component of the FIM in FY 1994, considerable time and effort were devoted to developing the Operational Capabilities Analysis (OPCA) component during the fiscal year. Effective 1 October 1993, the FIM OPCA component began to measure the operational added value of tactical U.S. Army signal intelligence and electronic warfare systems. A similar function for U.S. imagery systems and supporting processors, such as the Unmanned Aerial Vehicle (UAV) and the Joint Surveillance and Targetry Attack Radar System (JSTARS), will become available later during FY 1994. Ultimately, FIM will provide a total system-of-systems function for collecting, processing, and disseminating within the IEW mission area at tactical, operational, and strategic levels.

During FY 1994 the Army Safety Center developed the Army Safety Information Services and Technology (ASIST) system to correct identified deficiencies at HQDA and better support commanders' risk management requirements. ASIST is the information management component of the Army's safety strategy (Safe Force XXI). It is intended to expand and transform the Army's database, which is oriented toward safety practitioners, into a risk management information system, easily accessible from existing and emerging unit and installation information support systems.

The Safety Center also developed the Safety Installation Support Module (ISM), one of six ISMs intended for use in development of the Safety Center's Sustaining Base Information Service (SBIS). The SBIS is intended to provide major improvements in quality, standardization, and efficiency in the execution of installation safety programs. The Safety ISM will provide automated processes for inspections, hazard abatement, risk management, and accident reporting and will interface with other automated systems at Army installations and HQDA.

Finally, the Safety Center established an electronic capability to provide to Army installation commanders the inspection findings and analyses of the Occupational Safety and Health Administration (OSHA), Department of Labor. The Army uses the OSHA Inspection and Violation System database, available on line for use by the field, to extract information on citations for violations of OSHA standards at Army installations. Other DOD services can also access this information if it applies to them. The Safety Center used this information to draft and distribute the Army "Dirty Dozen" list, the twelve OSHA standards most violated by the Army, for FY 1993 and FY 1994.

The U.S. Army Audit Agency (AAA) introduced several significant automation initiatives during FY 1994. First, as part of its efforts to improve client services, the AAA automated its entire schedule of audits. The schedule is issued as near to the beginning of the fiscal year as possible to include the latest changes. Previously, as a result of numerous unprogrammed requests and other disruptions, much of the information had become outdated by the time clients received the schedule. The automated schedule overcomes these deficiencies by allowing Army MACOMs and other interested activities real-time, on-line access that reflects updated changes as they occur. The automated schedule also reflects projected entrance and exit dates and includes audit objectives. In addition, the AAA developed a new feature, the Audit Followup module, for its information management system. This new feature facilitates the production of the AAA follow-up function Semi-Annual Report to Congress. Finally, the AAA incorporated newly designed AAA performance measures into its information management system, thereby facilitating reporting of AAA internal process improvements.

FY 1994 saw the adoption of a new automated identification card in the Army, the Real-Time Automated Personnel Identification System (RAPIDS). The new DOD automated card was approved for testing on 1 October 1993. Testing took place at Fort Belvoir, Virginia, from October to December 1993. Worldwide implementation and fielding of the new RAPIDS equipment began in January 1994. Eighty-three Army identification card issuing sites were established in CONUS, and 39 outside CONUS, during the fiscal year. An additional 81 Army sites remained to be established in FY 1995.

FY 1994 marked an automation milestone for the U.S. Army Drug and Alcohol Operations Agency (USADAOA). USADAOA completed fielding the Drug and Alcohol Management Information System–Field (DAMIS-FS) to sixteen CONUS installations. USADAOA also created a prototype Service to the Nation/Drug Demand Reduction (STN/DDR) database to collect information about and report on the many volunteer services, programs, and resources Army installations are providing com-

munities in support of Service to the Nation and the National Drug Control Policy. The findings of the database revealed that of 96 CONUS installations surveyed, 62 installations, or 64 percent, accomplished 154 STN/DDR programs; 41 installations Army-wide conducted Drug Abuse Resistance Education (DARE) programs; and overall, STN/DDR programs involved 263,530 participants, 56 percent of whom were military youth family members, and 3,385 staff members, 41 percent of whom were active duty soldiers or Department of the Army civilians.

During FY 1994 a major effort was under way to provide automated data processing support for management of reserve component programs. The goal was to provide improved capability, especially for conducting joint operations, of using microcomputers at the local level. The reserve components recognized that on-line communication and interaction with larger systems are essential to reduce delays, improve efficiency of operations, and make current information available to various levels of command.

The Army National Guard (ARNG) benefited from a number of automation initiatives during the fiscal year. The ARNG implemented and tested the Inter-Component Data Transfer (ICDT) process in July 1994. The ICDT process is a methodology developed to increase the frequency and efficiency of transferring personnel information between components. The ICDT enables intercomponent transfer of soldiers' automated personnel records for initial active-duty training, active-duty training, temporary tours of active duty longer than thirty days, and federalization. It is intended to facilitate loading soldier accession data upon enlistment, to receive the U.S. Army Recruiting Command Army Recruiting and Accession Data System records, and to route the record to the gaining component. When the ICDT is completely implemented, information will pass from the point of origin, through the TAPDB, to the appropriate personnel field system within forty-eight hours.

ARNG unit motor pools and organizational maintenance shops use Unit Level Logistics System–Ground (ULLS-G) computer systems for managing unit-level repair parts and maintaining maintenance records. After the Persian Gulf War, the ARNG reached an agreement with the Army Staff that the Department of the Army would furnish ULLS-G to early-deploying ARNG units and the ARNG would use congressionally added funds to purchase ULLS-G for its later-deploying units. As of 31 September 1994, all ARNG Table of Organization and Equipment (TOE) units had been issued ULLS-G hardware and each state had a trained support cadre in place.

The development of ULLS-Aviation and ULLS-S4 (battalion logistics) software also began in FY 1994. With anticipated fielding in mid FY 1995, the ULLS-Aviation system automates the crew chief requirements

within the aviation flight company and the maintenance and supply operations within the aviation activities.

The ARNG also continued to modernize and expand several areas of tactical automation. The Standard Property Book System–Redesign (SPBS-R) is a means of centralizing property book accounting and providing greater visibility of assets to battalions and larger tactical units. Ninety percent of the ARNG's SPBS-R systems were fielded in high-priority deployable Contingency Force Pool (CFP) units by the end of FY 1994. Conversion and training for SPBS-R in ARNG tactical units should be completed during the second quarter of FY 1995. SPBS-R I/TDA (Installation/Table of Distribution and Allowances) is a multiuser system that replaces the Equipment Status Report module of the Supply Accounting Management Information System at the U.S. Property and Fiscal Office. This conversion began during the second quarter of FY 1994 and should be completed during the second quarter of FY 1995. SPBS-R I/TDA training is being conducted on-site or at nearby active Army military installations.

The ARNG is completely revamping calibration management with the introduction and fielding of the Test, Measurement, and Diagnostic Equipment Integrated Material Management System (TIMMS). In FY 1994, TIMMS ancillary hardware, consisting of smart terminal, printer, CD-ROM player, and modem, was being prepared for immediate fielding. Fielding is expected to be completed during the third quarter of FY 1995.

In finance, the ARNG expended considerable efforts toward improvement of the Automated Fund Control Orders System (AFCOS) during FY 1994. Extensive systems changes were programmed and tested during the first quarter, with fielding completed to all states, territories, and the District of Columbia during the next two quarters. The changes to AFCOS provided program and fund managers with significantly improved control and far more efficient use of funds available to the ARNG for active duty programs.

The Standard Army Maintenance System–Levels I and II (SAMS I/II) is available in the Army National Guard. This maintenance and readiness management system is essential to direct and general support maintenance operations in the ARNG. In FY 1994 SAMS I/II was operating on an obsolete tactical Army combat service support computer system that required hardware and software upgrades.

The U.S. Army Reserve (USAR) experienced mixed progress with automation during FY 1994. Deployable USAR units received off-the-shelf automation hardware for the logistics STAMIS, yet no corresponding equipping at the management levels occurred. Consequently, there was not an overall net increase in automated logistics management in the Army Reserve during FY 1994. The Army Reserve operates two internal

logistics programs, including center-level application software, which provide limited unit-level logistics operations; however, these have not been updated due to restrictions on upgrading functions that duplicate those in the Reserve Component Automation System (RCAS).

The Army has historically recognized the modified table of organization and equipment (MTOE) requirements for computer hardware and software in the Army Reserve in organizations not governed by a TDA. Since the TDA structure of the Army Reserve includes most of the peacetime command and control headquarters, effective logistics automation management in the Army Reserve is impeded. The lack of internal interoperability between MTOE units, which include CFP units and TDA units, keeps MTOE units from acquiring the automation usage and experience needed to be as fully trained as their active component counterparts.

Equipping the Army Reserve has frequently occurred at the end of the Army equipment-fielding process. The Army has started to equip Army Reserve CFP units in Department of the Army Master Priority List sequence but continues to equip the remainder of the Army Reserve at the end of the process. Traditionally, funding has not been available to complete the equipping of the Army Reserve. If this trend continues, only CFP MTOE units will be interoperable with their active component counterparts. If other than CFP units are required for an operation, the Army will be required to equip and train these units in STAMIS operations upon mobilization.

During FY 1994 the Army Reserve made a transition to a single-source personnel system. This system, the Total Army Personnel Database–Reserve (TAPDB-R), eliminated the need for maintaining various personnel systems, such as the Individual Ready Reserve (IRR), Individual Mobilization Augmentee (IMA) program, and the Troop Program Units (TPU), to support the total Army Reserve. The Standard Installation/Division Personnel System–Army Reserve will continue to transmit unit personnel data to TAPDB-R until the RCAS interface is fully developed and fielded. The TAPDB-R personnel system supports a central database for all three Army components under a single-source data repository. TAPDB-R will also serve as the primary source of USAR personnel data to support the personnel and pay system interface and USAR retirement repository.

The RCAS began FY 1994 with 381 units fielded with hardware and office automation software and ended by completing the fielding of 1,500 units. The RCAS is a secure, automated information system that supports the decision-making needs of commanders, staff, and functional managers responsible for reserve component forces. When RCAS is completed, over 8,000 units will be connected through a wide area network. Once fielding of hardware and applications of software have been completed, the RCAS program will be capable of exchanging information systems. In addition

to accurate information supporting mobilization planning and execution, commanders at all levels will have the ability to assess training strategies and monitor the logistics functions.

Economies and Efficiencies

The Assistant Secretary of the Army for Financial Management and Comptroller (ASA FM&C) directed an Army-wide study of the Internal Review Program in 1994. Internal Review is a command and control element that provides professional audit and related services for command and senior management officials. Internal Review facilitates the commander's role as a steward of Army resources. Internal Review offices provide comprehensive or quick-response audits of known or suspected problem areas or areas where additional efficiencies are believed to exist, advice and analysis on the status of internal management controls within the organization, additional advisory and consulting services for management as needed, a point of contact for commanders for all external audit organizations, and follow-up audit services to ensure that audit recommendations for corrective actions were implemented in a prompt and effective manner. Based on the results of the study, several initiatives were undertaken during FY 1994. As part of a strategic planning effort, an Army Internal Review vision with a focus on customer needs and high-quality audit services was adopted. The Internal Review Program was redesigned to provide a broader spectrum of audit and related services to customers. Guidelines were formulated for performing quick-response audits in accordance with *Government Auditing Standards*. The Army also adopted an Internal Review Awards of Excellence Program. Finally, under joint sponsorship of the ASA FM&C and the Auditor General, a program of instruction was developed for an eight-hour course on "Serving the Internal Review Customer" to be released during FY 1995.

These enhancement initiatives contributed to Internal Review productivity (measured in terms of audit reports issued). Internal Review productivity registered the most significant increase on record, over 33 percent in FY 1994 from FY 1993 levels. Internal Review "value added," which is measured in terms of potential monetary benefits identified per Internal Review auditor, registered a 51 percent increase during FY 1994 over FY 1993. A $291,000 benefit per auditor represented the highest level of savings in the FY 1990–1994 period.

During FY 1994 the Under Secretary of Defense (Comptroller), responsible for demonstrating fiscal stewardship within DOD, emphasized the completion of Antideficiency Act (ADA) violation cases in a timely manner and accountability for violations of the law. An ADA violation is a violation of statutes included in Sections 1341, 1342, and 1517

of Title 31 of the United States Code, Finance and Money. The statutory intent is to ensure that federal employees do not obligate funds they do not have and do not obligate funds for purposes other than those stated in the authorizations and appropriations acts. The statutes provide administrative and criminal sanctions for violations of the act. The Secretary of the Army and senior management within the Army financial community supported the Under Secretary's position.

The Principal Deputy ASA FM&C contacted MACOMs personally to discuss the status of investigations and of required periodic update briefings. Also, the Army Audit Agency was requested to assist in processing of overdue ADA cases and to evaluate the processing procedures. These actions assisted the Army in reducing its backlog of ADA cases from 47 to 25 during FY 1994. This represented a significant reduction from the balance of 37 open cases at the end of FY 1993. The Army took additional actions before the end of FY 1994 to review guidance for processing and reporting ADA investigations and to review programs of instruction to increase awareness concerning causes of ADA violations. In addition, the ASA FM&C completely reviewed the ADA processing procedures to streamline the process.

Public Law 101–510, FY 1991 National Defense Appropriations Act, significantly changed the way the Army managed financial resources. The law eliminated the merged account and limited the availability of all appropriations for obligation adjustment and payments to five years after the appropriation expired. After five years, the expired appropriation and all unliquidated obligations are canceled. Payments associated with canceled appropriations must be supported with obligations from current funds. Prior to this law, unliquidated obligations remained in an expired status for two years, after which time they lapsed into the merged account. The merged account represented a compilation of many fiscal and appropriation combinations, and its unliquidated obligations and unobligated balances were available indefinitely for obligation adjustments and payment of liabilities.

FY 1994 marked the beginning of a new era in resource management because all merged accounts were canceled at the end of FY 1993. Managers needed to develop procedures to diminish the use of current funds to pay liabilities formerly financed by unliquidated obligations associated with canceled appropriations. In response to this need, the ASA FM&C initiated the FY 1994 Joint Reconciliation Program, combining the skills and expertise of accountants, budget and program analysts, contracting professionals, logisticians, legal professionals, and auditors to validate the continued need for goods and services that have not yet been delivered. Although the Army previously used resource managers, accountants, and budget analysts to conduct joint reconciliations, the

closeout of merged accounts in FY 1993 revealed the need for additional participation by logistics, contracting, audit, and legal personnel. The Joint Reconciliation Program will save money by reducing payments from current funds in support of canceled appropriations and by identifying current-year unliquidated obligations that can be deobligated and used for other purposes.

The Resource Management Mentorship Program (RMMP) is an initiative of the ASA FM&C that was also introduced in FY 1994. The program is intended to meet Army Imperatives and Resource Management Future Initiatives for personnel succession planning, to meet affirmative action goals, and to reemphasize supervisory and managerial responsibility through commitment to employee development. The RMMP is a formal mentoring program with an emphasis on acquiring skills. It incorporates different mentoring approaches to assist career comptrollers in training, developing, managing, and retaining the Army's workforce. During the fiscal year, 455 resource management careerists (194 mentors and 261 associates) participated in the program.

The Financial Analysis Directorate, Resource Analysis and Business Practices Office, Office of the Assistant Secretary of the Army for Financial Management and Comptroller (OASA FM&C), submits legislative proposals to provide commanders the flexibility to generate additional funds, maximize use of resources, and manage in the most businesslike fashion possible. In FY 1994 the Financial Analysis Directorate submitted six proposals for enactment in FY 1995. First, the Expense/Investment Threshold proposal would provide installation commanders increased flexibility to use the most cost-effective methods in meeting mission requirements by raising the limits of operations and maintenance purchases from $25,000 to $50,000. Without this flexibility, commanders are occasionally forced to maintain aged equipment or to lease new equipment at cumulative costs far in excess of purchase prices for replacing the equipment. Second, the Kuwaiti Reimbursement proposal would allow DOD to create obligations in advance of receipt of cash payments by the Kuwaiti government. Although the treaty between the United States and the Government of Kuwait states that the Kuwaiti government will reimburse the United States for military costs of the continued U.S. presence in Kuwait, the DOD cannot afford to carry the approximately $250 million operating cost from existing total obligation authority until payment is received. Third, the Residual Value Threshold proposal would establish a $10 million threshold below which the review of U.S.-German settlement agreements by the Office of Management and Budget (OMB) is not required. This would allow the OMB to focus on higher monetary settlements and would accelerate the process for lower monetary settlements. Fourth, the Excess Historical Artifacts proposal would allow the services a broader range of

options for disposing of excess historical artifacts by trading artifacts to compensate for transportation costs and trading artifacts of equal or greater value with other services. Fifth, the Sale and Outreach proposal obtained appropriation language that would authorize the use of funds generated by this program. Sixth, the Residual Value proposal, not to be confused with the Residual Value Threshold proposal, obtained appropriation language that would authorize the use of German funds, paid into a Special Treasury account as a result of the U.S. military drawdown in Europe, for building improvements made at U.S. Army installations.

In FY 1994 Secretary of the Army Togo D. West, Jr., directed that the Army Program Performance and Budget Execution Review System (PPBERS) be expanded and conducted as the Quarterly Army Performance Review (QAPR). The Secretary reached this decision after reviewing the PPBERS process and recent legislative initiatives that included the Chief Financial Officers Act of 1990, the Government Performance and Results Act of 1993, the National Performance Review, and the Government Management Reform Act of 1994. This legislation signaled the transition to more outcome-oriented program management and performance budgeting.

From its start in FY 1982, PPBERS served as the corporate review for assessing the accomplishment of major Army missions through a systematic set of performance indicators. The performance measures in PPBERS were presented quarterly to the VCSA and the Under Secretary of the Army by the Secretariat and the Army Staff. The QAPR expanded PBBERS to allow participants more flexibility in determining core programs, special issues, and related performance objectives and measures. The QAPR also includes presentation to the Secretary of the Army and the CSA in addition to the Under Secretary of the Army and the VCSA.

The composition of the QAPR allows principals to observe how success or failure in one program affects other programs. Raising program execution problems in this forum also offers an opportunity for initiating corrective action at the senior management level. This makes the review a powerful management tool for the Army and enables top managers to review, assess, and independently correct program performance shortfalls.

The OASA FM&C continued to exercise responsibility for financial oversight of nonappropriated funds (NAF) in FY 1994 through participation in the Morale, Welfare, and Recreation (MWR) Board of Directors. The Comptroller of the Army served as the chairman of the Finance Committee and the Principal Deputy Assistant Secretary of the Army for Financial Management served as the co-chairman of the Audit Committee.

The Army achieved five significant accomplishments in financial oversight of NAF in FY 1994. First, the OASA FM&C established financial standards for all categories of MWR programs and required briefings by MACOM chiefs of staff on their performance, measured against these

standards, to the MWR Board of Directors Executive Committee. Second, the OASA FM&C incorporated financial performance measured against pro forma projections as a criterion for future funding of major NAF construction. Third, the OASA FM&C reviewed the Armed Forces Recreation Center–Europe (AFRC-E) to determine whether the center could operate without appropriated fund support. The review revealed that the AFRC-E should be able to operate without appropriated funds once its operations stabilize. Fourth, the OASA FM&C established that appropriated funds could be used to cover NAF severance pay requirements at installations affected by BRAC actions. Finally, the Army entered into a partnership with the Air Force to cooperate and share information on NAF financial oversight issues and common areas of concern in Army and Air Force Exchange Service (AAFES) management.

The Chief Financial Officers Act of 1990 aimed at producing more effective general and financial management practices in the federal government. Its purpose was to provide more accurate, timely, and reliable financial information through improved accounting systems, integrated functional and financial management, and strengthened controls. The law designated ten federal agencies, including the Department of the Army, to take part in a series of pilot projects that audited financial statements covering all agency operations. The OMB designated the Army as a pilot for FY 1991 and 1992 reporting and extended the project through FY 1995. In accordance with the Government Management Reform Act of 1994, Chief Financial Officers Act reporting will be mandatory for all federal agencies as of FY 1996.

In FY 1994 the Army submitted the audited financial report for FY 1993. This report resembled a corporate annual report but depicted more than financial information. The report included a message from the Secretary of the Army, an overview of significant accomplishments, and a description of key Army missions and performance. The financial statements, footnotes, and supplemental financial information were prepared by the Defense Finance and Accounting Service. Although the General Accounting Office audited Army financial statements for FY 1991 and 1992, in FY 1994 the AAA assumed the responsibility, beginning with the FY 1993 report.

In FY 1994 the Senate Committee on Governmental Affairs held hearings on the FY 1993 Army financial statements. Similar hearings had been conducted in FY 1992 and FY 1993 on FY 1991 and FY 1992 Army financial statements, respectively. In each of these hearings, the Senate committee criticized the Army for failing to implement the CFO Act fast enough. Although the senior Army leadership strongly supported the successful implementation of the CFO Act, progress had been slowed by the need to resolve long-term problems that required changes in financial systems.

During FY 1994 the AAA issued 507 reports, including formal audit reports. These audits identified $1,777,591,083 in potential monetary benefits, of which the Army agreed with $1,397,635,367. Three of the AAA's more significant reports each identified potential monetary benefits exceeding $100 million: the Army "Maintenance Float" report, $980,300,000; the "Wartime Host Nation Support Agreement, U.S. Army, Europe, and Seventh Army" report, $199,200,000; and the "Program Executive Officer for Intelligence and Electronic Warfare" report, $123,000,000.

The audit of the Army's Maintenance Float program found that the Army could significantly reduce its operational readiness float program (a reserve of equipment) and still maintain equipment readiness. Less than 6 percent of all Army units reported that direct-support maintenance repair time affected readiness. Also, about 56 percent of the equipment in the program was not considered critical and did not affect readiness. Most of the remaining items in the program either met equipment readiness goals without float assets or had maintenance problems at the unit level. The AAA believed that by reducing the program, the Army could cancel about $780 million in future float acquisitions and use about $194 million in existing float assets to fill other Army requirements.

The AAA also believed that the Army needed to manage and reduce its repair-cycle float program better. The report found that there were no recorded assets on hand to support about $3.5 billion in repair-cycle float requirements, and less than 1 percent of Army units needed repair-cycle float assets to maintain readiness levels. Also, key internal controls, as they relate to maintenance float, were not effective. Through better management and reductions of items, the AAA believed, the Army could reduce planned acquisitions of repair-cycle float assets by about $6 million.

The Army agreed with the AAA recommendations about the Maintenance Float program or proposed reasonable alternative corrective actions. The Army partially agreed with the AAA estimate of potential monetary benefits, reducing them from $980 million to $853 million for FY 1995 to FY 1999. The revised amount represented funds that were put to better use within existing Army programs—funds used to buy equipment to fill unit initial-issue authorizations rather than being spent on planned acquisitions for Float assets.

In the "Wartime Host Nation Support Agreement, U.S. Army, Europe, and Seventh Army" audit, the AAA found that the Army was unlikely to benefit from continued expenditures for military support provided under the host nation support agreement. The AAA believed that the agreement did not respond to a current threat and that U.S. Army, Europe, could not count on support from German units unless Germany was directly threatened. The audit found that the Army could save about $199 million if its requirement for military support under the agreement was deleted. The

audit also found that the Army needed to improve accountability and oversight of host nation support equipment. Equipment valued at approximately $80.4 million was not on accountable records, and the Army did not inventory or inspect equipment stored in German depots. The auditors recommended that the Army initiate action to amend the support agreement to delete the requirements for military support to the U.S. Army; cancel undelivered orders for German wartime host nation support equipment; cancel delivery of Heavy Equipment Transporter Systems; reconcile equipment account balances with receiving reports; and perform a 100 percent inventory and publish guidance to account for equipment.

On the basis of the report's recommendations, the Army disagreed with dropping all of the German support groups. The service agreed to renegotiate the agreement to reduce the number of German support groups from three to one and cancel contracts in accordance with a single German support group program. Since revised force structure estimates supported the need for heavy transportation, the Army did not agree to cancel delivery of Heavy Equipment Transporter Systems. The Army agreed with the other recommendations and reduced the potential benefits from $199.2 million to $101.3 million.

In the "Program Executive Officer for Intelligence and Electronic Warfare" audit, the AAA found that while the Program Executive Office generally provided adequate life-cycle management of its assigned programs, materiel developers did not. Materiel developers did not use a formal milestone decision review to authorize major modifications and upgrades of some nonmajor programs; did not keep required baseline cost estimates or acquisition plans current; and did not plan to acquire some systems cost-effectively. The audit identified about $123 million in potential monetary benefits. The Army agreed with the AAA's recommended changes to the program and the estimated potential monetary benefits.

Since 1961 the Army has maintained an aggressive Value Engineering Program encompassing both in-house and contractor efforts. In FY 1994 the program achieved $326.6 million in in-house savings and $40.5 million in contractor savings. Investments of $32.4 million for in-house value engineering programs and $3.1 million for contractor value engineering programs produced returns of 10.1:1 and 12.9:1, respectively. The total Army value engineering saving of $367.2 million represented 43 percent of DOD value engineering savings.

Budget

The Army submitted a budget that was in line with President Clinton's planned $60 billion cut to the defense budget for FY 1994–FY 1997. The Army requested $60.7 billion in Total Obligation Authority (TOA) for FY

1994. This represented a $3.1 billion decrease, or a decline of over 6 percent in TOA from FY 1993, not including supplemental funding, and continued a downward trend that began in FY 1986.

Faced with tight budget constraints, Army leaders accelerated planned personnel cuts in FY 1994 to preserve some critical modernization programs. The budget submission for personnel provided for a smaller force of high-quality active and reserve component forces. Active component strength was reduced to 540,000 soldiers by the end of FY 1994, an additional reduction of 35,000 soldiers from the revised FY 1993 active duty end strength of 575,000. The budget provided funding to continue the Voluntary Separation Incentive Program (VSIP) and the Special Separation Benefit and to expand the number of voluntary separation tools available by adding an early retirement program for military personnel. The ARNG and the USAR were realigned and reduced to end strengths of 410,000 and 260,000, respectively, in FY 1994, to meet force requirements. The budget recognized reduced or transferred functional authorizations resulting in a civilian workforce end strength of 290,257 in FY 1994, down by 18,013 employees from FY 1993.

Quality of life improvements such as upgraded barracks and family housing areas, part of a major, long-term Army effort, remained a top priority in the FY 1994 budget. Army family housing provided $1.25 billion for the operation and maintenance of 165,000 military family dwellings. Barracks renewals at Fort Bragg, North Carolina; Fort Benning, Georgia; Fort Campbell and Fort Knox, Kentucky; Fort Rucker, Alabama; and Fort Lee, Virginia, accounted for $265 million in the FY 1994 package. Another $207 million was earmarked to build, upgrade, or replace family housing at Schofield Barracks, Hawaii; Fort Irwin, California; the U.S. Military Academy at West Point, New York; Fort Meade, Maryland; Fort McCoy, Wisconsin; Fort Carson, Colorado; Fort Bragg; and Fort Lee.

Despite reduced funds, the budget represented a concerted effort to maintain training and readiness standards. The budget focused on the Army's emergence as a power-projection force ready to meet regional threats. To ensure that the Army was prepared for such contingencies, funding was directed to the Army's Strategic Mobility Program, which would rapidly project force anywhere on the globe. At the unit level, funding provided for increasing the training tempo at the combat training centers during FY 1994. Simulators and simulations were used more extensively to supplement costly field training. Crew-level training maintained an operational tempo (OPTEMPO) of 800 miles per year for combat vehicles and 14.5 flying hours per active duty crew per month. The budget provided full funding for all known statutory and regulatory environmental requirements. The budget continued the Combat Training Center Strategy and funding to improve realism and to increase the number of participat-

ing units at the National Training Center (NTC) at Fort Irwin, the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, and the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany.

The budget submission for Army modernization provided for continuing the upgrade of M1 Abrams tanks to M1A2s, the upgrade of Bradley fighting vehicles to M2A2s, and the development of an A3 model. This directly supported the Army's initiative to digitize the battlefield. The Hellfire II airborne antitank missile system continued to be funded in FY 1994. The budget also provided for low-rate initial production of the Javelin antitank missile system in FY 1994 and continued production of the Multiple Launch Rocket System (MLRS) launcher. The budget provided for the third year of UH–60 Black Hawk helicopter multiyear procurement and continued to fund satellite communications systems, communications command and control programs, and various electronic equipment programs. The budget also set ammunition funding at $734.4 million and conventional ammunition demilitarization funding at $53 million in FY 1994.

The budget submission for the Army Research, Development, Test, and Evaluation (RDTE) program provided funding for several modernization programs, including the development of the Advanced Field Artillery System (AFAS) and the Future Armored Resupply Vehicle (FARV); the RAH–66 Comanche armed reconnaissance helicopter; and antitank missile systems that include the AH–64D Apache Longbow Hellfire, the Javelin, the Non–Line-of-Sight (N-LOS), and product improvement programs for MLRS.

Each year the DOD submits to Congress an omnibus reprogramming action that incorporates all reprogramming requests submitted by the services. Because congressional committees approve only specific items and disapprove others, some of the Army's approved requirements received partial funding from sources provided by other services. The Army's increases in FY 1994, which totaled $223,779,000, were approved and funded by Army appropriations and the balance was paid for by the other services. The decreases, which totaled $206,969,000, were taken from other Army programs that were not fully executed.

The Army's proposed $61.1 billion budget request for FY 1995 did not stand on its own but represented the first in a series of budgets through 1999 based on defense guidance in terms of missions, forces, and personnel strength resulting from the 1993 Bottom-Up Review. The FY 1994 budget required the Army to be at an active duty end strength of 540,000. The Bottom-Up Review would require cuts of 30,000 in 1995; 10,000 in 1996; and 5,000 in 1997. In FY 1995, the active Army would have 25,000 fewer soldiers and 2 fewer divisions than the Bush administration's 12-division Base Force of 520,000 soldiers. The active Army would be reinforced by 575,000 National Guard and Army Reserve soldiers organized

into 37 brigades, including 15 enhanced readiness brigades. These latter units, all from the National Guard, would be capable of deploying to overseas hot spots within three months of mobilization.

Army active divisions, which numbered 18 in FY 1989, would be down to 12 in the FY 1995 budget and would be cut to ten by FY 1997. At the same time, National Guard divisions that totaled ten in FY 1987 would be down to eight in the FY 1995 budget and are identified at five (plus) in defense guidance for FY 1997.

The Army TOA request for FY 1995 was similar to the FY 1994 TOA but represented differences in the appropriation categories that signal changes in focus and priorities. Military personnel costs were lower in the FY 1995 budget request. The FY 1995 budget request for operations and maintenance appropriations increased to improve readiness accounts. This increase came at the expense of funding for procurement and RTDE. The FY 1995 budget requested a $1.8 billion increase in operations and maintenance funding, from $19.7 billion in FY 1994 to $21.5 billion for FY 1995. The FY 1995 request for procurement would drop $800 million from the FY 1994 budget to $6.1 billion for FY 1995. The FY 1995 request for RTDE would drop $100 million from the FY 1994 budget to $5.3 billion for FY 1995. Under the FY 1995 budget request, the Army sought to apportion 43 percent of its budget to personnel programs; 35.1 percent to operations and maintenance; 9 percent to the purchase of weapons and equipment; 8.3 percent to research and development; 1.3 percent to military construction projects; and 2.1 percent to family housing. *Table 1* summarizes appropriations for the FY 1994 budget and the FY 1995 budget request.

Contingency operations and foreign assistance in FY 1994 created unanticipated resource challenges that had an adverse impact on the Army's readiness. To support contingency operations during the fiscal year, Congress approved a supplemental appropriation. Contingency costs, however, exceeded the supplemental funding provided. To execute Operation UPHOLD DEMOCRACY in Haiti, the Army was forced to invoke the Feed and Forage Act for the amount of $127 million. To accommodate contingency costs, the Army withheld $140 million from MACOMs. This action diverted funds from training and quality of life programs and delayed, deferred, or canceled programs that had a direct readiness impact. Unit training was reduced in scope or canceled, and the purchase of all but priority repair parts was severely curtailed. Quality of life suffered as real property maintenance was deferred to pay civilian salaries and other nondiscretionary costs, such as transportation of supplies and equipment. In addition, the President granted $56.8 million in aid to foreign nations under the Foreign Assistance Act (FAA), requiring the services to tap their existing resources to provide equipment and services. This depletion of assets further affected readiness.

TABLE 1—FY 1994 BUDGET APPROPRIATIONS AND FY 1995 REQUESTS (IN MILLIONS)

	FY94	FY95
Military Personnel, Army	21,352	20,601
Operation & Maintenance, Army	17,942	17,821
National Board for Promotion of Rifle Practice	2.5	3
Total	6,894	6,091
Procurement		
Aircraft	(1,305)	(1,042)
Missiles	(1,080)	(594)
Weapons & Tracked Combat Vehicles	(887)	(920)
Ammunition	(727)	(845)
Other Procurement	(2,895)	(2,690)
Research, Development, Test, & Evaluation	5,413	5,260
Military Construction, Army	892	691
Base Realignment and Closure	36	114
Army Family Housing		
Operations	(1,072)	(1,121)
Construction	(230)	(152)
Total	1,302	1,273
Reserve Components		
National Guard	5,870	5,818
National Guard Personnel, Army	(3,446)	(3,361)
Operation & Maintenance, Army National Guard	(2,229)	(2,447)
Military Construction, Army National Guard	(295)	(10)
Army Reserve	3,319	3,437
Reserve Personnel, Army	(2,147)	(2,175)
Operation & Maintenance, Army Reserve	(1,073)	(1,254)
Military Construction, Army Reserve	(99)	(8)
Total	63,123	61,107
Supplementals	(415)	(0)

Note: Totals may not add due to rounding.

As Army forces returned from forward bases to the United States, units were stationed at aging posts where the infrastructure was often inadequately funded. Some quality of life programs, such as child development and family support, were adequately funded, but many other important programs, such as Whole Barracks Renewal and Family Housing Revitalization, were not. Central support activities that directly affect unit readiness, such as depot maintenance and logistics operations, were also underfunded. These activities involve rebuilding and repairing equipment and components and transporting, supporting, securing, and deploying the

Army worldwide. Resource constraints required that the Army defer procurement of modern replacement systems, a practice that increases operation and maintenance expenses, particularly in aging equipment. Slower modernization also adversely affected the issuance of modern equipment to the National Guard and Army Reserve, prolonging an existing problem of force incompatibility. Modernization of the telecommunications infrastructure required to support these central support activities was also underfunded. Continued resource constraints prevented the timely replacement of obsolete communications equipment and cable plants. As modernization resources continued to decline, critical industrial base capabilities were being lost, particularly smaller subcontractors and vendors who provided key high technology components. This added to future weapon system costs and development time but, more importantly, increased the cost of spare parts for fielded systems and directly affected Army readiness.

The reserve components also faced resource challenges during the fiscal year. The ARNG operation and maintenance account was underfunded by $188 million in FY 1994. The shortfalls resulted from causes that included an increase in end strength from 345,600 to 410,000, an increased cost of air OPTEMPO, and numerous directed reductions during the year. The reduction in air OPTEMPO and flying-hour program affected ARNG aviation safety and proficiency. Ground OPTEMPO mileage was reduced, affecting the level of proficiency in some combat and combat support units. The budget reduction required the ARNG to realign the funding for higher-priority and lower-priority units, which in turn reduced readiness.

The USAR budget shortfall was $40.2 million. The shortfall and funding constraints occurred early in the fiscal year, degrading training and preventing units from scheduling training operations. Army Reserve units not associated with the contingency force pool were not funded to execute more than minimal unit training. Equipment shortages continued to affect readiness and the ability to meet training standards. Funding shortfalls also prevented commanders from allowing soldiers to attend annual training with their assigned unit.

The Army Program Objective Memorandum (POM) for FY 1996–2001 was forwarded to the Office of the Secretary of Defense (OSD) in June 1994. This POM was a particularly important document because it provided for completion of the final phase of the Army drawdown and for the transition of the Army into the twenty-first century. Basic source documents providing guidance for the FY 1996–2001 POM were the Army Plan FY 1996–2011; the Bottom-Up Review, published in October 1993; and Defense Planning Guidance FY 1995–1999, dated September 1993. These, in conjunction with detailed instructions from the OSD to the services on POM requirements, set the parameters for formulating the FY 1996–2001 POM.

FY 1996, the first year of the POM, will mark the seventh year of Army reductions since the fall of the Berlin Wall. By the end of FY 1996, the Army was programmed to be at the end-state force structure and end strength directed by the Bottom-Up Review and Defense Planning Guidance—ten active component divisions and an end strength of 495,000. Similar goals were programmed for the National Guard and Army Reserve.

A major challenge in formulating the FY 1996–2001 POM was maintaining "program balance." This refers to the task of adequately funding each leg of the readiness–modernization–quality of life triad to ensure a trained and ready force. This balance was to be achieved in the face of what the Army leadership characterized as an "affordability crisis" that resulted from programmed reductions in the Army budget, particularly in the FY 1996–1998 time period.

The FY 1996–2001 POM incorporated initiatives for change that were taking place within the Army. Strategic changes (post–Cold War environment), intellectual changes (such as new publications like Field Manual 100–9, *Domestic Support Operations*), and technological changes (such as the Army digitization effort) were all factored into the POM to facilitate the Army's transition to the twenty-first century.

Within the context of the POM for FY 1996–2001, the focus of the Army's modernization strategy was achieving land force dominance. Toward that end, the modernization strategy was couched in terms of five objectives: (1) project and sustain the force; (2) protect the force; (3) win the information war; (4) conduct precision strikes throughout the battlefield; and (5) dominate the maneuver battle. Achievement of the five modernization objectives throughout the battlefield is a function of the Army's ability to protect and enhance weapons systems with four capabilities: (1) "owning the night," the capability of operating in darkness; (2) digitization of the battlefield; (3) use of smart munitions; and (4) use of artillery deep fires. Given an austere fiscal environment, the Army recognized that efficient management of modernization was required to identify and gain leverage from high-payoff technologies.

POM strategy for Research, Development, and Acquisition focused on modernization, in the first instance, by component upgrade with a restricted number of new starts. Modernization is to be executed by force package, a discrete grouping of fighting units ordered by warfighting priority. Within the Army Science and Technology program, the POM FY 1996–2001 perpetuated the science and technology investment articulated in the Army Science and Technology Master Plan. The POM provided core resources to identify and exploit technologies and continue infrastructure reductions resulting from in-house consolidations.

Overall, the POM strategy emphasized RDTE at the expense of procurement, and low procurement-to-RDTE ratios complied with Defense

Planning Guidance standards. Many programs were protected, but not necessarily sufficiently funded. A concern expressed in the POM was that not funding or underfunding key modernization programs would ultimately erode the technological superiority of future forces.

3

Personnel

During FY 1994 the strength of the active Army decreased by about 40,000 personnel, from approximately 569,000 at the start of the year to approximately 529,000 by the end of the year. Representation of minority groups increased slightly during the year. By the end of the fiscal year, African Americans composed 27.3 percent of the force; Hispanics 5.2 percent; Native Americans .5 percent; Asians and Pacific Islanders 1.7 percent; and other minorities 3.3 percent of the force. Also, 13 percent of the active force during this period were women.

The strength of the Army National Guard (ARNG) decreased by about 13,000 personnel, from approximately 410,000 at the start of the fiscal year to approximately 397,000 at its end. Minority strength constituted 25.1 percent of the ARNG. There were 2,930 African-American officers, composing 6.4 percent of total officer strength, and 59,613 African-American enlisted personnel, accounting for 17 percent of total enlisted strength. Total African-American strength was 62,543, or 15.8 percent of the ARNG, a decline of 1,836 persons from FY 1993. Women represented 8.0 percent of the ARNG, or a total of 32,290 positions, composing 7.9 percent of officer strength at 3,683 positions and 8.0 percent of enlisted strength at 28,607 positions.

The end strength of the U.S. Army Reserve (USAR) in FY 1994 was approximately 260,000 Selected Reserve personnel and 412,000 Individual Ready Reserve (IRR) personnel. There were a total of 149,035 African-American personnel; 34,010 Hispanics; 3,582 Native Americans; 9,086 Asian and Pacific Islanders; and 40,700 other minorities. Women, representing 18.1 percent, filled 121,770 positions.

Enlisted Personnel

The active Army exceeded its recruiting goal for FY 1994 (See *Table 2*). The objective was 68,000 accessions. Actual accessions numbered 68,758, or 101.1 percent of the Army's goal. Key statistics are as follows:

TABLE 2—FY 1994 ACTIVE ARMY ACCESSIONS

	Objective	*Achieved*	*Percentage (%)*
Non–prior-service male	49,066	49,087	100.0
Non–prior-service female	11,134	11,125	99.9
Prior-service	7,800	7,826	100.3
	Objective %	*Achieved %*	
High school graduate	95.0	95.2	
Mental category I–IIIA	67.0	70.6	
Mental category IV	< 2.0	1.9	

The USAR also exceeded its overall recruiting goal for FY 1994. Compared with an objective of 46,500 accessions, actual accessions numbered 47,142, or 102.0 percent of the USAR goal. Of these accessions, more than 6,500 soldiers transferred from the active Army. See *Table 3* for key statistics.

TABLE 3—FY 1994 ARMY RESERVE ACCESSIONS

	Objective	*Achieved*	*Percentage (%)*
Non–prior-service male	14,800	13,319	90.0
Non–prior-service female	5,200	5,527	106.3
Prior-service	26,500	28,566	107.8
	Objective %	*Achieved %*	
High school graduate	95.0	95.4	
Mental category I–IIIA	67.0	70.3	
Mental category IV	< 2.0	2.0	

Note: Category I includes recruits that score in the top 7 percent in the Armed Forces Qualifications Test (AFQT). Category II consists of those in the 65th through 92d percentile, and category IIIA are those from the 50th through the 64th percentile. Category IV is the bottom 10–30 percent. The lowest 10 percent, Category V, are barred from service.

The ARNG did not achieve its recruiting goal for FY 1994 (see *Table 4*). Its total objective was 69,710 accessions, and it obtained 61,268, or 87.9 percent of the goal. Non–prior-service accessions of 22,526 were 81.7 percent of the goal, while prior-service accessions of 38,742 were 91.8 percent of the ARNG objective. Accession quality was maintained within established goals with the exception of high school graduates, who were at 84.5 percent instead of 94 percent of accessions. Approximately 54 percent of the Guard's non–prior-service recruits scored in the top AFQT categories; 100 percent of the Guard's non–prior-service recruits

had a high school education (84.5 percent with high school diplomas and 15.5 percent with Graduate Equivalency Degrees).

TABLE 4—FY 1994 ARMY NATIONAL GUARD ACCESSIONS

	Objective	*Achieved*	*Percentage (%)*
Non–prior-service male	24,842	19,135	77.0
Non–prior-service female	2,701	3,391	125.5
Prior-service	42,167	38,742	91.9
	Objective %	*Achieved %*	
High school graduate	94.0	84.5	
Mental category I–IIIA	62.0	55.4	
Mental category IV	<2.0	2.2	

Army reenlistment and reserve component transition programs were very successful in achieving FY 1994 objectives. Part of this success is attributable to the restoration of retention advertising. Suspended in FY 1991, retention advertising was reinstated in response to a dip in reenlistments. An emphasis on command involvement, coupled with a stabilized environment, also improved retention. The initial-term retention rate for the active Army reached a high of 49 percent for FY 1994 as compared with 31 percent in FY 1992 and 46 percent in FY 1993. Retention in all categories (Initial, Mid-Career, Career) of the active Army totaled 69,682 for FY 1994. Key retention statistics for FY 1994 are shown in *Table 5*.

TABLE 5—FY 1994 ACTIVE ARMY RETENTION STATISTICS

	Objective	*Achieved*	*Percentage (%)*
Initial	22,600	24,542	108.6
Mid-Career	23,000	24,095	104.5
Career	21,400	21,045	98.3
Reserve Component Transition	15,000	14,954	100

The enlisted drawdown program in FY 1994 met DOD and congressional guidance to maximize voluntary separations and minimize involuntary separation programs. A total of 10,753 enlisted personnel left the active Army through the various voluntary drawdown programs. Losses from the Voluntary Early Transition (VET) program numbered 940. Losses from the Voluntary Separation Incentive Program (VSIP) numbered 6,489. Finally, losses from early retirement numbered 3,324. There

were no losses from the involuntary drawdown programs such as Selective Early Retirement Boards (SERBs) or Reductions in Force (RIFs).

The ARNG achieved its goal to reduce the combined officer and enlisted attrition rate by 3.0 percent. FY 1994 enlisted losses of 73,141 represented an 18.4 percent attrition rate. The attrition management plan developed for state strength managers was intended to decrease losses from causes other than expiration of term of service (ETS) and also to focus on soldiers approaching ETS. During the fiscal year, scheduled force structure reductions created a climate of uncertainty and fueled the perception that career opportunities would be limited.

In FY 1994 the Army developed a concept for a new Enlisted Assignment Plan to conform better to the Army's transition to a power-projection force. The Chief of Staff, Army (CSA), approved the concept, which is intended to satisfy the need for personnel readiness, ensure the introduction of soldiers into the Table of Distribution and Allowances (TDA) force, and enhance the professional developments of the noncommissioned officer (NCO) corps. The plan calls for soldiers to move after serving three years in continental United States (CONUS) TDA assignments, which are primarily nondeployable assignments. There would be no time limit on serving in Table of Organization and Equipment (TOE) assignments in deployable tactical units.

In the past, enlisted soldiers have moved mainly to support the overseas Army. When troops returned to CONUS, others from CONUS went overseas to take their places. This constant rotation benefited soldiers by expanding their knowledge about the Army. By FY 1994, however, the Army's transition to a post–Cold War power projection force from a forward-deployed force left only about 35 percent of the Army stationed overseas. Without overseas rotations forcing soldiers out of their positions, CONUS tours could stretch to more than five years, leaving soldiers too long in nontactical environments and causing NCOs to stagnate and lose their edge.

The three-year TDA tour plan would not apply to all military occupational specialties (MOS's). Some MOS's with a high TDA population would be exempt. The plan, the Enlisted Assignment Pattern Vision of the Future, remained a concept in FY 1994 with no implementation date selected.

The Army continued to restructure its MOS's during the fiscal year. In an effort to improve the readiness of its engineering soldiers, the U.S. Army Engineering School at Fort Leonard Wood, Missouri, merged three MOS's into one. The Materials Quality Specialist MOS 51G, the Technical Drafting Specialist MOS 81B, and the Construction Surveyor MOS 82B were merged into a new Technical Engineering Specialist MOS 51T. Each of the three MOS courses had required twelve or more weeks of training.

Following the merger, training in all three areas was streamlined to nineteen weeks for new soldiers.

Plans were also under way to restructure several Signal MOS's. First, the U.S. Army Signal School at Fort Gordon, Georgia, planned to merge two MOS's into one. The Information Systems Operator MOS 74D and the Software Analyst MOS 74F would be merged into a new Information Systems Operator Analyst MOS 74B. This reclassification is scheduled for implementation in FY 1995.

In addition, the Signal Corps and the Ordnance Corps cooperated in the realignment of their career management fields (CMFs) during FY 1994. In FY 1991 the Commanding General, U.S. Army Training and Doctrine Command (TRADOC), directed that the U.S. Army Combined Arms Support Command (CASCOM) assume responsibility as the proponent for all electronic maintenance. The Ordnance Corps was designated the branch proponent for all electronic maintenance. The commanders of TRADOC and CASCOM also determined that the Signal Corps would retain all operator-maintainer positions related to Signal Corps systems. The Signal Corps and Ordnance Corps were directed to develop training strategies and realign their CMFs concurrently to support the changes necessary to execute the transfer. Phase one of this transfer was completed in June 1994 with the transfer of CMF 29 (Signal Maintenance) MOS's associated with Signal Corps systems operator-maintainer functions to CMF 31 (Signal Operations).

Officer Personnel

Officer end strength for FY 1994 was 84,807 compared to a target goal of 84,614. There were 72,048 commissioned officers and 12,759 warrant officers against targets of 72,028 and 12,586, respectively. *Table 6* lists officer end strength by grade for FY 1994.

TABLE 6—FY 1994 OFFICER END STRENGTH BY GRADE

GEN	12	1ST LT	8,895
LTG	36	2D LT	9,210
MG	114	CWO5	298
BG	164	CWO4	1,612
COL	3,763	CWO3	3,256
LTC	9,152	CWO2	5,376
MAJ	14,446	WO	2,217
CAPT	26,256	Total	84,807

Table 7 summarizes FY 1994 commissioned officer accessions by source and category:

TABLE 7—FY 1994 COMMISSIONED OFFICER ACCESSIONS

	Army Competitive Category	*Army Medical Department*	*Judge Advocate*	*Chaplain*
U.S. Military Academy (1,032 Total)	1,012	20	0	0
Reserve Officer Training Corps (2,958 Total)	2,435	484	39	0
Officer Candidate School (527 Total)	527	0	0	0
Army Medical Procurement Program (1,100 Total)	0	1,100	0	0
Other (209 Total)	67	0	72	70
(5,826 Grand Total)	4,041	1,604	111	70

Note: The Army competitive category includes the 16 basic branches of combat, support, and service support arms.

The Army Reserve Officer Training Corps (ROTC) Cadet Command did not achieve its recruiting mission for FY 1994. Its total objective was 4,500, and it recruited 3,924. Of 41,423 students enrolled in the program during the fiscal year, the command commissioned 3,926 second lieutenants. Approximately 16 percent of these commissioned officers were women.

The headquarters for all Army ROTC activities was the U.S. Army ROTC Cadet Command, Fort Monroe, Virginia. The command consisted of three regions and 16 brigades in FY 1994. First Region, at Fort Bragg, North Carolina, included six brigades and was responsible for schools along the east coast and Puerto Rico. Second Region, based at Fort Knox, Kentucky, consisted of five brigades that oversaw programs in the central United States. These programs included those of the inactivated former Third Region. Fourth Region, situated at Fort Lewis, Washington, was made up of five brigades covering the western states, including Alaska, Hawaii, and Guam.

Senior ROTC programs existed at military, state, and private schools in all fifty states, the District of Columbia, Guam, and Puerto Rico. Senior ROTC unit strength in FY 1994 consisted of 274 host units and 75 extension centers, for a total of 349 units. Sixteen units closed and one opened in FY 1994. The Army based the decision to close units on projections of a smaller Army and a shrinking national defense budget. Units were selected for inactivation on several bases, including enrollment levels and

the academic degrees of the officers commissioned into the Army. The units closed were at Georgia Southwestern College; Lynchburg College; Manfield University of Pennsylvania; Pennsylvania State University at Delaware; Pennsylvania State University at Mont Alto; the State University of New York at Albany; the State University of New York at Cortland; Cumberland College; Indiana University Southeast; Kentucky State University; California State University at Chico; California State University at San Bernadino; Eastern Montana College; and Northeastern State University of Oklahoma.

Recruiting efforts in FY 1994 continued to be hampered by significant reductions in personnel assigned to administer ROTC programs. Personnel turnover posed a widespread problem for the Cadet Command. The turnover resulted from drawdown policies that permitted personnel departures under various programs (Voluntary Separation Incentive, Selective Early Retirement Boards, and Selective Separation Bonus) faster than arrivals in the command.

The Cadet Command revised several of its policies during the fiscal year. The Command formulated a new plan, "Scholarship Tiering," for allocating scholarship money. Under the plan, more scholarships would be available in an ROTC program operating with reduced funding. Implementation of the tiering program is scheduled for FY 1995. Cadet Command also received congressional authorization to increase its monthly scholarship subsistence from $100 to $150, beginning in August 1995. Finally, HQDA published an interim change to Army Regulation 145–1, *Senior ROTC Program: Organization, Administration, and Training,* that implemented DOD policy.

The Junior Reserve Officer Training Corps (JROTC) continued expanding in FY 1994. Initially, the Chairman of the Joint Chiefs of Staff obtained approval from the Secretary of Defense in May 1992 to expand the JROTC program in the nation's schools. The intent was to reach out to America's "at risk" youth, principally in inner city and rural communities, to reduce school dropouts, gang violence, and related problems. Congress approved an increase in the number of local programs, defined in law the purpose of the JROTC, to "instill in students in United States secondary educational institutions the values of citizenship, service to the United States, and personal responsibility and a sense of accomplishment." Congress also provided for extraordinary financial assistance for schools in economically and educationally deprived areas. As part of JROTC expansion and in collaboration with the other services and the Department of Education, the Army is also assisting local communities to establish "career academies." Incorporated into each academy are citizenship training, leadership development, and life-coping skills from JROTC. During FY 1994, 30 academies (20 of them Army-sponsored) were developed,

with another 10 under consideration. The goals of these academies are to improve the in-school performance of at-risk students in their academic standing, attendance, and disciplinary records; to increase the graduation rate of academy students in comparison with other students in the same high school; to improve the overall quality of the workforce in the community in which the academy is located; and to support the long-term economic needs of the nation through effective investment of DOD human capital and other resources.

Among the most significant personnel management initiatives in FY 1994, the Deputy Chief of Staff for Personnel (DCSPER) identified the need for a review of existing personnel management and professional development policies for officers to develop the officer corps appropriately to meet challenges it would face in the twenty-first century. In response to Force XXI, the initiative to redesign the Army through digitization, the DCSPER directed that a precursor study be made to identify topics that included officer career patterns, officer promotion rates and timelines, officer military and civilian schooling requirements, joint duty requirements, officer evaluation report modifications, and command selection policies and tour lengths, for an Officer Personnel Management System XXI study group. The precursor study is scheduled to begin in the summer of 1995.

In FY 1994 ODCSPER initiated Phase I of the Warrant Officer Leader Development Action Plan (WOLDAP). The WOLDAP included thirteen-points developed by the Army Staff, TRADOC, and warrant officer personnel proponents to implement the Warrant Officer Management Act passed by Congress in 1991. The WOLDAP included a strategy to improve training, personnel management, and the total leader development process for the Army's warrant officers. The CSA approved implementation of the WOLDAP in 1992. Full implementation of the WOLDAP drove a requirement to restructure the Army's warrant officer force from three levels to four levels (W2–W5), with a feasible career progression path. An ODCSPER decision provided guidance to implement the restructuring in two phases. All TOE, modified TOE (MTOE), and active component TDA documents were to be recoded in Phase I. Reserve component TDA, and any revisions to Phase I Standards of Grade that were needed to meet the Warrant Officer Average Grade Distribution Matrix, established by the ODCSPER, were to be recoded in Phase II.

ODCSPER initiated Phase I of the WOLDAP documentation during FY 1994. In November 1993 the U.S. Total Army Personnel Command (PERSCOM) published the notification of future change detailing the WOLDAP Phase I structure changes. The U.S. Army Force Integration Support Agency (USAFISA) applied the Phase I structure changes to TOE documents in April, during the Consolidated TOE Update. From July to

September, USAFISA and the major commands applied the Phase I structure changes to MTOE and applicable TDA documents. Department of the Army Circular 611–94–1, *Implementation of Changes to the Military Occupation Classification and Structure,* 26 August 1994, contained instructions for implementing the structure changes.

Implementation of the Defense Officer Personnel Management Act (DOPMA) continued on schedule in FY 1994. *Table 8* summarizes promotion rates with respect to DOPMA standards for Basic Branch selection.

TABLE 8—PROMOTION RATES AND DOPMA STANDARDS

	Selection Rate %	*DOPMA Standard %*	*Years in Service*	*Standard for Years in Service*
COL	.....50.38	50	22.8	22+/-1
LTC	.....70.47	70	16.8	16+/-1
MAJ	.....85.44	80	11.5	10+/-1
CPT	.....90.80	95	4.0	3.5+/-1

The officer drawdown program in FY 1994 met DOD and congressional guidance to maximize voluntary separations and minimize involuntary separation programs. A total of 3,801 officers left the Army through voluntary and involuntary separation programs. The Voluntary Early Release/Retirement Program (VERRP) included colonels and lieutenant colonels with time-in-grade waivers, lieutenants separating with two years' active duty for assignment to reserve component units, and warrant officer MOS's that had a surplus of personnel. This program accounted for 611 officer losses. The VSIP targeted captains in the RIF zone; captains passed over one time for promotion to major; and chief warrant officers in grades two and three who were in MOS's that contained a surplus of personnel and who were not eligible for the VERRP. Officer losses in this program numbered 1,374. The Early Retirement Program targeted majors who were passed over for promotion twice; warrant officers in MOS's with a surplus of personnel; majors who were not yet being considered for promotion to lieutenant colonel; and captains and warrant officers who were passed over one time for promotion. There were 673 officer reductions through this program. A Lieutenant Retention Board that considered officers for promotion to captain accounted for an additional 450 officer reductions. Finally, 693 officer losses came from SERBs. A RIF had been scheduled for February 1994 to consider captains in the 1985 year group but was canceled due to sufficient VSIP volunteers.

Total officer strength in the Army National Guard at the end of FY 1994 was 45,538—1,311 below the program objective. That strength rep-

resented a 1,118 decrease from FY 1993. Attrition for the year was 10.4 percent, which compared favorably with the FY 1993 attrition of 11.2 percent. *Table 9* summarizes Army National Guard commissioning sources for lieutenants in FY 1994:

TABLE 9—FY 1994 ARMY NATIONAL GUARD LIEUTENANT COMMISSIONING SOURCES

	Percentage
Reserve Officer Training Corps	.31
Officer Candidate School (State)	.50
Officer Candidate School (Federal)	.3
Direct Appointment	.13
Other	.3

An increase in the percentage of warrant officers was due to force structure changes. In FY 1994 there were 10,169 authorized warrant officer positions, compared with 9,853 in FY 1993. Warrant officer accessions of 9,011 in FY 1994, however, remained below desired levels.

Civilian Workforce

Continuing its contraction, the Army's civilian workforce shrank by 15,800 during FY 1994, to 341,177. Most of the reductions were achieved through normal attrition coupled with hiring controls and through use of voluntary early retirement authority and civilian pay incentives to retire. Although there was no Army hiring freeze, budget levels were again instrumental in reaching strength goals. The civilian workforce includes all U.S. and foreign national civilian employees of the Army in both military and civil functions. The strength of personnel paid from appropriated funds declined from 323,566 to 306,480 during the fiscal year. Within this category, civilian strength in military functions decreased from 294,217 at the beginning of the fiscal year to 279,526 at its end. There were 2,259 voluntary early retirements in FY 1994. Recipients of the VSIP numbered 4,361. There were 859 RIF separations.

Special Topics

Recognizing that readiness is enhanced by eliminating unnecessary barriers to service, the Army expanded opportunities for women in FY 1994. Representation of women in the active Army grew from 12.5 percent at the start of the fiscal year to 13 percent by its end. Women com-

posed 14.4 percent of commissioned officers, 4.4 percent of warrant officers, and 13.1 percent of enlisted personnel. In the reserve components, women constituted almost 8 percent of the National Guard and over 21 percent of the Army Reserve. By the end of FY 1994, 91 percent of the Army's career fields and 67 percent of Army positions were open to women. In addition, 87 percent of the Army's enlisted specialties, 97 percent of warrant officer specialties, and 97 percent of officer specialties were open to women.

The role of women in the Army expanded significantly in FY 1994 due to a change in DOD policy. There are no statutory restrictions on the utilization of women in combat. This policy changes whenever new assignment rules and definitions of direct ground combat are developed. In FY 1993 the Secretary of Defense directed the services to open more specialties and assignment opportunities to women. Women were permitted to compete for combat aviation assignments. The Army responded by opening positions in attack and scout helicopter units. More than 9,000 previously closed positions opened to women. Special Operations Forces (SOF) aircraft and some air cavalry units remained closed until they could be evaluated under the new assignment policy.

In January 1994 the Secretary of Defense announced the new assignment rule and definition of direct ground combat. The rule states that service members are eligible to be assigned to all positions for which they are qualified, except that women shall be excluded from assignment to units below brigade level that have a primary mission of engaging in direct combat on the ground. This definition excludes women from engaging an enemy on the ground with individual or crew-served weapons while being exposed to hostile fire and to a high probability of direct physical contact with the hostile force's personnel. Direct ground combat takes place well forward on the battlefield while combat units are locating and closing with enemy forces to defeat them by fire, maneuver, or shock effect. The Army applied the new policy and immediately recommended to the Secretary of Defense the opening of positions in eight units. In accordance with the guidance of the Secretary of Defense, between January and May 1994 the Army evaluated other units, positions, and specialties closed to women and submitted to the Secretary of Defense final recommendations to open 32,699 additional positions.

In July 1994 the Secretary of Defense approved the Army recommendations. Effective 1 October 1994, female soldiers could be assigned to maneuver brigade headquarters, division military police companies, chemical reconnaissance and smoke platoons, mechanized smoke platoons, engineer bridge companies, military intelligence collection and jamming companies, forward-support teams of forward-support battalions, 1st Battalion, 3d Infantry Regiment (The Old Guard), 3rd Infantry

Regiment (The Old Guard) headquarters, armored cavalry regimental headquarters, 160th Aviation Group headquarters, Special Forces Group headquarters, divisional air defense artillery headquarters, regimental aviation squadrons of armored cavalry regiments, air cavalry troops of division cavalry squadrons, enlisted MOS 12C Engineer Bridge Crewmember, enlisted MOS 12Z Combat Engineer Senior Sergeant, and enlisted MOS 82C Field Artillery Surveyor.

During FY 1994 the Army also began implementing a new policy of integrating male and female soldiers during basic training. Following a three-month test in FY 1993 of mixed company training at Fort Jackson, South Carolina, the Army implemented gender-integrated training in FY 1994 at two posts where the majority of female recruits go for basic training. A company at Fort Leonard Wood, Missouri, began integrated training in September, to be followed by ten more companies at Fort Jackson in October and November 1994.

The Army continued measures to prevent and eradicate sexual harassment and racial and ethnic discrimination during the fiscal year. The Army recognizes that sexual harassment negatively affects unit cohesion and individual well-being, and Army leaders remained committed to eradicating it. The Army implemented changes to its equal opportunity program to resolve complaints faster, document both formal and informal complaints, improve complaint channels, define the duties of the equal opportunity adviser, provide feedback to the complainant, and institute an appeals process.

In September 1993 the Office of the DCSPER published Change 4 to Army Regulation 600–20, *Army Command Policy,* which overhauled the complaint process, established equal opportunity (EO) hotlines at all installations, and mandated EO training throughout all phases of professional military education and twice yearly in units. The complaint process reporting procedures were further standardized through the adoption of a new complaint form and timelines to pace actions toward the resolution of complaints. In November the CSA reinstated sixteen officer EO positions, which had been eliminated earlier, to bolster support of noncommissioned officers and EO advisers working in the field. In January 1994 the Army introduced a standardized reproducible complaint form and established timelines to resolve complaints. That same month, the Secretary of the Army and the CSA demonstrated their commitment to equal opportunity in a joint policy statement. In April ODCSPER began requiring EO advisers to make follow-up assessments of the handling of EO complaints. The advisers were to examine resolution strategies and the effects of a command's action or inaction in the wake of all formal complaints. In July, the Secretary of the Army and the CSA demonstrated their continuing commitment to preventing and eradicating sexual harassment in a joint policy

statement. Mandatory unit training on the new complaint process occurred in the spring and summer of 1994.

For FY 1994 both racial and ethnic discrimination complaints and sexual harassment complaints were down from FY 1993 levels. There were 691 racial and ethnic discrimination complaints in FY 1994, compared with 943 in FY 1993. Of these complaints, 165, or 23.9 percent, were substantiated in FY 1994, in contrast with 181, or 19.2 percent, in FY 1993. There were also 512 sexual harassment complaints in FY 1994, 137 less than in FY 1993. Of these complaints 146, or 28.5 percent, were substantiated in FY 1994, a decrease from 262, or 40.4 percent, in FY 1993. The average female population in the Army in FY 1994 was 70,100, down 1,400 from FY 1993. The average active Army strength was 553,000 in FY 1994, compared with 587,000 in FY 1993.

In addition to the above racial and ethnic discrimination complaints, the Office of The Judge Advocate General (OTJAG) conducted jury trials in eight discrimination cases Army-wide in FY 1994. While the Army won the majority of these, one loss stands out. In *Johnson* v. *West*, a Washington, D.C., District Court case alleging sex discrimination and retaliation in the Corps of Engineers (COE), the jury returned a verdict for the plaintiff with an award of $3 million, the highest jury award ever against a government agency for discrimination. While the district court reduced the award to the statutory limitation of $300,000 under the Civil Rights Act of 1991, the court granted substantial equitable relief in addition to the compensatory damages.

In FY 1994 the Army implemented a new homosexual conduct policy. The Assistant Secretary of Defense for Personnel and Readiness approved the new policy for the Army in February 1994, and it was implemented in March. The Army Homosexual Conduct Policy implements section 654 of Title 10, U.S. Code, and reflects the finding of Congress that "the presence in the Armed Forces of persons who demonstrate a propensity or intent to engage in homosexual acts would create an unacceptable risk to the standards of morale, to order and discipline and unit cohesion that are the essence of military capability." Congress stated that the suitability of persons to serve in the Army is based on their conduct. Homosexual conduct will be grounds for separation from the Army. Homosexual conduct is defined in three terms. First, a homosexual act means any bodily contact, actively undertaken or passively permitted, between members of the same sex for the purpose of satisfying sexual desires and any bodily contact (for example, hand-holding or kissing, in most circumstances) that a reasonable person would understand to demonstrate a propensity or intent to engage in such an act. Second, an admission that a member is a homosexual, or bisexual, or words to that effect, means language or behavior that a reasonable person would believe

intends to communicate that a person engages in or intends to engage in homosexual acts. Under the new policy, such an individual has the opportunity to rebut the presumption of homosexual acts by demonstrating that he or she does not engage or intend to engage in homosexual acts. Third, a homosexual marriage or attempted marriage occurs when a service member has married or attempted to marry a person known to be of the same biological gender (as evidenced by the external anatomy of the persons involved).

Applicants for enlistment, appointment, or induction into the Army under the new policy will not be asked or required to reveal if they are heterosexual, homosexual, or bisexual, although homosexual conduct may be a basis for rejection for enlistment, appointment, or induction. Army Regulation 601–210, *Regular Army and Army Reserve Enlistment Program,* governs the Army accession policy. Sexual orientation will not be a bar to service unless manifested by homosexual conduct. The Army will discharge personnel who demonstrate a propensity or intent to engage in homosexual conduct. Investigations or inquiries will not be initiated solely to determine sexual orientation. There must be credible information that a basis for disciplinary action or discharge exists. Army Regulation 195–2, *Criminal Investigating Activities,* provides guidance on the investigation of sexual misconduct. All new officers and enlisted personnel of the active Army and reserve components receive briefings upon entry and periodically thereafter with a detailed explanation of regulations governing sexual conduct by members of the armed forces. Finally, all personnel involved with the implementation and administration of this policy will be trained to the extent that allows for consistent Army-wide policy application.

Litigation involving the old policy banning homosexuals from the military continued throughout FY 1994. The year also saw the first legal challenge against the new DOD policy known as "Don't ask, don't tell, and don't pursue." In *Cammermeyer* v. *Perry* (9th Circuit Court of Appeals), Col. Margarethe Cammermeyer, former chief nurse of the Washington State National Guard, admitted on a security application and to a Defense Investigative Service agent that she was a lesbian. An administrative board recommended withdrawal of her federal recognition, and Colonel Cammermeyer was separated from the Army National Guard and the Army Reserve. She filed suit in June 1992, claiming the homosexual exclusion policy deprived her of equal protection and violated her rights to privacy and free speech. On 1 June 1994, the court granted Colonel Cammermeyer's summary judgment motion on equal protection grounds and ordered her reinstatement in the National Guard. Declaring the former DOD homosexual policy unconstitutional, the court ruled that the sole motivation for the exclusion of acknowledged homosexuals was preju-

dice. The government sought a stay of Colonel Cammermeyer's reinstatement in the district court and 9th Circuit Court of Appeals. Both were denied, and she was reinstated. The government's appeal of the case before the 9th Circuit Court of Appeals was stayed while the parties attempted to negotiate a settlement consistent with the decision in *Meinhold* v. *Secretary of the Navy*. The Meinhold case involved the dismissal from the service and subsequent reinstatement of a Navy petty officer who publicly admitted being a homosexual.

During FY 1994 the Army continued to treat alcohol and drug abuse. The Army Alcohol and Drug Abuse Prevention and Control Program (ADAPCP) treated 11,500 soldiers for substance abuse, provided 4,119 soldiers with formal educational treatment services, and furnished more than 16,000 soldiers with general prevention and education services. ADAPCP continued using tests as an effective deterrent to drug use, increasing the rate to 1.84 tests per soldier. The 1,130,849 tests conducted during the year yielded a positive test rate of .8 percent, which was down from 1.01 percent in FY 1993—a significant reduction from 10.24 percent in FY 1983.

The Army undertook several measures to reduce the demand for drugs by youths in FY 1994. The ADAPCP Adolescent Substance Abuse Counseling Service (ASACS) contract continued to provide counseling in Europe and the Pacific to Army and other DOD adolescents. The ASACS program, which provides services comparable to those available in CONUS, counseled 1,063 adolescents during the fiscal year and taught 1,648 substance abuse prevention classes with a total attendance of 54,977.

The U.S. Army Drug and Alcohol Operations Agency (USADAOA) served as the Army's lead agency in establishing a DOD drug demand reduction program for adolescents. USADAOA took the lead for the Army after Section 1045 of the 1993 National Defense Authorization Act directed the Secretary of Defense to establish drug demand reduction programs to assist civilian communities in their efforts to reduce the demand for drugs by youth. USADAOA chose three community outreach pilot programs at Fort Campbell, Kentucky; Fort Meade, Maryland; and Fort Sam Houston, Texas, respectively, to demonstrate the Army's ongoing efforts. In collaboration with Children's Television Workshop, USADAOA developed an award-winning video, "Brainstorm: The Truth About Your Brain on Drugs." The video is part of an integrated curriculum package. USADAOA distributed 30,000 packages nationwide to reach 1.5 million youths between the ages of eight and twelve.

Finally, as part of its comprehensive strategic plan for drug demand reduction, USADAOA signed a memorandum of understanding with the Center for Substance Abuse Prevention, U.S. Department of Health and

Human Services, the federal lead agency for substance abuse prevention. This agreement allowed for effective collaboration in the areas of communications, training, program evaluation, and community partnerships.

The Army's weight program continued to help soldiers keep fit in FY 1994. All soldiers, regardless of rank, are weighed at six-month intervals to demonstrate that they are below tabled height-weight limits (divided by gender and into four age categories). Soldiers exceeding these screening weight standards are assessed at the company level for body fat by an Army-developed circumference method. If a soldier exceeds fat standards prescribed by gender and age, the unit commander must enter the individual in the Army Weight Control Program. The commander is required to provide motivational programs to the soldier, including nutrition education sessions and exercise programs. As an additional incentive to achieve the standards, the soldier's records are flagged to prevent reenlistment, assignment to command positions, favorable actions such as awards, and transfer to any professional schooling beyond initial entry training. A soldier who fails to make satisfactory progress toward weight or fat loss can be discharged from the Army under a separation action for failure to meet the weight control standards.

DOD accession standards are used to eliminate individuals for unsuitability on the basis of physical fitness and military appearance. Although body fat is a poor correlate of physical performance, it is used as a surrogate measure of physical fitness. Lean body mass, or body composition, is critical in successfully performing the jobs that require cardiorespiratory endurance and muscular strength and endurance. According to the U.S. Army Research Institute of Environmental Medicine, excess body fat can detrimentally affect a soldier's performance. Too much body fat can affect aerobic activities such as running. Retention standards are based on medical research indicating that there is a relationship between percent of body fat and the incidence of health problems such as high blood pressure, cancer, and diabetes. The Army body fat standards provide only a fairly small margin of health safety below the maximum thresholds. Soldiers are also required to maintain a base level of physical fitness regardless of duty assignment. In addition, commanders are required to make every effort to design and tailor programs according to what their soldiers may be expected to do in combat, thus making conditioning for combat readiness the focus of all Army physical fitness programs.

In FY 1994, 2.4 percent of Army enlisted personnel and 0.5 percent of officers were enrolled in the Weight Control Program. *Table 10* lists the numbers and percentages of active component enlisted personnel separated due to the Weight Control Program.

TABLE 10—FY 1994 ENLISTED PERSONNEL SEPARATED DUE TO WEIGHT CONTROL PROGRAM

	Force Size	*%*	*Separations*	*%*
Men	452,514	88.55	2,191	89.94
Women	58,517	11.45	245	10.06

Out of a total enlisted force of 511,031 personnel, there were 2,436 separations. The proportion of the enlisted force separated was .48 percent, which included .43 percent of the men and .05 percent of the women.

4

Force Development, Training, and Operational Forces

Blueprint for the Future

In FY 1994 the Army recognized that it was on the threshold of a new era. As the world underwent a transition from the industrial age to an information age, the service realized the need to stay ahead of that change. The Army began during the fiscal year to define the parameters of its envisioned twenty-first century force, Force XXI.

The Army conceptualized Force XXI to integrate emerging information technologies with sound doctrine, reinvented organizations, and high-quality people to make a smaller force more lethal, more durable, and more powerful. Force XXI will be ideally suited for joint operations. It will be modular, allowing the Army to generate, project, and sustain force packages that meet the specific needs of a joint force commander. Also, it will rely on advanced technologies that promise to revolutionize the face of war in areas of lethality and dispersion, volume and precision of fire, integrative technology, mass and effects, and detectability. In the Army's vision, command and control on a future battlefield will be based on real-time, shared situational awareness. Echelons will be more specialized as more people gain access to information, and units will rely more on electronic rather than geographic or physical connectivity.

To transform the Army into this future force, the service formulated a Force XXI campaign plan, whose main effort focused on redesigning the Army's operational forces. The effort was supported by parallel measures to reinvent the institutional Army and to develop and acquire information age technologies, for which acquisition reform was vital.

Digital technologies that allow the Army to pass vast amounts of real-time information to all levels will be critical to Force XXI. To integrate all activities related to digitization, the Army created the Army Digitization Office (ADO) in FY 1994. The ADO is developing a digitization master plan that will address elements of technical, systems, and operational architectures; acquisition strategy; integration; requirements; and an eval-

uation strategy. The Army also is working closely with other services to ensure interoperability. The Army plans to digitize a brigade in FY 1996 and to digitize a division and a corps by the turn of the century.

The Advanced Warfighting Experiment DESERT HAMMER VI, conducted at the National Training Center (NTC) in April 1994, was the first use of digital command and control systems and corresponding tactics, techniques, and procedures in a field environment. The experiment was designed to validate the hypothesis that digitization may lead to increases in lethality, durability, and tempo of operations when digital information systems and other advanced technologies are overlaid on existing organizations using current doctrine. The experiment was also designed to highlight an innovative approach to initiating and managing the necessary and fundamental change the Army will experience over the next few years. In the experiment a heavy task force was equipped with digital technology and linked digitally to a brigade. By gathering data during two weeks of intense, almost nonstop, simulator-enhanced, force-on-force battles with the NTC's opposing force, the Army gained significant insights into current organizations and doctrine when used with new capabilities. The equipment was an example of a new way of working that cut across organizational lines, with a great team effort between the U.S. Army Materiel Command, the U.S. Army Forces Command, the U.S. Army Training and Doctrine Command, and the Army Staff. The exercise also demonstrated that experimentation and training can be conducted simultaneously, without degrading either. The warfighting experiment clearly suggested that improvements in lethality, durability, and tempo could be achieved by the application of digital technology to U.S. combat forces. It also underlined the requirement for continued work on the effect of information technology on the Army's future leaders, soldiers, organization, and doctrine.

In FY 1994 the Louisiana Maneuvers (LAM) process, named after the historic exercises that General George C. Marshall ordered just before the United States entered World War II, provided a framework to manage the changes occurring in the Army. The LAM furnished a mechanism for the Army to identify new ideas and questions to be resolved and established a basis for consensus among senior Army leaders. It caused selected ideas to be studied and yielded accelerated feedback to Army leaders.

With the advent of Force XXI, the LAM concept moved into a more advanced stage of utilization by the OCSA, during the year. While the LAM's original mandate was to change the way the Army changes, it refocused in 1994 to act as a watchdog over those changes on the road to Force XXI. The Army's senior leadership approved a "campaign plan" developed by the LAM Task Force to serve as the blueprint for the development of Force XXI. The LAM process will synchronize the Army team

effort by ensuring that hypotheses are supported by experimentation—live, virtual, and constructive—to be able to reach conclusions necessary to implement the Force XXI campaign plan. The LAM Task Force is the executive agent for this plan and reports to the CSA, while working with the Deputy Chief of Staff for Operations and Plans (DCSOPS) on the Army synchronization of the plan. The Army effort to synchronize and coordinate the LAM effort with Force XXI is accomplished through a series of Board of Directors, General Officer Working Group, and Synchronization Work Group meetings.

In consonance with the overall thrust of Force XXI during FY 1994, the director of Army Safety and the safety directors of Army major commands (MACOMs) developed a strategic plan, Safe Force XXI, that identified Army safety objectives and the requirements to achieve them. Safe Force XXI is intended to integrate safety risk management into all of the Army's missions. Safe Force XXI has six goals: (1) to ensure that the Army is a safe place for people to live and work; (2) to integrate effective force protection processes into all Army training development; (3) to ensure that force protection is integrated into all levels of doctrine; (4) to develop force protection strategies for equipment modernization and acquisition; (5) to structure force protection to sustain any force mix and support any mission, including contingency operations and operations other than war; and (6) to integrate force protection into all aspects of leader development training.

Safe Force XXI recognizes that Army soldiers habitually face a challenging array of hazards. Safe Force XXI intends to ensure that Army operations, training, materiel systems, and support services are designed to reflect the requirements and operational limitations of soldiers as they perform their missions within this risky environment. An example of a Safe Force XXI initiative is soldier endurance. Soldiers performing mission tasks over long periods of time in fatiguing environments face greatly increased risks in effectively and safely conducting those operations. Commanders' guidance for judging soldier endurance must provide information on increases in safety risks as soldiers' performance decreases. A human performance initiative of Safe Force XXI will establish a coordinated course of action among the training, medical, test, and operational communities to provide objective measures and disseminate these as guidance to commanders Army-wide.

Joint and Army doctrine drive the Army's modernization vision. The Army's concept is to overwhelm the enemy throughout the depth and breadth of the battlefield by executing simultaneous operations. Modernization goals in FY 1994 stressed achieving an overmatching capability to ensure land-force dominance. Joint Publication 3–0, *Doctrine for Joint Operations*, published in September 1993 by the

Chairman, Joint Chiefs of Staff (CJCS), became the nation's warfighting doctrine for the conduct of joint and multinational operations throughout the range of military operations. The publication provides operational and organizational guidance for the exercise of command and control of joint forces during campaigns, major operations, and battles.

On 14 April 1994, two U.S. Army UH–60 Black Hawk helicopters transporting personnel participating in Operation PROVIDE COMFORT were accidentally shot down over northern Iraq by two U.S. Air Force F–15 aircraft. Based on the results of the subsequent investigation, the Secretary of Defense initiated a series of corrective actions that applied lessons learned. Corrective actions within the doctrinal arena focused on a thorough review of extant joint and service doctrine and the accelerated development and promulgation of joint procedures to ensure that such an accident would not recur. Based on a decision by the CJCS, the Army implemented doctrinal changes in July 1994 that were formalized in the accelerated publication of Joint Publication (JP) 3–56.1, *Command and Control for Joint Air Operations*, in November 1994. JP 3–56.1 enhanced existing guidance in JP 3–52, *Doctrine for Joint Airspace Control in the Combat Zone*, and included specific guidance that addressed command and control procedures during military operations other than war. Under the new guidance, Army rotary-wing aircraft had to operate on air tasking orders or flight plans to provide positive control in highly volatile situations. Under normal conditions, Army rotary-wing aircraft using established airspace procedures continued to operate under the control of the land force commander.

During FY 1994 the integration and improvement of joint doctrine continued. The Army was the lead agent for twenty-four publications during the fiscal year. *Table 11* lists joint publications finalized in FY 1994.

Of particular importance during the fiscal year was the development of doctrine for information-age warfare. The U.S. Army Training and Doctrine Command led the way in this effort. The importance of information warfare was clearly demonstrated with work on Field Manual 100–6, *Information Operations*. This new field manual describes these activities as continuous, combined-arms operations that enhance and protect the commander's decision cycle while adversely influencing his opponent's. This is the first intellectual step toward a new doctrinal paradigm of knowledge-based operations enabled by information-age technology. The emerging doctrine stresses the importance of disrupting the enemy's decision cycle through attacks on his command and control systems. These coordinated attacks use the elements of electronic warfare, physical destruction, psychological operations, deception, and operational security. At the same time, the doctrine emphasizes the requirement to increase the speed and accuracy of the friendly decision cycle through enhanced com-

TABLE 11—FY 1994 JOINT PUBLICATIONS

JP 1–02.2	*Joint Electronic Library*
JP 1–02	*Department of Defense Dictionary of Military and Associated Terms*
JP 2–01.1	*Joint Doctrine and Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting*
JP 3–01.4	*Joint Tactics, Techniques, and Procedures for Joint Suppression of Enemy Air Defenses*
JP 3–01.5	*Doctrine for Joint Theater Missile Defense*
JP 3–07.1	*Joint Tactics, Techniques, and Procedures for Foreign Internal Defense*
JP 3–07.3	*Joint Tactics, Techniques, and Procedures for Peacekeeping Operations*
JP 3–07.4	*Joint Counterdrug Operations*
JP 3–11	*Joint Doctrine for Nuclear, Biological, and Chemical Defense*
JP 3–50.2	*Doctrine for Joint Combat Search and Rescue*
JP 3–54	*Joint Doctrine for Operations Security*
JP 3–58	*Doctrine for Military Deception*
JP 4–01.3	*Joint Tactics, Techniques, and Procedures for Movement Control*
JP 4–02	*Doctrine for Joint Health Service Support in Joint Operations*

mand and control. The combination of attacking an adversary's use of information while enhancing and protecting friendly information provides a decisive advantage.

Force Development

In FY 1994, for the second consecutive year, the Army published its formal plan for force modernization activities. The document, entitled "The United States Army Modernization Plan Update (FY95–99)," charted the changes that the Army had experienced during the past year as it continued to modernize the force. The modernization vision centered on ensuring an Army capable of establishing and maintaining land-force dominance on future battlefields. The vision contained five objectives: projecting and sustaining the force; protecting the force; winning the information war; conducting precision strikes; and dominating the maneuver battlefield.

More than at any time in the last half century, the Army has become based in the continental United States, with a much diminished forward presence. Crisis response places increasingly heavy premiums on the Army's ability to project and sustain forces on short notice for extended periods of time. The Achilles' heel in this modernization objective is suf-

ficient air and sealift assets. The Army continued staunch support of the C–17 air transport and Fast Sealift programs of the Air Force and Navy, respectively.

Proliferation of weapons of mass destruction, along with cruise and tactical ballistic missile technologies, posed increased threats to Army forces during the year. In response, the Army placed significant emphasis on a two-tiered missile defense. The upper tier consisted of the Theater High Altitude Area Defense (THAAD) system currently in development, which will intercept tactical ballistic missiles at extended ranges and high altitudes. THAAD is intended to provide coverage to defeat missile threats directed against military forces as well as critical and strategic assets such as population centers and industrial resources. THAAD is scheduled to begin flight tests in 1995. The lower tier will engage incoming missiles operating below the ballistic space of THAAD and will consist of the Patriot missile system, with third-generation improved capabilities, and the Corps Surface-to-Air Missile (CORPS SAM) system. CORPS SAM, which is currently in concept development, is intended to fill a critical need by protecting maneuver forces and critical assets, providing 360-degree coverage against short-range tactical ballistic missiles, cruise missiles, unmanned aerial vehicles, and manned aircraft. This emphasis, coupled with improvements in Nuclear, Biological, Chemical (NBC) protection, is intended to ensure improved soldier effectiveness under any conditions. NBC improvements included the development of the M93 Fox NBC reconnaissance system, the M40 and M42 protective masks, the M43 aircrew mask, and the M17 lightweight decontamination system.

Emphasis in winning the information war hinges on having superior command and control systems, protecting them from exploitation and degradation, and attacking the adversary's comparable command and control and decision-support mechanisms. In FY 1994 the Army emphasized the use of proven tools of destruction, electronic warfare, operational security, deception, and psychological operations. During the year, and looking ahead to the near future, the Army focused on building superior command and control systems such as the Command and Control Vehicle, a replacement for selected M577A1 command post carriers; the Forward Area Air Defense Command and Control System, an automated means of furnishing timely data to forward-area air defense weapons; and the Combat Service Support Control System, an automated system designed to assist the combat service support commander and staff in rapidly collecting, storing, analyzing, and disseminating combat service support information.

During FY 1994 the Army continued to emphasize modernization objectives to improve its capability to conduct deep-attack precision strike operations against any threat. Part of the Army's modernization

strategy focused on buying a limited number of new weapons such as the RAH–66 Comanche armed reconnaissance helicopter and the Advanced Field Artillery System and Future Armored Resupply Vehicle. The latter is a 155-mm. self-propelled howitzer system, supported by a fuel and ammunition resupply vehicle, which is intended to provide a dramatic increase in artillery fire support. In addition, to ensure the capability to dominate the maneuver battle, the Army emphasized upgrades and modifications of existing land systems through Horizontal Technology Integration (HTI) and Vertical Technology Integration (VTI). The Army's major HTI effort during the year was the digitization of the battlefield, applying digital technologies throughout the force to effect an enhanced capability for all systems. The Advanced Warfighting Experiment DESERT HAMMER VI, conducted at the National Training Center, examined the first use of digital command, control, and communications systems in a field environment. VTI allowed the Army to apply an enabling technology within an existing system to upgrade operational capability, to reduce cost, or to improve its warfighting capability. A good example of VTI in FY 1994 was the Patriot Advanced Capability III program, which enhanced the operational capabilities of the Patriot air defense artillery missile system with an improved missile and radar, enhanced system emplacement capability, launcher modifications, and a remote launch capability.

In FY 1994 the Army also began implementing the Aviation Restructure Initiative (ARI). ARI, approved for implementation by the CSA in FY 1993, contained five objectives: correct the structural deficiencies of the 1985 Army of Excellence; reduce logistics requirements; reduce costs; modernize the entire fleet; and remain within resource constraints. U.S. Army, Europe, and Forces Command led the Army's transition to the ARI structure.

During FY 1994 a number of Army units underwent inactivation and reflagging as the Army continued to downsize. The 7th U.S. Army Medical Command (MEDCOM), long the U.S. military's largest forward-deployed medical command, furled its colors in Heidelberg, Germany. At the height of the Cold War, the 7th MEDCOM provided care for more than half a million soldiers, civilians, and family members in U.S. Army, Europe. The command staffed 2 medical centers, 9 hospitals, 60 health clinics, 94 dental clinics, and 15 veterinary activities. Also during the year the following organizations at brigade/regiment level and above were inactivated or reflagged: (1) the 2d Brigade of the 3d Infantry Division was inactivated in Germany on 15 January 1994; (2) the 11th Armored Cavalry Regiment was inactivated in Germany on 15 March 1994; (3) the 7th Infantry Division (less 1 brigade) was inactivated at Fort Ord, California, on 15 June 1994; (4) the 6th Infantry Division (less 1 brigade)

was inactivated in Alaska on 1 July 1994; and (5) the Berlin Brigade was inactivated in Germany on 15 August 1994.

Training

Army training continued to emphasize producing a "Trained and Ready" force in FY 1994. Realities such as declining budgets, a smaller force structure, and increased participation in peace operations increased the value of Army training. High-quality training and training to standard were never more important in producing a trained and ready force during turbulent times. The Army Staff continued to focus on redefining training readiness; effectively managing models and simulations; exploring new possibilities at the Combat Training Centers (CTCs); and modernizing training by taking advantage of key technologies to speed the task proficiency of individuals and units.

Redefining training readiness encompassed many initiatives. The Department of the Army recognized that some operational tempo (OPTEMPO) funding generated by the annual Training Resource Model, which examines what costs are associated with Army training, would shift to programs that contained more essential readiness-related items. Army commanders were already forced to maintain a high state of readiness by drawing on the training capital accumulated during the past, living off Operation DESERT STORM supplementals, and using excess spare parts generated during the drawdown in Europe. This represented the greater cause of a "readiness to resource" gap. Monies not spent directly on training exercises had been used to sustain training support, such as ranges, lands, and base operations requirements, all of which were substantially underfunded. To deal with the realities of the changing world and to manage readiness, the Army worked on a new methodology of operational readiness that encompassed the total cost of preparing a unit to go to war. The methodology encompassed OPTEMPO; training aids, devices, simulators, and simulations; ranges; land; and maintenance and force-projection facilities. The concept was not new—it reflected how field commanders obligated their funds to pay for readiness. The Army chose Fort Hood, Texas, as the first site to use the new operational readiness methodology. The service focused on a review of the tank battalion training strategy. Tank units are the most expensive ground unit to fund.

The Army intends to systematically validate this strategy to prevent accidental "hollowness." Units in the field will be measured against this strategy to determine a rating based on the percent of mission-essential task list functions in which they are trained. This rating, along with the funding profile of the unit, will present the Army Staff with a more realistic view of readiness.

In a move to synergize multiple efforts in the rapidly developing environment of models and simulations, the DCSOPS designated the Director of Training as the general officer who would be Headquarters, Department of the Army's (HQDA), single point of contact for all actions relating to simulations. In accordance with this initiative, the Training Directorate underwent a reorganization to form the Training Simulations Division. This division was organized into three branches that mirrored the Army's simulations management architecture: Training, Exercises, and Military Operations; Advanced Concepts and Requirements; and Research, Development, and Acquisition.

The Army also undertook measures to adjust training scenarios at the CTCs to make them more representative of the service's needs. The National Training Center (NTC), for example, conducted a prototype Live Fire Exercise (LFX) with two heavy battalions, a trial deployment exercise, and a divisional cavalry deployment as part of a regular rotation. The NTC also developed the "onward movement" package that placed tactical requirements on the brigade as soon as it arrived in country. The greatest effort at the NTC during FY 1994 was the Advanced Warfighting Experiment, the Army's first attempt to digitize the forces on the battlefield. The Joint Readiness Training Center also made progress during the year toward training the Army by incorporating rotary-wing aircraft into the LFX scenarios and developing peace enforcement scenarios.

Unilateral, joint, and combined exercises are vital for the Army to maintain its training edge. Joint exercises are conducted with another service, and combined exercises are conducted with the armed forces of another country. Joint and combined exercises are normally conducted through the CJCS exercise program, which is designed to improve the warfighting capabilities of the regional combatant commanders in chief (CINCs). These exercises allow Army forces the opportunity to train under the operational control of warfighting CINCs. In the post–Cold War era, budget constraints and reduced force structure have resulted in fewer large-scale exercises with thousands of troops in the field and increased emphasis on smaller, regionally oriented exercises and computer-assisted exercises.

In FY 1994 the Army participated in the following CJCS exercises: FUERTES CAMINOS, joint and combined engineer construction exercises conducted in Colombia, El Salvador, Honduras, and Guatemala; INTRINSIC ACTION, the twice-yearly deployment of a battalion task force to Southwest Asia; BRIGHT STAR 94, the deployment of a heavy battalion task force from the 24th Infantry Division to Egypt; KEEN EDGE 94, a computer-assisted exercise to improve interoperability between U.S. and Japanese forces; COBRA GOLD, an annual joint and combined command post exercise in Thailand, designed to improve U.S.-Thai interoperability and demonstrate

U.S. resolve to support Asian nations in the event of hostilities; RSOI, an annual joint and combined seminar in Korea that addresses reception, staging, onward movement, and integration of reinforcing forces; DYNAMIC IMPACT 94, a field and command post exercise sponsored by the commander in chief, U.S. Army, Europe, to reinforce the Southern Region; AGILE PROVIDER 94, a field training exercise for the U.S. Atlantic Command battle staff and component joint task forces in planning and conducting joint contingency operations; ULCHI–FOCUS LENS, an annual joint and combined command post and computer-assisted exercise conducted in conjunction with South Korean forces to prepare U.S. forces to deploy rapidly to Korea; and MARKET SQUARE 94, a field training exercise sponsored by the U.S. Atlantic Command involving a contingency scenario.

In order to examine the Army's ability to allocate scarce resources and execute its Title 10 responsibilities, the CSA directed General Headquarters (GHQ) Exercise 94. Set in FYs 1998–1999, and using programmed forces, equipment, and strategic lift for those years, GHQ Exercise 94 employed a scenario involving a major regional conflict and a large operation other than war occurring simultaneously. GHQ Exercise 94 allowed the Army to test Force XXI concepts in a major regional conflict and to work out plans for rotation forces in operations other than war. Each of the exercise's four phases included the active participation of the U.S. Transportation Command, MACOMs, and a crisis-action team from HQDA. A senior-leader seminar, chaired by the CSA, examined insights from each phase of the exercise. The warfighting phase of the exercise meshed with an Army Command and General Staff College exercise and incorporated proposed twenty-first century technology developed by Army Battle Labs.

Insights from this GHQ exercise and the previous one confirmed the Army's requirement for early access to selected reserve component units and individuals and the limitations experienced when the Presidential Selected Reserve Call-Up is delayed. The exercise also validated the Army's need to attain a complete profile of units, people, and equipment. As a result of this exercise, the Army began to identify and correct problems that arise when scarce resources must be allocated in two contingency plans executed nearly simultaneously. These problems proved particularly acute for combat service support units.

Simulations are the basis for the Army's future training strategy. The Combined Arms Tactical Trainer is the Army's premier simulator program. This program is intended to develop virtual, networkable simulators for training mechanized infantry, armor, aviation, engineer, field artillery, and air defense artillery soldiers. Using this system, commanders will be able to synchronize accurately all battlefield operating systems and perform high-risk and hazardous tasks repeatedly in a safe environment at an

affordable cost. In 1994 the Army linked the Combat Service Support Training Simulation System and the Corps Battle Simulation, allowing commanders for the first time to manage all classes of supply and fully integrate logisticians into a simulated battlefield.

Deployed Operational Forces

Between 1989 and 1994 the Army witnessed a threefold increase in operational deployments abroad. In FY 1994 the Army had anywhere from 16,000 to 24,000 soldiers and civilians operationally deployed to more than 70 countries. As the Army has grown smaller, individual soldiers, civilians, and units have been deployed repeatedly to execute combat operations and military operations other than war.

During FY 1994 Army soldiers and civilians supported maritime interdiction operations in the Caribbean, deployed observers along the Haiti–Dominican Republic border to assist efforts to enforce United Nations (UN) sanctions on Haiti, and supported efforts to house Haitian and Cuban refugees at Guantanamo Bay, Cuba, in Panama, and in Surinam. Army soldiers trained multinational soldiers who were to assist in the reconstitution of the Haitian police forces. In continuing operations, more than 400 soldiers and civilians supported the deployment of Army forces into Honduras to execute humanitarian and civil affairs operations. Army forces also deployed to Puerto Rico to train military personnel from Caribbean Community and Common Market countries in support of Operation UPHOLD DEMOCRACY.

In Operation UPHOLD DEMOCRACY, U.S. Army troops deployed to Haiti on 15 September 1994 to restore to power the democratically elected Haitian government. Army forces entered the country without opposition and implemented an agreement between the United States and the de facto government. Peak Army strength in the operation reached 18,401 on 13 October 1994.

During the year the U.S. Army continued to provide soldiers and civilians to Somalia in support of Operation RESTORE HOPE. As a result of a 3 October 1993 firefight between U.S. soldiers and forces of Somalia warlord General Mohammed Farah Aideed, in which eighteen Americans died, U.S. forces were augmented with two heavy battalions from the 24th Infantry Division and a support contingent of civilian employees, and the President announced a withdrawal from the operation. In March 1994 most U.S. and UN forces withdrew from Somalia, bringing to an end a fifteen-month presence in that troubled country. Remaining Army personnel withdrew from Somalia in September 1994.

U.S. Army troops deployed to Rwanda for Operation SUPPORT HOPE on 17 July 1994. The operation, which began on 24 July 1994 with a pres-

idential order, was the U.S. government's response to a desperate need for humanitarian relief to alleviate the immediate suffering of refugees fleeing civil war in Rwanda. By 26 July an Army task force organized around a heavy maintenance battalion was providing clean water to combat outbreaks of cholera, assisting in the burial of the dead, and integrating the transportation and distribution of relief supplies. By 3 August the Army and others were producing and distributing half a million gallons of water a day in Goma, Zaire, a major relief site. The respite this provided allowed the UN and other agencies to organize and establish refugee camps. Additionally, the Army contributed to securing the airfield at Kigali International Airport and established a civil-military operations center so that relief supplies could flow directly into Rwanda and thereby entice refugees to return to their homes. By the end of September, the U.S. military joint task force, composed of Army and Air Force personnel, had turned over operations to the UN High Commissioner on Refugees and more than seventy-seven nongovernmental organizations. Peak Army strength had reached 2,415 on 23 August 1994. The operation officially ended on 6 October 1994.

During FY 1994, as part of Operation SOUTHERN WATCH, an Army air defense artillery battalion, a security company, and maintenance units in Saudi Arabia continued to support the mission to enforce the UN "no-fly" zone in southern Iraq. The no-fly zone was imposed after the 1991 Persian Gulf War to protect coalition forces in the region from the threat of Iraqi aircraft. Also, in Exercise INTRINSIC ACTION, which began in 1993, the Army continued to contribute to the security of the region by deploying a heavy battalion task force to conduct combined exercises with the Kuwaiti army twice a year.

In the former Yugoslav Republic during FY 1994, the Army had personnel and equipment deployed in support of Operations PROVIDE PROMISE, ABLE SENTRY, and DENY FLIGHT. Soldiers assigned to PROVIDE PROMISE and ABLE SENTRY served under the UN Protection Force. Operation PROVIDE PROMISE was a multinational airlift of food and supplies to the citizens of Bosnia. Operation ABLE SENTRY supported a UN mission to observe and report violations of UN sanctions and to assist in maintaining stability along the Serbia-Macedonia border. Operation DENY FLIGHT enforced the no-fly zone over Bosnia. American soldiers in Operation PROVIDE PROMISE served in Zagreb, Croatia; Naples, Italy; and Kiseljak and Sarajevo, Bosnia.

The U.S. Army also supported a number of deployments to Asia and the Far East. In July 1994 U.S. Army troops provided hospital support at Chisenau, Republic of Moldavia, as part of Operation PROVIDE HOPE. In March 1994 the Secretary of Defense ordered the Army to deploy a Patriot air defense artillery battalion to Korea. The 2d Battalion, 7th Air Defense

Artillery Regiment, deployed 772 personnel to the Republic of Korea to provide advanced tactical ballistic missile defense. Army soldiers also participated in humanitarian and civic action programs in Cambodia, Bangladesh, the Federated States of Micronesia, Indonesia, Laos, Mongolia, Nepal, Papua New Guinea, the Philippines, Sri Lanka, Tonga, and Vanuatu. Construction and medical projects cemented professional ties between the Army and the armed forces of those countries and improved the nations' living standards. In Cambodia, the Army assisted the Cambodian Army in developing a self-sustaining de-mining program. An Army team provided nonlethal, humanitarian de-mining training as part of a train-the-trainer program. Fifty-two personnel were permanently assigned to Joint Task Force FULL ACCOUNTING, conducting investigations, excavations, and recovery operations in Vietnam, Cambodia, and Laos to trace American service personnel missing in the Vietnam War. The Army also augmented the task force as required with medics, emergency ordnance disposal experts, and technicians from the Clinical Identification Laboratory in Hawaii.

During FY 1994 the Army provided support to civil authorities responding to a wide range of domestic emergencies. The service assisted survivors of the Northridge, California, earthquake and victims of floods in Alabama, Georgia, Florida, and Texas. Army soldiers supported the National Inter-Agency Fire Center, a joint operation of the Departments of Agriculture and Interior, in fighting wildfires in the western United States. During the year the Secretary of the Army called on the services of approximately 4,100 active Army, National Guard, and Army Reserve personnel to respond to these domestic emergencies.

In FY 1994 the Army also made a significant contribution to the DOD effort in counterdrug operations. Even as the budget decreased, the Army's commitment to counterdrug operations expanded. On a daily basis, the active Army, National Guard, and Army Reserve contributed approximately 4,100 soldiers to these operations. More than 200 soldiers and Army civilians were permanently assigned to the three existing joint counterdrug task forces or detailed to federal agencies to coordinate military support. The Army provided operational support, reconnaissance, maintenance, intelligence analysis, linguist support, engineer support, equipment, facilities, training, and planning support to drug law enforcement agencies in the United States. Outside the United States, the Army provided counterdrug support to foreign host nations through regional unified commands. This support included counterdrug and psychological operations training, aviation support, and intelligence, as well as planning and reconnaissance. Army aviation assets were particularly involved in counterdrug operations, with more than 16,000 flying hours logged during the first three quarters of FY 1994. In addition to flying support, the

Army loaned aircraft to the U.S. Customs Service and trained pilots and crews for drug-enforcement agencies. These agencies had a high demand for Army linguists and intelligence analysts as well.

Army Special Operations Forces

Army Special Operations Forces (SOF) units provide a broad range of military capabilities in support of national security. These forces include Special Forces, Rangers, Special Operations Aviation, Civil Affairs, and Psychological Operations units. SOF missions include unconventional warfare, foreign internal defense, direct action, special reconnaissance, and counterterrorism. SOF also participate in security assistance, humanitarian assistance, peacekeeping, counterdrug, and combat search and rescue operations. Many special operations units reside in the reserve components; 97 percent of the Army's civil affairs units and 70 percent of its psychological operations units are in the Army Reserve. SOF units are often called upon for service in military operations other than war. In FY 1994 SOF units participated in Operations RESTORE HOPE, PROVIDE COMFORT, PROVIDE PROMISE, and UPHOLD DEMOCRACY. The Army has increased SOF participation in joint, multinational, and unilateral exercises. SOF participation has also increased at the Combat Training Centers and in the Battle Command Training Program. In FY 1994 each Army corps had a Special Operations Coordination Element to integrate SOF into corps plans and training.

Military Intelligence

In FY 1994 the Army played a major role in joint intelligence training developments. The service cooperated in formulating three new joint courses of instruction to provide training to personnel that may be assigned to joint service positions. First, the Joint Targeting Training Program is a course designed to train joint service personnel in the basics of service-wide targeting and weaponeering, which was found to be deficient during Operations DESERT SHIELD/STORM. During the year this course program was retitled the Joint Targeting School of the U.S. Atlantic Command. Second, the Joint Task Force (JTF) Managers course is designed to train both military and civilian personnel in grades E–6 to O–5 and GS 11–14 to serve in a standing JTF, supporting component service, element, agency, or combat command. Third, the Joint Intelligence Center (JIC) course is designed to provide personnel above the grade of E–5 assigned to joint intelligence billets with essential skills to conduct effective all-source intelligence analysis.

When these courses were being developed, the Army Office of the Deputy Chief of Staff for Intelligence (ODCSINT) worked to promote

Army influence in the Joint Targeting Training Program, which the Navy and Air Force initially viewed as an aviation exercise. As a result of these efforts, the Army Intelligence Preparation of the Battlefield process, along with Army Field Artillery methods, were added to the course to make it acceptable as a joint effort. Training for the JTF and JIC courses began in FY 1994. The Joint Targeting School course was expected to begin in FY 1995.

Army Regulation 350–3, *Tactical Intelligence Readiness Program* (commonly known as REDTRAIN), provides funds to senior intelligence officers to maintain the readiness of intelligence soldiers, primarily in tactical intelligence units. During FY 1994, the regulation underwent revision to incorporate changes recommended by an Army Audit Agency report of 29 May 1992. The most recent publication date of the regulation was 20 November 1984. All commands participating in the REDTRAIN program concurred with the regulation revisions by 12 August 1994. There were four primary regulatory changes: (1) decentralizing primary supervision and management of the program from the Department of the Army Executive Agent, the U.S. Army Intelligence and Security Command, to the primary commands participating in REDTRAIN; (2) introducing a REDTRAIN inspection program; (3) providing for REDTRAIN programs funded by DA to supplement units' REDTRAIN budgets; and (4) opening REDTRAIN to company grade officers. Publication of the revised regulation is set for the first quarter of FY 1995.

Also during FY 1994 the Army's new National Ground Intelligence Center (NGIC) was provisionally activated in Charlottesville, Virginia. The center's mission is to produce and disseminate ground forces intelligence to military leaders and to provide scientific and technical, as well as general, military intelligence to deploying forces. Also, the center will manage the Army's Foreign Materiel Exploitation Program and foreign materiel acquisition requirements. The center will become fully operational by 1 October 1995, when Intelligence and Threat Analysis Center personnel relocate from Washington, D.C. Other elements of the NGIC will be based at the Washington Navy Yard and at Fort Meade and Aberdeen Proving Ground, both in Maryland.

In November 1993 the Deputy Secretary of Defense established the Defense Airborne Reconnaissance Office (DARO). The establishment of the DARO represented a significant shift of U.S. Code Title X responsibility away from the services. Reconnaissance requirements and money that were formerly designated for Army-specific programs became part of a joint forum controlled at the DOD level instead of at the service level.

The DARO reports to the Deputy Under Secretary of Defense for Acquisition and Technology and is charged to unify existing airborne

reconnaissance architectures and enhance the management and acquisition of manned and unmanned airborne assets. Directed to assess the airborne reconnaissance needs of the United States through 2010 and to develop and implement a strategy to meet them in a timely and cost-effective manner, the DARO published *The Integrated Airborne Reconnaissance Strategy* in March 1994. This document presented a strategy for developing a comprehensive, integrated, and efficient airborne reconnaissance capability. The DARO's strategy addressed platforms, sensors, data links, data relays, and ground stations. The DARO was organized to satisfy the national security community's desire for common platforms and processors and represented one of a growing number of joint programs to maximize investment return in an era of declining budgets. The Army's current and future systems will operate within this joint service architectural framework, created as a result of DARO's efforts and directions.

During FY 1994 the Army established a four-step Army Intelligence Priorities Process (AIPP) for ensuring that intelligence priorities are identified and intelligence support is assessed. Formerly, the Army Staff and MACOM commanders had no requirement to identify high-priority intelligence needs based on their Title X mission. This resulted in different, unfocused efforts at the highest level of the intelligence community. With the Army's focus changing from a threat-based force to a global, capabilities-based force and with shrinking resources, the Army needed to establish its intelligence priorities and consistently state them throughout the Army, DOD, and national intelligence organizations.

On 4 February 1994, the DCSOPS and the DCSINT cosigned a memorandum giving guidance for each MACOM and the Army Staff to identify their organization's high-priority intelligence needs annually. Intelligence needs must be based on Army planning and programming guidance as contained in the Army Plan. Annually, each MACOM and the Army Staff develop Priority Intelligence Needs (PINs) based on planning and programming guidance. The PINs are major questions concerning foreign military forces and technological trends addressing specific countries and time frames. All PINs are forwarded to the Army Priority Intelligence Needs Coordinating Group for review and integration into the Army's PIN List. On 13 June 1994, the CSA signed a memo to the CJCS identifying the first Army PIN. When the Army PIN List is approved by the CSA, it is forwarded to the Army's Intelligence Priorities for Strategic Planning Working Group, where intelligence categories and priorities are identified to support the CSA's Army PINs. The approved PIN List is also forwarded to DOD for incorporation into its planning system. The Army Intelligence Priorities for Strategic Planning Working Group will assess the Intelligence support quarterly and brief the Army Priority Needs

Coordinating Group semiannually. The first annual assessment will be in November 1995 by the DCSINT.

Nuclear, Biological, and Chemical Issues

During FY 1994 the Army activated the U.S. Army Chemical and Biological Defense Command (CBDCOM). The mission of the new command is to develop and procure nuclear, biological, and chemical defense equipment for American soldiers. CBDCOM will also provide central management for chemical weapon treaty compliance, assist in installation-level restoration and contamination control operations, and provide technical escorts for planned or emergency disposal of chemical agents, munitions, and other hazardous materials. By October 1994 the Command will include all elements of the U.S. Army Chemical Materiel Destruction Agency.

Army in Space

Space must be controlled to win the ground battle. Space has become an integral component of the Army's technological and operational evolution. The success of Force XXI will be critically dependent upon the exploitation of space assets, capabilities, and products throughout the entire spectrum of military operations. Space assets and technology are key to gathering, managing, and disseminating information to provide a decisive advantage. Space allows land-force commanders to see the battlefield better and to locate and destroy enemy forces. In an environment of rapid political, technological, and economic change, Army access to national, civil, allied, military, and commercial space capabilities and products is essential to successful operations.

In FY 1994 the use of space products continued to spread throughout the Army—products for navigation, position location, intelligence, terrain, weather, targeting, mapping, communications, and early warning served soldiers at all levels of command. Space products were used in every major operation the Army undertook during the fiscal year, both for war and military operations other than war. For Operation RESTORE HOPE in and near Rwanda, the Army used space-based early entry communications, satellite image mapping, global positioning systems, and national intelligence assets. For Operation UPHOLD DEMOCRACY in Haiti, the Army made use of all those capabilities, plus satellite weather imagery, radio range extension and video transmission, and secure video-teleconferencing capabilities between commanders on the scene and in the United States, using an experimental National Aeronautics and Space Administration satellite. Although a large user of space products during

the fiscal year, the Army had less than 5 percent of the military space budget and only 2 percent of the people in military space programs.

5

Reserve Forces

Force Structure

Maintaining the Army's role as a strategic force supporting U.S. foreign policy requires the full integration of the active Army, National Guard, and Army Reserve. As needed, the Guard and Reserve supply highly trained units and individual soldiers to support operations. The Guard and Reserve provide capabilities not needed on active duty during peacetime, at significant savings. It is crucial that the Army have ready access to those units and individuals when the nation calls. To meet the needs of the nation, the Army is forging a new balance among active, Guard, and Reserve forces. At the start of a contingency mission, active units will form the bulk of a force, while high-priority Guard and Reserve units will provide capabilities not found in the active force. As the operation continues, a larger proportion of forces will come from the reserve components, which will support deploying forces, backfill active units and augment the mobilization base, reinforce sustained operations, and, if needed, expand the Army to meet a resurgent global threat.

To achieve this new balance, on 10 December 1993, the Secretary of Defense announced a major restructuring plan for the Army's reserve components. An Army Off-Site Agreement was worked out by senior leaders of the active Army, the Army National Guard (ARNG), the U.S. Army Reserve (USAR), and the associations representing each component's members. This was the first time that the three components have worked together on a major restructuring initiative. The agreement refocused the reserve components' missions. In addition to its traditional state and civil mission, the Guard generally would be oriented toward combat functions, and the Reserve would be generally oriented toward combat service support functions.

According to the agreement, a total of 127,300 positions will be eliminated from the reserve components by FY 1999. ARNG end strength will be reduced to 367,000 by FY 1999, and USAR end strength will be reduced to 208,000 by the end of FY 1998. The Guard will continue to provide the

main combat reserve forces of the U.S. Army, with combat service and combat service support units divided among the Guard and the Army Reserve. Under the terms of the agreement, most Army Reserve aviation assets will be transferred to the Army National Guard. To implement the provisions of the agreement, the ARNG is reducing the size of its present aviation force by 40 percent. After the full implementation, which will involve the transfer of seven utility helicopter battalions and seven medical companies (air ambulance) from the USAR, the ARNG aviation force will meet the 40 percent reduction. Some Guard combat support and combat service support units also will transfer to the Army Reserve. Overall the USAR will gain 128 units containing 11,062 authorizations from the Guard, and the Guard will gain 44 units containing 14,049 authorizations from USAR.

Restructuring and realignment will not be enough, however. Like the active component, the reserve components will have to improve in capability, even as they decline in size. To improve unit and individual skills, the Army will associate fifteen enhanced brigades from the Guard with active Army combat units for training. The ARNG's enhanced brigades will be the Army's principal reserve component ground combat maneuver force. Enhanced brigades are expected to reinforce, augment, and backfill active component units as required by the theater commander to which they are assigned. The brigades are configured as seven heavy brigades, seven light brigades, and one armored cavalry regiment. The term "enhanced" refers to increased resource and manning priorities. The Army will ensure that these units receive sufficient resources to enable them to begin deployment to a crisis within ninety days from mobilization. In doing so, the Army will work to ensure that these brigades are logistically supported, command and control compatible, and doctrinally employable by any U.S. division or corps. The remainder of the Guard's strategic reserve combat forces, eight divisions, two brigades, and one infantry scout group, will be fully structured but will not be fully equipped or staffed.

Over half the Army force structure is in the reserve components, including forces in each of the strategic force packages. The Army National Guard's authorized strength of 410,000 in FY 1994 was down 12,725 positions from FY 1993. In FY 1994 the Reserve had an authorized strength of 260,000 positions in the Selected Reserve, 412,235 members in the Individual Ready Reserve, and an additional 557,247 members in the Retired Reserve.

In July 1994 the Army Reserve announced the results of a concept study of the command and control reorganization of the USAR force structure through the creation of Regional Support Commands (RSCs). The study's authors proposed to reduce the TDA command and control structure in the face of continuing Selected Reserve reductions; provide for better management, efficiency, and value within the remaining com-

mand and control structure; and provide for easier access to Reserve units and individuals in case of local or regional emergencies. The U.S. Army Reserve Command (USARC) initiated the study in 1994 to compensate for the cuts imposed by the Off-Site Agreement. The intent was to reduce the TDA overhead in order to field as many deployable forces as possible. The assessment of the USAR command and control structure recommended inactivating the twenty CONUS Army Reserve Commands (ARCOMs) and activating ten RSCs and three Regional Support Groups (RSGs). The restructuring would entail assigning the RSGs to the three RSCs that had the largest numbers of troops or were largest geographically, expanding missions at the command level to support readiness and management, streamlining premobilization functions, reducing the U.S. Army Reserve Command's span of control from forty-seven direct-reporting units to thirty-one, and aligning the RSCs to the ten standard federal regions. The mission of the RSCs would be to exercise command and control of all assigned units and to provide full service support to all USAR units within their region, reducing the administrative workload for deployable commanders and allowing them to concentrate on wartime missions. The mission would improve unit readiness by concentrating a higher percentage of full-time support soldiers in fewer headquarters. The RSC regional alignment with other federal agencies would improve the ability of the Reserve to provide military support to civilian authorities. The new structure would also provide federal planning assets to Federal Emergency Management Agency (FEMA) planners and managers at the regional level by establishing State Emergency Preparedness Liaison Offices and Regional Emergency Preparedness Liaison Offices at each RSC. An implementation decision on the concept is expected in early 1995, with a restructuring completion date of September 1996.

By the close of 1994 the USAR included over forty-seven major USAR commands and two direct supporting units. There were 21 ARCOMs, 7 divisions (Institutional Training), 5 divisions (Exercise), 1 corps support command, 3 theater army area commands, 3 engineer commands, 1 military police command, 2 transportation commands, 1 signal command, 1 infantry brigade, and 1 medical command. In addition, 56 units, with 8,400 force structure spaces, were inactivated. A total of 2,400 spaces were activated, with 700 spaces represented by conversions, updates, and reorganizations. These actions affected combat, combat support, and combat service support units.

Strength and Personnel Management

The FY 1994 end strength objective for the ARNG was a Selected Reserve strength of 410,000, consisting of 46,849 commissioned and war-

rant officers and 363,151 enlisted personnel. The fiscal year ended with ARNG strength at 396,928, 96.8 percent of the objective and reflecting a decline of 12,991 from opening strength. Total strength included 45,538 officers and 351,390 enlisted personnel.

The Select-Train-Promote-Assign test program moved forward during the fiscal year with a recommendation to the director of the Army National Guard for nationwide adoption. Promotion policies will be changed to allow a state-by-state transition from the grade vacancy selection process now used. Full implementation is planned for January 1996. The program will provide to soldiers selected for promotion and leadership assignments the Noncommissioned Officer Education System (NCOES) course required for promotion. This approach, already implemented in the enlisted leader development program, is bringing the total number of noncommissioned officers trained much closer to the total number promoted.

In consonance with a change in Army policy, which recognized that readiness is enhanced by eliminating unnecessary barriers to service, the ARNG moved to open all TDA positions to women in FY 1994. FY 1995 will see an additional six to eight thousand positions opened to women in the ARNG as a result of the new policy that opened 91 percent of the Army's career fields to women.

Training and Readiness

FORSCOM had established the Contingency Force Pool (CFP), the power projection force ready to deploy to regional crisis spots around the world, in FY 1992. The purpose of the CFP is to provide a pool of high-priority units to support eight and two-thirds Army divisions in the event of a national emergency. CFP is composed of units from the USAR, the ARNG, and the active Army. In FY 1994 there were 478 USAR units and 368 ARNG units in the CFP.

ARNG units in the CFP expanded in FY 1994. Two categories of CFP forces emerged. CFP units already designated to support first-deploying active Army divisions became CFP I units. The expansion created CFP II units. These units were designated to support later-deploying active divisions. CFP I units were broken down into four support packages, numbered 1–4, each package earmarked for a particular division. CFP II units were broken down in support packages 5–7, with each package generally earmarked for a specific division. This expansion increased the number of ARNG CFP units from 171 to 368. At its peak there were 59,000 ARNG soldiers in CFP units during FY 1994. ARNG units placed in the CFP received additional resources to ensure that readiness standards were met. ARNG deployability was at 95 percent in October 1993. The composition

of the CFP continued to change during FY 1994, while readiness remained high. There was some degradation in readiness indicators as new units were added to the CFP. Deployability of the CFP declined to 89 percent by the end of FY 1994. Until changes were implemented in October 1994, deployability of ARNG CFP units was consistently greater than that of both the active component and the USAR.

The Army Reserve used a concept of tiered readiness to set priorities for and manage the provision of resources to USAR units, especially those in the CFP. Based on the deployment dates required to support regional operations plans, the Army Reserve classified its units into four tiers, with a priority for funding, equipment, training, and recruiting in descending order from Tier 1 through Tier 4. Tier 1 included CFP units in support packages 1 through 4, CONUS-based support units, and units with an arrival date of less than 15 days after being alerted. Tier 2 included CFP units in support packages 5 through 7, units with a latest arrival date of more than 14 days but less than 31 days after being alerted, and divisions (Exercise). Tier 3 included U.S. Army Reserve Forces Schools, Regional Training Sites, Area Maintenance Support Activities, Equipment Concentration Sites, and the remaining units in the DA Master Priority sequence. Tier 4 included inactivating units. As a result of tiered readiness, the early-deploying units received a greater share of training money and resources. By the end of FY 1994, the 209 USAR CFP units in Tier 1 were authorized to receive 100 percent of their requirements in force structure program money, while the 269 CFP units in Tier 2 were authorized to receive 72 percent.

By October 1994 the CFP gave the Army the capability of worldwide deployment of up to 2 corps headquarters and 8 2/3 active component divisions from CONUS bases, a force that included approximately 540 Army Reserve units, or 38 percent of the units in the CFP. Of these 540 units, USAR controlled 475 and the U.S. Special Operations Command controlled 65.

To improve readiness of the reserve components in the CFP, FORSCOM had implemented the Bold Shift program in 1992. In FY 1994 Bold Shift involved units from every major USAR command. The program grouped activities to enhance readiness into seven major programs: reorganizations and realignments; operational readiness evaluation (ORE); soldier training; unit training; leader training and development; training involvement of the wartime chain of command; and full-time support. Excepting full-time support, the ORE existed as the second most important element for improving readiness. The ORE assessed training and readiness in two phases. During phase one evaluators determined the units' compliance with existing policy and guidance in such areas as personnel qualification, supply management, maintenance, and security. In

phase two the unit demonstrated its premobilization and predeployment readiness through the performance of individual and collective tasks during realistic and intense training experiences. The OREs were administered by evaluation teams sent from one of the CONUS armies composed of officers and noncommissioned officers from the active Army, ARNG, and USAR.

In training the USAR had three significant initiatives under way in FY 1994: the testing of the Institutional Training Division concept and the activation of 9 institutional training divisions; the activation of 5 exercise divisions; and the assumption of command and control of 4 installations from FORSCOM to support training operations. These training resources support individual and collective training during both the premobilization and postmobilization phases of military operations in peace, crisis, or war.

In FY 1994 one of the goals of the Total Army Training Strategy (TATS) focused on giving the reserve components the same attention as the active component in training quality and control. In collective training, for example, the Army recognized the need for greater standardization in unit lane training and command and staff simulation exercises, especially for combat support and combat service support organizations. The ultimate goal of TATS was to create a system that trained all soldiers (active and reserve components) to the same standard and basically in the same tasks, and to do so with fewer resources. The resulting concept plans became the genesis for the USAR Institutional Training and Exercise divisions in 1994.

An Institutional Training Division would consolidate the U.S. Army Reserve Forces Schools, the Regional Training Sites–Maintenance, and the U.S. Army Reserve Forces Schools–Intelligence to provide individual training within one organization. This training would include initial entry training, military occupational specialty qualification, professional development, and refresher training. In FY 1994 TDAs for nine institutional training divisions were authorized, with an effective date of 1 October 1994, reducing USAR initial-entry training and Reception Battalion personnel authorizations and U.S. Army Reserve Forces Schools authorizations from 43,500 to 27,500, thus saving about 16,000 authorizations. A two-year test of the division is scheduled to begin in FY 1995.

The Exercise Division reorganization process began in October 1993. Plans called for augmenting the size of each of the 5 existing exercise divisions from 5,177 to 12,761 to promote combat support and combat service support training. Also, 6 regional training brigades were created and manned by active component soldiers to support combat training. The Exercise Division consolidated and reorganized the existing 2 maneuver area commands, 9 maneuver training commands, 3 training divisions, and

the existing battle projection centers into 5 exercise divisions to provide the capability for conducting command post exercises, lane training, and other training activities. The exercise division reorganization process was scheduled for implementation on 1 October 1994, to be followed by a two-year transition period.

Finally, the fixed-site training capabilities for improving reserve component combat readiness increased in December 1993 when the Secretary of the Army transferred control of four FORSCOM installations to the USAR. The installations were Forts Pickett, Virginia; McCoy, Wisconsin; and Hunter Liggett and Camp Parks, both in California. Funding control was scheduled for transfer in stages by FY 1996.

The Army completed the interim stage of the Army Pre-positioned Afloat (APA) program in July 1994. The APA program had an armored brigade/armored cavalry regiment (minus the air cavalry squadron), with organic combat support and combat service support elements afloat. The APA program also consisted of port opening units with corps and theater combat service support capability. Future APA projects will further increase the combat support and combat service support capability. Army reservists with the Third U.S. Army assisted in developing the APA program and providing warfighter overwatch for it. The 143d Transportation Command is responsible for the development of the APA ship battlebooks, which provide the warfighter with information on vessel characteristics, deck diagrams, stow locations, and equipment listings. Reservists will assist in the deployment, employment, and redeployment of the APA program in a major regional conflict. Reserve Theater Army Area Commands will have overall supervision of ship off-load and equipment maintenance after the APA assets arrive at theater base reception points. The final APA package, in FY 1998, will include seven unit sets of equipment for reserve component units to use. Reservists can be expected to play a significant role in APA exercises both within and outside CONUS.

The ARNG faced considerable training challenges and changes in FY 1994. The ARNG participated fully in the development and implementation of the Total Army School System (TASS). As the new fiscal year began, so did the test and evaluation of the prototype TASS region. The primary benefit will be a reduction of training redundancies due to the regionalization of training institutions. In addition, the Training and Doctrine Command will act as the executive agent for school accreditation, ensuring training to one standard.

The pilot Officer Candidate School program conducted in 1993 for the ARNG was continued in 1994, with all states conducting portions of the program's training at consolidated sites. This concept builds upon the considerable resources already dedicated to the Reserve Officer Training

Corps advanced camp mission, the mandatory six-week training camp required for cadet commissioning, and results in standardized training at reduced cost.

FY 1994 was also a year of progressive change for ARNG enlisted leader development. First, enlisted ARNG soldiers benefited from improvements made at the U.S. Army Sergeants Major Academy. The academy updated the programs of instruction for both the basic and advanced noncommissioned officer courses. Phase I of these courses became the promotion standard in FY 1994. Second, the Guard initiated action to treat military technicians in the same manner as traditional M-day soldiers.

Plans were also completed for the implementation of the "Select, Train, Promote, and Assign" policy for the ARNG during the fiscal year. In the future, only soldiers on a promotion list for current or projected vacancies will be trained. Future NCOES requirements will be identified from promotion lists. This system will establish viable priorities for training and will ensure that funding supports actual training requirements.

The ARNG continued to expand the use of simulations, simulators, and advanced training devices and technologies to improve readiness in 1994. GUARDFIST I, a precision tank gunnery trainer, is being acquired solely for reserve component use. This strap-on training device allows units to train in their armories without ranges or targetry. Once the devices are fielded, organic unit personnel will be used to conduct unit training. GUARDFIST II, an artillery trainer, is being developed in response to reserve component training challenges. GUARDFIST II has two trainer configurations: a one-to-one version used to instruct one individual at a time and a one-to-thirty version used for group instruction.

The TATS incorporates the use of simulations and simulators and is the basis for the simulation fielding plan to support the five reserve component division Battle Projection Centers (BPCs). The fielding of JANUS, the Army's battle-focused trainer, and Brigade/Battalion Battle Simulation (BBS) to the BPCs in FY 1994 greatly augmented the reserve components' ability to maintain the combat readiness of their units. Fielding includes transit cases for each system, providing a dual capability for units to train at either home station or the BPC. The Brigade Command Battle Staff Training (BCBST) team trains ARNG ground combat maneuver brigades in battle staff tasks using BBS to drive command post exercises. BCBST also uses JANUS to support seminar training in preparation for each command post exercise. Fourteen BCBST seminars were conducted in FY 1994. Two reserve component division-level Battle Command Training Program (BCTP) seminars were conducted in FY 1994. The 49th Armored Division and 29th Infantry Division (Light) commanders and their staffs participated in five-day seminars at Fort Leavenworth, Kansas. The 218th Infantry Brigade

(Mechanized) (South Carolina ARNG) participated with the active components during a divisional BCTP Warfighter Exercise. The 42d (Light), 34th (Light), and 40th (Mechanized) Infantry Divisions conducted division-level BCTP Warfighter Exercises during the year.

A combination of existing Army technologies and development efforts were being explored in FY 1994 for possible use by the ARNG. The design parameters for these efforts included timeliness, availability, and affordability; minimization of operating personnel overhead; extended distribution of training opportunities; and realistic programs for battle or combat training centers. One such program, Simulation in Training for Advanced Readiness (SIMITAR), is a congressionally mandated ARNG and Advanced Research Projects Agency (ARPA) advanced simulation program. It was established in 1992 to apply advanced technology to increase training levels of ARNG Roundout and Roundup Brigades by 200 to 300 percent. SIMITAR was subsequently adopted as an advanced technology demonstration under Department of Defense Science and Technology Thrust No. 6 (Synthetic Environments). The overarching intent of SIMITAR is to leverage selected development of more objective measures of performance and effectiveness; opportunities for battalion and brigade command and staff battlefield synchronization skills; low-cost simulators and simulations to enhance small-unit collective training; opportunities to exercise collective and individual combat service support skills; and technologies and programs for local individual functional training for key personnel. The 48th Infantry Brigade (Mechanized), Georgia ARNG, and the 116th Armored Brigade, Idaho ARNG and Oregon ARNG, are the two experimental brigades. The 155th Armored Brigade, Mississippi ARNG, and 218th Infantry Brigade (Mechanized), South Carolina ARNG, are the two comparison brigades. All four are scheduled for future National Training Center rotations.

FY 1994 SIMITAR accomplishments included modifying JANUS to add to the capability for conducting distributed exercises and increasing the degree of Combat Support and Combat Service Support interaction; modifying armories, installing phone wire, selecting hardware, and purchasing and delivering commercial off-the-shelf computer systems for JANUS; developing the first two battalion scenarios to be used in JANUS and SIMNET through the ARPA Reconfigurable Simulator Initiative; beginning development of a brigade scenario for Simulation Brigade Armor Training; funding early fielding of GUARDFIST I to the test brigade; and developing the ARPA Reconfigurable Simulator Initiative to give each brigade M1, M2, and scout vehicle crew simulators.

There were minor fluctuations in overall unit resources and training levels in the ARNG between the October 1993 and October 1994 Unit Status Reports (USRs). These fluctuations were attributable to seasonal

trends and implementation of the revised Army Regulation 220–1, *Unit Status Reporting*, which incorporated FY 1993 National Defense Authorization Act Title XI mandates of developing one Army standard for deployment, readiness, and quality. The first USRs, based on the revised AR 220–1, reflected a minor overall degradation of 2 percent in January and again in April. Between the April and October USRs, overall status remained unchanged. During the year equipment on hand declined by 1 percent and personnel by 6 percent. Personnel trends were the result of Title XI mandates. The new reporting has provided better accountability of nondeployable categories. The October 1994 USRs reported 50,633 nondeployable soldiers, both temporary and permanent, in the ARNG.

Between the October 1993 and October 1994 USRs, overall readiness declined by 3 percent in the 186 ARNG CFP support package 1–4 units, which are the highest priority units in the ARNG. This was due to a 2 percent decline in equipment and a 4 percent decline in personnel. During this time, however, equipment serviceability increased by 3 percent. At the same time the 196 CFP support package 5–7 units, the combat support and combat service support units that support the three and one-third division Early Reinforcing Force, declined in overall unit status by 2 percent. This decline was attributable to a 5 percent decrease in personnel. There was a 2 percent increase in equipment on hand and a 1 percent increase in training.

The ARNG Roundout/Roundup Brigades increased by 8 percent in overall unit resources and training levels between the October 1993 and October 1994 USRs. There was a 6 percent increase in equipment on hand, 5 percent in equipment serviceability, and 6 percent in personnel. Training declined by 2 percent. Increases in equipment serviceability were also driven by the Army regulation change. Equipment serviceability is now based on all on-hand equipment versus wartime requirements.

Reserve components must receive equipment upgrades, system modernization, and product improvements to be effective on the battlefield. In FY 1994, due to fiscal constraints, the reserve components experienced training equipment shortages in a variety of weapons and vehicles. In the ARNG, Bradley fighting vehicles and armor and field artillery trainers highlighted training equipment shortages. In the USAR howitzers, machine guns, pistols, tanks, personnel carriers, trucks, and tractors stood out as the most prominent equipment shortages.

Mobilization

USAR and ARNG soldiers participated in a number of liaison and contingency operations overseas during FY 1994. The ARNG and the

USAR became involved in the Joint Military-to-Military Contact program in June 1993. The ARNG participated in the program under the auspices of the National Guard State Partnership Program. ARNG members provided traveling contact teams, seminar participants, and adjutant general/state governor visits to Central and Eastern European countries, as well as hosting numerous familiarization tours to the partner states in the United States. Under this program approximately 150 ARNG soldiers deployed overseas to various countries, including Albania, Belarus, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Slovakia, and Slovenia.

The USAR participated in the Joint Military-to-Military Contact program by sending members and chiefs of military liaison teams to Albania, Belarus, Bulgaria, Estonia, the Czech Republic, Poland, and other former Soviet Bloc countries during the year. Army reservists also were part of overseas traveling contact teams, sharing their expertise in medicine, engineering, reserve force structure, and civil affairs, with an emphasis on refugee operations, emergency planning, and disaster relief. More than 6,000 Army reservists participated in humanitarian assistance and host-nation support missions under the Military-to-Military Contact program. This program and the overseas deployment training program enabled Army reservists to participate in operations in Eastern Europe and Central and South America. Numerous medical readiness training exercises and host-nation support operations were conducted in Central and South America. The largest host-nation support operation was FUERTES CAMINOS, which included road repair and expansion, water well drilling, airport runway repair, and road and bridge construction.

In FY 1994 the ARNG deployed military police platoons to Panama and Honduras to augment existing forces. Nearly 350 medical personnel deployed to the U.S. Southern Command and the U.S. Atlantic Command to provide medical and dental care and preventive medicine education to local populations. Approximately 6,200 ARNG soldiers deployed overseas to conduct humanitarian and civic activities and host-nation missions. ARNG mobile training teams deployed to Somalia to train coalition forces on the M60 tank and AH–15 helicopter and to shrink-wrap U.S. aircraft for redeployment. Although no ARNG forces were deployed to Haiti for Operation UPHOLD DEMOCRACY because of the averted invasion, the ARNG activated three military police companies to provide backfill units at three Army installations that deployed to Haiti. Also, Camp Santiago, Puerto Rico, an ARNG installation, was used by FORSCOM, the Special Operations Command, and the Atlantic Command as the training site to prepare Caribbean coalition forces and the multinational peacekeeping forces for Operation UPHOLD DEMOCRACY.

The ARNG and USAR prepared to participate in the United Nations Multinational Force and Observers Sinai mission during the year. A three-component composite ARNG battalion was constituted at Fort Bragg, North Carolina, and began to train. The battalion had 110 active Army, 401 National Guard, and 38 Army Reserve soldiers. These soldiers are scheduled to deploy for a six-month mission in FY 1995.

The Army Reserve provided support for Operation PROVIDE PROMISE with three rotations of parachute riggers that prepared supplies for Bosnian airdrop. Fifteen Army Reserve soldiers assisted UN teams in monitoring Iraqi compliance with UN sanctions. Army Reserve civil affairs, civil engineer, and medical services personnel provided support for Operation UPHOLD DEMOCRACY and Operation SUPPORT DEMOCRACY, the U.S. and allied sea enforcement of UN sanctions against Haiti. Nineteen of the paratroopers who took part in the recalled parachute assault on Haiti were not members of the 82d Airborne Division but Army reservists from the 450th Civil Affairs Battalion (Airborne). An Army Reserve postal unit went to Somalia within a few weeks of the U.S. deployment there, as did civil affairs specialists, who met with Somali clan leaders.

During the fiscal year Army National Guard units participated in more than 721 mobilization exercises conducted by State Area Command Headquarters. Forty-nine units participated in a Headquarters, Department of the Army (HQDA), exercise, OPTIMAL FOCUS 94, designed to evaluate a unit's ability to conduct home station mobilization tasks. Nineteen units participated in CALL FORWARD 94, an HQDA mobilization station exercise at Fort Lewis, Washington.

Finally, as America's Europe-based military units were drawing down and returning to the United States in FY 1994, the reserve components played a significant role. More than 5,000 USAR soldiers and more than 3,300 National Guardsmen took part in programs to handle the repair and shipment of equipment from Europe back to the United States.

Reserve Component Support to Civil Authorities

Soldiers from the reserve components were actively involved in responding to hundreds of natural disasters and emergency missions in FY 1994. More than 27,801 soldiers of the Army and Air National Guard answered the call to 402 emergency missions in forty-eight states and territories during the year. The USAR, meanwhile, cooperated with the active Army and the ARNG in combating western wildfires during the year.

The California National Guard activated and deployed more than 2,600 Army and Air National Guard soldiers on state active duty during the emergency following the Northridge earthquake. The earthquake,

which struck on 17 January, measured 6.7 on the Richter Scale. Thousands of aftershocks followed the original earthquake, many of them exceeding 5.0. Sixty-one people died and more than 18,000 were injured. More than 21,000 houses and apartments were rendered uninhabitable. Numerous water systems and other utilities failed, and many key roads were damaged. During the peak of the response, the Guard provided logistics support to disaster relief centers, command and control expertise for the governor's office, area damage assessment, liaison to key state agencies, transportation for military and law enforcement personnel and equipment, use of armories as temporary shelters, linguist support, potable water, and soldiers to reestablish public order.

Heavy snowstorms and subfreezing temperatures throughout the eastern United States in January brought repeated calls for National Guard help. Guard soldiers from thirteen states were called out to assist in everything from snow removal, to evacuation of residents in danger, to assisting the American Red Cross. The troops hauled water to residents and facilities left waterless due to frozen pipes and wells, opened armories as emergency shelters for the homeless, cleared roads of snow and debris, and evacuated elderly residents or those without power. In some cases Guard members also used primary and backup power generators to pump water to residents without power.

Kentucky had the biggest National Guard call-up, with 1,143 members providing emergency snow support. Other states whose Guard units supported emergency operations were Alabama, Arizona, Indiana, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin.

In July 1994 Tropical Storm Alberto stalled over central Alabama, Georgia, and the Florida panhandle, bringing severe flooding that caused 33 deaths and forcing approximately 40,000 people to evacuate their homes. Two hundred thousand people lost potable water service. More than 4,600 National Guard soldiers were used by state governors to support evacuations, purify and distribute water, transport relief supplies, and control traffic.

In the summer of 1994 the active Army, National Guard, and Army Reserve were all involved in supporting the National Inter-Agency Fire Center, a joint operation of the Departments of Agriculture and the Interior, in fighting wildfires in the western United States. In addition to several active Army units from the Sixth U.S. Army, the 571st Medical Company and the 158th Aviation Battalion of the Army Reserve supported fire fighting in Washington, Oregon, Idaho, and Montana. The National Guard supported state fire fighting operations in those states and in Arizona, California, and Utah, with more than 4,200 soldiers engaged in these operations.

Operation GUARDCARE is a National Guard pilot program authorized by the National Defense Authorization Act of 1993 to provide health care to underserved populations in the United States. Originally conducted in state active duty status, the program was authorized in federal status in the FY 1994 National Defense Authorization Act. Under the 1994 guidance, thirteen states (Alabama, Arkansas, Colorado, Iowa, Kentucky, Michigan, Missouri, Mississippi, Nevada, North Carolina, Ohio, South Carolina, and Tennessee) have executed missions. Operation GUARDCARE benefits both soldiers and the civilian communities they assist. Soldiers get training in military specialties and deployment; communities receive medical screening and limited care for medically underserved citizens. For example, in five weekend exercises, the Michigan National Guard saw almost 2,500 patients and administered more than 5,600 immunizations. In Missouri, the 135th Mobile Army Surgical Hospital conducted a two-week operation in the town of Van Buren, seeing more than 2,500 patients. The Tennessee National Guard screened more than 1,400 patients in six exercises. In Denver, the 147th Combat Support Hospital of the Colorado Army National Guard saw 814 patients and gave 623 immunizations in a two-week exercise.

The reserve components are playing a greater role in civil-military outreach programs, many of them drug-demand reduction programs, such as Drug Abuse Resistance Education (DARE) and Drug Education for Youth, aimed at youth at risk. The ARNG Drug Demand Reduction Program reached more than 5,096,610 young people throughout the nation in FY 1994. Since its inception, the National Guard's DARE program has evolved into 5,492 programs nationwide that National Guard members support as mentors, tutors, and role models. Each of these activities is a result of a community-based needs assessment. Major Army Reserve commands incorporated the drug-demand reduction message into events sponsored by their family support coordinators. One command developed the week-long Camp Wildcat devoted to educating and building the self-esteem of the children of Army Reserve soldiers. Corporate sponsorship is planned to cover most of the costs for camps in FY 1995. Other commands are planning similar camps of their own.

During FY 1994 the National Guard conducted 6,709 operations and spent more than 1.2 million man-days in support of local, state, and federal law enforcement agencies responsible for counterdrug activities. This support was provided over and above normal training requirements by individual National Guard members. The number of man-days was down from FY 1993 due to significant FY 1994 funding reductions levied on the National Guard Counterdrug Support Program.

While not considered to be a measure of effectiveness, National Guard–assisted drug seizures have increased dramatically over the years.

Although funding reductions had an adverse impact on total man-day levels in FY 1994, the National Guard's efforts continued to increase the capabilities of drug enforcement agencies; and assisted seizures increased in the categories of cash confiscated, cocaine seized, vehicles seized, weapons seized, and resulting arrests, while they declined in the categories of marijuana plants and processed marijuana seized. The estimated street value of drugs seized was $98 billion. Data for FY 1994 assisted seizures is listed in *Table 12*.

TABLE 12—FY 1994 ASSISTED DRUG SEIZURES

Cash confiscated	$236,057,181.00
Marijuana plants seized	4,804,179
Processed marijuana seized (pounds)	872,056
Cocaine seized (pounds)	265,311
Heroin seized (pounds)	2,438
Opium seized (pounds)	694
Hashish seized (pounds)	308
Vehicles seized	8,599
Weapons seized	19,263
Arrests resulting	96,599

Under provisions of Section 112, Title 32, United States Code, the Secretary of Defense is authorized to grant funds to state governors for counterdrug use by state law enforcement agencies. For FY 1994 the Secretary granted more than $169 million to Guard units in fifty states, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, and the District of Columbia to provide that support.

The FY 1994 National Defense Appropriations Act designated $5 million for establishment of a transcription and translation system to support the Drug Enforcement Administration. The National Guard was designated as the action agency for this initiative and responded by establishing a linguistics support center and providing the required linguists. Approximately seventy National Guard linguists supported this project during the year. The Army took measures to procure specialized transcription and translation equipment that will be delivered to the National Guard to support this mission during FY 1995 and beyond.

The states perform counterdrug missions that support the President's Drug Control Strategy and best meet state priorities of the governor and the adjutant general. *Table 13* lists the sixteen missions approved for FY 1994.

TABLE 13—FY 1994 COUNTERDRUG MISSIONS

1. Surface Reconnaissance
2. Surface Surveillance
3. Surface Transportation
4. Aerial Reconnaissance
5. Aerial Surveillance
6. Aerial Transportation Support
7. Ground Radar Support
8. Cargo Inspection
9. Training Program
10. Aerial Photo Reconnaissance
11. Coordination, Liaison, and Management
12. Greenhouse/Drug Laboratory Detection
13. Film Processing
14. Administration, Information, Automated Data Processing, Logistics, and Maintenance Support
15. Engineer Support
16. Aerial Interdiction

During FY 1994 twenty-four states conducted more than 1,200 aerial counterdrug reconnaissance and interdiction missions. The ARNG conducted many of these missions at night, utilizing the capabilities of a specially designed OH–58A+ scout helicopter. That aircraft, an improved OH–58A, was modified with an engine upgrade, a thermal imagery system, a communications package for law enforcement, and enhanced navigational equipment. The ARNG Reconnaissance and Interdiction Detachment distribution plan calls for 76 OH–58A+ aircraft to be located in 31 states and the Western Army Aviation Training Site. By the end of FY 1994, 24 states had their allocation of OH–58A+ aircraft. The final 7 states on the distribution plan are scheduled to receive aircraft and personnel during FY 1995.

Equipment and Maintenance

The Army National Guard continued to take advantage of the downsizing of the active component to receive through transfer much-needed equipment, from radios to tanks. The redistribution and fielding of High Mobility Multipurpose Wheeled Vehicles (HMMWVs) provided an opportunity to upgrade fleet CFP units and fill nearly half of CFP II units.

The fielding of new Heavy Equipment Transporters (HETs) began during FY 1994. Twenty-five systems were fielded in FY 1994, and 179 will be fielded during FY 1995. The new HET is rated at 70 tons and can transport M1A1 tanks. Fielding of the Palletized Loading System (PLS)

also began in FY 1994 and will increase artillery and supply units' ability to move greater amounts of ammunition and supplies.

The ARNG continued to modernize its equipment inventory. The number of cargo helicopters increased with the addition of twenty-three CH–47D helicopters. ARNG units added nine OH–58C helicopters while turning in older model OH–6A observation helicopters. Fifteen Kiowa Warrior, OH–58D, helicopters were received in FY 1994. The utility helicopter fleet was modernized with twenty-one UH–60A Black Hawk helicopters. The Army National Guard combat force increased its capabilities with thirty-five M1A1 Abrams tanks. The armored personnel carrier fleet was significantly modernized with more than one hundred M113A3 carriers, in addition to seventy-two M2/3 Bradley fighting vehicles. Significant quantities of night vision goggles and secure speech equipment were also received.

The ARNG continued undergoing several major equipment conversions to maintain compatibility with the active component that will carry into the next century. In FY 1994, M60A3 tanks were converted to M1s, M113 armored personnel carriers were converted to Bradley fighting vehicles, and units converted from the VRC–12/46 series radios to the new single channel ground and airborne radio system (SINCGARS). The .45-caliber pistol was converted to the new 9-mm. Beretta and M16A1 rifles were converted to M16A2s. Also, two ARNG field artillery battalions converted from M110 howitzers to the Multiple Launch Rocket System.

The ARNG continued supporting the upgrade of equipment during the fiscal year. The Guard funded the modification of 305 M113A2 personnel carriers to the M113A3 version to provide an armored personnel carrier capable of operating on the battlefield with the Abrams main battle tank. This program will continue throughout FY 1995 and beyond as funding allows. Guard funding also included modifying the Fire Support Team Vehicle with an automatic turret-positioning system to give the system greater battlefield durability. The Guard funded a 2.5-ton truck extended service program, which furnishes new clean-burning engines and new automatic transmissions with transfer cases and central tire inflation systems, to improve the service life of the aging cargo truck fleet through the year 2000. An initiative to extend service life to the bulldozer fleet gathered support within the Guard. All D7F bulldozers will be placed in an enhancement program, making the "F" model 90 percent compatible with the newer "G" model. The latest initiative is the extended service program of 5-ton cargo trucks. This will offer the same enhancements as the 2.5-ton extended service program, with greater hauling capabilities.

The $113.6 million FY 1994 ARNG Depot Level Maintenance Repair and Return Program yielded $71.9 million for overall repair and contractor logistics support of rotary- and fixed-wing aircraft. The $41.7 million

ground vehicle program returned inoperable, high-cost vehicles to the Guard inventory, offering calibration support for all specialized items of equipment for which the Army has no organic repair capability. More than 8,000 pieces of equipment were returned to operation at a cost of $33 million. Two-thirds of the work was done at Tooele Army Depot; the remainder of the equipment was repaired at U.S. Marine Corps logistics bases under a pilot program.

Unfunded depot maintenance requirements have an impact on Army Reserve equipment. Repair requirements and maintenance costs increase if the equipment is not repaired in a timely manner. Without upgrades, the equipment breaks down more and becomes less reliable as it gets older. Because of funding constraints, emphasis is placed on the "first to fight, first to be equipped" policy.

The Army National Guard's unfunded depot maintenance requirements grew from $36 million in FY 1993 to $82.5 million in FY 1994. These unfunded requirements, affecting both equipment and programs, include the extended service program for 5-ton and 10-ton trucks; the "Inspect and Replace Only as Necessary" program for the M1 family of vehicles; maintenance of the M113 family of vehicles, including the M113A1 conversion to the M113A3; transfer of active component HAWK (Homing All-the-Way Killer) air defense missile equipment; repair of communications and electronics equipment; and overhaul of UH–60, AH–64, CH–47, and CH–58 aircraft. The effect of the climbing trend of unfunded depot maintenance requirements will have an adverse effect on equipment readiness.

The Army Reserve's unfunded depot maintenance requirements rose dramatically from $1.3 million in FY 1993 to $52.3 million in FY 1994. This affects the repair and return program, construction and engineer equipment, communications and electronics equipment, and watercraft vehicles. Increases in unfunded requirements in the Army Reserve were due to a mission transfer from the active Army to the Army Reserve (Army watercraft dry-docking mission) and costs associated with the servicewide medium tactical truck upgrade initiative. The increases in unfunded depot maintenance requirements were due to programmed maintenance scheduling of the Army Reserve's equipment and vehicles.

Emphasis continued to be placed upon improving the overall readiness of Guard first-to-fight, high priority, Project Standard Bearer units. The Guard's Logistics Directorate allotted $1.2 million from the secondary stock fund to reduce mission-essential Equipment Requirements Code shortages in all CFP I and II units.

Army Reserve modernization centers around "core competencies" pertaining to combat support and combat service support missions. In FY 1994 two large tugboats were placed in service, with two additional tug-

boats scheduled for service in FY 1995. These 128-foot craft are oceangoing vessels. Initial quantities of HETs, capable of carrying the 70-ton M1 Abrams tank, and the PLS were received during the year. Both systems provide significant productivity advances. In addition, SINCGARS equipment provided early deploying Army Reserve units with fully modern FM radio communications capabilities. This SINCGARS equipment raised to 50 percent the proportion of Army Reserve units with modern radios in 1994. The Army Reserve also had the following major equipment conversions: the M113A3 program converted 87 M113A2 armored personnel carriers to the latest M113A3 configuration, and the CH–47D program converted ten CH–47B helicopters to the latest CH–47D configuration.

The percentage of major equipment on hand rose for the reserve components in FY 1994. The ARNG had 98 percent of major equipment on hand, compared with 90 percent in FY 1993. The USAR had 88 percent of major equipment on hand in FY 1994, compared with 84 percent the previous fiscal year. During FY 1994, however, the reserve components experienced some major equipment shortages. (See *Table 14.*)

TABLE 14—FY 1994 RESERVE COMPONENT MAJOR EQUIPMENT SHORTAGES

Army National Guard
5-ton tractor and cargo vehicles
10-ton Heavy Expanded Mobility Tactical Trucks (HEMTTs)
M113A3 armored personnel carriers
Nuclear-Biological-Chemical equipment
CH–47D helicopters
UH–60A helicopters
OH–58D helicopters
Night vision goggles
Combat support and combat service support equipment
Controlled cryptographic items and communications security equipment
Army Reserve
C–12 aircraft
1.25-ton utility vehicles (HMMWVs)
2.5- and 5-ton cargo vehicles
Radio and telephone equipment
Night vision goggles
Nuclear-Biological-Chemical equipment
10-ton trucks (HEMTTs)

Obsolete and incompatible equipment is maintained within the reserve component inventory. Modification and conversion programs

within the Total Force continue to minimize the negative effect of such equipment on readiness. The ability of the reserve components to effectively reinforce the active Army upon mobilization will be directly proportional to the efforts made to continue to modernize weapons systems and equipment assigned to the reserve components. The following obsolete and incompatible equipment was in reserve component inventories for FY 1994. (See *Table 15.*)

TABLE 15—FY 1994 RESERVE COMPONENT INCOMPATIBLE EQUIPMENT

Army National Guard
M113A1 and M113A2 armored personnel carriers
VRC–12 series radios
Obsolete gasoline-powered tactical trucks and generators
D7 bulldozers
Army Reserve
VRC–12 series radios
Gasoline-powered generators
Older series 2.5- and 5-ton tactical trucks
Older series 10-ton tractors

ARNG combat units have tanks that move at different speeds, use different ammunition, and have different communications capabilities. The same applies to armored personnel carriers and other families of equipment. Tactical wheeled vehicle fleets range from gasoline-powered vehicles more than twenty-five years old to the latest diesel-powered vehicles. Tactical FM radios in different units include both single-frequency broadcast models and the latest frequency-hopping, secure voice SINCGARS radios.

The USAR, which provides combat support and combat service support units and equipment to the Army, has the same problem with tactical wheeled vehicles and tactical FM radios as the Army National Guard. In addition, both the M16A1 and M16A2 rifles still remained in the Army Reserve in FY 1994. These rifles use two different sizes of ammunition, and their parts are not fully compatible.

6

Logistics

Management and Planning

After the Persian Gulf War, Congress charged the DOD to determine strategic mobility requirements in response to both the changing world environment and a revision of the national military strategy that calls for fewer forward-deployed forces and more reliance on forces based in the continental United States (CONUS). The congressionally mandated 1992 Mobility Requirements Study concluded that the military can increase its deployability only through investment in sealift, airlift, pre-positioning, and transportation infrastructure. The study's major recommendations included buying up to twenty Large Medium-Speed Roll-On/Roll-Off (RO/RO) ships, increasing the size of the Ready Reserve Force to include thirty-six RO/RO ships, improving airlift with procurement of the C–17 transport, placing an Army armored brigade afloat, and making numerous improvements in the CONUS strategic infrastructure.

In FY 1994 the Army established an interim Army Pre-positioned Afloat (APA) package to respond to major regional contingencies. The package consisted of an armor brigade set of equipment with doctrinal field artillery, combat engineer, air defense artillery, chemical, signal, logistics, and military intelligence support. Corps- and division-level combat support and combat service support units and 15 days of supply were also pre-positioned. The interim APA package had 12 ships: 7 Ready Reserve Force RO/RO ships with unit equipment; 3 Lighter Aboard Ships with a portion of the contingency corps' supplies; 1 T-class Auxiliary Crane Ship; and 1 Heavy Lift Pre-position Ship for port opening. Two leased container ships were scheduled to be operational in FY 1995 to complete the contingency corps' thirty-day supply package.

The Army also purchased 187 railcars for pre-positioning at key installations for rapid deployment and at select depots for basic load and early ammunition sustainment requirements. Half of the railcars measured 89 feet in length and are designed to hold up to four standard overseas

shipment containers. The other half were extra-wide 68-foot railcars designed to hold oversize equipment or one M1A1 Abrams tank. The Army plans to buy a total of 1,630 railcars by FY 2001.

Maintenance

Depot maintenance is important to sustain the force because it is the only source of fully reconditioned and overhauled weapon systems and equipment for replenishment or redistribution to fill the equipment readiness needs of deployable Army units. In FY 1994 Army depot maintenance faced the challenges of providing the needs of a downsized force with reduced funding and a requirement to sustain an adequate organic depot infrastructure to meet wartime needs. The Army's participation in the Joint Cross Service Group for Depot Maintenance (JCSG-DM) helped formulate depot maintenance policies during the analysis process for Base Realignment and Closure (BRAC) 1995. The JCSG-DM was one of six Joint Cross Service Groups created by the Deputy Secretary of Defense to work with the military departments and the defense agencies in areas with significant potential for cross-service impacts in BRAC 1995 and to enhance opportunities for consideration of cross-service trade-offs and multiservice use of remaining infrastructure. The JCSG-DM was to determine the common-support depot maintenance functions and to establish guidelines, standards, assumptions, measures of merit, data elements, and milestone schedules for the DOD components to conduct cross-service analyses of those common support functions.

The Office of the Secretary of Defense (OSD) defined core requirements as "the capability maintained within organic defense depots to meet readiness and sustainability requirements of the weapon systems that support the Joint Chiefs of Staff contingency scenario(s). Core depot maintenance will comprise only the minimum facilities, equipment, and skilled personnel necessary to ensure a ready and controlled source of required technical competence." The OSD-approved methodology for determining core requirements resulted in an Army calculation of 14.6 million direct labor hours allocated among sixty-three weapon systems. This core requirement formed the basis for the BRAC 1995 analysis.

The Army participated in a Defense Science Board Depot Maintenance Task Force, composed of both government and industry representatives, which studied how the depot maintenance workload should be allocated among the public and private sectors. The Task Force recommendations included replacing the "60/40" policy and other legislative restrictions with a concept consistent with the core requirements policy; eliminating public-to-private and public-to-public competitions; sizing organic depot maintenance capacity to the core requirements; and assign-

ing selected noncore workload to the private sector, which would support the maintenance of its industrial base capabilities.

Sustainability

In FY 1994 the Army began implementing a conversion from JP–4 aviation fuel to the safer JP–8 fuel in CONUS. All overseas unified commands had previously converted or were in the process of converting to a single fuel suitable for both aviation and ground equipment. The FY 1994 CONUS conversion started on the West Coast in October 1993, followed by the Gulf and East Coast regions in April 1994. Conversions for the remainder of the country were scheduled to continue through FY 1995 and FY 1996.

The Clean Air Act, which followed Environmental Protection Agency (EPA) regulatory guidance, went into effect on 1 October 1994, and it required 0.05 percent low-sulfur fuel in diesel engines for highway use. The Army wanted to use JP–8 fuel in CONUS to improve deployment readiness. Using JP–8 reduces the filter clogging that combat vehicles experienced in transitions from diesel fuel to JP–8 before overseas deployments or upon arrival overseas. With a sulfur content of 0.3 percent, however, JP–8 fuel did not meet the EPA specification limit.

In FY 1994, at the Army's request, the Defense Fuel Supply Center (DFSC) awarded contracts for provision of nonspecification 0.05 percent low-sulfur JP–8 fuel to major deployment installations. Later-deploying units remained on low-sulfur diesel fuel (LSDF). Since the availability of nonspecification low-sulfur JP–8 fuel presented supply difficulties, the Tank-Automotive Command (TACOM) Mobility Technical Center began testing emissions from standard JP–8 fuel, which was inherently "cleaner" than LSDF. These tests concluded in FY 1994 that standard JP–8 fuel emissions were equal to or less than the emissions standards set by the EPA for LSDF. Based on test results that revealed military specification JP–8 fuel met the standards of the Clean Air Act, the DOD planned to request a blanket EPA exemption to use standard JP–8 fuel instead of LSDF or low-sulfur JP–8 fuel.

During FY 1994 the Army also prepared to adopt a revised bulk petroleum management policy. The new policy resulted from a DOD expansion of the Defense Logistics Agency's (DLA) bulk petroleum responsibilities in 1992. The DOD directed the military services to consolidate their primary bulk petroleum storage but allow them to continue at their option to exercise operational control at their respective installations. Under this policy change the DLA would assume ownership of fuel in Army intermediate jet fuel storage sites in CONUS and selected sites in Korea and Germany, plus USAREUR war reserve stocks. Implementation of policy

changes addressing subsequent consolidation of installation storage systems was scheduled to begin in October 1993. In FY 1994, however, consolidation was officially delayed until October 1997 to allow for development of a new Fuels Automation Management System to replace the current Defense Fuel Automated Management System.

Under the planned management consolidation policy changes, all Army fuel storage facilities that receive fuel through post, camp, and station contracts and serve more than one customer will be capitalized to the DLA. Once the facilities are capitalized, the DLA will assume the funding responsibility for maintenance and repair, military construction for the storage sites, and funding for all associated environmental costs that occur after capitalization. Environmental costs include funding of state and federal operating permits and cleanup of spills and leaks that occur after capitalization.

With the announced delay of capitalization in FY 1994, the Army requested that the DFSC assume the funding responsibility for maintenance and repair, military construction, and environmental permits, as well as other environmental costs for installations that will be capitalized in FY 1997. The DFSC agreed in FY 1994 to begin funding these requirements on 1 October 1995.

In FY 1994 the Army carried out the first operational deployment of Force Provider, a tent-based system that contains all of the materiel necessary to provide high-quality food, billeting, laundry, personal hygiene, and morale, welfare, and recreation to a battalion-size force. The system began development in 1991, after the CSA identified quality of life as a crucial element in improving overall combat readiness. Its modular design allows each module, which supports 550 soldiers, to be joined with other system modules to support a force from battalion to brigade size or larger. It gives the frontline soldier a brief respite from the rigors of the combat theater. In addition to increasing the capability for force projection, it also increases the capability for theater reception and reconstitution missions, humanitarian assistance, and disaster relief operations.

The Combat and Materiel Developers' program for Force Provider identified DOD inventory and nondevelopmental items, which were integrated into a field-tested prototype module. Limited procurement of Force Provider began in FY 1993, followed by the completion of an operational test in November 1993. Following the demonstration and evaluation of one module by the XVIII Airborne Corps in November, the corps received the module for training and to enhance its early force-projection capability. This module was deployed in support of Task Force 160 at Guantanamo, Cuba, in FY 1994 to support U.S. personnel in the Caribbean during Haitian refugee interception operations.

Force Provider will be operated by a Quartermaster Type B cadre unit (equivalent to approximately 44 supervisory personnel) augmented by contractor, host-nation, or borrowed military manpower, or a combination thereof. One Force Provider unit can operate up to six modules (a brigade-size force). The 488th Quartermaster Company was activated in FY 1994 at Fort Bragg to operate Force Provider.

In late FY 1992 the Army had initiated the building of twelve interim modules, primarily from existing Army inventory. In FY 1994 six of these modules, comprising Interim Support Package No. 1, were completed and loaded on the Army pre-position ship *Gopher State*. Six more modules, making up Interim Support Package No. 2, were completed and placed in storage at Sierra Army Depot. The support equipment necessary to set up Force Provider was assembled and loaded on the Army pre-position ship *Cape Wrath*. The Army plans to procure up to 36 Force Provider modules, with 24 modules to be stored in U.S. depots and the remaining 12 pre-positioned afloat.

Security Assistance

Security assistance is an important element in national security. Army security assistance goals vary from region to region. In Asia, the objectives are to expand U.S. influence, increase access to key locations, modernize equipment and force structure, and create a climate of trust and stability. In the Middle East (including Greece), the Army assists friendly states by providing military equipment and training for their own security, preventing coercion of these states, and preserving U.S. access. In Europe, Army security assistance is undergoing a major effort to modernize and standardize equipment and doctrine among North Atlantic Treaty Organization (NATO) allies. In Latin America (including the Caribbean) and Africa, security assistance helps developing countries to upgrade and professionalize their ground forces and teaches respect for human and civil rights.

In FY 1994 security assistance support in Asia went to Taiwan, Japan, the Republic of Korea, and Thailand through the Foreign Military Sales (FMS) program. Taiwan received DOD approval to purchase the Avenger Pedestal-Mounted Stinger System antiaircraft missile, the Chaparral MIM–72J missile, and the Armored Gun System (AGS). Taiwan took delivery of sixteen of twenty-six OH–58D armed scout helicopters that it had already purchased. Taiwan also signed a commercial contract with the Raytheon Company for the Modified Air Defense System. An amendment to Japan's Black Hawk/Sea Hawk memorandum of understanding authorized production of additional UH–60 helicopters in Japan. Intensive negotiations continued on a possible upgrading of the 105-mm. main tank

gun on the Republic of Korea Indigenous Tank to 120-mm. This tank was developed with U.S. assistance and utilizes substantial M1 and M60 technology. Korea also concluded a coproduction agreement to produce M109A2 self-propelled howitzers. Thailand purchased 125 M60A3TTS tanks and received a waiver of restrictions on the release of AN/AVS–6 third-generation night-vision goggles to support Thailand's fleet of Iroquois and Cobra helicopters.

Security assistance in the Middle East (including Greece) went to Israel, Greece, Lebanon, Saudi Arabia, Kuwait, Bahrain, Qatar, the United Arab Emirates (UAE), Oman, Egypt, Jordan, and the Palestinian National Authority. Israel purchased six MLRS's with a minimal support package for delivery in December 1994. The launchers and some other items were diverted from Army production and depot stock to meet the delivery schedule. Greece purchased 18 MLRS's with support items and services. Nine were from assets initially produced for Saudi Arabia and the other nine were from new production. Deliveries were scheduled for 1995. Lebanon purchased 175 excess M113A2 Armored Personnel Carriers, the first installment toward a fleet of 675. This purchase was the first major one by Lebanon since the security assistance program was reinstated as part of the peace process for that country. The FMS program for the Saudi Ministry of Defense and Aviation was restricted by continuing Saudi cash flow problems during FY 1994. No new weapon systems sales were initiated. The Saudis canceled their MLRS program. The U.S. government found another FMS customer to take over the program with a resultant saving to Saudi Arabia of $50 million. The Saudi Arabian National Guard (SANG) FMS program was not restricted by cash flow problems. Delivery of Light Armor Vehicles (LAVs) to the SANG continued on schedule. The SANG received more than 300 LAVs during FY 1994. Significant FMS activities for Kuwait included the Presidential Determination of July 1994 that approved the release of depleted uranium 120-mm. tank ammunition to Kuwait. The approval resulted in an FMS for tank ammunition valued at $25.9 million. The first of 218 M1A2 Abrams tanks destined for Kuwait under the FMS program received an acceptance ceremony at the Lima, Ohio, tank plant in August 1994. The remaining tanks are scheduled for production through December 1995. Bahrain's first Excess Defense Articles (EDA) acquisition under section 516 of the Foreign Assistance Act was approved in April 1994. Six AH–1P Cobra training helicopters were provided as EDA. A Presidential Determination issued in July 1994 authorized the sale of 105-mm. M833 depleted uranium tank ammunition to Bahrain for use with its M60A3 tanks. In April the first U.S.-Qatar Military Consultative Committee was held in Washington, D.C. Qatar purchased only training but established a foundation for future FMS program pur-

chases of weapons and materiel. The UAE continued to request a variety of FMS logistics support and services for two major systems, the HAWK air defense system and the AH–64A Apache attack helicopter. Oman completed its Tube-launched, Optically Tracked, Wire Command–Link Guided (TOW) missile upgrade program. Oman also received computer equipment for a training center and language laboratory. The Oman Royal Guard acquired M16A2 rifles from the Special Defense Acquisition Fund, but the U.S. Army lost a potential $4 million sale of M16A2 rifles when the assets were diverted to Kuwait during Operation VIGILANT WARRIOR. Egypt received its final installment of the AH–64A Apache attack helicopter program with receipt of 24 aircraft and signed a letter of agreement for an additional 12 aircraft to be delivered in 1997. Egypt also purchased 340 M60A3 tanks equipped with thermal sights and 78 M113A2 armored personnel carriers, in addition to quantities of M35A2 trucks, M85 machine guns, M239 grenade launchers, and M815 cannon tubes under the Southern Region Amendment to the Foreign Assistance Act (FAA). FMS to Jordan included 30 Cobra helicopters, 18 UH–1H helicopters, and various antiaircraft systems. Jordan also negotiated with the United States for the purchase of six Black Hawk helicopters. The exercise of presidential drawdown authority under the FAA provided the Palestinian National Authority with 150 Commercial Utility Cargo Vehicles (CUCVs) and 50 M35A2 trucks.

In Africa, the Department of State provided the DOD with $5.5 million in peacekeeping funds to purchase 28 High Mobility Multipurpose Wheeled Vehicles, 16 five-ton trucks, and other equipment to support peacekeeping units from the Economic Community of West African States Cease-Fire Monitoring Group in Liberia. Materiel was delivered to Liberia in September 1994 for use by units from Ghana and Tanzania. These countries in turn will retain the materiel upon completion of their assignments in Liberia.

Security assistance in Europe went to Germany, Switzerland, France, the UN, and NATO. In August 1994 the Defense Security Assistance Agency gave the Army approval to conclude a memorandum of agreement that permits Germany to acquire and coproduce Air-to-Air Stinger missile subsystem components. The Army also received agreements with Germany and with Switzerland to negotiate the release of the Stinger. France executed an eleven-month lease in December 1993 for seven Ground/Vehicular Laser Locator designators with ground support equipment and a logistics support package for use in operations in Bosnia. The UN leased AN/TPQ–36 and AN/TPQ–37 Firefinder Radars for use in Bosnia by Jordanian forces. Finally, the U.S. Army concluded a coproduction agreement with NATO for the HAWK air defense system European Limited Improvement Program.

In Latin America (including the Caribbean), security assistance went to Argentina, Colombia, Bolivia, Jamaica, Ecuador, Guyana, the Dominican Republic, Mexico, Haiti, and the seven Eastern Caribbean island nations of Antigua-Barbuda, Barbados, Dominica, Grenada, St. Christopher–Nevis, St. Lucia, and St. Vincent and the Grenadines. As Argentina continued to upgrade its existing military assets in FY 1994, the U.S. Army transferred 10 OV–1D Mohawk aircraft and support equipment to Argentina under the FAA. The Argentine Army also acquired approximately $2 million in spare and repair parts for its fleet of M113 armored personnel carriers. Colombia received $7.7 million in Foreign Military Financing (FMF) grant monies. Bolivia received $2.967 million for use exclusively in the counterdrug war. Jamaica received up to $1.5 million in DOD assistance under FAA presidential drawdown authority. Jamaica received five inflatable boats to assist in securing Kingston Harbor and processing Haitian migrants. Jamaica also received $300,000 in FMF funding, primarily to improve the drug interdiction capabilities of the Jamaican Defense Forces. In February 1994 the U.S. Army completed the transfer of $2 million in disaster relief to Ecuador under FAA presidential drawdown authority. The U.S. Army Security Assistance Command (USASAC) transferred six excess Bailey bridges from U.S. Army assets in Europe, and a three-man mobile training team supervised the installation. Ecuador also received $130,000 in FMF, exclusively to support its counterdrug efforts. Guyana received $180,000 in FMF to assist in the development of a counterdrug capability. The President authorized a $12 million drawdown under the FAA for the Dominican Republic to assist in sealing its border with Haiti. The U.S. Army transferred an estimated $10 million in materiel, including six UH–1 helicopters, fifty CUCVs, radios, and troop support equipment. The Dominican Republic also received $300,000 in FMF grant monies, primarily to support U.S. and UN efforts to topple the former military junta in Haiti. In response to a native uprising in the Chiapas region of Mexico, Army Security Assistance provided the Mexican Army with 55,000 Meals, Ready to Eat (MRE), rations to feed national military forces in that region. USASAC also provided Mexico with fifty AN/PVS–7 third-generation ground night-vision goggles. The seven island Eastern Caribbean nations of Antigua-Barbuda, Barbados, Dominica, Grenada, St. Christopher–Nevis, St. Lucia, and St. Vincent and the Grenadines received a total of $390,000 FMF grant monies to encourage the expansion of the seven-nation Regional Security System which, among other things, promotes counterinsurgency and antidrug efforts.

Army Security Assistance training varies from year to year, depending upon the amount of equipment sold under the FMS program. Another variant is the money appropriated for training under the International

Military Education and Training (IMET) Program. In FY 1994 the Army trained 5,825 FMS students, its largest number to date, at a cost of $76 million. The Army deployed ninety-eight new teams from outside CONUS, with a total of 379 personnel, to twenty-five different countries. These teams supported equipment sales, installation, maintenance, and some training. The IMET appropriation for FY 1994 was $21.1 million. Of that amount, 113 countries spent $9 million on Army training. A total of 1,383 IMET international students were trained during this period. The large training load in FMS was due to the sale of the HAWK air defense system to the UAE, AH–60 Apache attack helicopters to Egypt and the UAE, and the M1A1 tank to Saudi Arabia and Egypt.

Army security assistance faced two major challenges in FY 1994. The first was the provision of materiel and training in support of peacekeeping and humanitarian operations. The Army provided peacekeeping and humanitarian assistance either unilaterally or through the UN to twelve countries. This assistance consisted mostly of materiel such as tactical wheeled vehicles, bridges, trailers, radars, armored personnel carriers, helicopters, tanks, radios, support and individual equipment, spare parts, and rations, all valued at a total of approximately $500 million. While some of these costs were reimbursable to the Army, others, such as grants, were not. The Army used its own funds to transport items transferred under grant to their final destination. The other significant challenge was that the number of foreign students from the former Warsaw Pact and Soviet Union attending Army schools continued to increase dramatically. The program expanded from three nations in 1991 to twenty-four countries in 1994. The Army allocated almost 20 percent of the funds appropriated for the International Military Education and Training program to former Soviet republics and countries in Eastern Europe such as Albania, Ukraine, Russia, Kazakhstan, Poland, and Estonia. Total Army security assistance sales of equipment, training, and other support services for FY 1994 amounted to $2 billion.

During FY 1994 the U.S. Army participated in the XXI Conference of American Armies (CAA). The Army's participation in the CAA since its formation in 1960 reflects the service's support for U.S. national interests in the area. The CAA is a biennial forum for Western Hemisphere armies designed to promote cohesion, improve hemispheric security, and strengthen inter-American military-to-military relations. The CAA comprises seven specialized conferences, a Preparatory Conference, and a Commanders' Conference held in a member army's country during a two-year period. The seven specialized conferences are Civil Affairs and Psychological Operations; Logistics; Training and Military Education; Science, Technology, and Medicine; Communications; Intelligence; and Military Law Symposium.

The Army Staff's participation in the CAA reflects support for U.S. policy and defense interests in the region, including a commitment to fostering democracy, development, and dialogue with our southern neighbors. The U.S. Army also seeks to promote improved cooperative defense within the context of greater respect for democracy and human rights among the militaries in the region, as well as improved civil-military relations. The Chief of Staff, Army, determined that the CAA is a key priority program to support attainment of regional U.S. policies on an army-to-army basis.

Argentina hosted the XXI CAA during FY 1994. There are sixteen permanent member states of the CAA: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Paraguay, Peru, United States, Uruguay, and Venezuela. Observer armies and international organizations in good standing are Antigua-Barbuda; Barbados; Costa Rica; Jamaica; Mexico; Trinidad and Tobago; the Inter-American Defense Board; and COPECODECA, the Permanent Council for the Cooperative Defense of Central America, composed of El Salvador, Guatemala, and Honduras. Haiti and Panama were inactive observers in FY 1994. The XXI CAA specialized conferences conducted in FY 1994 were: IV Civil Affairs, 9–13 May, in Guatemala City, Guatemala; and II Logistics, 31 July–5 August, in Brasilia, Brazil.

The U.S. Army also participated in Defense Analysis Seminar VIII during the fiscal year. The Defense Analysis Seminar began in 1981 and has been held at two-year intervals. It is held at the Korea Institute for Defense Analyses in Seoul and is cosponsored by the Deputy Under Secretary of the Army (Operations Research) (DUSA [OR]) and the President of the Korea Institute for Defense Analyses. The purpose of the seminar is to foster international discussions on analysis pertinent to current Republic of Korea–United States issues. Emphasis is placed on improving analytic methodologies and presenting specific study results. It gives the United States and the Republic of Korea an opportunity to share research, analysis, and techniques of common interest within the defense programs of the countries. Presentations for the Defense Analysis Seminar are competitively selected by the DUSA (OR) and the President of the Korea Institute for Defense Analyses.

The theme of the Defense Analysis Seminar VIII, Designing, Sizing, and Controlling the Force, was most timely. U.S. and Republic of Korea forces were undergoing great changes, with the U.S. force transforming to Force XXI. The scientific and analytical communities never before had the opportunities or challenges presented by this age of shared data, universal databases, real-time reporting, and instantaneous radio communications and intelligence.

Research, Development, Test, and Evaluation (RDTE)

RDTE is critical to the support of Army modernization programs. *Table 16* shows budget figures representing the procurement of end items, RDTE, and FY 1994 Total Obligation Authority (TOA) in the FY 1994–1999 Program Objective Memorandum (POM), which was formulated in June 1992; the FY 1994–1995 Budget Estimate Submission (BES), which was prepared in September 1992; and the FY 1994–1995 Presidential Budget (PRESBUD) request, finalized in February 1993:

TABLE 16—PROCUREMENT BUDGET FIGURES
(IN THOUSANDS)

	FY 1994–1999 BES	*FY 1994–1995 POM*	*FY 1994–1995 PRESBUD (Request)*
Procurement	7,848,438	7,738,442	8,112,205
RDTE	5,324,988	5,417,123	5,792,967
FY 1994 TOA	13,173,426	13,155,565	13,905,172

The Army's Chemical and Biological Defense Technology Program plays a prominent role in research and development. In FY 1994 the Chemical and Biological Defense Technology Program had eight notable accomplishments. First, the program successfully installed and operated a frequency-agile laser in a cooperative international effort with the French government. The laser's capabilities included detection, identification, and mapping of chemical agent vapors, aerosols, and liquids on the ground at distances up to three kilometers. Second, the program demonstrated a pressure swing absorption filtration system that offered the potential to reduce significantly or eliminate the need for NBC filter replacement. Third, the Light Vehicle Obscuration Screening System (LVOSS) moved ahead to the concept demonstration and validation phase. LVOSS, which dispenses smoke to the front and rear of a light vehicle to obscure the vehicle, uses nonfragmenting grenades and environmentally safe materials. LVOSS emphasizes the protection of antiarmor vehicles from visual threats. Fourth, the program demonstrated an electrospray ionization mass spectrometry technique for biomolecule analysis through identification of phospholipids. This technique is applicable to the mass spectrometric detection and identification of biological agents. Fifth, the program completed the purification of the most highly reactive, broad-spectrum organophosphorus anhydrolase yet discovered. The gene coding for the production of the enzyme was successfully cloned into E. coli and demonstrated that 1 gram of the recombinant

cells can degrade 0.8 gram molecules of organophosphorus agent per minute. Sixth, the program demonstrated a previously unknown mechanism for the destruction of the highly toxic nerve agent VX (0–ethyl, S–2–diisopropylaminoethyl methylphosphonothiolate). This discovery opened the way for one of the most successful alternatives to the incineration of the U.S. VX stockpile. Seventh, the program devised a special marking round that allowed terrain designation for forward air controllers to coordinate close air support and minimize fratricide during combat operations. Eighth, the program demonstrated a unique fiber optic probe and Raman spectrometer that could be used to identify nonintrusively the contents of vials from obsolete Chemical Agent Identification Sets before demilitarization and disposal.

The Army's Science and Technology Base underwent significant restructuring during the fiscal year after implementing 1991 and 1993 BRAC Commission recommendations. BRAC 1991 recommendations led to the establishment of the Army Research Laboratory (ARL). The ARL evolved from the Army Materiel Command's Laboratory Command and elements of the Army Research Institute; Belvoir Research, Development, and Engineering Center; Center for Night Vision and Electro-Optics; Tank-Automotive Command; Chemical Research, Development, and Engineering Center; and the Army Institute for Research in Management Information, Communications, and Computer Sciences. Also as part of BRAC 1991, the Medical Research and Materiel Command reduced the number of medical research laboratories from nine to six. In addition, the Command relocated seven medical programs among existing Army, Navy, and Air Force medical laboratories. BRAC 1993 recommendations disestablished the Belvoir Research, Development, and Engineering Center and closed the Vint Hill Farms Station.

The Army's ballistic missile defense program made moderate progress in FY 1994. In FY 1993 the Army had convened a Senior Review Council (SRC) composed of general officers and civilians representing the Army and the Ballistic Missile Defense Office. The council's mission was to assess and ultimately recommend which two missiles should be incorporated into the Patriot system to provide effective defense against theater ballistic missiles. The council met quarterly for more than a year. Its deliberations were supported by a technical missile review board that analyzed test results and conducted almost one million detailed computer simulations of the performance of the candidate missiles in defeating a wide variety of theater ballistic and cruise missile attacks. The Training and Doctrine Command also conducted a cost and operational analysis, based in part on the same simulations.

Early in 1994 the findings of the SRC were reported to the Army leadership and then to the Office of the Secretary of Defense (OSD). The OSD

directed a panel of experts drawn from non-Army sources to review the selection process and its results. The panel judged the process and the results appropriate and the OSD accepted these findings. In June 1994 the OSD Defense Resources Board approved the Patriot program at a Defense Acquisition Board meeting.

The Army's weapon systems modernization strategy in FY 1994 continued to be guided by a post–Cold War environment defined by new global challenges and fiscal constraints. The service adhered to a strategy of buying a limited number of new weapons, such as the RAH–66 Comanche armed reconnaissance helicopter and the Advanced Field Artillery System and Future Armored Resupply Vehicle, while extending the lives and improving the capabilities of existing systems. This strategy allowed management of scarce modernization resources by limiting large investment and inserting information technologies, using Horizontal Technology Integration (HTI) and Vertical Technology Integration (VTI), to significantly increase the capabilities and utilization of proven weapons. HTI is the strategy of applying enabling command, control, and communications technologies throughout multiple systems to improve warfighting capabilities. The Army's major HTI effort in FY 1994 involved the application of digital technologies to a heavy task force that was digitally linked to a brigade in the Advanced Warfighting Experiment, DESERT HAMMER VI, at the National Training Center. VTI is the application of an enabling technology within a system to upgrade operational capability, to reduce cost, or to improve its warfighting capability. For example, in FY 1994 the Patriot Advanced Capability III program highlighted an ongoing VTI effort to enhance the operational capabilities of the Patriot air defense artillery missile system with modifications that included an improved missile and radar. Despite the success of these upgrading efforts, the Army recognizes that there is a point beyond which additional technological insertions to existing systems will provide only marginal improvements to capabilities.

FY 1994 proved to be a critical year in the development of the Army's deep attack capability. Deep attack weapon systems provide the Army an advanced, nonnuclear family of long-range field artillery missiles and munitions to attack a varied array of fixed and mobile, hard and soft targets. In FY 1993 the Army's deep attack capability depended on the fielded Army Tactical Missile System (ATACMS) Block I missile and continued development of the Army variant of the Tri-Service Standoff Attack Missile (TSSAM). TSSAM was a joint Army, Navy, and Air Force program. The program objective was to develop a family of affordable, highly survivable, conventional, stealthy cruise missiles that would satisfy tri-service requirements to effectively engage a variety of high-value land and sea targets. The Army variant was to carry the BAT brilliant antiarmor

submunition, a dual-sensor (acoustic and infrared) smart submunition, to be launched from the MLRS M270 Launcher. In FY 1994 the Army terminated the TSSAM program after assessing it to be a high risk. In addition to a long history of technical problems, engineering and manufacturing development (EMD) costs doubled, production unit cost projections tripled, and the initial fielding date continually slipped.

When the termination of TSSAM left the Army with no deep attack carrier for the BAT submunition, the Army chose a variant of the ATACMS Block I missile, the Block II missile, as the service's new BAT carrier. The Army considered the integration of the BAT into the proven ATACMS system to be the lowest risk approach to provide the service a deep attack capability. ATACMS Block II missiles would incorporate thirteen BAT submunitions out to a range of 124 kilometers to attack specific armored, mobile combat vehicles.

The ATACMS Block IIA missile, an extended-range version of the Block II missile, will carry a preplanned improvement BAT submunition out to a range of 248 kilometers. The Army initiated the preplanned improvement BAT program in FY 1994. The Army also stretched the BAT EMD from a 54-month effort to a 79-month effort scheduled for completion in FY 1998 to realign it with the Block II ATACMS program.

The Joint Precision Strike Demonstration (JPSD) conducted a surface-to-surface ATACMS weapons demonstration in FY 1994 that furthered the Army's goal of achieving a deep attack capability. Since its organization in 1992, the JPSD's mission has focused on improving the joint force commander's capability to conduct precision strike operations. The goal of the JPSD to develop an adverse weather, day and night, sensor-to-shooter deep fire precision strike capability against high-value mobile targets at extended range continued in FY 1994. JPSD continued conducting demonstrations highlighting technical capabilities and operational concepts to solve precision strike problems.

The 1994 demonstration highlighted the U.S. Army's Extended Range Army Tactical Missile System (ER ATACMS) Block IA and IIA missiles. Block IA missiles are used to attack tactical surface-to-surface missile sites, air defense systems, logistics elements, and command, control, and communications complexes. Block IIA missiles are being developed to attack mobile targets such as surface-to-surface missile launchers in precision strike missions against time-critical deep targets. All ER ATACMS activities throughout the United States were controlled and monitored from JPSD's Integration and Evaluation Center at the U.S. Army Topographic Engineering Center, Fort Belvoir, Virginia.

Meanwhile, production and development continued on basic ATACMS, with its antipersonnel and antimateriel warhead. ATACMS Block I entered its fourth year of full-rate production with procurement of

255 missiles. The ATACMS Block IA entered its first year of a 36-month EMD. The ATACMS Block IIA is planned to enter EMD during 1998 and begin production in 2002.

Other significant developments in field artillery systems in FY 1994 included the test firings of an MLRS rocket and an ATACMS rocket from the High Mobility Artillery Rocket System (HIMARS) and the development of the Sense and Destroy Armor (SADARM) submunition. HIMARS, a development of the MLRS family, mounts a six-rocket MLRS launcher on a medium tactical vehicle five-ton truck and has the same fire control, electronics, and communications systems as the M270 MLRS launcher. It is transportable by C–130 aircraft to areas inaccessible to C–5 and C–141 transports, which carry the M270 launcher. SADARM is a fire-and-forget submunition that is delivered to the target area by 155-mm. artillery projectiles or the MLRS and is designed to detect and destroy armored vehicles, primarily self-propelled artillery. SADARM entered EMD in March 1988. In April 1994 performance testing of 155-mm. SADARM projectiles exceeded performance requirements and enabled SADARM entry into low-rate production.

The Army received six prototype XM8 Armored Gun System (AGS) vehicles in FY 1994 from a contractor for technical and early user testing. The AGS is viewed as a replacement for the Vietnam-era M551A1 Sheridan armored assault vehicle. The AGS is equipped with a 105-mm. main gun, manned by a crew of three, and designed for rapid strategic and tactical deployment. Its design also permits rapid installation of two additional versions of add-on, modular armor protection that allow deploying units to tailor the AGS to meet expected threats. The AGS base version weighs 19.5 tons. The level-two combat-loaded weight version is just over 23 tons, and the level-three combat-loaded weight version about 25.5 tons. The base level and level-two AGS versions are transportable on C–130 aircraft. The AGS can also be airdropped by parachute. Extensive AGS testing is scheduled to continue through 1997.

The Army started eight Advanced Technology Demonstrations (ATDs) in FY 1994. ATDs facilitate the integration of proposed technologies into a full demonstration or engineering and manufacturing development.

The Composite Armored Vehicle (CAV) ATD (1994–1997) will examine a lighter weight, more survivable ground combat vehicle using advanced composite structural materials and advanced lightweight armor. CAV ATD plans envision using a 22-ton weight-class platform. The demonstration is intended to emphasize manufacturability, repairability, nondestructive testing, and structural and ballistic integrity.

The Precision Guided Mortar Munition (PGMM) ATD will explore two major enhancements for 120-mm. mortars. The PGMM ATD intends to utilize fire-and-forget smart munitions in 120-mm. mortars and to

extend the mortar's range from approximately seven kilometers to approximately 15 kilometers.

The Enhanced Fiber Optic Guided Missile (EFOGM) ATD is intended to demonstrate improvements in the Fiber Optic Guided Missile System. EFOGM ATD plans anticipate enabling a gunner in defilade to engage and defeat enemy armored combat vehicles, other high-value ground targets, and rotary-wing aircraft that may be masked from line-of-sight weapon systems, day or night, at ranges up to 15 kilometers.

The Objective Individual Combat Weapon ATD will demonstrate technologies for a new small-arms weapon system. The weapon system, a combination rifle and grenade launcher, is intended to yield dramatically improved hit probabilities and terminal effects compared to the existing grenade launcher and M16A2 rifle.

The Hunter Sensor Suite ATD will demonstrate a lightweight, deployable, and durable Hunter platform equipped with an advanced long-range sensor suite for early-entry light forces. The suite will combine a second-generation thermal imager, day television, an eyesafe laser rangefinder and automatic target recognition processor, and a communications system for linkage to a command, control, and communications network.

The Generation II Soldier ATD will demonstrate the design utility of a multicomponent integrated soldier system. The system is to be composed of various devices to improve soldier protection, comfort, and situational awareness.

The Total Distribution ATD will demonstrate through integrating technologies the means to improve tracking logistics total asset visibility. Total Distribution ATD plans anticipate examining automated logistics planning tools; computer simulation and modeling techniques; advanced microelectronics; satellite tracking; and communication systems. The ATD is intended to display requirements and locations of logistic assets at strategic, operational, and tactical levels.

The Off Route Smart Mine Clearance ATD will evaluate countermeasure techniques to neutralize side-attack smart mines situated near roads that pose threats to combat and logistics vehicles. The demonstration intends to trigger a premature smart-mine activation by employing a remote controlled vehicle emulating the acoustic and seismic signatures of a combat vehicle.

The Army completed one ATD, AirLand Battle Management (ALBM), during the fiscal year. The ALBM ATD demonstrated that advanced computer planning and battle monitoring decision aids reduced operational and tactical planning times to speed up the decision-making process.

In FY 1994 the Army adopted a new DOD acquisition strategy initiative, the Advanced Concept Technology Demonstration (ACTD). The ACTD surpasses the ATD in being a more thorough technology demon-

stration and in developing concepts of operation and doctrine to optimize a system's capability. The ACTD enhances the acquisition process by allowing the Army to better evaluate a technology before committing to its acquisition.

The Army approved three ACTDs in FY 1994. The Precision/Rapid Counter–Multiple Rocket Launcher ACTD will examine technologies to defeat North Korean 240-mm. multiple-launch rockets. The Rapid Force Projection Initiative ACTD will demonstrate technologies intended to provide early-entry light forces greater durability in a confrontation with a heavy force. The Joint Countermine ACTD will integrate Army, Navy, and Marine Corps technologies in demonstrating mine-countermine operations. Two Joint Countermine ACTD demonstrations are planned, one focusing on land combat, and one on deep and shallow water mine-countermine operations.

The Army redesignated the Advanced Concepts and Technology (ACT) Program as ACT II during the fiscal year. Formerly the ACT Program provided initial funding for proof-of-principle demonstrations of high-risk and high-payoff technologies proposed by sources outside the Army. Beginning in FY 1994, ACT II began providing direct support to the U.S. Army Training and Doctrine Command's Battle Lab program and Louisiana Maneuvers Task Force. ACT II is intended to help solve Army problems by encouraging the application of emerging technologies that would not ordinarily be supported by the Army because of risk or lack of funding.

In FY 1994 the U.S. Army Communications-Electronics Command (CECOM) let a $72.2 million, 48-month contract to develop the second generation Forward Looking Infrared (FLIR) Horizontal Technology Integration program. The Army intends to integrate the second generation FLIR into the M2A2 Bradley Commander's Independent Viewer, the M2A3 Improved Bradley Acquisition Subsystem, the M1A2 Abrams Commander's Independent Thermal Viewer and Gunner's Primary Sight Thermal Imaging System, the M8 Armored Gun System Gunner's Primary Sighting System and Thermal Imaging System, and the Long-Range Advanced Scout Surveillance System.

CECOM also let a $20 million contract to develop a system to enable the Army's light forces to detect and locate targets from beyond the effective range of enemy direct-fire weapons. Under the 48-month Hunter Sensor Suite Program, the contractor is to develop a technology demonstration system and integrate it in the High Mobility Multipurpose Wheeled Vehicle. The project is part of the Army's rapid force projection program. The sensor system is to include a second generation FLIR sensor, an eyesafe laser range finder, a day TV video camera, acoustic sensors, and advanced processing. The program will be

managed by the U.S. Army Night Vision and Electronic Sensors Directorate at Fort Belvoir, Virginia.

During FY 1994 the enhanced position location reporting system (EPLRS), a major component of the Army Data Distribution System (ADDS), began low-rate production after the Army completed initial operational testing and evaluation on the system. ADDS provides commanders a tactical data system to support the Army tactical command and control system and other battlefield automated systems. It is intended to provide near real-time data distribution in division and corps areas in an anticipated electronic countermeasures environment. EPLRS is for medium-speed data distribution. The other major component of ADDS is the joint tactical information distribution system (JTIDS) for high-speed data distribution. JTIDS continued engineering development during FY 1994.

Army aviation Longbow Hellfire and laser Hellfire missile development continued in FY 1994. Longbow Hellfire, a fire-and-forget, adverse weather, air-to-ground missile is used primarily to defeat armored vehicles or other mobile targets. It uses a radio-frequency millimeter wave seeker to find and lock on to targets and is an integral part of the AH–64D Longbow Apache and RAH–66 Comanche programs. Twenty-five Longbow Hellfire developmental tests met all major objectives during the fiscal year.

Laser Hellfire is an air-to-ground missile system of the AH–64 Apache, OH–58D Kiowa Warrior, Special Operations helicopters, and the RAH–66 Comanche to defeat armored vehicles and other individual point targets. The missile locks on to reflected laser energy provided by the launching aircraft or other remote designator. The Army awarded a first production contract for the optimized version, Hellfire II (AGM–114K), in May 1993, with deliveries scheduled for FY 1995. The improved Hellfire II included hardening of the laser seeker countermeasures, warhead improvements to defeat advanced reactive armor, electronic fuzing, and modifications in length and weight. The Army awarded a second production contract for 3,905 missiles in February 1994.

The Army worked on development of an Advanced Precision Airborne Delivery System (APADS) during FY 1994 to get equipment and supplies to the battlefield when vehicular resupply is unavailable or unfeasible. Traditionally, the Army has relied on standard parachutes to deliver such materiel. The APADS will deliver goods with more accuracy, in less optimal conditions, and from higher altitudes than current delivery systems. APADS will use a packaged, nonrigid wing that extends when pulled from the rear of a C–130, C–141, or C–17 aircraft by a drogue parachute. Once the APADS platform stabilizes itself, it snaps into its gliding wing configuration. From there, the global positioning system (GPS) guidance package directs the cargo to within meters of its target location.

Unlike contemporary parachutes, the APADS glider will perform accurately even in winds up to 20 knots, and depending on the altitude of the C–130, C–141, or C–17, the glider will be able to use a series of turns and maneuvers to deliver its payload up to forty miles from the site and at altitudes of 25,000 feet or more.

The challenges of airdropping humanitarian supplies into Bosnia-Herzegovina during Operation PROVIDE PROMISE in FY 1994 led the Army to develop a bigger parachute, the G–12D (Modified). This is a modified version of an older parachute, which allows high-velocity parachutes to be dropped at lower velocity. The new modifications were designed by parachute riggers from the Army's 5th Quartermaster Detachment in collaboration with parachute riggers from the German and French armies. The modification met the Air Force's high-altitude and high-velocity requirements and reduced the likelihood of wind blowing the parachutes off target. The previously used parachutes measured 26 feet in diameter and could deliver a 2,200-pound bundle. The G–12Ds (Modified) are approximately six times larger and can support four 2,200-pound bundles.

The Army awarded two contracts for two variations of the M16A2 M4 carbine. The value of the contracts, to total 24,000 units, is estimated at $11 million. The M4 carbine will replace selected pistols, submachine guns, and M16 rifles. It provides increased flexibility for those soldiers assigned to crew-served weapons and soldiers who carry or operate large mission-essential equipment. Its compact size also allows users the full use of both hands to accomplish their primary missions. The contract awards include a variation of the M4, the M4A1, which will be fielded to special operations personnel. The M4A1 incorporates an enhanced upper receiver with a "Picatinny rail," which enables users to mount various day and night sighting devices on the weapon to improve overall effectiveness.

Under a January 1994 contract, the Army continued development of the offensive handgun weapon system (OHWS) for the U.S. Special Operations Command. The complete OHWS includes three components: a new .45-caliber pistol, a laser aiming module, and a sound and flash suppressor. Production requirements call for 7,500 pistols, 1,950 of which would include the laser aiming module and sound and flash suppressor.

The Army conducted duty performance testing on three new ocean-going tugboats in FY 1994, the first such vessels built for the Army since the 1950s. Two 128-foot tugs were delivered to the Army Reserve's 949th Transportation Company in Baltimore, Maryland, and one was delivered to the 73d Transportation Company at Fort Eustis, Virginia. The tugboats, which cost approximately $15 million each, are among six being built for the service. The Army's last new tug was designed for coastal towing. The new tugs are designed for longer-range towing of large ships and ocean-going barges.

Equipment fielding also continued during the fiscal year. The Army fielded OH–58D Kiowa helicopters to two battalions in the 2d Infantry Division and one in the Mississippi National Guard. The three assault helicopter battalions of the 101st Airborne Division (Air Assault) received new UH–60L Black Hawk utility helicopters. Initial fielding began for the new TH–67 Creek helicopters. The M1A1 Abrams tank was fielded to selected active component and National Guard units, as well as to pre-positioned stocks. The Army fielded the Bradley fighting vehicle to pre-positioned stocks afloat and ashore, as well as to battalions of the Mississippi National Guard and the 1st and 2d Infantry Divisions. The Heavy Equipment Transport System was issued to the 1st Cavalry Division, the 24th Infantry Division, two National Guard brigades, Army Reserve transportation companies, and pre-positioned stocks afloat. Initial fielding began of the AN/PSN–11 precision lightweight GPS receiver, known as PLGR. The year also witnessed the fielding of several field artillery systems. The 24th Infantry Division fielded the M109A6 Paladin 155-mm. self-propelled howitzer and the Field Artillery Ammunition Supply Vehicle. Two active component battalions and one National Guard battalion fielded the MLRS. Three battalions in the 25th Infantry Division and a battery in the Southern European Task Force fielded the M119A1 105-mm. towed howitzer. Finally, initial fielding of the Fire Direction Data Manager began.

7

Support Services

Morale, Welfare, and Recreation (MWR)

The Army Family Action Plan (AFAP) provides a process in which the Army monitors and improves the quality of life for all Army members (active duty soldiers, reserve component soldiers, retirees, Department of the Army civilians, and family members). As part of the AFAP process, forums or symposia develop and set priorities for issues, a steering committee reviews progress on resolution of the issues, and an AFAP document provides feedback to the community. This program operates at installation, major command (MACOM), and Headquarters, Department of the Army, levels.

Each October the Army hosts a worldwide AFAP conference in Washington, D.C., where after a week of working group meetings delegates present their key issues to the Vice Chief of Staff, Army. Because these issues reflect the prominent forces and stresses faced in units and communities throughout the Army, the AFAP enables the Army's leaders to identify and deal with important influences on readiness and retention.

The Army MACOMs submitted ninety-seven issues of concern during FY 1994 for review at the October 1994 AFAP Planning Conference. One-third of the issues involved pay, entitlements, and retiree benefits. Approximately one-fourth of the issues dealt with topics related to force support. Soldier education was the primary focus of the conference, and one-fifth of the issues addressed medical and dental concerns such as access to care, health care at closing installations, and expanded dental insurance.

Conference delegates gave twenty-seven issues priority as key concerns and elevated them to the Chief of Staff, Army (CSA), to be approved for action by the Army Staff. A vote of the 130 delegates in attendance at the conference told the Army's leaders that the major concern of the Army's members in 1994 was insufficient pay. The rest of the "Top Five" issues for the 1994 AFAP were survivor benefits for service-connected deaths, the computation of child care fees, the erosion of retiree and survivor health benefits, and Army family and retiree access to military and

civilian health services. Other key issues were the shortage of funding for housing and barracks, substance abuse and violence among Army youth, and increased commissary access for the reserve components.

In FY 1994, during its first full year of operation, the MWR Board of Directors assumed an active leadership role, providing vision and direction to steer Army MWR toward growth and financial stability. The MWR Board of Directors is composed of the Army's commanders for U.S. Forces, Korea; U.S. Army Forces Command; U.S. Army, Europe; U.S. Army Training and Doctrine Command; U.S. Army Materiel Command; and U.S. Army, Pacific. Meeting biennially, the Board of Directors is responsible for approving major MWR management strategies, plans, and programs.

During the year, a period characterized by downsizing and diminishing resources, the MWR Board of Directors supported four major initiatives. First, the Board established financial standards to serve as benchmarks for MWR programs and encourage fiscal responsibility at all levels of operation. These standards were designed to help commanders by identifying appropriated fund levels of support for mission-essential programs and establishing nonappropriated fund fiscal goals. These standards provided a uniform method of evaluating local financial performance. Second, the Board produced the Army MWR Vision for the 21st Century and the Army MWR Strategic Action Plan. Taken together, these two documents set forth goals, objectives, and actions designed to ensure that MWR becomes a customer-driven program managed with business-like practices. Third, the Board conducted a standard patron survey to support MWR triennial needs assessment. Over the next two years and once every three years thereafter, each installation and the Army as a whole will have valid marketing research data upon which to base program innovation and modification. Fourth, the Board supported adoption of an automated information system, which will enhance the manager's ability to collect, process, and store the financial and operational data needed to optimize programs. This computer-based system will be funded centrally at a cost of $40 million and fielded at every installation in the Army.

The Army Family Team Building Program was designed to provide training for soldiers, deployable civilian employees, and family members to enable them to cope better with the stress of deployment and family separation. In 1992, as a result of lessons learned from the Persian Gulf War, a diverse working group, representative of the Army, convened to examine options that might reduce the demands and frustration of deployment and family separation. The working group recommended that soldiers, deployable civilians, and family members receive training in the expectations of military life, as well as their individual responsibilities, for self and family preparation. This concept, called Army Family Team

Building, was approved in February 1993 by the CSA. The program has three purposes: to improve overall readiness of the force by teaching and promoting personal and family readiness through progressive and sequential education; to assist the Army in adapting to the changes from reduced budgets and downsizing; and to respond to family issues using lessons learned from recent deployments.

Army Family Team Building training for soldiers was introduced into the Army Training and Doctrine Command school system in November 1993. Training for civilians began in April 1994. Family member training (for active, National Guard, Army Reserve, and civilian family members) began in June 1994. Successful implementation of the Army Family Team Building Program ensures that all members of the Army are better informed about Army missions and the expectations of military life, readiness responsibilities during separation and deployment, and systems available to support more self-reliant, independent, and self-sufficient lifestyles.

The Army Community and Family Support Center (CFSC) established a Better Opportunities for Single Soldiers (BOSS) program to address the needs of single soldiers in 1989. BOSS is the communication link between single soldiers, including single parents and geographic bachelors, and the command. Through BOSS, soldiers address single-soldier concerns through the chain of command and provide valuable input to the command.

The BOSS program made tremendous strides in FY 1994 as the CFSC staff conducted and participated in a variety of events. At the fourth annual Army-wide BOSS training conference in November 1993, CFSC and civilian instructors trained more than 120 soldiers, senior noncommissioned officers, and civilian program managers. During May 1994 a Commissary Patron Awareness Program was launched at 15 installations to familiarize young soldiers with savings that can be realized by shopping at commissaries. The CFSC staff conducted formal BOSS training for 180 soldiers at twelve posts, and by the end of September 1994 BOSS programs were in operation at all installations with garrison populations of more than fifty single soldiers.

Food Service

In March 1994 the MWR Board of Directors endorsed plans to reverse losing trends in club operations through the adoption of brand-name food and beverage establishments. In May 1994 at Aberdeen Proving Ground, Maryland, a contractor conducted the first of a series of food, beverage, and entertainment assessments. Similar assessments were conducted at Fort Carson, Colorado, and Fort Lee, Virginia. These assess-

ments contributed to the decision to introduce brand-name food and beverage establishments to club operations.

An initial list of brand-name food and beverage establishments was developed by a group from the CFSC and the MACOMs, later formalized as the Food, Beverage, and Entertainment Steering Committee. Food and beverage brand-name establishments included Primo's Italian restaurant (pizza, pasta, and subs); Sam's Roadhouse restaurant (steaks, ribs, and chicken); the Main Street restaurant (regional American cuisine); Reggie's (deli-style sandwiches and specialty burgers); and a sports arena/high energy nightclub. On 15 June 1994, Primo's, with seating capacity of 152, opened at Fort Hood, Texas, becoming the first of the Army's brand-name restaurants. Primo's was a cooperative effort of Fort Hood, U.S. Army Forces Command, and the Community and Family Support Center.

In July 1994 the Executive Committee of the MWR Board of Directors approved $1 million in new-venture funding to support the development of brand-name food and beverage establishments at Army installations. Funds would become available in FY 1995 and be limited to $200,000 per project with at least an 80 percent/20 percent split between the Army MWR Recreation Fund and the installation. Installations desiring to compete for the FY 1995 new-venture funding were advised to submit their requests to be reviewed and rated by the Steering Committee, which is scheduled to meet in December 1994.

Health and Medical Programs

During FY 1994 the provisional U.S. Army Medical Command (MEDCOM) began merging the functions of the Office of the Surgeon General and the Health Services Command. The merger represented a move toward a more accessible, deployable, accountable, and integrated Army Medical Department (AMEDD). As part of the Army's streamlining and downsizing efforts, the Army redesignated and reorganized the U.S. Army Environmental Hygiene Agency (USAEHA) as the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) on 1 August 1994, with a provisional status and a commanding general. The USAEHA had supported the worldwide preventive medicine programs of the Army, the Department of Defense (DOD), and other federal agencies through consultations, supportive services, investigations, and training. USACHPPM assumed command and control over USAEHA, which included USAEHA, Aberdeen Proving Ground, Maryland; USAEHA District Support Activity–North, Fort Meade, Maryland; USAEHA District Support Activity–South, Fort McPherson, Georgia; and USAEHA District Support Activity–West, Fitzsimons Army Medical Center, Colorado. In addition, USACHPPM assumed the mission funds and assets

within the Division of Preventive Medicine, Walter Reed Army Medical Center, Washington, D.C.; assumed control over the Army Pacific Environmental Health Engineering Agency in Sagami, Japan; assumed control of the 10th Medical Laboratory in Landstuhl, Germany, on 1 October 1994; and established new directorates in Health Promotion and Wellness, Epidemiology and Disease Surveillance, and Field Preventive Medicine. USACHPPM will provide second- and third-echelon support to Health Service Support Areas (HSSAs) and their headquarters, medical treatment facilities, Medical Commands (Provisional), and other Department of the Army and DOD elements. First-echelon preventive medicine will continue to be provided by Preventive Medicine Services under the Medical Treatment Facility commanders and through preventive medicine units.

In March 1994 the U.S. Army Medical Research and Development Command, the U.S. Army Medical Materiel Agency, and the U.S. Army Health Facility Planning Agency merged to establish the provisional U.S. Army Medical Research, Development, Acquisition, and Logistics Command (USAMRDALC). The provisional USAMRDALC was established as a transitional organization. USAMRDALC temporarily assumed responsibility for the management of medical materiel for the Army and for planning, programming, and budgeting for construction of new medical facilities. The U.S. Army Medical Research and Materiel Command (USAMRMC), planned for establishment in November 1994, will replace the provisional USAMRDALC.

In April 1994 the provisional USAMRDALC participated in an Advanced Warfighter Experiment at the National Training Center at Fort Irwin, California, where the Army tested new battlefield applications of digital technology to support the development of Force XXI. A USAMRDALC Telemedicine Project Management Team demonstrated key medical care applications for the digitized battlefield, such as telementoring, the projection of medical expertise from rear to forward areas, and digital moulage, the transmission of medical imagery over tactical radio.

During the fiscal year one of the most sweeping reorganizations in the history of Army dental delivery occurred with the establishment of a separate Dental Command (DENCOM) as a subordinate element of the MEDCOM. Driven by downsizing and reorganization of the Army and the AMEDD, the new DENCOM established an Army Dental Service Delivery System under a single dental command with worldwide authority over all Table of Distribution and Allowances dental units. Dental units were grouped under eight Dental Service Support Areas. Adjustments were made in the sizes of dental commands, resulting in 31 dental activities and 20 smaller dental clinic commands. During this period clinics provided treatment to 1,794,791 active duty soldiers, 36,999 active duty

members of other U.S. services, and 522,300 others. Dental commands performed a total of 18,141,194 dental procedures. The DENCOM also operated two Area Dental Laboratories that provided prosthetic support for units worldwide on a triservice basis.

The Veterinary Command (VETCOM), a major subordinate command of the MEDCOM, was provisionally activated on 12 November 1993. The VETCOM's major activities include food safety and animal medicine. The VETCOM is the DOD executive agent for food safety and quality assurance, as well as animal medicine. A top priority in food safety and quality assurance is involvement in the operational ration program. The VETCOM provides veterinary services to DOD-owned animals that include horses, dogs, and marine animals, as well as offering preventive medical services to privately owned pets at DOD installations.

The VETCOM commanded and controlled seven veterinary service support areas in the continental United States (CONUS) and Hawaii in FY 1994. Veterinary services of the Medical Center and Medical Department activity were consolidated into seventeen veterinary service support districts. A significant reduction in overhead was accomplished, and authorizations were redistributed in VETCOM to support better the DOD mission.

During the fiscal year the AMEDD revamped its purchasing procedures. The purchasing reform stemmed from the findings of two blue ribbon presidential commissions that investigated ways to improve the federal government in the 1980s. The commission advocated adopting commercial business practices. Following this recommendation, the AMEDD investigated the commercial market. Looking at the relationship between commercial medical distributors and civilian hospitals, the AMEDD found that these hospitals made extensive use of prime vendors for medical products supply (pharmaceuticals and other medical-surgical items). A prime vendor is defined as "a single distributor of brand specific medical supplies for a given group of hospitals in a given geographic region." By committing to a single source whose warehouse is off hospital property, hospitals were able to obtain better pricing, receive next-day delivery, reduce or convert warehouse space, and reduce employees. The AMEDD committed to the use of prime vendors to obtain the same benefits. The Department of Veterans Affairs and the Defense Personnel Support Center wrote and administered prime vendor contracts to support the AMEDD, beginning in 1993.

In FY 1994 contracts were in place that enabled twenty-three out of forty AMEDD hospitals to obtain their pharmaceutical support from prime vendors. Although the strength of prime vendors is delivery to fixed facilities with established, stable demand patterns, the AMEDD also had customers with mobile missions who activated and deployed to crisis areas

worldwide. During the fiscal year the AMEDD expanded the use of prime vendors to one of these units, the 147th Medical Logistics Battalion, in its peacetime role in the United States. Within months, a portion of the 147th deployed to Guantanamo, Cuba, for Operation SAFE HAVEN and used prime vendors for support. This marked the first use ever of prime vendors to support Table of Organization and Equipment units outside the United States. Later in the year the 32d Medical Logistics Battalion, using a different prime vendor, supported Operation SAFE HAVEN in Haiti.

In FY 1994 the Army also adopted plans to revamp its medical military occupational specialties (MOS's). More than 30,000 active duty and 35,000 reserve component soldiers will be affected by a restructuring of twenty-two MOS's in the medical field. The changes, to take effect 1 October 1994, will make the medical specialist MOS 91B a prerequisite for most other medical MOS's. People in most medical specialties will enter the Army as 91Bs. After eighteen months they may apply for Additional Skill Identifier (ASI) training. Once trained, they will be qualified to work in their ASI. When they reach the rank of sergeant, first class, they will revert to 91Bs.

Being consolidated as ASIs under 91B are MOS's 91H, Orthopedic Specialist; 91J, Physical Therapy Specialist; 91L, Occupational Therapy Specialist; 91U, Ear, Nose, and Throat Specialist; and 91Y, Eye Specialist. In addition, master sergeants and sergeants major in the 42E MOS, Optical Laboratory Specialist, will become 91Bs. The 91N MOS, Cardiac Care Specialist, will be eliminated and its ASI attached to the 91B MOS.

Initial training as a 91B will also be a prerequisite for continued schooling in the MOS's 91K, Medical Laboratory Specialist; 91Q, Pharmacy Specialist; 91P, Radiology Specialist; and 91D, Operating Room Specialist. At the rank of master sergeant, 91Ds will convert to 91Bs. The restructuring will not change unit authorizations and is expected to increase promotion prospects for affected soldiers.

Army Chaplaincy

The drawdown of the Chaplain Corps continued during FY 1994 in order to reach the Corps' allocated strength numbers. The Corps participated in the Voluntary Separation Incentive Program, the Voluntary Early Release and Retirement Program, and Selective Early Retirement Boards to help meet its end-strength numbers. The downsizing affected all personnel, including officers and noncommissioned officers.

The continuing shortage of Roman Catholic priests as chaplains posed an additional concern to the Corps. Roman Catholics composed approximately 25 percent of the population of the United States in FY 1994, but Roman Catholic chaplains composed approximately 10 percent of the

Chaplain Corps as their numbers continued to decline. The number of Roman Catholic chaplains declined from 140 to 122 during FY 1994 out of an active and reserve component force of more than 3,000 chaplains, of which more than 1,200 were active duty chaplains.

The Chaplain Corps did expand in one area in FY 1994. As part of a continuing policy of reconfiguring its personnel structure to mirror the increasing diversity of the nation's population, the first Muslim chaplain entered the Corps. In response to approximately 4 percent of active duty soldiers being Muslim, Captain Abdul Rasheed Muhammad became the first chaplain representing a non–Judeo-Christian faith. Along similar lines, the Chaplain Corps also authorized a Buddhist chaplain position.

Army Pay

The Clinton administration submitted a defense budget for 1994 that did not provide for a military pay raise. Congress, however, approved a 2.2 percent raise, effective 1 January 1994, that applied to basic pay, basic allowance for quarters, and basic allowance for subsistence. The Employment Cost Index (ECI), a gauge of growth in private sector wages used to measure relative differences in military and civilian pay, revealed that military pay lagged behind civilian pay by 12.3 percent as of 1 January 1994. The law mandated that future military pay raises equal the previous year's ECI minus one-half of a percentage point. The Department of Labor announced that the ECI increased 3.1 percent over the previous year, indicating a 2.6 percent pay raise for 1995. The administration's five-year economic plan called for military and civilian raises of zero for FY 1994 and a one percentage point reduction from law for the succeeding five years. This was a part of the deficit reduction package sponsored by the administration.

Army Housing

The Army continued efforts to provide better living conditions to its soldiers in FY 1994. For the single soldier, the Army's goal was to transform existing barracks into single-soldier communities. The Army's Whole Barracks Renewal Program provided funds for the construction of new barracks and the renovation of older barracks to make them more like homes. Enhancements under this program included 110 square feet of living space for each junior enlisted soldier, walk-in closets, more parking space, and a laundry, day room, kitchen, and mailroom in each soldier community building. Supply and administrative areas currently in many barracks will be moved to separate company operations facilities. At the goal of $250 million a year for this effort, it will take approximately twen-

ty-three years to upgrade the Army's entire inventory of aging, substandard barracks. Until they can be upgraded or replaced under Whole Barracks Renewal, failed infrastructure systems in older barracks will require extensive maintenance and repair efforts managed under a new program, Bridging the Gap. During the fiscal year installations throughout the Army implemented local bridging-the-gap initiatives to make life better for single soldiers. Projects included repairs to such major components as heating and air conditioning systems, roofs, latrines, laundry facilities, plumbing, and electrical systems. Projects like these were accomplished using installation engineer assets, job order contracting, civilian contracts, troop labor, and self-help.

Army family housing provides essential support to military families, especially at installations where off-post housing is limited and very expensive. With the Whole Neighborhood Revitalization Program, the Army initiated a major effort to upgrade its over-aged family quarters to current standards. A major portion of the Army's family housing inventory in FY 1994 was between thirty-five and forty years old, in poor condition, and in need of revitalization. Funding for Army Family Housing has declined 30 percent since FY 1985, while the inventory has declined only 17 percent, thereby limiting the Army's ability to maintain even current standards. The Army's goal is to upgrade or replace, but not increase, the inventory over a period of years.

Army Safety Program

Through the comprehensive application of risk management, accident prevention, regulatory compliance, and safety education, promotion, and planning, the Army Safety Program continued to decrease the number of ground and aviation accidents during FY 1994. Ground accidents involving major property loss, personal injury, or fatality, categorized as Class A through C, declined from 9.04 per thousand soldiers in 1990 to 6.04 in 1994, a one-third decrease in overall accidents. Accidents involving privately owned vehicles (POVs) remained the number-one killer of soldiers. Since 1990, however, POV accidents and fatalities have declined overall by 68 percent for automobiles and 52 percent for motorcycles. In Army motor vehicle operations since 1990, accidents have been reduced by 53 percent and fatalities by 24 percent. While the number of personnel injury fatalities has increased by eight percent since 1990, the total number of personnel injuries has decreased by 46 percent. Furthermore, the rate per thousand revealed a decrease in overall personnel injuries by about one-third, reflecting a general decline in Army accidents. The Army has also reduced the number of training-related accidents since 1990 by 51 percent and fatalities by 48 percent. In part this decrease reflects the downsizing

of the Army, but the rates of training accidents and fatalities per thousand showed significant decreases of 36 percent and 31 percent, respectively. Class A Aviation flight accidents—resulting in property damage of $1 million or more or resulting in a fatality or permanent total disability—were 1.64 per 100,000 flight hours in FY 1994, compared to 1.83 in 1990. FY 1994 marked the second lowest accident rate during the period 1990–1994. The lowest rate occurred in FY 1992, with 1.57 accidents per 100,000 flight hours.

Army Career and Alumni Program

During FY 1994 the Army Career and Alumni Program (ACAP) continued to demonstrate its effectiveness in counseling active duty soldiers who were voluntarily or involuntarily separating from the Army. ACAP is a comprehensive program that orchestrates a broad spectrum of transition assistance services for military personnel and their families as they prepare to leave active duty. In a highly organized process, soldiers and family members receive career guidance, benefits counseling, and civilian job search assistance through a combination of in-house and contractor services. The program also makes use of services available from the Department of Veterans Affairs, the Department of Labor, and state employment organizations. The ACAP synchronizes available transition services, and it provides clients with skill training for private sector interviews, a personal resume, a working knowledge of the civilian job market, and a personalized individual transition plan.

Since its inception in 1990, ACAP has reduced by three weeks the time it takes clients to find their first job, with resultant cost savings to the federal government in unemployment compensation benefit payments to eligible soldiers in transition. These cost savings have also contributed to a reduction in Army payments of unemployment compensation for ex-service members (UCX) from $265 million, with 78,729 eligible clients, in FY 1992 to $17 million, with 58,852 eligible clients, in FY 1994. The UCX per capita cost fell from $3,365 in FY 1992 to $1,991 in FY 1994.

Army and Air Force Exchange Service

The Army and Air Force Exchange Service (AAFES) faced the impact in FY 1994 of significant changes that were initiated in 1993 to prepare for the challenges of the future. The immediate challenges, however, proved greater than anticipated and led to a decline in AAFES revenues and in dividends paid to Army installations in FY 1994. AAFES attributed this decline primarily to the continued rapid drawdown of its primary active duty customers, especially in Europe, and the leveling of deferred

payment plan sales. While the reductions of active Army, National Guard, and Army Reserve forces were anticipated, the rapidity of the reductions and the impact of the earlier than planned withdrawal in Europe were significant. For example, active duty customers, including family members, declined by 10.2 percent between 1992 and 1994. This reduction was not offset by an increase in retirees. Nor could the reduction in customers be offset by increased marketing efforts. At the same time, the leveling of deferred payment plan sales occurred faster than expected due to AAFES' action to limit new account credit levels for junior enlisted personnel, E–1 through E–4, to $500. AAFES then suffered a 21 percent decline in deferred payment plan sales. AAFES earned $269.5 million in FY 1994, a decline of 14.5 percent from 1993, and paid Army installations a dividend of $110.73 million in FY 1994, as compared with $123.37 million in FY 1993.

In a significant departure from its traditional activities, AAFES started providing dental services in FY 1994, through an agreement with the MWR Panel and the DOD. In June AAFES began offering family-member dental care at the Fairbanks Dental Clinic at Fort Hood, Texas. The new service resulted from an Army Health Services Command policy change in 1993. Under the revised policy the families of active duty soldiers in CONUS eligible for the family member dental plan were restricted to space-available and emergency dental care in Army facilities. AAFES launched its dental care initiative at Fort Hood after the new policy substantially reduced access of Army family members and retirees to military dental facilities.

Command Information

In FY 1994 the Office of the Chief of Public Affairs devoted special attention to supporting major Army deployments and contingency operations. Army Public Affairs journalists, photographers, and broadcasters covered these events at home and abroad. For instance, when the Mississippi River flooded homes throughout the Midwest, Army Public Affairs reported on Army soldiers filling sandbags and evacuating the waterlogged; and when an earthquake damaged property and disrupted lives in Los Angeles, California, Army Public Affairs was there covering soldiers picking up the pieces. Overseas, Army Public Affairs coverage included humanitarian assistance to Rwandan refugees, Haitian relief efforts at Guantanamo, Cuba, and deployment of Army soldiers to Zagreb, Croatia, in support of United Nations humanitarian relief operations in Bosnia.

The Office of the Chief of Public Affairs broke new ground in broadcasting during the fiscal year. Soldiers Radio and Television devel-

oped a new television newscast, "Army Newswatch," to provide a global look at men and women serving in the Army. "Army Newswatch" made its debut on 28 July 1994. By the end of the fiscal year the program was being broadcast to fifty-one Army installations and more than 30 cities in the continental United States. The broadcast also was shown in thirty-four countries through the Armed Forces Radio and Television Service.

Army Tuition Assistance Program

Army tuition assistance policy underwent a significant revision in FY 1994. Demand for tuition assistance exceeded available resources from FY 1991 to FY 1994. This dilemma caused tuition assistance inequities and policy inconsistencies throughout the Army that resulted in soldier complaints to Congress. To correct these problems, in April 1994 the Army leadership convened a task force made up of a cross-section of Army personnel. Based on task force recommendations, the Assistant Secretary of the Army for Manpower and Reserve Affairs directed that a new Army tuition assistance policy be implemented on 1 October 1994.

Under the new policy all active duty soldiers will be authorized up to nine semester hours (or the equivalent) per fiscal year at 75 percent of tuition cost, not to exceed established maximums, for courses leading to a certificate or degree. Soldiers serving in CONUS will be subject to the following maximum amounts per semester hour:

a. Lower level (freshman and sophomore years)	$60.00
b. Upper level (junior and senior years)	$85.00
c. Graduate level	$170.00

Soldiers serving outside CONUS will be subject to maximums established by existing education services contracts. In addition, soldiers without a high school diploma will continue to be authorized 100 percent tuition assistance for courses leading to completion of their diploma or equivalent.

The changes are intended to ensure a standardized, consistent Army-wide tuition assistance policy during a period of fiscal constraint. The previous fifteen-semester-hour policy was not consistently implemented. Many installations ran out of tuition assistance money before the end of the fiscal year or lowered the amounts to fit reduced budgets and increased demand. This caused confusion and soldier dissatisfaction, especially as soldiers experienced different applications of tuition assistance policy as they moved from one installation to another.

Army Postal Operations

In FY 1994 Army postal operations moved closer to adopting nine-digit contingency zip codes. The Department of the Army Postal Conference held in March 1994 examined the use of contingency zip codes differentiated by the use of "APO AE 093." Two Forces Command units, the 27th Engineer Battalion and the 129th Adjutant General Company (Postal), conducted small-scale testing that provided valuable information on adopting nine-digit contingency zip codes. Based on the success of the limited test, the Army planned to make final the Forces Command postal improvements and initiate the program Army-wide.

The use of nine-digit contingency zip codes during Operation UPHOLD DEMOCRACY in Haiti at the end of FY 1994 provided a full-scale test of the new zip codes as well as of the ability of MACOMs to activate and provide mail routing for the units. Zip codes were assigned at the company level, enabling the U.S. Postal Service to sort mail in CONUS for dispatch to the area of operations. Operation UPHOLD DEMOCRACY also saw the increased use of reserve component postal companies supporting postal operations in a contingency theater.

Total Army Quality

The intent of the National Performance Review, according to Vice President Albert Gore in May 1993, was to bring to the federal government the "quality revolution" that pervaded business and industry in the late 1980s and early 1990s. In that same period the Army had already made great strides toward the institutionalization of Total Army Quality (TAQ), the Army's management philosophy adopted in 1992. In February 1993 the Army published a TAQ concept plan for implementation, *Leadership for Total Army Quality*, which defined the methodology, tools, and techniques to perform systematic analysis of organizations and business practices to achieve desired improvements. By FY 1994 TAQ was established in all Army MACOMs, most of which had instituted command visions and guiding principles and had developed a structure to manage change within the organization.

The Army's efforts to imbed TAQ continued during FY 1994 with the service's nomination of five Army organizations for the President's Quality Awards, which recognize organizations that demonstrate exceptional results. For the first time in the history of the award, an Army organization, the U.S. Army Tank-Automotive Research, Development, and Engineering Center, won the Quality Improvement Prototype Award. The Red River Army Depot was recognized as a finalist for an award as well.

Army Sports Program

The Army's sports program provides soldier-athletes the opportunity to participate in armed forces, national, and international competitions. The Army began the 1994 Armed Forces Sports calendar year by winning the Armed Forces Boxing Quadrennial Championship. For the first time in armed forces championship history, one service, the Army, won all twelve weight divisions. Other notable Army sports accomplishments included the Army Women's Basketball Team sweeping undefeated through the Annual Armed Forces Women's Basketball Championship double elimination tournament; the Army Men's Basketball Team taking the Marine Corps to the "if necessary" game of the double elimination 1994 Armed Forces Men's Basketball Championship (losing in the final); the Armed Forces Wrestling Team, led by World Class Athlete Program Army wrestlers, capturing the United States National Greco-Roman Wrestling title; and the Army Wrestling Team taking first place team titles in both Greco-Roman and Freestyle Armed Forces Wrestling Championships.

Construction, Facilities, and Real Property

The Corps of Engineers had a productive year, executing 98 percent of its total FY 1994 and prior military construction (MILCON) projects. The ARNG executed 79 percent of its FY 1994 and prior MILCON projects. *Table 17* summarizes these projects.

TABLE 17—MILITARY CONSTRUCTION PROJECTS

	Forecast		*Actual*		*Percent of*
	Projects	*($ Million)*	*Projects*	*($ Million)*	*Forecast*
Military Construction, Army	94	857.1	102	846.3	99
Army Family Housing	32	257.1	31	304.5	118
Base Closure Account	35	378.9	32	334.4	88
Military Construction, Army Reserve	19	144.0	16	126.0	88
Corps of Engineers Execution Totals	180	1,637.1	181	1,611.2	98
Military Construction, Army National Guard	133	297.7	99	234.0	79

The Guard's MILCON backlog and unfunded requirements, however, totaled more than 3 billion, representing nearly 2,000 construction projects. The backlog continued to grow from previous years because of equipment modernization, new missions, unit reorganizations, health and

safety criteria modernization, and revitalization and rehabilitation of aging facilities. To continue to accomplish its mission as it waited for new construction, expansion, or modernization of existing facilities, the Guard made maximum use of existing facilities, leased facilities, and temporary facilities.

The Army Reserve MILCON program in FY 1994 was formulated to meet the requirements of the high-priority contingency-force pool units, to perform new-mission training tasks, and to address the worst cases of unit overcrowding and deteriorated facilities. The MILCON backlog is holding steady in the Army Reserve, $2.0 billion in FY 1993 and $1.9 billion in FY 1994, only because the downsizing of units has temporarily offset the backlog growth. The backlog will continue to grow because the pattern in annual funding does not meet requirements for revitalization. Until the Army Reserve can receive MILCON funding to meet revitalization needs and start reducing the backlog, units will continue to suffer from lack of adequate training, storage, and maintenance facilities. All shortfalls affect training, supply, maintenance, readiness, morale, recruiting, and retention.

The backlog of maintenance and repair (BMAR) is a measurement of the condition of the Army's owned real property. The BMAR comes from the planning of a maintenance and repair project, which is included on the Annual Work Plan of installations, and remains an unfinanced requirement at the end of the fiscal year. The BMAR reflects specific categories of facilities: barracks, utility systems, training facilities, community facilities, and hospital and other medical facilities are examples. BMAR properties require some form of maintenance to return facilities to a usable condition.

Continued deferment of a BMAR project tends to cause the project to become more expensive when actually completed. For example, deferring maintenance means that facilities deteriorate to an extent requiring more costly repairs or replacement. In addition, the deferment of utility-type projects may result in payment of extremely high costs due to violations of environmental compliance standards.

The President's FY 1994 budget request for real property maintenance was $0.833 billion. At that level, less than half of the annual recurring requirements could be funded. Therefore, commanders had to make hard choices concerning what projects would remain unfunded. The FY 1994 BMAR level increased approximately 28 percent over the FY 1993 estimate. The major FY 1994 BMAR increases were in unaccompanied personnel housing, maintenance shops, and utility systems, all with an adverse impact on readiness, quality of life, soldier retention, and the environment.

FY 1994 marked the first year of operation for the Office of the Assistant Chief of Staff for Installation Management (OACSIM). Among

the OACSIM's most significant accomplishments during the fiscal year was the development and publication of the Installation Management Action Plan (IMAP). The IMAP is the Army guidance to implement installation management strategy goals published in the OACSIM pamphlet *Installations: A Strategy for the 21st Century*. The IMAP reflects the Army's Long-Range Planning Guidance, the Army Plan, and the installation strategy. The IMAP provides impetus to existing installation planning initiatives and is not intended to supplant long-range planning. The actions listed in the plan are recommended starting points for development of an IMAP tailored to installation needs.

The IMAP was developed in response to field requests for guidance to achieve eight goals that were identified by a Headquarters, Department of the Army, process action team. These goals included reshaping installations to meet power-projection specifications; formulating soldier and civilian employee programs to enhance the quality of life; improving the living and working environment for soldiers, families, and civilians; achieving total integration of environmental stewardship into installation operations; establishing and funding an investment plan for installations to revitalize or replace infrastructure facilities; completing a functional installation-level redesign that will offset the impact of downsizing and continuing resource constraints by improving service and reducing costs of running installations; forming community, interservice, and interagency partnerships for facilities and services to improve operations, customer service, and fiscal effectiveness and efficiency; attaining resource management flexibility for the garrison commander through policies, procedures, and systems that will enable installations to operate as business activities and maximize the effectiveness and efficiency of resources; and transforming the Army's human resources programs to build a participative, committed, installation management team capable of meeting the uncertainties and technological complexities of a constantly changing environment.

Other significant OACSIM accomplishments during FY 1994 included the development, staffing, and publishing of FM 100–22, *Installation Management*. FM 100–22 outlined the functions and responsibilities of installation and garrison commanders. The OACSIM also reformed the garrison commander selection process. Beginning with the command selection boards held from December 1993 to January 1994, O–5 and O–6 garrison commanders were centrally selected by a Department of the Army Command Selection Board. In addition, the Garrison Commander Pre-Command Course was developed to provide new garrison commanders instruction in dealing with the political, social, and economic complexities of running and managing installations. The first class graduated on 3 August 1994.

During FY 1994 the OACSIM received approval from the CSA for implementation of Part I, Infrastructure, of the Installation Status Report (ISR). The ISR is a three-part automated reporting system designed to provide commanders and the Army Staff with an assessment of the quantity, quality, and costs of installation facilities, natural and man-made environments, and services. Part II, Environment, and Part III, Services, were set for future development. The OACSIM also supported the fielding of eight Installation Support Module (ISM) applications to twenty-four installations in FY 1994. The ISM program is designed to increase efficiency at the installation level through the automation of day-to-day information processing. The eight applications fielded were: Personnel Locator; Education Management Information System; In-Processing; Out-Processing; Drug and Alcohol Management Information System; Master Schedule of Activities; Transition Processing; and Transition Orders.

As part of the Whole Barracks Renewal Program, the OACSIM on 2 February 1994 received the CSA's approval of the "1+1" standard for barracks design. The new standard incorporates quality-of-life enhancements to make barracks more like a home to single soldiers. The "1+1" design provides two private rooms with walk-in closets for living and sleeping; a service area equipped with counter, sink, refrigerator, and space for a microwave oven; and a bathroom shared by no more than two soldiers. The first project using this design was initiated at Fort Bragg, North Carolina, in May 1994.

During FY 1994 the OACSIM produced several publications to assist Army housing occupants. Department of the Army Pamphlet 210–8, *Housing Utilization Management*, provided management tips and techniques to improve the availability of on-post housing for occupancy by soldiers and their families, thereby reducing costs and waiting times for families to move in. The "Housing Relocation Assistance Program User's Guide" provided information on the availability of on- and off-post housing to soldiers relocating due to permanent change of station. The *Interior Design Manual for Single Soldier Housing* was published to establish consistency in the quality, design, and furnishings for unaccompanied-personnel housing.

Finally, the OACSIM introduced Bridging the Gap, an Operations and Maintenance, Army, program to place needed emphasis on barracks maintenance and repair. The program provides interim maintenance and repair pending renovation of barracks or replacement under the Whole Barracks Renewal program. Health, safety, and "worst first" projects were given priority; next were projects repairing major components (such as heat, ventilation, air conditioning, roof, latrine, laundry, or utilities distribution systems) or showing potential energy savings. (See also previous discussions on the subject in the Army Housing section.)

During the fiscal year three major issues plagued the OACSIM and the Army's installation community. First, a shortage in Army Family Housing funds resulted in the closing of housing units. Second, shortfalls in funding base operations (BASOPS) requirements resulted in the continued deterioration of infrastructure and the shift in funding from operations tempo to BASOPS areas. Third, with a 40 percent reduction in the Army budget, quality-of-life initiatives suffered as the Army worked to meet critical readiness objectives.

During FY 1994 the Office of the Assistant Secretary of the Army (Installations, Logistics, and Environment) (OASA-ILE) provided extensive appraisal and real estate acquisition support for fast-track, high-profile military projects that included development of the Engineer Proving Ground, the Defense Finance and Accounting Service Training Center in Southbridge, Massachusetts, the National Museum of the U.S. Army, the Yakima Firing Center, and expansions at the National Training Center. The OASA-ILE provided oversight of an extensive study to improve execution of real estate actions for the U.S. Army Reserve; made the first two conveyances of base closure property (Fort Ord) under the Pryor Amendment legislation that governs the disposal of base closure property; granted interim leases for portions of closed bases at Fort Devens, Massachusetts, and Lexington-Bluegrass Army Depot, Kentucky; disposed of sixteen housing sites, receiving more than $9 million for the Army base realignment and closure account; institutionalized the Army Corps of Engineers (USACE) Contingency Real Estate Support Team (CREST) in Army doctrine and with major commands (MACOMs); deployed USACE CREST members to Korea in response to a request from the Commander in Chief, Pacific, to support contingency operations; and initiated suit against the State of Hawaii for tax discrimination against property leased to the Army. The settlement of the suit resulted in the government's recovery of more than $1 million plus interest.

An Army National Guard concern in FY 1994 was the stagnation of funding for Real Property Maintenance Activities (RPMA). Aging and inadequate facilities inhibit training, performance, and productivity. Adequate facilities are required for training and mobilization. Limitations on the types of MILCON projects that can be approved severely reduced the Guard's flexibility to fund critical and high-priority projects. The Army National Guard operated more than 3,000 owned armories and 90 leased ones at 2,700 locations in more than 2,400 communities in all fifty states, Puerto Rico, the Virgin Islands, Guam, and the District of Columbia. In addition, the Guard supported the operation and maintenance of 21,477 training, aviation, and logistical facilities on 3,393 installations in 2,670 communities. Overall, RPMA funded 58 percent of the Guard's total requirements. There were insufficient operational funds to

maintain and operate the Guard's major training areas during the fiscal year. This level of funding will force the deferral of facility maintenance and repair, thus increasing expenditures and accelerating the closure of necessary facilities because they no longer meet environmental and safety requirements.

In FY 1994 the Guard received $153.6 million for real property operations and maintenance, three percent less than in FY 1993. The federally supported square footage grew, however, from 55.1 to 55.2 million square feet. In FY 1988 $3.41 per square foot was available to operate and maintain Army National Guard facilities. In FY 1994 the amount was only $2.42 per foot, or $2.03 in constant FY 1988 dollars.

The Army Reserve is faced with integrating the installation's MILCON backlog with other reserve facility requirements. Funding is insufficient to meet essential revitalization goals ($63 million per year) and to decrease the $2.0 billion backlog. In FY 1994 four active installations were transferred to the Army Reserve for command and control. Forces Command provided funding assistance to facilitate the installation transfer. Additional transfers of installations to the Army Reserve, providing opportunities to enhance training and mobilization readiness, are anticipated. As these transfers occur, funding must be available to continue to revitalize facilities and infrastructure and to respond to new missions. As in the past, a combination of addition and alteration projects and new construction will be used to provide for the Army Reserve's essential mission needs. Almost half of the Army Reserve facilities in FY 1994 were inadequate in meeting training, storage, and maintenance needs.

Legacy Program

In FY 1994 the Army received $16,932,000 from the Department of Defense Legacy Resource Management Program. The service distributed this money to 222 natural and cultural resources projects.

8

Special Functions

Environmental Protection

To meet its environmental responsibilities in FY 1994, the Army spent $1.7 billion, a sum equal to 53 percent of the amount the service spent on operational tempo. Guided by an environmental strategy emphasizing compliance, restoration, prevention, and conservation, the Army continued to make progress in the protection and preservation of natural and cultural resources during the fiscal year. The $1.7 billion expended included funding for regulatory compliance, land restoration, pollution prevention, resource conservation, and development of new technologies.

Environmental compliance relies on conformance to federal, state, and host nation environmental standards at Army installations worldwide. Compliance covers the operation of utility plants, industrial facilities such as ammunition plants and depots, and ranges that support training, and the construction, maintenance, and repair of a wide variety of other facilities. In FY 1994 compliance cost the Army $501 million. Consideration of environmental impacts and conformance to environmental standards are essential to all Army operations. Exponential growth in increasingly complex federal and state environmental laws and regulations has made this mission more challenging. The cost for compliance activities at DOD installations in foreign countries is expected to increase as environmental requirements are identified to comply with applicable baseline guidance or Final Governing Standards developed for designated host nations. The Final Governing Standards, specific for each country, establish a consistent set of environmental standards for all DOD components in the country.

The Army spent $731 million for environmental cleanup at Army installations in FY 1994. Remedial actions were taken at 364 sites, including the continuance of some pre-1994 actions. Actions were complete at 236 sites and under way at 128 sites. No further action was required at 4,523 sites. Studies were under way to investigate possible contamination at 4,390 sites. As the DOD executive agent for Formerly Used Defense

Sites, the Army spent $333 million in FY 1994, with remedial actions completed at 230 sites and under way at 270 properties. No further action was required at 4,509 properties.

The Army allocated about $62 million to pollution prevention during the fiscal year. The Army promotes pollution prevention as a good business practice, minimizing the risks of contamination from hazardous or toxic substances and the costs of associated mitigation and compliance. The Army is implementing Executive Order 12856, which mandates a 50 percent reduction of hazardous wastes by the end of 1999. Pollution prevention plans must be developed to specify how installations will meet Army reduction goals. Additionally, the executive order requires that military specifications and standards be reviewed and revised to eliminate or reduce toxic and hazardous materials.

Conservation is focused on maximizing the use of Army land for mission-essential activities through wise planning for and protection of ecological and cultural resources. The Army is committed to ensuring water quality and soil stabilization and sustaining biodiversity. Responsible for the management of approximately twelve million acres of land, the Army is balancing necessary but inherently destructive training and mission activities with the conservation of natural and cultural resources. This balance is complicated by greater troop density at installations in the United States, a greater demand for training land for modern weapon systems, and the austerity of fiscal resources. In response to national initiatives and public awareness of the environment's importance, the Army is developing policies for land management, timber production, and agricultural outleasing and grazing. The new direction emphasizes ecosystem and biodiversity management rather than production and revenues. FY 1994 funding for conservation totaled $40 million.

The Army Environmental Quality Technology Program supports the four environmental initiatives by identifying, developing, and demonstrating innovative technologies. In FY 1994 the Army fielded new technologies to support environmental programs in a cost-effective and technically sound manner; coordinated with other DOD components, the Environmental Protection Agency, and the Department of Energy to develop and share environmental technologies; and provided $94 million for environmental research and development projects.

The reserve components' leading environmental expenses are for compliance and restoration. Hazardous waste remains a significant problem, though most sites have had initial inspections and many cleanup programs have begun. Funding shortfalls existed throughout the reserve components in FY 1994, with a likelihood that an increasing backlog of sites requiring remediation will further inhibit efforts toward compliance and prevention of pollution and could eventually affect operations and training.

A summary of major environmental requirements affecting the reserve components in FY 1994 is shown in *Table 18*.

TABLE 18—FY 1994 RESERVE COMPONENT ENVIRONMENTAL REQUIREMENTS

	Army National Guard	*Army Reserve*
Number of Sites	1,207	1,259
Estimated Cost	$200 million	$175 million
Amount Funded (FY94)	$16.0 million	$29.5 million
Amount Funded (FY95)	$18.0 million	$63.8 million
Most Costly Remediation	Superfund Sites	Hazardous Waste
Next Most Costly Remediation	Underground Storage Tanks	Contamination Cleanup

Note: FY94 supplemental amounts are included in FY95 planned funding.

The Army National Guard Environmental Programs Directorate has succeeded in obtaining additional funding at several federally owned locations for environmental site inspection and remedial investigation projects and for interim underground storage tank removals. The Army National Guard has not been as successful in obtaining dedicated funds for the environmental assessments necessary to determine if restoration of federally owned facilities is required. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) work at state-owned facilities cannot be completed because Defense Environmental Restoration Account (DERA) funds are not available for state-owned facilities and operation and maintenance funds cannot be used in lieu of DERA funds. This problem will continue until other federal or state funds are made available for CERCLA work at state-owned facilities. Funding for underground storage tank remediation in FY 1994 was sufficient to fund all remediation requirements; however, as the 1998 deadline to replace single-wall underground storage tanks approaches and more tank removals reveal contaminated sites, a funding shortfall will likely exist for the cleanup of these sites. In meeting policy requirements, the burden of paying for cleanup costs will be shifted to state budgets, which are ill equipped to fund additional requirements. More and more sites are not being remediated in a timely fashion due to insufficient funding and increased regulation.

The Army National Guard awarded ten contracts for environmental engineering and technical support in FY 1994. The award of these contracts represented a break in the Guard's reliance on agencies such as the Department of Energy and the Army Corps of Engineers that provided

expensive environmental services. These awards marked the culmination of years of technical and acquisition planning and were made possible by approval from the Secretary of the Army for Research, Development, and Acquisition, for waiver of certain federal acquisition regulation requirements. With these contracts the contract capacity over the next five years will exceed $520 million for a broad range of environmental assessments and impact statements, studies of pollution prevention and spill prevention programs, and environmental assessments for aircraft conversions.

In FY 1994 the Army National Guard had two pending fines totaling $295,000 for Resource Conservation and Recovery Act (RCRA) violations at Camp Dodge, Iowa. These fines remained under legal review over the question of the federal versus state status of the facilities. A $52,000 fine for RCRA violations at Rochester, New York, was dismissed after the Guard agreed to sign a federal compliance agreement. All other violations were resolved through agreement with state and federal regulators. A $119,000 fine for RCRA violations at State Area Command–Tennessee was suspended. Notices of Violation (NOVs) were issued for $250,000 for Clean Water Act (CWA) violations at wastewater treatment plants at Camp Santiago and Fort Allen, Puerto Rico. This fine remained under negotiation based on the compliance efforts of Puerto Rico. As the federal government did not waive sovereign immunity under the CWA, any liability will likely be a state responsibility.

Army Reserve environmental cleanup efforts are improving despite discoveries of new contamination projects not meeting Class I criteria and increasing regulatory requirements. The Army Reserve received four NOVs during FY 1994 for relatively minor violations. They were either resolved or allowed to continue under a negotiated compliance timetable. There were 15 reported spills of hazardous waste ranging from 3 quarts to 70 gallons. All of the 16 total NOVs issued to the Army Reserve during FY 1993 and FY 1994 were resolved.

During FY 1994 DOD environmental training program requirements, including those developed by reserve components, increased. This increase had three causes. First, there was an increased number of positions requiring individuals in trained specialties. Second, there was a high turnover rate as qualified people left for higher paying environmental positions outside DOD. Third, environmental laws and regulations grew in number and complexity.

The Army National Guard environmental training program in FY 1994 was composed of training required by statute, basic and advanced professional training, and awareness training. The training required by statute is primarily from congressional mandates and is accomplished by workshops and on the job. Basic and advanced professional training is provided through formal classroom training that relies primarily on inter-

nal resources but with some contracting. Awareness training is provided with internal resources to a broad segment of Army National Guard personnel. Workshops of three to seven days were conducted in the areas of hazardous waste management, training area management, automated environmental reports, and environmental program management. Formal classroom training was provided in the areas of the National Environmental Policy Act, the Environmental Compliance Assessment System, Wetlands Identification and Delineation, Environmental Communications, and Basic Environmental Staff Training. Awareness training was also provided.

Limited funding affected the Army National Guard environmental training program during the fiscal year, placing limits on class size and severely limiting nonessential environmental training. The Army National Guard environmental training program goal is to meet all professional requirements for full-time professional environmental staff and to be the primary resource for Army National Guard awareness training and materials. The Army National Guard continued pursuing its initiative to develop an environmental training cell at the National Guard Professional Education Center, Camp Robinson, Arkansas. The mission of this training cell will be to conduct environmental awareness for National Guard personnel attending training courses at the Professional Training Center, to conduct or coordinate all environmental training requirements for state and National Guard Bureau staff, to conduct environmental training in the states via the Professional Education Center Mobile Training Team, and to develop and produce environmental training tapes for distribution to states.

The Army Reserve environmental training is managed by the U.S. Army Reserve Command. During FY 1994 mandatory environmental training for hazardous material handlers was expanded to include drivers and all other personnel involved in this area. Certification is received following training provided by federal and state agencies. Army Reserve members participate in the Army Environmental Training Integration Steering Committee meetings that focus on a complete overhaul of the standard training given for military occupational specialty and leadership. The goal of the steering committee meetings is to identify the specific environmental training required by each specialty.

Small and Disadvantaged Business Utilization

As it had in the past, the Army continued to support small and small disadvantaged business throughout America in FY 1994. Notwithstanding reduced obligations for equipment, supplies, and services, the Army exceeded its goals for contracts awarded to small and small disadvantaged

businesses. Through programs such as Increasing Manufacturing Procurement Above Current Totals and the Enhanced Subcontracting Program, the Army strove to overcome barriers to maximize opportunities for small businesses and small disadvantaged businesses.

Legal Affairs

During FY 1994 Army-wide court-martial rates showed a decrease of 5 percent from FY 1993. General courts-martial decreased by 7.9 percent, bad-conduct discharge (BCD) special courts-martial increased by 5.5 percent, special courts-martial decreased by 28.9 percent, and summary courts-martial decreased by 4.1 percent. The overall conviction rate for FY 1994 increased slightly to 91 percent from 89 percent in FY 1993. A comparison of general, BCD special, special, and summary courts-martial for FY 1993 and FY 1994 is outlined in *Table 19*.

TABLE 19—COMPARISON OF COURTS-MARTIAL FOR FY 1993 AND FY 1994

	FY 1993	*FY 1994*
General	915	843
BCD Special	327	345
Non-BCD Special	45	32
Summary	364	349
Army Total	1,651	1,569

The Office of The Judge Advocate General (OTJAG) continued to serve as the Army representative to the Joint Service Committee (JSC) on Military Justice. The JSC conducted an annual review of the Manual for Courts-Martial (MCM), as required by Executive Order 12473 and DOD Directive 5500.17. The JSC also proposed and evaluated amendments to the Uniform Code of Military Justice (UCMJ) and the MCM, while serving as a forum for exchanging military justice information.

Revisions in the UCMJ resulted from promulgation of Change 7 by the President, as Executive Order 12936, effective 9 December 1994. Change 7 highlights include a substantial increase in permissible punishments for homicides and sex offenses and a revision of the sentencing rules relating to evidence of rehabilitative potential. AR 27–10, *Military Justice*, was also revised. Effective 8 August 1994, the revision implemented changes to the MCM and modified procedures for implementing the Victim's Rights and Restitution Act of 1990.

The U.S Army Trial Judiciary in FY 1994 saw a slight increase in the number of trials by court-martial, which rose from 1,293 in FY 1993 to

1,335 in FY 1994. The Contract Appeals Division continued to direct Army contractual bid protests filed with the General Accounting Office (GAO) as well as those filed with the General Services Board of Contract Appeals (GSBCA). In FY 1994 there were 219 GAO and 13 GSBCA bid protests filed. The Intellectual Property Law Division continued to serve as the Army's policy and oversight organization to monitor intellectual property law activities, which include patent and trademark prosecution, patent secrecy, technology transfer, and copyrights.

Concerned about world competition, Congress passed the 1980 Stevenson-Wydler Technology Innovation Act (SWTIA), making the transfer of federal technology a national priority. SWTIA was amended by the 1986 Federal Technology Transfer Act, which authorized federal laboratories to enter into cooperative research and development agreements (CRADAs) with nonfederal parties. Previously, procurement regulations restricted federal government scientists from working with nonfederal parties to develop commercial applications for Army technology. Since 1986 collaboration through CRADAs with nonfederal parties has increased substantially and rapidly to the benefit of both the U.S. public and the Army. In addition, there has been an increase in the number of patent license agreements (PLAs) that license Army technology to nonfederal parties and thus generate royalties for both Army inventors and Army laboratories. In FY 1994 the Army entered into 167 CRADAs with nonfederal parties and 12 PLAs. Royalty income distributed to inventors and laboratories amounted to $81,300 for the fiscal year.

During the fiscal year, fifteen patent and copyright suits involving Army initiatives were pending in the Court of Federal Claims, with potential liability exceeding $400 million. Also, fifteen administrative claims of patent and copyright infringement were pending with potential liability of more than $50 million.

The Army Procurement Fraud Division resolved 731 cases during FY 1994, ending the fiscal year with 695 cases pending. The number of contractor suspension and debarment cases was lower than the previous two years, a trend consistent with decreases in the number of contractor indictments and convictions over the same period.

The Army resolved a record contract fraud case during the fiscal year. On 30 March the service reached a settlement in a whistleblower suit with United Technologies Corporation (Sikorsky Aircraft Division) that required United Technologies Corporation to pay the Army $150 million, the largest sum ever recovered in a whistleblower case and for an Army contract fraud case. More than $132 million of the recovery derived from false claims on Army contracts. The Army suffered damage when United Technologies Corporation overstated charges on work progress payment requests. The majority of contracts in the suit involved UH–60 Black Hawk and SH–60 Sea Hawk helicopters.

The United Technologies Corporation settlement accounted for a substantial portion of the $202.4 million total recovered by the Army for procurement fraud in FY 1994. This sum also ranked as the highest monetary recovery ever for the Army Procurement Fraud Division in a fiscal year.

The U.S. Army Claims Service settled 79,452 personnel claims with payments totaling $87,069,681 in FY 1994. These claims reimbursed soldiers and Army civilians for loss or damage to their personal property incident to service.

The Tort Claims Division of the U.S. Army Claims Service continued to investigate, process, and administratively settle tort claims arising out of DOD, U.S. Army, and Army National Guard activities. During the fiscal year, more than 8,500 tort claims were filed against the Army, with total settlement payments exceeding $37 million.

Inspector General Activities

The Department of the Army Inspector General (DAIG) handled 2,303 Inspector General Actions Requests (IGARs) in FY 1994. Of those, 608 were requests for assistance and 1,695 were allegations. Of the allegations received, the Inspector General substantiated 243 (14 percent); 1,070 were nonsubstantiated (63 percent); and 382 were neither substantiated nor nonsubstantiated (23 percent). Of the total FY 1994 IGARs, 43 were DOD Inspector General whistleblower cases. Twenty-five percent of the total IGAR cases were referred by the active Army; 53 percent were from unknown sources; 14 percent were from civilians; and 8 percent were from the Army National Guard and the Army Reserve. The Inspector General also handled 803 hotline requests during the fiscal year. There were six major functional categories of IGARs for FY 1994. The first category, personal conduct, included harassment, racial discrimination, and nonsupport of family. Thirty-three percent (759) of the total IGARs fell into this category. The second category, command and management of organizations, included caring for soldiers and family members, storing and shipping personal property, exercising command influence, and other command-related functions. Fourteen percent (330) of the total IGARs fell into this category. The third category, military personnel management, involved recruiting operations, reassignments, evaluation reports, promotions, personnel separations, awards and decorations, and other similar actions. Fourteen percent (326) of the total IGARs fell into this category. The fourth category, civilian personnel management, included management-employee relations, recruitment and placement, promotions, and awards. Nine percent (210) of the total IGARs fell into this category. The fifth category, commanders' actions and decisions, included soldier details and duty rosters, the weight control program, and mental evalua-

tions. Six percent (143) of the total IGARs fell into this category. The sixth category, finance and accounting, included pay and allowances and finance services. Another 6 percent (143) of the total IGARs fell into this category.

The DAIG conducted systemic assessments and inspections over a broad spectrum of force readiness and resource management issues in training, personnel, supply, maintenance, installations, and acquisition during FY 1994. The DAIG also remained responsive to concerns raised by the Army Secretariat and Army Staff in other areas, such as soldier quality of life and command stewardship. Major inspection and assessment efforts in FY 1994 included:

1. Active component training (1993–1995)
2. Reserve component training (1992–1994)
3. Army war reserve materiel (1993–1994)
4. Command and control of small units (1994)
5. Enlisted Reassignment System (1993–1994)
6. Military department allegations of discrimination by military personnel (1993)
7. Small-arms repair parts (1994)
8. Armed forces recreation center oversight (1994)
9. Reserve Components Automation System (1994)
10. Requirements generation process (1994)
11. Support for U.S. Army forces in United Nations peacekeeping operations (1994)
12. Army RETROEUR maintenance program (1994–1995)
13. Modeling and simulations (1994 and beyond)
14. Numerous technical inspections (1994)

The DAIG investigates allegations against general officers, senior executive service employees, inspectors general, and officials in high-visibility positions. During FY 1994 the DAIG conducted 27 formal investigations and more than 140 preliminary inquiries. Of the allegations formally investigated, approximately 30 percent were substantiated. The most frequently investigated allegations were personal misconduct, abuse of authority, misuse of funds, misuse of personnel or property, misuse of aircraft, and sexual harassment.

The Army and Arms Control

Although the Army does not possess nuclear weapons, it plays a key role in the nation's efforts to control these and other weapons of mass destruction. The service provides policy analysis and recommended positions on all Presidential Review Directives on nonproliferation, ballistic

missile defenses, chemical and biological weapons arms control, and export controls. The Army serves as the DOD executive agent for compliance with and implementation of the Conventional Forces in Europe Treaty and also supplies soldiers to the On-Site Inspection Agency, which monitors arms control treaty compliance. The Army Staff reviews regional arms control strategies and analyzes U.S. government positions in many negotiating forums, including the Conference on Security Cooperation in Europe, the Open Skies Consultative Commission, the Preparatory Commission for the Chemical Weapons Convention, the Conference on Disarmament, and the Anti–Ballistic Missile Treaty Standing Consultative Commission. With the proliferation of weapons of mass destruction, ballistic missile technology, and advanced conventional weapons, future arms control initiatives are likely to be more regional in nature. The Army will continue to play an important role in these issues as a means of enhancing national security.

During FY 1994 a major Army arms control challenge entailed the destruction of U.S. chemical weapons. The service had started destruction operations at Johnston Atoll in the Pacific and will begin operations in FY 1995 at Tooele Army Depot, Utah. The Army plans to construct seven other facilities in the United States to destroy U.S. chemical weapons stocks. In parallel with its ongoing destruction program, the Army initiated research and development of two neutralization-based alternatives for destruction of chemical weapons stocks at Aberdeen Proving Ground (APG), Maryland, and Newport Army Ammunition Plant, Indiana. The Army will continue to train disposal facility operators at the Chemical Demilitarization Training Facility at Aberdeen Proving Ground. The Army is also studying how to identify, recover, and safely dispose of nonstockpile chemical materials such as buried munitions, production and test facilities, and binary weapons.

World War II Commemoration

The Secretary of the Army was the executive agent for the DOD commemoration of World War II. The DOD World War II Commemoration Committee planned, integrated, and coordinated programs, ceremonies, and commemorative materials. The committee also developed educational and support materials, public service announcements, lesson plans, and teachers' guides. In 1994 the committee commemorated landings on Tarawa, Kwajalein, Guam, and Peleiu. The President participated in the commemoration of the Operation OVERLORD landings in Normandy. Also commemorated were the liberation of southern France and the Battle of the Bulge at Bastogne. Through its participation in these and other smaller commemorative events, the Army honored its former soldiers and comrades in the other services.

9

Conclusion

The Army accomplished much during the fiscal year. Whether facilitating the delivery of relief supplies to Rwandan refugees in Zaire, upholding democracy in Haiti, deterring aggression in Kuwait and Korea, assisting earthquake victims in California, fighting fires in the American West, or assisting flood victims in Georgia and Texas, the Army met its commitments in serving the nation at home and abroad. At home, approximately 4,100 active Army, National Guard, and Army Reserve personnel responded to domestic emergencies during the year. The number of deployments abroad, meanwhile, escalated threefold after the end of the Cold War. Soldiers and units making repeated deployments faced a multitude of risks in carrying out combat operations and operations other than war. In Somalia, for example, eighteen Army soldiers serving in support of Operation SUPPORT HOPE paid the ultimate price for their service as a result of a firefight between U.S. soldiers and forces of Somalia warlord General Mohammed Farah Aideed.

Facing an array of domestic and foreign commitments proved especially challenging as tight fiscal constraints continued a downward trend that began in FY 1986. The Army's Total Obligation Authority request for FY 1994 represented a $3.1 billion decrease, or a decline of over 6 percent, from FY 1993 levels. Operating with fewer dollars, Army leaders made difficult choices in allocating their financial resources. Planned personnel cuts were accelerated to preserve crucial modernization programs. Active Army end strength was reduced to 540,000 soldiers by the end of FY 1994, as compared with the revised FY 1993 end strength of 575,000. While this smaller force was stretched thinner in serving the nation at home and abroad, key modernization programs such as the development of the RAH–66 Comanche helicopter, the Advanced Field Artillery System, and the Javelin antitank missile system remained solvent through the purchase of a limited number of new weapons. For example, the Javelin missile system was funded only to begin low-rate initial production during the fiscal year. Resource constraints also slowed modernization by deferring procurement of modern replacement systems. Deferred procurement increased operation and maintenance expenses, particularly

in aging equipment. Slower modernization also adversely affected the issue of modern equipment to the National Guard and Army Reserve, prolonging an existing problem of force incompatibility.

The steep decline in resources, coupled with funding unanticipated contingency operations, reduced the Army's readiness. Although Congress did approve a supplemental appropriation to offset these added costs, the contingency costs exceeded the supplemental funding. In addition, the President provided Foreign Assistance Act aid that required the Army to provide equipment and services out of existing resources to participating foreign nations. To offset these unforeseen costs, the Army withheld $140 million from major Army commands. This action caused funds to be diverted from training and quality-of-life programs, directly affecting readiness. The scope of unit training was reduced or canceled, and the purchase of all but essential repair parts was severely curtailed. Quality of life was undermined when real property maintenance was deferred to fund civilian salaries and other nondiscretionary costs, such as transportation and supplies.

The Army made substantive progress in restructuring itself to better meet the challenges of the post–Cold War era. The forward-positioned Cold War force of eighteen active divisions in FY 1989 had transformed to a power-projection force of twelve divisions based largely in the United States by the end of FY 1994. The service reached an important milestone in forging a new partnership with the reserve components. The active Army, National Guard, and Army Reserve moved closer than ever before toward developing a seamless total force. The reserve components' role in the Contingency Force Pool, high-priority units to support eight and two-thirds Army divisions in the event of a national emergency, demonstrated that the Army placed a high premium on reserve component readiness and the maintenance of balanced resource levels in the Army's new partnership. The Army also sought to eliminate unnecessary obstacles to service. Following guidance from the Secretary of Defense to the services to open more specialties and assignment opportunities to women, the Army significantly expanded opportunities for women. By the end of the fiscal year women composed 13 percent of the active Army, as compared to 12.5 percent at the start of the fiscal year. By the end of the fiscal year, 91 percent of the Army's career fields and 67 percent of Army positions were open to women.

Looking to the future, the Army embarked on a dynamic new conceptual course to reshape itself into a smaller, more lethal, information-age, capabilities-based force for the twenty-first century called Force XXI. The Army set the stage for the creation of Force XXI through the establishment of the Army Digitization Office to oversee and coordinate the integration of battlefield digitization activities throughout the Army. In

conducting the Advanced Warfighting Experiment DESERT HAMMER VI at the National Training Center, the first test of digital command and control systems in a field environment, the Army demonstrated that the application of digital technology to U.S. combat forces could significantly improve their effectiveness. The experiment linked a digitally equipped heavy task force to a brigade.

In the transformation from a forward-deployed, threat-based force to a capabilities-based force, operating largely from the continental United States, the Army's revised modernization concepts no longer focused on systems but on capabilities. The Army improved its sustainment capabilities by joining with its sister services in formulating strategic mobility programs vital to the nation in the post–Cold War era. In accordance with the congressionally mandated 1992 Mobility Requirements Study, which recommended that the Army place an armored brigade afloat, the Army established an interim Army Pre-positioned Afloat package to respond to major regional contingencies. This package, pre-positioned on twelve ships, consisted of an armor brigade set of equipment. Corps- and division-level combat support and combat service support units and fifteen days of supply were also pre-positioned. These measures demonstrated that the Army was on the right path to achieving greater flexibility in meeting regional contingencies. However, additional ships that would not be available until FY 1995 were still needed to complete the contingency corps's supply package.

The changing role of Army installations in the post–Cold War era represented a substantial shift from the past. Installation readiness took on increased importance as Army installations became power projection platforms from which forces are launched and supported in the field. To enhance installations as power projection platforms, the Army invested in numerous improvements, including rail and airfield upgrades and improved warehousing capabilities. For example, the Army's purchase of 187 railcars for pre-positioning at key installations for rapid deployment was only an installment of a planned procurement of 1,630 railcars by FY 2001. At the same time, however, repeated underfunding on base operations presented installation commanders with difficult choices in having to divert funds from operational tempo to pay for essential services.

The Army's commitment to environmental stewardship remained a top priority. The service continued this commitment through a strategy of compliance, restoration, prevention, and conservation. The Army spent close to two billion dollars on the environment. This amount represented approximately half of the amount spent on operational tempo during the fiscal year.

The Army also made significant progress in finance and business reform. In transforming its financial management to conform with the

Chief Financial Officers Act of 1990, the Army broke new ground with initiatives that revised physical inventory policy, valuation of assets, identification of outcome-oriented performance measures, and management control. In implementing the initiatives of the National Performance Review, the Army cut red tape by waiving restrictive regulations that impeded good business practices. The Army improved research, development, and acquisition methods and turned to a greater reliance on purchasing nondevelopmental, off the shelf, items.

By the end of 1994 the Army was well on its way in evolving from a threat-based Cold War force into a power projection, information-age, capabilities-based force. Serving the nation in a climate of reduced budgets, continued downsizing, and increasingly varied obligations and missions presented the Army with a number of complications. Readiness, modernization, quality-of-life programs, vehicle and equipment maintenance, and real property maintenance were all adversely affected as Army leaders made difficult choices in responding to the nation's needs at home and abroad. Looking toward the future, the promise of digitization and Force XXI provided a valuable frame of reference for how the Army of the post–Cold War era would modernize and appear in the twenty-first century. Force XXI also signaled that a dramatic break in how the Army operates as a fighting force may be on the horizon. In addition, by the end of the fiscal year it was also clear that a major demographic change was occurring in the Army. There was no doubt that the Army would be composed of greater numbers of women than ever before.

Glossary

AAA	Army Audit Agency
AAFES	Army and Air Force Exchange Service
ACAP	Army Career and Alumni Program
ACC	Army Component Commander
ADA	Antideficiency Act
ADAPCP	Alcohol and Drug Abuse Prevention and Control Program
ADDS	Army Data Distribution System
ADO	Army Digitization Office
AFAP	Army Family Action Plan
AFCOS	Automated Fund Control Orders System
AFRC-E	Armed Forces Recreation Center–Europe
AFMIS	Army Food Management Information System
AFQT	Armed Forces Qualification Test
AGS	Armored Gun System
AIPP	Army Intelligence Priorities Process
AMEDD	Army Medical Department
AOC	Area of Concentration
APA	Army Pre-positioned Afloat
APADS	Advanced Precision Airborne Delivery System
AR	Army Regulation
ARCOM	Army Reserve Command
ARI	Aviation Restructure Initiative
ARL	Army Research Laboratory
ARNG	Army National Guard
ARPA	Advanced Research Projects Agency
ASACS	Adolescent Substance Abuse Counseling Service
ASA FM&C	Assistant Secretary of the Army for Financial Management and Comptroller
ASAS	All Source Analysis System
ASAS-E	All Source Analysis System–Extended
ASI	Additional Skill Identifier
ASIST	Army Safety Information Services and Technology
ATACMS	Army Tactical Missile System
ATD	Advanced Technology Demonstration
AUTOCAP	Automation of the Casualty Analysis Process

AUTOREP	Automation of the Theater Shelf Requisitioning Process
BASOPS	Base Operations
BBS	Brigade/Battalion Battle Simulation
BCBST	Brigade Command Battle Staff Training
BCD	Bad Conduct Discharge
BCTP	Battle Command Training Program
BES	Budget Estimate Submission
BMAR	Backlog of Maintenance and Repair
BOSS	Better Opportunities for Single Soldiers
BPC	Battle Projection Center
BRAC	Base Realignment and Closure
C2	Command and Control
C4I	Command, Control, Communications, Computers, and Intelligence
CAA	Conference of American Armies
CASCOM	Combined Arms Support Command
CAV	Composite Armored Vehicle
CBDCOM	Chemical and Biological Defense Command
CECOM	Communications-Electronics Command
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFP	Contingency Force Pool
CFSC	Army Community and Family Support Center
CINC	Commander in Chief
CJCS	Chairman, Joint Chiefs of Staff
CMF	Career Management Field
CONUS	Continental United States
CORPS SAM	Corps Surface-to-Air Missile
CRADA	Cooperative Research and Development Agreement
CRC	CONUS Replacement Centers
CREST	Contingency Real Estate Support Team
CSA	Chief of Staff, Army
CTC	Combat Training Center
CUCV	Commercial Utility Cargo Vehicle
CWA	Clean Water Act
DA	Department of the Army
DAIG	Department of the Army Inspector General
DAMIS-FS	Drug and Alcohol Management Information System–Field
DARE	Drug Abuse Resistance Education

DARO	Defense Airborne Reconnaissance Office
DCSINT	Deputy Chief of Staff for Intelligence
DCSOPS	Deputy Chief of Staff for Operations and Plans
DCSPER	Deputy Chief of Staff for Personnel
DENCOM	Dental Command
DERA	Defense Environmental Restoration Account
DFSC	Defense Fuel Supply Center
DLA	Defense Logistics Agency
DOD	Department of Defense
DOPMA	Defense Officer Personnel Management Act
DUSA (OR)	Deputy Under Secretary of the Army (Operations Research)
ECI	Employment Cost Index
EDA	Excess Defense Articles
EMD	Engineering and Manufacturing Development
EO	Equal Opportunity
EPA	Environmental Protection Agency
EPLRS	Enhanced Position Location Reporting System
ER ATACMS	Extended Range Army Tactical Missile System
ETS	Expiration of Term of Service
FAA	Foreign Assistance Act
FAADC^2	Forward Area Air Defense Command and Control system
FARV	Future Armored Resupply Vehicle
FIM	Force Integration Master Planner
FLIR	Forward Looking Infrared
FLOWCAP	[Non–Unit-Related Personnel] Flow Computer Assisted Program
FM	Field Manual
FMF	Foreign Military Financing
FMS	Foreign Military Sales
FORSCOM	Forces Command
GAO	General Accounting Office
GHQ	General Headquarters
GPS	Global Positioning System
GSBCA	General Services Board of Contract Appeals
HAWK	Homing All-the-Way Killer
HEMTT	Heavy Expanded Mobility Tactical Truck
HET	Heavy Equipment Transporter
HIMARS	High Mobility Artillery Rocket System

HMMWV	High Mobility Multipurpose Wheeled Vehicle
HQDA	Headquarters, Department of the Army
HSSA	Health Service Support Area
HTI	Horizontal Technology Integration
ICDT	Inter-Component Data Transfer
IEW	Intelligence and Electronic Warfare
IGAR	Inspector General Action Request
IGLAS	Integrated General Ledger Accounting System
IMAP	Installation Management Action Plan
IMET	International Military Education and Training
ISM	Installation Support Module
ISR	Installation Status Report
ISSAA	Information Systems Selection and Acquisition Agency
I/TDA	Installation Table of Distribution and Allowances
JCSG-DM	Joint Cross Service Group for Depot Maintenance
JIC	Joint Intelligence Center
JP	Joint Publication
JPSD	Joint Precision Strike Demonstration
JROTC	Junior Reserve Officer Training Corps
JSC	Joint Service Committee
JTIDS	Joint Tactical Information Distribution System
JTF	Joint Task Force
JTTP	Joint Tactics, Techniques, and Procedures
LAM	Louisiana Maneuvers
LAV	Light Armor Vehicle
LSDF	Low Sulfur Diesel Fuel
LVOSS	Light Vehicle Obscuration Screening System
MACOM	Major Command
MCM	Manual for Courts-Martial
MEDCOM	Medical Command
MILCON	Military Construction
MLRS	Multiple Launch Rocket System
MOBMAN	Mobilization Manpower Planning System
MOS	Military Occupational Specialty
MRE	Meal Ready to Eat
MTOE	Modified Table of Organization and Equipment
MWR	Morale, Welfare, and Recreation
NAF	Nonappropriated Funds

NATO	North Atlantic Treaty Organization
NBC	Nuclear, Biological, Chemical
NCO	Noncommissioned Officer
NCOES	Noncommissioned Officer Education System
NGIC	National Ground Intelligence Center
N-LOS	Non–Line-of-Sight
NTC	National Training Center
NOV	Notice of Violation
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OASA-ILE	Office of the Assistant Secretary of the Army (Installations, Logistics, and Environment)
OASA FM&C	Office of the Assistant Secretary of the Army for Financial Management and Comptroller
OCSA	Office of the Chief of Staff, Army
ODCSLOG	Office of the Deputy Chief of Staff for Logistics
ODCSPER	Office of the Deputy Chief of Staff for Personnel
OHWS	Offensive Handgun Weapon System
OMA	Operation and Maintenance, Army
OMB	Office of Management and Budget
OPCA	Operational Capabilities Analysis
OPLAN	Operations Plan
OPTEMPO	Operational Tempo
ORE	Operational Readiness Evaluation
OSD	Office of the Secretary of Defense
OSHA	Occupational Safety and Health Administration
OTJAG	Office of the Judge Advocate General
PERSCOM	U.S. Total Army Personnel Command
PIN	Priority Intelligence Needs
PLA	Patent License Agreement
PLGR	Precision Lightweight Global Positioning System Receiver
PLS	Palletized Loading System
POM	Program Objective Memorandum
POV	Privately Owned Vehicle
PPBERS	Program Performance and Budget Execution Review System
PPBS	Plans, Programs, and Budgeting System
PRESBUD	Presidential Budget
QAPR	Quarterly Army Performance Review

RAPIDS	Real-Time Automated Personnel Identification System
RCAS	Reserve Component Automation System
RCRA	Resource Conservation and Recovery Act
REDTRAIN	Tactical Intelligence Readiness Program
RDTE	Research, Development, Test and Evaluation
RIF	Reduction In Force
RMMP	Resource Management Mentorship Program
ROAMS	Replacement Operations Automation Management System
RO/RO	Roll-On/Roll-Off
ROTC	Reserve Officer Training Corps
RPMA	Real Property Maintenance Activities
RSC	Regional Support Command
RSG	Regional Support Group
SADARM	Sense and Destroy Armor
SAMS I/II	Standard Army Maintenance System–Levels I and II
SANG	Saudi Arabian National Guard
SBIS	Sustaining Base Information Service
SERB	Selective Early Retirement Board
SIMITAR	Simulation in Training for Advanced Readiness
SINCGARS	Single Channel Ground and Airborne Radio System
SOF	Special Operations Forces
SPBS-R	Standard Property Book System–Redesign
SRC	Senior Review Council
STAMIS	Standard Army Management Information System
STN/DDR	Service to the Nation/Drug Demand Reduction
SWTIA	Stevenson-Wydler Technology Innovation Act
TACOM	Tank-Automotive Command
TAPDB	Total Army Personnel Database
TAPD-R	Total Army Personnel Database–Reserve
TAQ	Total Army Quality
TASS	Total Army School System
TATS	Total Army Training Strategy
TDA	Table of Distribution and Allowances
THAAD	Theater High Altitude Area Defense
TIMMS	Test, Measurement, and Diagnostic Equipment Integrated Material Management System
TOA	Total Obligation Authority
TOE	Table of Organization and Equipment
TRADOC	Training and Doctrine Command
TSSAM	Tri-service Standoff Attack Missile

UAE	United Arab Emirates
UCMJ	Uniform Code of Military Justice
UCX	Unemployment Compensation for Ex-service Members
ULLS-G	Unit Level Logistics System–Ground
UN	United Nations
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USADAOA	U.S. Army Drug and Alcohol Operations Agency
USAEHA	U.S. Army Environmental Hygiene Agency
USAFISA	U.S. Army Force Integration Support Agency
USAMRDALC	U.S. Army Medical Research, Development, Acquisition, and Logistics Command
USAMRMC	U.S. Army Medical Research and Materiel Command
USAR	U.S. Army Reserve
USASAC	U.S. Army Security Assistance Command
USR	Unit Status Report
VCSA	Vice Chief of Staff, Army
VERRP	Voluntary Early Release/Retirement Program
VETCOM	Veterinary Command
VSIP	Voluntary Separation Incentive Program
VTI	Vertical Technology Integration
WOLDAP	Warrant Officer Leader Development Action Plan

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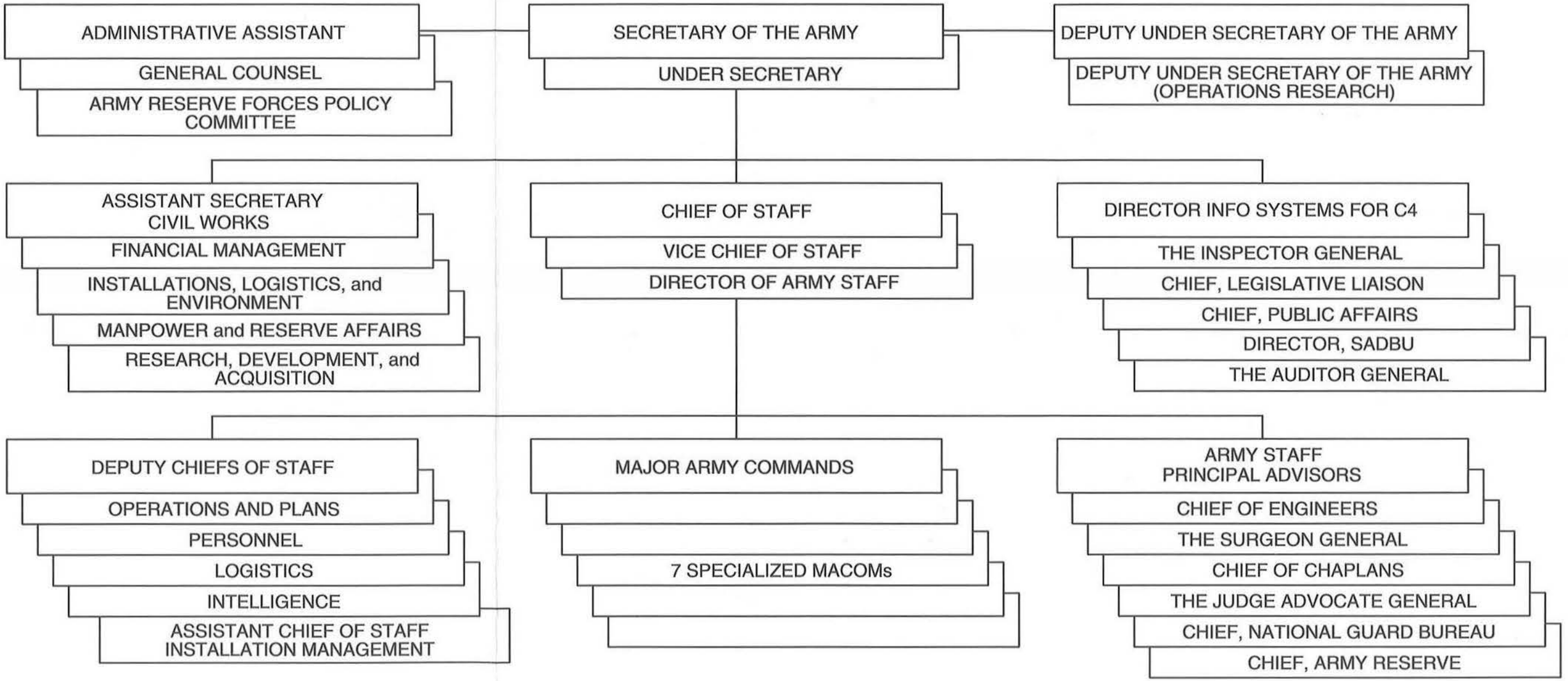
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Appendix. Organization of the Department of the Army



Source: Department of the Army Pamphlet 10–1, *Organization of the United States Army*, 14 June 1994.