Department of the Army Historical Summary

Fiscal Year 1985

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

The Library of Congress has cataloged this serial publication as follows:

Library of Congress Catalog Card 75–647561

ISSN 0092–7880

Contents

Tables

DEPARTMENT OF THE ARMY HISTORICAL SUMMARY

FISCAL YEAR 1985

1

Introduction

Early in fiscal year 1985, the Secretary of the Army and the Chief of Staff announced that "Leadership" would be the Army's theme for 1985.

In today's world, leadership remains the key ingredient that enables our Army to meet successfully the challenges we face. Leadership is vital for melding Army members' aspirations, skills and capabilities into an organization able to deter, fight and win in defense of our national interest.

No matter what the leader's rank, or organizational level, each leader has the same obligation. That obligation is to inspire and develop excellence in individuals and organizations; train members towards professional competency; instill members with a spirit to win; see to their needs and well being; and to set standards that will be emulated by those they lead.

The bond between the leaders, the led, and the organization must produce leaders who are grounded in the fundamentals, yet responsive to new ideas. We call on all of you to make this theme of Leadership a reality in the Total Army.

"Leadership" was the latest in a series of yearly themes begun in 1981, which focused attention on matters of Army-wide importance in forging a modern, quality force fit to win. The 1981 theme, "Yorktown," sought to revitalize the spirit of the Army through fostering a keener awareness of the Army's traditions and its heroic past. Subsequent themes dealt with "Physical Fitness" and the revitalization of the body; "Excellence" and the commitment to quality; and the "Army Family," which emphasized a feeling of community within the Army, with special attention given to increasing the sense of partnership that exists between the Army, soldiers and their families, and fostering the well being and quality of life of soldiers and their families.

As with previous themes, all echelons of the Army planned and put into action programs and policies to promote the theme, not only for the current year, but in the years to come.

Initiatives centered on honing leadership skills as they applied to recruitment, assignment, and retention; educating, training, and developing subordinates; utilizing organization practices and procedures which foster innovation and mission accomplishment; achieving decentralization and flexibility in organization and structure to promote creativity and initiative; promoting and awarding fairly and equitably to stimulate performance; strenthening structure and organizations which support the soldier and the family; developing better interpersonal communications; using technology to improve individual performance; imbuing subordinates with the highest professional values and ethics; and meeting the needs and promoting the welfare of those who were led.

Major program objectives for fiscal year 1985 were to staff the total Army; train it; modernize equipment and weapons; and attain the capability to arm, mobilize, and deploy a force of sufficient size to influence the early stages of a conflict.

Moreover, the Army began a concerted effort during 1985 to chart its course to the twenty-first century. Effective planning to ensure that decisions made in 1985 provide capabilities the Army needs to meet the future threat and execute the nation's military strategy is essential. Long-range planning to concentrate effort on high leverage initiatives that will provide significant improvements in warfighting capabilities emerged. The Army has decided to proceed along vectors that will provide direction, focus, and continuity during the remainder of this century. As the Army moves along these vectors, it must attain key operational capabilities that will permit execution of critical tasks necessary to ensure success on the AirLand battlefield.

Total Army Vectors

1. Provide quality soldiers in the active and reserve components.
2. Fight and sustain as part of joint and combined forces.
3. Field a flexible, sustainable, modernized force across the conflict spectrum.
4. Exploit operational and tactical dimensions of AirLand Battle doctrine.
5. Develop and exploit high technology and productivity enhancements.
6. Improve tactical and strategic deployability.

Critical Tasks

1. Enhance the performance of individual soldiers and battlefield leaders.
2. Enhance joint and combined operational capabilities.
3. Enhance the productivity of units.
4. Achieve synchronization of the land and air battle.
5. Field a deep attack capability.
6. Field a capability to defeat advanced Soviet armor.
7. Achieve modernized battlefield sustainment capability.

Key Operational Capabilities

The Army must develop many capabilities to accomplish its missions but will concentrate on those key operational capabilities that offer the most potential for translating battlefield operational concepts into combat power. They are:

1. Soldier and Unit Performance Enhancement (SUPE).
2. Command, Control, and Communications (C3).
3. Reconnaissance, Surveillance, and Target Acquisition (RSTA).
4. Battlefield Sustainment.
5. Battlefield Lethality.

Consideration of the concept of lightness is a requirement during the development of each of the key operational capabilities.

Building on the banner years of 1983 and 1984, the Army sought during fiscal year 1985 to carry forward the excellent results obtained from its recruitment and retention programs; attain an active Army end strength of 780,787—up from an authorized end strength of 780,000 in fiscal year 1984; and attain selected reserve strength of 724,029—438,383 in the Army National Guard and 285,646 in the Army Reserve. A revived economy, a decline in civilian unemployment, and less favorable demographic trends would make the task a trying one, but the prospect for meeting end year strength objectives appeared bright as the year began. A more perplexing problem, beefing up Individual Ready Reserve (IRR) strength to meet filler and replacement needs during the early stages of a conflict, continued to loom large. Despite modest gains in IRR strength since fiscal year 1977, the numbers in this critical reservoir of trained personnel remained woefully inadequate to meet wartime needs. General Bernard W. Rogers, North Atlantic Treaty Organization commander and former Army Chief of Staff, addressed the problem in March 1985 before the Senate Armed Services Committee, where he proposed the reinstitution of

the draft to meet individual reinforcement needs that would occur if war broke out in Europe.

Realism in training received increased emphasis in 1985. Using the latest technology, the National Training Center at Fort Irwin, California, provided near-combat training experiences to a growing number of active Army and Army National Guard battalions. Range modernization actions, including completion of modifications to the 57,000-acre military reservation at Grafenwohr, Germany, making it suitable for M1 Abrams tanks, Bradley fighting vehicles, and other new weapons streaming into United States Army, Europe (USAREUR), provided realistic targetry for modern weapons systems. Increased employment of advanced technology training aids and simulators enhanced individual and collective skills while conserving costly ammunition and fuel in a time of constrained resources. A vigorous Joint Chiefs of Staff (JCS)-sponsored field exercise program expanded from 10 directed and 32 coordinated exercises in fiscal year 1984 to 12 directed and 37 coordinated exercises this year. Major exercises included the annual REFORGER exercise in Europe; TEAM SPIRIT 85 in Korea; and AHUAS TARA II, a continuation of joint/combined U.S.-Honduran exercises conducted in 1983 and 1984. This year's version, which covered a three-month period, included an anti-armor field training phase which brought tanks into the manuevers for the first time. Increased emphasis on senior level participation in the JCS-directed command post exercise program provided both senior military and civilian leadership the opportunity to practice the decision-making process regarding major plans, policies, and procedures associated with mobilization, the transition to combat operations, and the conduct of combat operations. Training problems addressed during the year included resolving difficulties encountered in revising the Skill Qualification Test, which were aired at the Four-Star Commander's Conference held in August 1984, and reducing the high trainee failure rates reported by the Department of Defense Inspector General in November 1983. Other training initiatives undertaken during the year included the start of a new fifteen-week, one station unit training (OSUT) program at Fort Benning, Georgia, and a marked increase in Ranger School enrollment—from 2,100 to 3,000 a year—to provide ranger-qualified soldiers for the Army's new light divisions.

Army combat readiness at home, in Europe, and in Korea continued to make gains as a result of good results obtained from a comprehensive program to modernize the active Army

and the reserve components. Particular emphasis was given to meeting the high technology needs for fighting the AirLand Battle as well as providing the basic, dependable weapons needed for contingency operations on the lower scale of armed conflict; maintaining a proper equipment balance between heavy and light forces, combat and support units, and forward deployed and augmenting forces; and in working with industry to find more cost effective and more efficient ways to develop, procure, and field equipment. Creation of the Office of the Competition Advocate within the Office of the Deputy Chief of Staff for Logistics, in January 1985, was a positive step to keep acquisition and research and development costs in line through increased competition.

Significant modernization accomplishments during the year included starting production of the M1A1 tank, an evolutionary advance in the M1 tank which boasted a 120-mm. smoothbore gun and chemical-biological-nuclear defense features; raising production levels of the Apache attack helicopter and the Bradley fighting vehicles; and improving the Vulcan, Chaparral, and Stinger air defense systems. The continued influx of large quantities of new materiel—more than 400 types of new equipment items, including about fifty weapons systems, are being fielded in USAREUR—has quickened the pace of distribution to reserve component units of first-line, often product-improved, and fully combat ready equipment. New equipment issues to the reserve components have also increased: up from $900 million worth of new equipment in fiscal year 1984 to $1.4 billion in fiscal year 1985. Both factors have brought the Army National Guard and the Army Reserve to a significantly improved readiness posture.

The Army continued to pursue a dynamic research and development program to maintain the momentum of modernization. In addition to developing new weapons systems and improving existing ones, this year's research and development effort stressed achieving technological breakthroughs in distributed command, control, communications, and intelligence (DC^3I), very intelligent surveillance and target acquisition (VISTA), self-contained munitions (SCM), soldier-machine interface decontamination measures in nuclear, biological, and chemical warfare; and gearing the technology base and its scientific and engineering talents to providing innovations for current and future logistics systems, particularly as they related to lightening the force and the successful waging of the AirLand Battle.

The Army's ability to mobilize, deploy, and sustain itself in combat increased in fiscal year 1985, primarily due to improvements in reserve components management and full-time support, the mobilization base (including the training base), and the industrial base. But serious deficiencies remained. The most pressing concern was the inadequacy of strategic airlift and sealift capabilities to move soldiers and materiel to Europe in a timely manner to support NATO contingency plans. Light infantry initiatives, increased quantities of pre-positioned equipment in Europe, and strong support from Congress, the Air Force, and the Navy to improve strategic lift capabilities were serving to lessen the gap between lift capabilities and requirements, but much remained to be done. Of particular promise was the successful utilization of a new fast sealift ship in the annual REFORGER exercise. The roll-on/roll-off vessel moved much of the equipment used by troops during the exercise, sailing from Beaumont, Texas, and Savannah, Georgia, to Amsterdam, the Netherlands, in eleven days.

Fiscal year 1985 force structure changes supported readiness, modernization, sustainability, and deployment priorities; and the goal of developing a balanced force of heavy, light, and special operations forces units, streamlined to execute Air-Land Battle doctrine in diverse and distant geographic settings, in response to a wide range of threats, alone or with Allied forces. Programmed improvements in the active Army included conversion of heavy divisions in Europe to refined Division 86 unit designs; conversion of a CONUS infantry division to light infantry division configuration; activation of a new light infantry division and planning the activation of another; increased staffing for tactical support units and special operations forces units; activation of one chemical company in Europe; activation of one area signal company; and, in the combat service support area, activation of two ammunition, one fuel truck, one fuel supply, one LACV-30, and one heavy equipment maintenance companies. In the reserve components, conversion to Division 86 unit designs continued; the Army National Guard progressed in completing the organization of its ninth division and activated a tenth division 30 September 1985; and the Army Reserve expanded its roundout role and organized new combat service support units to improve the Army's capability in the critical areas of conventional ammunition supply, water production and storage, chemical decontamination, and communications and medical support.

Improvements in management to assure maximum effectiveness and efficiency was a major key concern during fiscal year 1985. Special attention was given to four key areas: weapons acquisition processes, force modernization and integration, resource management, and information management.

At the Army staff level the Contracting and Production Directorate, Office of the Deputy Chief of Staff for Logistics, was formed to provide much needed guidance, direction, and assistance to more than 240 Army contracting offices and to enable Headquarters, Department of the Army, to develop management information systems, policies, procedures, and methods necessary for effective and efficient contracting operations. Plans were pushed in Congress to upgrade the position of Assistant Chief of Staff for Information Management to deputy chief status, and to fully integrate all information functions, including information resource management, communications, administration, and command and control under the new deputy.

Establishment of the Army Rationalization, Standardization, and Interoperability (RSI) Office within the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) provides a focal point at the Army staff level for RSI matters. The new office will oversee the development of specific RSI policy guidance designed to build a balanced, ready force capable of interoperating with the forces of allies and friendly actions, thereby improving the Army's conventional warfighting capabilities.

In the field, modernization and integration management was promoted by expanding the role of the U.S. Army Development and Employment Agency, which had largely been confined to evaluating operational concepts, organizations, and materiel requirements for light forces, to heavy and special operations forces and low intensity conflict initiatives. A major reorganization of U.S. Army Forces Command's reserve component management structure was completed. The resulting structure, with five continental armies (including the newly established Fourth Army) and no Army Readiness and Mobilization Regions, eliminated one layer of supervision and provided increased responsibility to the Army National Guard and the Army Reserve.

Details on the year's highlights described above, as well as other important events experienced by the Army in fiscal year 1985, are described in the chapters that follow.

2

Staffing the Army

In peacetime and in wartime, people are the Army's chief asset. Throughout fiscal year 1985, the Army worked hard to bring into its ranks highly qualified and motivated individuals and to provide the professional environment that would prompt the best to stay. The professional performance of soldiers at home and abroad, whether training friends in Honduras, participating in large field exercises with Allied forces, performing United Nations peacekeeping missions in the Sinai, or keeping constant vigil at distant outposts on the edge of freedom, attest to the considerable success of the Army's enlistment and retention programs and the other efforts undertaken during the year to support the thesis that nothing is more important to the Army than the people who comprise it.

Plans to form two new active Army divisions over the next three years were not predicated upon a corresponding increase in authorized strength, which rose only slightly from programmed levels of 780,000 for the close of fiscal year 1984 to 780,800 at the end of fiscal year 1985; but did call for increases in Selected Reserve strength and increased responsibilities for both the Army National Guard and the Army Reserve. Guard paid end strength for fiscal year 1985 was 439,952 compared to 434,259 in fiscal year 1984. Army Reserve paid end strength was 292,080 in 1985 as against 275,100 in 1984.

At the close of fiscal year 1985, the Army's three military components were either just short or above authorized end of year strength levels: active Army—780,787 (-13); Army Reserve—292,080 (-3,055); and the Army National Guard—439,952 (+179).

Enlisted Personnel

The active Army met its recruitment goals in fiscal year 1985; and repeating the achievement first made in 1984, more

than 90 percent of the new recruits were high school graduates. Test category I-IIIA's represented 63.4 percent of all non prior service enlistments and test category IV's, individuals who score in the lowest acceptable category on the Armed Forces Qualification Test (AFQT), fell to 10.2 percent. In light of an increasingly competitive manpower market due to a declining labor pool, an improved economy, and lower unemployment, continued success in fiscal year 1985 would be difficult to maintain and greater stress would have to be placed on such incentives as fair and competitive compensation, a new educational assistance program, and enlistment bonuses. Enlisted accession goals and accomplishments for the year are noted in *Table 1.*

TABLE 1—ENLISTED ACCESSIONS

(In thousands)

Category	Fiscal Year 1984		Fiscal Year 1985		Fiscal Year 1986	
	Goal	Actual	Goal	Actual	Goal	Actual
Nonprior Service	131.4	131.7	119.0	119.1	127.0	—
Male	114.2	114.5	103.8	103.7	111.5	—
(I-IIIA)	70.5	70.7	64.6	63.8	69.1	—
(HSDG)	102.2	102.3	92.7	92.6	100.1	—
(HSDG I-IIIA)	58.4	58.4	53.5	53.8	57.7	—
Female	17.2	17.2	15.2	15.4	15.5	—
(I-IIIA)	13.0	12.9	10.1	10.1	10.9	—
(HSDG)	17.2	17.2	15.2	15.4	15.5	—
(HSDG I-IIIA)	13.0	12.9	10.1	10.1	10.9	—

The Veterans Educational Assistance Act, signed into law in October 1984, gave the Army and the other military services an important new tool in attracting recruits. The basic benefits package provides persons entering active military service after 1 July 1985 $9,000 in education benefits for serving two years and $10,800 in benefits for serving three years. Additional benefits—up to $17,000 for those signing up for two years, $22,800 for a three-year enlistment, and $25,200 for individuals making a four-year commitment—are available for soldiers who have a high school diploma, score in the upper 50 percentile on the Army aptitude test, and enlist in specific, critical skills in which the Army offered training. Army reserve component soldiers who meet the requirements and extend their terms of service to six years are eligible for up to $5,040 in educational benefits.

A successful retention program in fiscal year 1985, as with a successful enlistment program, was contingent upon economic conditions; a fair, competitive, and reasonably secure level of compensation; adequate selective reenlistment bonuses; and provision of educational and self-improvement opportunities.

As in fiscal year 1984, the focus of retention was to reenlist only quality soldiers. Policy changes instituted during the year to insure this result included requiring all reenlisting soldiers to meet current physical fitness standards and be qualified in the use of their basic weapon; requiring a waiver for reenlisting soldiers who have a court-martial or an Article 15 punishment on their record; and requiring all first term nonpromotable soldiers in grade E–4 and below to appear before a reenlistment screening panel. The Army also requested congressional authorization to extend beyond 30 March 1985 an exacting requirement which denies reenlistment to midterm soldiers who do not score well on skill qualification tests or the general test portion of the armed services vocational aptitude battery. Reenlistment statistics for fiscal years 1984 and 1985 are presented in *Table 2.*

TABLE 2—ACTIVE ARMY REENLISTMENTS

(In thousands)

	Fiscal Year 1984			Fiscal Year 1985		
	Goal	Actual	Percent	Goal	Actual	Percent
Initial Term	28.4	29.1	102.5	27.8	29.0	103.9
Midterm	25.0	24.3	97.3	22.6	23.2	102.8
Career	23.4	23.2	99.1	22.5	22.0	97.5
TOTAL	76.8	76.6	72.9	72.9	74.2	101.6

Reserve component enlistments in fiscal year 1985 were affected by the same demographic and economic factors which influenced active Army recruiting efforts. But the task was all the more difficult because of increased recruitment goals established for the Army Reserve and the difficulties experienced by the Army National Guard in 1984, which were expected to continue in 1985, despite a lowering of enlistment goals. In fact, the Army Reserve met its enlistment goals in 1985 while the Army National Guard fell slightly short. Reserve component enlisted accession statistics for fiscal years 1984 and 1985 are listed in *Table 3.*

TABLE 3—RESERVE COMPONENT ENLISTMENTS

(In thousands)

	Fiscal Year 1984		Fiscal Year 1985	
	Goal	Actual	Goal	Actual
ARNG				
Prior Service	50.0	43.9	37.9	43.5
Nonprior Service	60.0	45.9	49.0	39.4
TOTAL	110.0	90.1	86.9	83.0
USAR				
Prior Service	34.7	45.2	37.9	45.7
Nonprior Service	34.5	29.2	32.2	29.2
TOTAL	69.1	74.4	70.1	74.9

To aid the reserve component recruitment effort, the Army increased recruiting personnel during the year by 650 for the Army Reserve and by 601 for the Army National Guard. The Selected Reserve educational assistance program, authorized by the fiscal year 1985 Department of Defense Authorization Act, also bolstered the reserve component recruitment effort.

Both the Army National Guard and the Army Reserve failed to meet first term reenlistment objectives in fiscal year 1984; but while the Army Reserve had a particularly successful year in retaining careerists, achieving 114.7 percent of their goal, the Army National Guard fell considerably short. Guard performance in this area improved significantly in fiscal year 1985, in part through the addition of sixty-seven active guard/reserve personnel whose job was to increase the retention of trained personnel who are completing terms of service. The Guard exceeded its reenlistment goals for both first term and career soldiers. The Army Reserve came close to meeting its goal in career reenlistments, but fell considerably short in first term reenlistments.

As Executive Agent for the DOD Recruiting Facilities Program, the Corps of Engineers accomplished 2,402 recruiting station actions during fiscal year 1985. These included the establishment of a new recruiting office and the relocation, expansion, and upgrading of existing offices. As of 30 September 1985, the services had about 7,900 recruiting offices in operation.

Officer Accessions

The Army met its accession goal for fiscal year 1985 and achieved an officer end-strength of 109,687. For fiscal year 1986 the Army planned to bring in 9,473 officers to meet an end-strength objective of 110,005. ROTC units located in over 300 colleges across the country continued to be the primary source of officer accessions. While senior ROTC enrollment decreased by 3 percent during the year, approximately 7,900 graduates were expected to receive commissions in fiscal year 1986. This output will satisfy active Army needs, but will leave the reserve components short. Officer accessions in the active Army for fiscal years 1984 and 1985 and programmed accessions for fiscal year 1986 are shown in *Table 4*.

Successful retention rates registered in fiscal year 1984 will be maintained in fiscal year 1985 by keeping on board captains and majors in shortage specialties who are not selected for promotion and extending minimum time and grade for voluntary retirement. Successful retention of highly qualified officers will also depend on fair benefits and compensation for both active and retired personnel.

TABLE 4—ACTIVE ARMY OFFICER ACCESSIONS

	FY 1984		FY 1985		FY 1986	
	Programmed	Actual	Programmed	Actual	Programmed	Actual
Basic Branch	6,752	7,086	6,492	6,494	6,000	—
Chaplain	116	116	140	141	123	—
JAGC	193	201	206	224	167	—
MC	690	606	446	579	464	—
DC	140	123	155	137	189	—
VC	50	50	46	45	35	—
ANC	610	644	468	514	583	—
AMSC	50	53	40	44	45	—
MSC	403	390	404	390	471	—
Total Commissions	9,004	9,269	8,397	8,568	8,077	—
Warrant Officers	1,848	11,092	1,593	1,565	1,396	—

Shortfall in Reserve Officers' Training Corps (ROTC) production will have a greater impact on ARNG accession goals as the Guard's reliance on ROTC increases. This is particularly true in light of the Army-directed phased reduction of state Officer Candidate School (OCS) programs to encourage appointment of ROTC officers with baccalaureate degrees. By

fiscal year 1990, state OCSs will produce less than 20 percent of Army National Guard (ARNG) commissioned officer accessions while ROTC is expected to provide over 50 percent.

Major problem areas in the ARNG strength picture continued to be shortages of company grade officers in all combat arms and the chronic shortfall in Army Medical Department (AMEDD) officers and chaplains. Actions taken during the year specifically tailored to improve recruitment and retention in these areas included support of the Full Time AMEDD Force to assist the states in alleviating medical department officer shortages; waivers of age, overstrength, and training requirements for AMEDD National Guard officers; increased utilization of Reserve of the Army Medical/Dental Student Commissioning Program for the Army National Guard; continuation of expanded overstrength authority for Army Nurse Corps officers in states without large medical units; and enrollment of full-time seminary and theological school graduate students in the Chaplain Candidate Program.

Officer accessions in the Army Reserve, which fell short of established goals in fiscal year 1985, came primarily from ROTC, direct appointments, and transfers from the Individual Ready Reserve and the active Army. A major problem in fiscal year 1986 will be a shortfall of approximately 1,000 officers of the 3,000 required from ROTC. This reflects the higher number of ROTC-commissioned officers entering the active Army noted earlier, and will result in lowered personnel readiness in the Army Reserve.

Personnel Management

The Army took a number of initiatives during the year to ensure that personnel who are highly skilled to meet the technical demands to fulfill the Army's mission in space would be available. Thirty officers were assigned to the Army Space Initiatives Study Group to develop the Army Space Master Plan. To more easily identify officers with space-related education, skills, and experience, a new additional skill identifier (ASI) was created. The ASI 3Y, Space Activities, is now being awarded to qualified officers. To support future requirements in space, twenty officers were selected for advanced civil schooling in selected space-related disciplines, and the 1985 Army Education Requirements Board validated twenty-seven new

space-related positions. Other space initiatives included the assignment of officers to the Strategic Defense Initiative Office (SDIO) and a special space-related Navy project. Also, additional officers were assigned to the Ballistic Missile Defense Program Office. The experience and training these officers receive will assist the Army in meeting future space-related requirements.

The Army's Astronaut Candidate Program also supports the space effort. In 1985 the Army nominated thirty-two officers and soldiers to participate in the NASA-sponsored shuttle program. One selectee was chosen for mission specialist training, bringing the total number of Army officers participating in the shuttle program to four. Two officers have completed training and are scheduled for flights early in fiscal year 1986.

The Army revised the 1,000-point promotion worksheet for sergeant and staff sergeant during the past year in order to recognize the high quality of young soldiers in today's Army. Points for time in grade and time in service were eliminated. Points were added for physical fitness and weapons qualification. Also, emphasis was added to the commander's evaluation and military education.

The Army has worked consistently during the past decade to solve critical shortages in its NCO ranks. In 1974 there was a shortage of 65,000 in the top five enlisted ranks. Last year the gap was closed and the Army turned its attention to the proper balance and alignment of the force by Military Occupational Specialty (MOS) and grade. Force Alignment Plan I (FAP I), 85–86, the Army's current program to correct MOS imbalances, seeks to reduce the 29,000 overages and shortages in grades E–5 to E–9 which existed at the beginning of fiscal year 1985 to the lowest practicable levels. Key elements in attaining this goal are the judicious use by personnel managers of accessions, promotions, reclassifications, and reenlistments. In instances where existing grade structures are not feasible or are not self-sustaining, Training and Doctrine Command will look into the possibility of changing grades to more attainable levels. The successful implementation of FAP I during the past year resulted in a reduction of MOS imbalances to 16,000 in September 1985. Continued success during fiscal year 1986 will serve to further reduce the gap between inventories and authorizations and will enhance morale by providing soldiers more equitable promotion opportunities in all MOSs.

Stability and Cohesion

Implementation of the New Manning System, which was created to increase combat effectiveness by reducing turbulence and enhancing cohesion and esprit, moved forward during the year. The new system is comprised of COHORT (cohesion, operational readiness, and training), a unit replacement system which supplements the existing individual replacement system and a regimental system to enhance esprit and give soldiers a long-term sense of identification with a specific regiment, its colors, traditions, and history.

Under COHORT, regimentally recruited groups composed of first term enlistees go through initial entry training and then report to a U.S. Army Forces Command (FORSCOM) installation to join a company-level cadre of leaders for a stabilized three-year unit life cycle. The units complete collective training and remain in FORSCOM for eighteen months if deploying to a long-term area, such as Europe; for twenty-four months if the unit's overseas assignment is to a short-tour area, such as Korea; or for thirty-six months if the unit is not schedule for peacetime deployment. Upon completion of its overseas tour, the COHORT unit is disbanded and replaced by another unit deployed from the continental United States. Nineteen COHORT units had deployed overseas (eleven to Europe, seven to Korea, and one to Alaska) by the close of fiscal year 1984. Initial assessments indicated that the linking of first-term soldiers and their leaders for a three-year period establishes a greater sense of cohesion belonging and unit pride among soldiers and leaders alike; and that COHORT units showed higher personnel stability, lower attrition rates, and higher Skill Qualification Test scores than the norm.

During 1985 the Army increased the number of COHORT company- and battery-sized units from 76 to 122, and reorganized thirteen battalions as COHORT units. Eight of the battalions would deploy to Europe in 1986, in what would be the largest unit rotation since 1954. Plans were also under way to expand the concept to include other combat arms—COHORT company-sized units are currently confined to infantry, armor, and cannon field artillery—as well as combat support and combat service support units.

The U.S. Army regimental system is based on grouping similar battalions under one regimental flag or "color." The sixty-four regiments authorized under the system, of which fifteen are designated thus far, have been nontactical organiza-

tions and are expected to perform an important role in fostering cohesion, esprit, and identification of affiliating soldiers with a regimental "home" throughout their military careers. Additional designations are not expected until a review of the system begun in January 1985 has been completed and the Army Chief of Staff has made a decision regarding the future of combat arms regiments in the Army.

Quality of Life

The Army is not merely a job or a place to work. It is a way of life based on national service and a two-way commitment: by the soldier to the Army and the nation; and in return, by the Army and the nation to the soldier. Benefits are visible and tangible evidence of that national commitment. They reinforce the soldier's determination to serve, despite hazards, hardships, frequent moves, and uncertainties and enhance combat effectiveness. Quality of life benefits not only reaffirm the depth of the nation's commitments to its soldiers, they also vitalize the Army.

A key thrust in efforts to improve the quality of life in the Army during the past year has been implementation of the Army Family Action Plan, an outgrowth of the Chief of Staff's white paper on "The Army Family" issued in August 1983. The plan, which lists some sixty policy and budget initiatives, was the centerpiece of the Army's theme for 1984—the "Year of the Family." Actions taken in 1984 and continued into 1985 included upgrading existing child care facilities and constructing new ones; providing additional support for handicapped family members; increasing support to Army community service centers; establishing a family safety program; and providing improved family housing.

The Army's ability to provide adequate living quarters for soldiers and their families made significant progress during fiscal year 1985 under the stimulus of two new programs authorized by the Military Construction Authorization Act of 1984. These were the build-to-lease family housing program (section 801) and the rental guarantee housing program (section 802). Both programs permit the military services to enter into long-term contracts, twenty and thirty years respectively, for the use of housing at or near military installations built to military specifications. Appropriation or obligation of funds to pay for housing would be spread over the term of the contract. Housing under both programs would be financed and con-

structed by the developer, who owns, maintains, and operates the housing. The act provided that before an 801 or 802 contract could be let, the services must show that this means of financing would be less expensive than alternatives, such as normal military housing construction. Under the 801 program the developer leases the units to the government for use as military housing; under the 802 program the developer leases units to individuals, giving preference to eligible military personnel, with the government guaranteeing 97 percent occupancy.

Actions taken during the year to carry out the new program included the advertising for proposals for 801 projects at Fort Hood, Texas, and Fort Polk, Louisiana, and for 802 projects at Fort Rucker, Alabama, and Fort Campbell, Kentucky. This was in accordance with provisions of the act permitting each service to sign two contracts for 300 housing units each under both sections 801 and 802. Subsequent authorizations added a total of 1,800 more 801 units for the Army. Of these, the Army allocated 1,400 to Fort Drum, New York, and 400 to Fort Wainwright, Arkansas. By the close of the fiscal year, contracts had been awarded for the 1,400 leased units at Fort Drum and 600 rental units at Forts Rucker and Campbell.

In other housing developments, an important first occurred in January 1985, with the award of a contract to build 153 family housing units in Wildflecken, Germany, the first government-funded housing authorized in Europe. Construction of 1,800 new family housing units was planned at twelve locations in Europe through fiscal year 1987. In another breakthrough, programming family housing for enlisted soldiers in grades E–1 through E–4 for funding was initiated. Finally, a 200-unit mobile home park opened at Fort Ord, California. A private entrepreneur developed the facility on-post and rents the homes to soldiers and their families. The availability of family housing will be the pacing factor in assigning soldiers to the new light division installations at Fort Drum, New York, and Alaska. Morale, welfare, recreational, and family support facilities such as commissaries, post exchanges, and medical and dental clinics will be built in tandem with the family housing facilities. Army Chief of Staff General John A. Wickham, Jr., explained the high priority given family-oriented construction by noting that ". . . unit readiness is inextricably tied to soldiers' morale and discipline and to sustaining their families' strength. The better we can make soldiers and their families

feel about the Army and the support provided by the Army, the better off the soldier, Army and nation will be."

Better management of Army family life programs should result from their consolidation under the Community and Family Support Center, a field operating agency of the Deputy Chief of Staff for Personnel located in Alexandria, Virginia. Established on 1 December 1984, the new agency, which is headed by a two-star general, is responsible for family assistance; nonappropriated fund personnel and welfare business operations; lodging and leisure operations; and morale, welfare, and recreational activities which had previously been functions of The Adjutant General.

Programs to improve the living and working conditions of the individual soldier were not neglected during the year. Major new initiatives and ongoing actions included continued work on the dining facilities modernization program to increase efficiency, elimination of health and safety hazards, and improved food service; construction of new physical fitness centers to support the physical fitness program, chapel and chapel facilities to foster spiritual growth, skill development centers, theaters, and libraries; and an innovative means to provide affordable, pleasant housing such as the mobile home park at Fort Ord alluded to earlier. Particular emphasis was placed on utilizing recreational programs and physical activities as constructive alternatives to alcohol and drug abuse; and maintaining momentum in reaching the goal of providing modern barracks for all soldiers by 1992 and completing modernization of major Army medical centers by 1995. The Army's environmental program also plays an important role in improving the quality of life throughout the Army. In this area activities during the past year stressed the clean up of wastes from past industrial activities and the restoration of the environment to its natural state.

Women and Minorities

Since 1972 the Army has been in the vanguard of efforts to increase career opportunities for women. The number of women increased in all Army components during fiscal year 1985—up from 76,900 to 78,800 in the active Army, from 44,600 to 44,700 in the Army Reserve, and from 22,500 to 25,200 in the Army National Guard. At the end of the fiscal year, women comprised 10.15 percent of active Army strength, 16 percent of Army Reserve strength, and over 5 percent of

Army National Guard strength. The breakdown of female strength in the Army's three components as of 30 September 1985 is shown in *Table 5.*

TABLE 5—FEMALE STRENGTH IN ARMY COMPONENTS

	Enlisted	Officer	Total
Active	67,980	10,830	78,810
USAR	37,990	6,720	44,710
ARNG	22,800	2,390	25,190

Under the Direct Combat Probability Coding policy, women soldiers may not be assigned to jobs with units which would routinely engage in direct combat with the enemy. The effect of the policy is to exclude women from serving in 49 military specialties, but in the remaining 302 specialties—86 percent of the total—Army policy is to provide women the greatest number of meaningful career opportunities.

Racial and ethnic minorities comprise over one-third of today's Army. This represents a slight decrease as compared to recent years, and indicates a trend toward bringing the Army's composition more in line with the makeup of the general U.S. population. Recognizing that soldiers' confidence in their peers and leaders, and that the basic fairness of the Army as an institution is a vital element of readiness, the Army pursues a vigorous equal opportunity program. During fiscal year 1985 fair and equitable treatment for all service members received increased emphasis as a leadership issue and a key part of successful mission accomplishment. The success of the program is indicated by recent surveys, which show that an increasing majority of soldiers, including minority members, express a positive attitude toward equal opportunity and particularly the state of equal opportunity in their units.

Civilian Personnel

The Army depends heavily on its civilian work force for logistical support, management, and quality of life programs. Appropriated fund civilians, who comprise nearly 36 percent of total Army strength, are engaged in various management and administrative support activities; perform a full range of logistics tasks, including depot maintenance, supply and acquisition management, and transportation management; and provide es-

sential support in training, medical care, research and development, engineering, and facilities management. Nearly 24 percent of the Army's appropriated fund civilian forces make the transition from peacetime to wartime operations. Nonappropriated fund employees, who comprise three percent of the total Army strength, provide morale, welfare, and recreation support to soldiers around the world.

The civilian employment estimate for fiscal year 1985 was 401,392 (1,473 more than the fiscal year 1984 end strength). The increase—which reflected end strength adjustments in the Army Industrial Fund to accommodate an increased workload, additional manpower to improve acquisition and control of spare parts, and increased numbers of Army National Guard technicians—was not sufficient to meet increased workloads associated with force modernization and restructuring initiatives, training course development and revision, and base operations support for Europe. Additional civilians are needed to support fielding of new weapons systems.

Language in the fiscal year 1985 Department of Defense Authorization Act eliminating statutory civilian end strength ceilings for the year enabled the Army to avoid the personnel turbulence and associated administrative costs resulting from the need to release temporary employees on the last day of the fiscal year in order to meet end strength ceilings, resulting in an estimated cost avoidance ranging from $8–$10 million.

The civilian substitution program, which releases military service members for duty in essential combat, combat support, and service support units, continued to expand in fiscal year 1985. During the previous two years, 2,967 military positions were converted; 1,707 positions are programmed for conversion this year; and 832 are planned for conversion in fiscal year 1986.

During fiscal year 1985 the Army continued to seek a simplified federal pay system for civilian managers that is stable, contains adequate incentives, is convenient to administer, and preserves pay equity with the general schedule system.

Initiatives relating to employment assistance for family members of soldiers and civilian workers continued to receive attention. Successes included establishing a priority referral system for family members and expansion of employment assistance services and information.

During the year the Army tested a program for making optimum use of Senior Executive Service resources for engineers and scientists (nonconstruction). Approximately forty key engi-

neer/scientist positions were identified for more central management. The test program, which will run for four to five years, should result in enhanced management and technical skills, formalized career patterns, increased knowledge by senior managers of civilian executives' performance and capabilities, and prompt filling of key management vacancies with highly qualified executives.

The Army issued new regulatory guidance in July 1985 on taking disciplinary action. This guidance includes a new tougher policy concerning civilian employees who have engaged in fraud, theft, or intentionally dishonest conduct against the Army. Such employees will be considered for removal from the federal service unless there are justifiable mitigating circumstances warranting a lesser penalty.

Civilian fitness and sick leave control received increased emphasis during fiscal year 1985. Latest figures indicate a decline in sick leave use over 1980 levels and the success of a program begun in 1982 to educate employees and supervisors on the sound use of sick leave. The Army is supporting voluntary civilian fitness programs to relieve job-related mental and physical stress. The programs include physical exercises (conducted during nonduty hours), and classes on weight control, nutrition, stress management, smoking cessation, and substance abuse control. Successful programs of this type should aid in further reducing absenteeism due to sickness.

3

Training

Success on tomorrow's battlefield, which will be more lethal, intense, and complex than ever before, demands a peacetime training program devoted to excellence and the development of individual and unit skills and confidence to the fullest potential. Because of the critical importance of training in mission accomplishment, it was added as the eighth Total Army goal. The Secretary of the Army set the first seven goals—readiness, human, leadership, materiel, future development, strategic deployment, and management—in December 1981 as the basis for assuring the accomplishment of the Army's mission to be an effective deterrent against any attack on U.S. national interest; or, if deterrence fails, to engage and defeat any enemy in any environment.

Individual Training

During the past year, a number of actions were under way or planned to advance the technical and tactical proficiency of those who command and lead—the noncommissioned officer (NCO) and officer corps.

The School of Advanced Military Studies at the Command and General Staff College (C&GSC) has, since 1983, provided selected officers who have high potential as battalion and brigade commanders and as principal staff officers in divisions and corps with educational opportunities in the science and art of war at tactical and operational levels. A class of forty-eight has been approved for the current year.

Currently, about 1,200 captains are attending the nine-week staff training course at the Combined Arms and Services Staff School. The number of participants in the course, considered one of the most demanding and challenging in the Army, should double next year, but plans to train all captains outside the health services, Chaplain's Corps, and Judge Advocate

General's Corps will be delayed due to leadership requirements for light infantry divisions and other key initiatives.

The Chief of Staff approved a revised Officer Advanced Course of twenty weeks with up to six weeks of additional instruction based upon individual student needs relative to his or her next assignment. Implementation of the new format began in January 1985. Length of the revamped course should average twenty-three weeks as compared to the twenty-six week sessions under the old course.

The Chief of Staff also approved plans to carry out the Senior Service College Command and General Staff College Enhancement Program (SCEP). The program features an improved selection process for the Army War College Corresponding Studies Course (AWCCSC), which should result in higher retention rates; increased opportunities for Senior Service College (SSC) graduates and attendees through the SSC Fellowship Program and the addition of new correspondence courses; increased opportunities for CSC graduates and attendees through the evaluation of in-service equivalency; and better chances for officers in both Military Education Levels (MELs 1 and 4) by including foreign school equivalency in the evaluation process. Committees with Army-wide representation will be formed for each SCEP element to insure full implementation.

The Professional Development of Officers Study (PDOS), the first in-depth analysis of professional development in the officer corps since the Review of Education and Training for Officers (RETO) study in 1977, was completed in December 1984. Geared to long-range planning, the study projected training and education requirements through 2025, with special attention given to military training and education in service schools and units, and the identification of strengths and weaknesses in the current system. The PDOS study complements a more broadly based study conducted by the Officer Personnel Management System (OPMS) task force. It looked into all aspects of officer corps management—structure, accessions, separations, command, distribution, the role of proponent branches and arms, specialties, and promotions. A similar review for warrant officers has not yet been completed.

Several initiatives undertaken at the Ranger School during fiscal year 1985 were designed to provide Ranger-qualified soldiers and leaders for the Army's new light divisions. A Ranger School enrollment increase of 900, from 2,100 to 3,000, was approved for implementation in fiscal year 1987. But even with

the increase, some Ranger slots in the new divisions initially will have to be filled with non-Ranger personnel. Also, the first classes in a new four-week Light Leader Course, which got under way at Fort Benning in August 1984, were beginning to turn out commissioned and noncommissioned officers for duty with light infantry units.

Another light division training initiative, a fifteen-week, one station unit training (OSUT) program for 7th Infantry Division COHORT light infantry battalions, began at Fort Benning in November 1984 on a test basis. Training during the first thirteen weeks of the program is the same as that provided to regular infantry recruits, while the two-week add-on provides additional instruction in marksmanship, land navigation, and military operations in urban areas. The success of the new program led to its extension to other 7th Infantry Division battalions, and to plans for expanding it to other COHORT light infantry battalions which will be formed upon activation of the 10th and 6th Infantry Divisions and the conversion of the 25th Infantry Division to a light infantry configuration.

Revision of the Skill Qualification Test (SQT) from a written and practical applications format to a completely written exam in 1982, due to the length of time required to take the performance part, continued to present problems. The changes in the SQT were part of a comprehensive revamping of the Army's Individual Training and Evaluation Program (ITEP) which was designed to streamline and correct deficiencies by employing simpler procedures, greater flexibility, and an improved means of measuring skill level proficiency. The practical applications portion of the old SQT was to be replaced by hands-on common task tests which would serve to evaluate soldier performance. Many soldiers felt that the new test tended to result in lower scores, had an adverse effect on promotions and reenlistment eligibility, which were based largely on SQT test results, and that ability should be considered as well as "text book" knowledge. Training and Doctrine Command (TRADOC) sought to resolve discontent with the new SQT by combining the written test and the "hands-on" test; but Major Army Command (MACOM) commanders, at their August 1984 meeting, expressed reservations and the proposed revision was shelved pending further study of the matter.

The Army made progress during the year in reducing the number of enlisted recruits who failed both their first and second skill training courses. The double-failure rate, which a

critical Department of Defense (DOD) Inspector General audit prepared in November 1983 reported to be 38 percent for fiscal year 1981, had leveled-off in fiscal year 1984 and had dropped in fiscal year 1985. Critical factors in the high failure rate, according to the audit report, were that only 24 percent of the trainees surveyed received course reassignments of their choice, the lack of necessary prerequisites for enrollment in their second courses, and their assignment to second courses of such similarity to those they had failed initially as to predispose failure. Improvements in the trainee failure rate during fiscal year 1985 were due in large measure to taking into account individual preferences, ensuring that individuals possessed the prerequisites before training assignments were made, and expanding the availability of trainees' records on file at the Military Personnel Center through the use of computers so that local commanders and their staffs could more effectively match skills with available Military Occupational Specialty (MOS) slots.

A number of actions were taken during the year to improve the Noncommissioned Officer Education System (NCOES). The system comprises fully integrated resident training, self-study, and on-the-job training materials which are designed to sharpen leadership skills and insure technical expertise in support of career progression.

New construction begun at the Sergeants Major Academy this year, when completed in fiscal year 1987, will enable the Army to provide formal training for all first sergeants and sergeants major and institute formal training for senior operations and intelligence NCOs. The new facilities at Biggs Field, Fort Bliss, will permit an expansion of annual enrollments in the first sergeants course from 696 to 1,010, an increase in the sergeants major course from 496 to 624, and an enrollment of 500 students in the new senior operations/intelligence NCO course.

Merger of the primary leadership course for combat support and combat service support soldiers and the primary NCO course for combat arms soldiers into the primary leadership development course was completed during the year. The new course provides standardized instruction in the fundamentals of leadership, responsibility, and authority for all military occupational specialties.

The number of primary technical courses and basic technical courses rose by forty-two during the fiscal year, as the Army continued to expand educational opportunities for the

combat support and combat service support soldiers, thus enabling them to better supervise and train other soldiers on the job. These courses were brought under centralized management at the Military Personnel Center to ensure that full use is made of available training spaces and that the combat support and combat service support NCO is properly trained for career advancement.

In December 1984 TRADOC formed a study group to assess training requirements for the Individual Ready Reserve (IRR) and to develop training strategies to compensate for the fact that early deploying personnel would have little or no time for refresher training after mobilization and prior to deployment. In response to the study group's recommendations, the Army took a number of initiatives this year and planned others for fiscal year 1986 to beef-up peacetime training for the IRR. This year's actions included initiation of a pilot resident training program for IRR members in MOSs 11B, 19E, 31V, 54E, and 63B; development of an IRR training priority model; and making a start on incorporating IRR training strategies into the training requirements analysis system. In fiscal year 1986, following the successful completion of the pilot program, resident IRR training will be expanded to nine MOSs (11B, 12B, 13B, 19E, 31V, 54E, 63B, 76C, and 76Y); an annual review of IRR training priorities will begin; and counterpart training opportunities with active Army units for IRR members will increase.

Fiscal year 1985 saw the continuation of initiatives begun in 1982, the Army year of Physical Fitness, to improve the physical and mental well being of soldiers and their families. This year the *Army Families Fitness Manual* was published and distributed, and the Army Fitness School and Research Institute completed a comprehensive study of infantry soldier physical requirements. Also, extension of the over-forty medical screening effort to the reserve components began. Future projects in this vital area include enrolling reserve component personnel in master fitness training courses and developing fitness programs to meet specific combat requirements.

Training Facilities and Devices

The National Training Center at Fort Irwin, California, expanded its role of providing the most rigorous combined arms training experience short of war to both active and reserve component units. In fiscal year 1985, 28 battalions, including 5

of the Army National Guard, trained at the center—up from 24 battalions, including 1 guard battalion, during fiscal year 1984. Utilizing live fire as well as the latest in electronic devices and dedicated opposing forces in realistic scenarios, the center provides commanders with an objective assessment of their unit's training status. Data collected during the training course, which lasts twenty days for active Army units, is used to improve training, tactical doctrine, and weapons and support systems employment throughout the Army; and provides a record of performance that helps participating units work on areas that need improvement in follow-on home station training.

The U.S. Army School of the Americas transferred from Fort Gulick, Panama, to a temporary site at Fort Benning, Georgia, and became a component of TRADOC as of 16 April 1985. The mission of the School of the Americas is to train Latin American military personnel using the Spanish language. The school curriculum includes a Command and General Staff College, an Infantry Officer Basic Course, Patrolling, a Noncommissioned Officers Professional Development course and others. TRADOC's Permanent Site Study Group reviewed forty-one posts as potential sites for the final location and then reduced that number to three sites. A permanent site decision will be made by the Secretary of the Army in early 1986.

Activity in the Army's range modernization program during fiscal year 1985 centered on new range designs to meet training requirements created by the fielding of new weapons; upgrading existing ranges suffering the effects of two decades of underfunding; and modernization in response to new and expanded training requirements. A key element in the program was the Department of the Army Ammunition Ranges and Targets Agency, which provided field assistance to major command and installation trainers in design, site adaptation, and use of state-of-the-art technology. Construction of multi-purpose range complexes, begun in fiscal year 1984 at Forts Bliss, Riley, Hood, and two major training areas in Germany, continued into fiscal year 1985. One of the German ranges, at Grafenwohr, was completed in November 1984. It is the first company-size range in the Army and can accommodate the M1 Abrams tank and the Bradley fighting vehicles. Completion of the work at Grafenwohr capped a massive two-year effort which also involved construction of facilities at Hohenfels and Wildflecken. Coordinated by the Corps of Engineers' office in Frankfurt (European Division) and performed by USAREUR's

18th Engineer Brigade, this was the largest military construction effort by Army engineer troops in decades.

In other range modernization actions, Army Training Centers began a full upgrade of rifle ranges, and new ranges were built for infantry divisions in Hawaii and Korea; the first "light" multi-purpose range for airborne/airmobile/light infantry was fielded; and funds were obligated to demonstrate the first multiple object location system at the Fort Hood multi-purpose range complex. Also, to correct the Army's serious deficiencies in training facilities for military operations on urbanized terrain (MOUT), construction of new facilities was begun at Forts Ord and Hood. These will supplement existing facilities at Fort Bragg and Berlin (FRG). Both facilities will feature a live-fire MOUT assault course for teaching basic urban combat skills to individuals and squads. The new facilities will also have the capability to conduct force on force exercises at the platoon and company level.

The Army moved forward during the past year in the utilization of computers to train soldiers in the classroom and on post. Training and Doctrine Command is placing mainframe computers in selected sites and purchasing 1,000 terminals which will be linked by telephone as part of a nationwide instructional network that will contain five regional mainframes joining 1,200 terminals. Work also continued on an interactive video disc-based electronic information delivery system (EIDS), which will provide Army schools high fidelity video simulations and interactive training. Purchase of 1,900 EIDS units is planned for next year, and development of programs for use with the system is under way.

The unprecedented integration of modern weapons into the force structure and increased constraints on people, dollars, time, fuel, ammunition, repair parts, and environmental concerns have placed a premium on bringing into play training devices and simulators utilizing lasers, video discs, and computer-generated imagery to effect realistic conditions in carrying out effective field training programs. Their use in marksmanship and gunnery training programs permits greater utilization of training ammunition and other resources for advanced gunnery and combined arms live-fire exercises. This year emphasis in this area has centered on a vigorous research and development effort geared to the Army's most critical training device requirements, including precision gunnery, field artillery crew training, and signal intelligence operations and maintenance

training; and the procurement of a number of devices already developed.

New devices and simulators introduced during fiscal year 1985 included the unit conduct of fire trainer (UCOFT) for tank and infantry fighting vehicle crews and the Army Training Battle Simulation System (ARTBASS) for maneuver area commanders and their staffs. The Multiple Integrated Laser System (MILES), introduced two years ago, provides unparalleled opportunities for realistic, two-sided, tactical training on a number of ground, aircraft, and air defense direct-fire weapons systems and which has been particularly effective in battalion-level field training exercises at the National Training Center.

In October 1984 computers were installed worldwide throughout the U.S. Army chaplaincy at major commands, installations, the U.S. Army Chaplain Center and School, the U.S. Army Chaplain Board at Fort Monmouth, New Jersey, and the Office of the Chief of Chaplains. The system of 218 computers, which are accessible through autovon, commercial lines, and an 800 number, automated such administrative functions as statistical data and reports, appropriated and nonappropriated fund records, and reports and general administrative support activities, including word processing. The system has had the effect of increasing the quantity and quality of administrative support without increasing the number of support personnel. In May 1985 the Assistant Secretary of the Army approved the procurement of up to sixty-three additional compatible systems to expand system capabilities at installation level.

Field Exercises

The Army field exercise program involves deployment of equipment and troops within the continental United States and in Europe, Southwest Asia, the Pacific, and Central America. In addition to providing realistic, mission-oriented training, the exercises provide an opportunity to practice combined arms techniques, cooperation with other services, interoperability with allied forces, and demonstrate to friend and foe alike the capability and willingness of the United States to deploy rapidly in a crisis situation. During fiscal year 1985, Army forces, both active and reserve components, participated in 12 Joint Chiefs of Staff (JCS)-directed and 37 JCS-coordinated exer-

cises, up from 10 directed and 32 coordinated exercises in fiscal year 1984. A few of the major ones are noted below.

The tenth annual TEAM SPIRIT exercise involving U.S. and Korean forces was held in March 1985. The purpose of this series of exercises is to improve combat readiness of ROK and U.S. supporting forces through training in joint/combined operations, to include receiving, staging, employing, and redeploying out-of-country forces, and to show potential foes the resolve of South Korea and the United States in preserving freedom. This year's exercise focused on refinements in the application of AirLand Battle doctrine, rapid deployment of U.S. forces from other areas of the Pacific and the continental United States, and realistic training in a field environment.

United States Readiness Command (USREDCOM) conducted BORDER STAR 85, a joint readiness exercise involving some 30,000 Army, Air Force, and Marine service members in March 1985. Held at Fort Bliss, Texas, White Sands Missile Range, New Mexico, and adjacent public lands, the exercise used opposing forces in a simulated combat environment to train, test, and evaluate commanders, staffs, and forces in joint operations. Participants included I Corps Headquarters, units of the 9th Infantry Division, the 3d Armored Cavalry Regiment, 9th and 12th Air Force units, and elements of the 4th Marine Air Wing. More than thirty National Guard units and over fifty Army Reserve units also participated.

AHUAS TARA III, a continuation of the BIG PINE series of joint/combined U.S./Honduran exercises conducted in 1983 and 1984, was held from 11 February through 3 May 1985. Its purpose was to continue the U.S. presence in Central America, reassure friendly Caribbean nations, and deter aggression. During the preparatory phase (11 February-12 April) of the exercise, an engineer task force with support elements undertook engineer operations to support the joint/combined anti-armor and counterinsurgency field training portions of the exercise which began in mid-April. Redeployment of all exercise forces and equipment, including the first tanks used in the BIG PINE series, was completed on 3 May. In late April 1985 UNIVERSAL TREK 85, a joint U.S./Honduran amphibious exercise on the Northern coast of Honduras, involved some 6,600 U.S. troops, supported by attack helicopters and guided missile ships.

The Army secretariat, staff, and MACOMs were major participants in two Joint Chiefs of Staff Command Post exercises during fiscal year 1985. Exercise POWDER RIVER 85 was a mobilization and deployment exercise centering on multi-theater

conventional war plan execution. It was conducted 15–26 October 1984 and involved the participation of the Office of the Secretary of Defense, the Office of the Joint Chiefs of Staff, military services, unified and specified commands, and representatives of federal civil agencies. Army participants included major commands, continental armies, reserve component forces, and mobilization stations. Exercise WINTEX/CIMEX 85 was a NATO exercise with U.S. participation sponsored by the JCS. The exercise was a biennial NATO reinforced, worldwide CPX. The major Army participants were HQDA, USAREUR, MACOMs, and reserve component forces. The focus of the exercise for the Army, as was also true of POWDER RIVER 85, was to exercise and evaluate policies, plans, and procedures associated with the reinforcement of NATO.

Reserve Component Training

A number of initiatives were taken to improve training opportunities for reserve component units during fiscal year 1985. In addition to an increase in the number of National Guard battalions receiving training at the National Training Center, tactical engagement simulation equipment was being installed at reserve component summer training sites. Overseas deployment training, which provides high priority reserve component units the opportunity to train in their wartime contingency command alongside the active Army units with which they would serve, continued to grow, expanding to over 1,200 units/cells in 1985. The CAPSTONE program, which aligns reserve component units scheduled for deployment to Europe with their wartime chain of command, either in an affiliated or round out status, has been expanded to include the Pacific, Southwest Asia, and sustaining forces in the continental United States. During fiscal year 1985 reserve component commanders of CAPSTONE-aligned units met with their active Army counterparts and their staffs to exchange information, refine operations plans, and identify training requirements.

An important adjunct to reserve component training is the Active Guard/Reserve Program, which enhances training and readiness by providing reserve component units with the full-time personnel necessary to improve training, logistics mobilization planning, and readiness. Active Guard/Reserve personnel also serve as recruiters and in key staff positions in headquarters responsible for administering the National Guard and Army Reserve. Active Guard/Reserve Program strength in-

creased by 6,332 members—4,403 in the National Guard and 1,929 in the Army Reserve—during fiscal year 1985. Current plans provide for continuing increases in program strength through fiscal year 1990.

Also during the year, the Army published a regulation (AR 135-18) that laid the foundation for a total life cycle Active Guard/Reserve personnel management system. The regulation established acquisition, sustainment, and separation policies to provide the cadre of qualified full-time personnel the Guard and Reserve need. The National Guard Bureau and the Office of the Chief, Army Reserve, are preparing regulations to extend the policies delineated in AR 135-18 to their respective components.

In July 1985 the Secretary of the Army directed that a study be conducted on Reserve Officer Logistics Training. A task force at the U.S. Army Logistics Center, Fort Lee, Virginia, has begun an in depth examination of problems encountered by reserve component officers in receiving adequate training in the logistic functions of supply, maintenance, transportation, etc. The study should be completed in fiscal year 1986.

4

Modernizing and Equipping the Army

Insuring that its combat forces have sufficient quantities of modern, reliable weapons and materiel to engage any potential enemy anytime, anywhere, in any environment is of the highest priority to the Army. Essential elements in achieving this capability are improvements and more effective utilization of existing equipment; fielding new, more advanced equipment; and a viable research and development effort to provide long-term flexibility. Care must be taken to make sure that there is a proper balance of equipment between heavy and light forces, combat and support units, and forward deployed and augmenting forces. In this regard, the decision has been made to acquire new weapons in battalion unit sets to ensure that necessary support equipment is on hand.

The unprecedented introduction of new arms and materiel to U.S. Army, Europe, continued throughout fiscal year 1985. More than 400 types of new equipment, including some 50 new weapon systems, are being fielded. This has not only bolstered the Army's capabilities and engendered high enthusiasm among the soldiers who use the equipment, but it has also permitted the transfer of high quality equipment replaced by the new items to later deploying units, especially among the reserve components, and improved their ability to train and carry out their mobilization mission.

The reserve components also received large quantities of new equipment, including the M1 Abrams tank and the Bradley Fighting Vehicles. During fiscal year 1985 more than $1.5 billion in new and redistributed equipment was issued to the reserve components, as compared to $950 million in new and redistributed equipment deliveries the previous year. Over the next six years the Army National Guard and the Army Reserve will receive some $10.8 billion worth of modernized and redistributed equipment. Plans are now being carried out for the complete modernization of the reserve component tank fleet with the M1 Abrams or the M60A3 tank; the upgrade of all air

defense units with Roland, Chaparral, Improved Hawk, and Stinger missiles; and the modernization of all attack helicopter units with AH-1S Cobra/TOW or AH-64 Apache.

The Army paid increased attention during the year to finding better, more cost effective and more efficient ways to develop, procure, and field equipment. The Office of the Competition Advocate was created within the Office of the Deputy Chief of Staff for Logistics (ODCSLOG) in January 1985 to improve competition among the contractors who supply the Army. The new office will recommend annual competition goals, approve plans for organization and personal accountability, oversee competition procurement training, and seek ways to eliminate barriers to competition. During fiscal year 1984, 42.3 percent of the Army's contracts were awarded competitively, compared to 41.6 percent the previous year, and 40.3 percent in fiscal year 1982.

At Department of Defense level, creation of the Office for Contracting Integrity within the Defense Logistics Agency (DLA) was expected to strengthen that agency's ongoing efforts to curb contractor fraud and lead to even further debarments of firms because of fraudulent practices. During 1984 DLA debarred 132 contractors from doing business with the federal government and suspended another 80 firms. The 216 actions represented a 44 percent increase over the 150 actions taken in 1983.

NATO acceptance of the follow-on forces attack (FOFA) strategy early in the year gave increased impetus to a strong research and development effort. The new strategy envisages strikes deep into eastern Europe with new conventional weapons while keeping NATO's first priority of defeating the enemy's front line forces. It would require intensive development of so-called "emerging technologies," which would have applications in several areas of primary interest to the Army, including electronic war systems for helicopters, a terminally-guided weapon for the multiple launch rocket system (MLRS), autonomous precision-guided munitions for 155-mm. tube artillery, an advanced artillery locating system, a stand-off radar surveillance and target acquisition system, a medium-range remotely piloted vehicle for battlefield surveillance and target acquisition, and a short-range antiradiation missile.

The sections which follow describe some of the more significant happenings this year in the Army's efforts to equip its forces and the research and development initiatives pursued to insure that modernization will continue into the future.

Close Combat

The M1 Abrams tank program, now in its sixth year of production, moved forward as additional active Army and Army National Guard battalions converted to the Army's primary weapon system for closing with and destroying enemy forces. Production began during the year on the M1A1 version of the Abrams, which will be equipped with a 120-mm. gun in place of the M1's 105-mm. gun, and which will also feature a nuclear, biological, and chemical (NBC) over-pressure protective system. By 30 September 1985, 3,017 Abrams tanks had been produced. When production is completed in the early 1990s, almost 8,000 tanks will have been built, more than half of which will be M1A1s.

Work continued during the year in upgrading the M60A1 tank to an A3 configuration. Important improvements in converting A1s to A3s include the addition of a gun stabilization system, a laser range finder, a solid state computer and thermal shroud, and a thermal imaging sight. By the early 1990s the tank mix in both the active Army and the reserve components should consist of M60A3 and M1 and M1A1 tanks, and the older M48A5, M60, and M60A1 series tanks will have been eliminated.

Complementing the Army's tank arm on the battlefield is the Bradley Fighting Vehicle Systems (BFVS). The infantry and cavalry versions of the Bradley, equipped with high-density, tube-launched, optically-tracked, wire-guided TOW antitank systems, 25-mm. cannons, and 7.62 coaxial machine guns, provide high maneuverability and fighting "punch" for both daytime and night operations. Production of the BFVS has expanded to a rate in excess of 50 per month and fielding has been expanded. To date the 2d Armored Division, the 3d Infantry Division, and one Army National Guard battalion are equipped with the Bradley. To insure that the Bradley remains the finest infantry fighting vehicle in production, tests are being conducted to establish and improve the Bradley's ability to survive hits from weapons which overmatch its armor. The U.S. Army Ballistic Laboratory is in charge of testing, with user input provided by the U.S. Army Infantry School.

To assist the infantry, armor, and artillery on the battlefield, the Armored Combat Earthmover (M9) moved closer to fielding. After final testing at Fort Hood in the Spring of 1985, the Army leadership made a production decision. The M9 will provide support to both light and heavy forces.

The BFVS will replace selected M113A2 Armored Personnel Carrier as a squad carrier and scout vehicle, because the latter's mobility, firepower, and armor protection limitations make it less suitable as a fighting vehicle. But the M113 carrier fleet will continue to be upgraded for use in transporting troops, equipment, and cargo during combat operations. Currently this involves improvements in the cooling, heating, and suspension system to A2 status. Additional improvements to begin in fiscal year 1986 for the new M113A3 version of the carrier will include new armor and other survivability items to increase crew protection, and an upgraded engine and transmission to accommodate additional weight.

The AH-64 Apache, the Army's first attack helicopter specifically developed for the day/night, adverse weather, antiarmor mission, is under production and fielding will begin in 1986. Its main armament will be the laser-guided Hellfire missile system. Successful Hellfire firings from the AH-64 Apache were completed at Yuma Proving Ground, Arizona, this year.

Complementing the Apache in the attack helicopter fleet is the AH-1S Cobra/TOW, which began service in 1977. This year efforts continued to upgrade the AH-1 to the "S" configuration, to provide the Cobra/TOW with a night firing capability, and to implement the Cobra Fleet Life Extension Program (C-FLEX), which provides for improved rotors, blue-green cockpit lighting, improved TOW reliability, and upgraded radios.

In other Army aviation matters, the Army Helicopter Improvement Program (AHIP) underwent successful operational tests and has entered production. The AHIP involves conversion of the OH58A observation helicopter to an improved scout helicopter capable of providing commanders a highly mobile, survivable, and responsive means to find the enemy, keep the enemy under surveillance, and provide command and control for attack helicopters and artillery. The LHX family, the Army's next generation of rotorcraft, will be designed to meet the requirements of the AirLand Battle and Army 21. They will replace the current Army fleet of Vietnam vintage AH-1, UH-1, OH-58, and OH-6 helicopters. The LHX will be developed around two basic configurations—a scout/attack (SCAT) model and a utility version. Both will share common engines and a fully integrated and automated cockpit arrangement. During the summer the $40 billion LHX program came under fire from congressional critics anxious to cut defense costs in the face of mounting federal deficits. Secretary of the

Army Marsh responded to the program critics by announcing that a final decision on the program had not been made and that less expensive alternatives were being considered.

Deployment of TOW-2 was completed in USAREUR, EUSA, and Panama. Deployment continued in U.S. Army Forces Command (FORSCOM). Also, during the past year, a modification program that will enable the Improved TOW vehicle to fire TOW-2 missiles was completed and fielding of the Squad Automatic Weapon (M249) was suspended.

Air Defense

The Sgt. York Division Air Defense (DIVAD) Gun System was designed to counter the challenge posed by the proliferation of Soviet ground attack aircraft and antitank guided missile-launching helicopters. On 27 August 1985 the Secretary of Defense terminated the Sgt. York program. His decision was based on tests carried out earlier in the year which showed that the system's performance did not meet the growing military threat and that the marginal improvements provided by the system when compared to the capability of current air defense weapons were not significant enough to warrant continuing it. The Army immediately began to study future needs to provide forward area air defense.

The lessons learned from the Sgt. York experience proved that one weapon alone, or even multiple weapons acting independently, cannot defeat the air threat. The Army has worked with the Office of the Secretary of Defense (OSD) to develop an effective and affordable program as quickly as possible to fill the void in the forward area. Ongoing Army programs are being combined with new technology to integrate weapons, sensors, and command, control, and intelligence architecture into an integrated, highly effective system to counter the entire spectrum of the air threat to the forward area through the 1990s and beyond. The Forward Area Air Defense System (FAADS) concept is designed to provide total coverage in the division area and permits the enemy no preferred attach option. The strategy relies heavily on nondevelopmental items (NDI) and preplanned product improvements (P^3I) to rapidly overcome current air defense deficiencies and keep pace with the advancing threat.

The FAADS concept consists of weapons delivery elements tied together by a command, control, and intelligence (C^2I) network which integrates FAADS into the Army command and

control system architecture. The C²I initiative incorporates a family of sensors (ground and airborne, active and passive) with improved data processing and distribution capability. This subsystem will correct serious deficiencies in targeting, air defense operations, and command and control. The process to start full-scale engineering development for system software has been expedited along with the plan to execute an NDI strategy for the ground sensor. The full C²I system should be ready for fielding to divisions in fiscal year 1991.

The Nonline of Sight (NLOS) component will defeat HAVOC class helicopters and ground armored vehicles which are not visible to line of sight systems. The most promising candidate to accomplish this mission is a Fiber Optic Guided Missile (FOG-M), which is controlled through a fiber optic link from a ground station and is capable of locating and engaging targets by passing the seeker image through the fiber link to the remote gunner.

The Line of Sight-Forward-Heavy (LOS-F-H) component is designed to provide direct fire coverage and is capable of moving and surviving with forward battle elements. Industry solutions to this requirement have been evaluated. An ongoing cost and operational effectiveness analysis will assist in defining system requirements so that an NDI source selection demonstration can be held in fiscal year 1987, and fielding of the weapon to operational units can occur in fiscal year 1990.

The Pedestal Mounted Stinger solution to the Line of Sight-Rear (LOS-R) will consist of multiple Stinger missiles and a gun integrated on a High Mobility Multipurpose Wheeled Vehicle (HMMWV) to provide high firepower and mobile protection of the rear area assets of the divisions. Request for industry proposals is expected in mid-1986, and fielding of this component should occur in fiscal year 1989.

Various combined arms initiatives are being acquired for the air defense battle. These include air-to-air Stinger on the OH-58C/D initially and then potentially on a variety of platforms; improved air defense sights for the Bradley Fighting Vehicle and then other possible improvements to the sight, fire control, and gun rate of fire; and improved tank ammunition capable of both helicopter and tank engagements.

Patriot, the Army's new all-altitude missile system, will be the keystone of the Army's theater air defense. Its fast reaction capability, high firepower, and ability to operate in a severe electronic countermeasure environment are features not available in Nike-Hercules and Hawk, systems which Patriot will re-

place. Following a review of operational test results that confirmed the system's reliability, software, and electronic countermeasure capabilities, and a determination that adequate logistical support was available, the first Patriot battalion deployed to Europe this year. A total of 103 Patriot systems will be procured, 14 of which will be provided to German forces. Germany will purchase an additional 14 systems and the Netherlands has purchased 4.

The proven Improved Hawk missile continued as the mainstay of the Army's low to medium altitude air defense. Ongoing and planned improvements to the system include measures to increase performance in an electronic jamming environment, emission control modifications to reduce radar exposure to enemy antiradiation missiles, an optical tracking system that provides an alternate means of tracking targets, and a low altitude simultaneous engagement capability for use in saturation raids. Design modifications and testing will be initiated in 1986 with delivery of modification kits projected to the field in 1988.

A number of improvements are under way to maintain the effectiveness of the Chaparral, the short-range air defense (SHORAD) surface-to-air missile system, through the 1990s. These include use of a forward-looking infrared (FLIR) night sight to provide the Chaparral night and some adverse weather target acquisition capability, and an improved missile guidance system to enhance capabilities against infrared countermeasures.

The Stinger, a shoulder-fired, infrared homing missile system, provides air defense coverage to even the smallest combat units. It has been operationally deployed in Germany since 1981 and is replacing the Redeye system. This year plans moved forward for deploying a more advanced system (Stinger-Post) in fiscal year 1987, at which time a reprogrammable microprocessor will also be incorporated in the Stinger.

Fire Support

Pershing II, a modular, evolutionary improvement to the Pershing IA ballistic missile system, began deployment to Europe in December 1983. New motor stages and a terminally guided reentry vehicle gives the Pershing II more than twice the range as well as improved accuracy over the Pershing IA. Deployment to Europe continued on schedule during the first part of the fiscal year 1985, but a fatal incident involving the accidental burning of the first stage rocket motor of a Pershing

II near Heilbronn, West Germany, in which three U.S. soldiers died and nine were hospitalized, caused modifications in training. The cause of the accident was identified as electrostatic discharge. Fielding of the Pershing II was expected to be completed in December 1985, as scheduled.

This marked the third year of fielding for MLRS batteries. The system supplements cannon artillery by delivering large volumes of firepower (improved conventional submunitions) quickly against enemy targets. Germany, one of five partners developing the MLRS, is working on a scatterable mine warhead for the system. Codevelopment with France, Germany, and the United Kingdom of a terminal guidance warhead to defeat armor has begun.

Procurement of the M109A2 Self-Propelled Howitzer was completed in 1985. The M109A3 Howitzer, a depot conversion of the older M109A1 configuration, is equivalent to the M109A2. Modifications to the M109A2/A3, which should extend the effectiveness of the system to the year 2000, include improvements in reliability, availability, maintainability, the addition of a capability to operate in a nuclear, biological, and chemical environment, improved armament, and the incorporation of electronics, communication, and a ballistic computer.

Fielding of the Battery Computer System (BCS) to artillery batteries continued on schedule in 1985, and a product improvement plan was initiated to expand the system's memory. It is capable of stand-alone operations or of accessing the battalion-level TACFIRE system. It will also be able to function with the Advanced Field Artillery Tactical Data System (AFATDS), which will replace TACFIRE.

The M981 fire support team vehicle (FISTV), a modified M113A2 armored personnel carrier, gives field artillery fire support teams the capability to direct rapidly mortar, artillery, and air-delivered fire support using any of its four radios; and to designate targets for laser-guided munitions such as Copperhead and Hellfire. Delivery of the first production model of the FISTV was made in December 1984.

In other fire support actions, production of the field artillery ammunition support vehicle (FAASV) continued and deployment is scheduled for next year; the Ground/Vehicle Laser Locator Designator (G/VLLD) entered full-scale production; fielding of the Firefinder artillery locating radar (AN/TPQ-37) and mortar locating radar (AN/TPQ-36) continued; and the

delivery rate of the Copperhead 155-mm. cannon-launched guided projectile was increased.

Combat Support

The Aquila remotely piloted vehicle (RPV), a small propeller-driven, automatically controlled, pilotless aircraft, is designed to fly in hostile territory and locate targets, allow adjustment of artillery fire from remote distances, and laser-designate targets for destruction by laser-seeking artillery or missiles. It will also have the capability to perform reconnaissance, damage assessment, and other functions. The RPV is currently in engineering development, where some difficulty has been experienced due to the highly sophisticated tasks expected of it.

The Joint Starts Radar System will locate and track moving targets at extended ranges on the Army 21 battlefield. It will provide target location updates for indirect artillery fire and the in-flight guidance required for longer range missiles. Elements of the program are in full-scale engineering development and a contract for a limited production of the ground station should be awarded this year.

Quick Fix is a tactical, helicopter-borne jamming system configured for use in the EH-1H, EH-IX, and EH-60A helicopters. Each aircraft will be capable of intercepting and jamming radio communication. The EH-IX and EH-60 versions will also be able to locate communication transmitters. Several interim EH-IH systems were fielded this year; the interim EH-IX system is in production; and the EH-60 Quick Fix is in development.

The Army continued work on the chemical stockpile modernization program during the year. The binary chemical DF facility was completed for the 155-mm. binary chemical projectile. Meanwhile, advanced development on the MLRS binary chemical warhead continued. Chemical stockpile modernization remains a critical element in ensuring that the U.S. regains a credible chemical warfare deterrent.

The chemical demilitarization program continued with the construction of a BZ disposal plant at Pine Bluff Arsenal, Arkansas. Demilitarization planning has now been expanded to include destruction of the entire unitary chemical stockpile.

The Army continued efforts to improve the defensive aspects of deterring chemical warfare. It completed development of portable collective protection systems for use in existing

structures and continued developing an improved protective mask. A fully tracked armored smoke carrier which provides large area smoke screening on-the-move was type classified standard.

Improved nuclear projectiles for U.S. and NATO cannon artillery units deter conventional and nuclear attack and provide a means of responding flexibly to attacks should deterrence fail. Production of the improved eight-inch (W79/M753) nuclear projectile, begun in 1981, continued this year. And while Congress had blocked efforts to produce the improved 155-mm. (W82/XM785) nuclear projectile in fiscal year 1984, the fiscal year 1985 DOD Authorization Act, signed into law on 19 October 1984, restarted this important program subject to certain conditions. These included placing a cap of 925 on the number of modern nuclear projectile warheads (W79 and W82) that could be produced; imposing a production cost limit of $1.1 billion for the warheads; prohibiting production of an enhanced radiation version of the warheads; placing special emphasis upon improvements in the safety, security, range, and survivability of the warheads; and delaying production on the W82/XM785 improved 155-mm. nuclear projectile until the Secretary of Defense submitted an implementation plan to the Committees on Armed Services of the Senate and House of Representatives. Also, replacement of obsolete artillery fired atomic projectiles in Europe with the improved warheads would have to be carried out within the nuclear stockpile limits agreed to by the NATO Defense Ministers in October 1983, which required withdrawal of 1,400 tactical nuclear warheads from the European stockpile in addition to the 1,000 warheads withdrawn in 1980.

The Secretary of Defense submitted the required implementation plan in February 1985, thus opening the way for resuming engineering activities for the XM785 nuclear projectile. The Department of Energy resumed preproduction activities in August 1985.

Combat Service Support

Fielding of the UH60-A Black Hawk helicopter, the Army's replacement for the UH-1 "Huey" in air assault, air cavalry, and aeromedical evacuation missions, continued throughout the fiscal year. The Black Hawks were grounded in the spring following two fatal crashes that took the lives of fourteen soldiers and a civilian instructor pilot. One of the accidents was

caused by failure of the rotor blade spindle resulting from metal fatigue. Corrections have been made to insure that the spindles do not fail in the future, and the Black Hawks were flying again by midsummer.

The CH–47D Chinook helicopter, the Army's medium-lift helicopter, was also grounded during the year following a crash which did not involve the loss of life. This incident was caused by mechanical failure of the aft transmission. The upgrade of CH–47A, B, and C models to an improved D configuration continued throughout the year. The improvements include new fiberglass rotor blades, a new transmission and drive system, modularized hydraulics, a new electrical system, advanced flight controls, a trip hook cargo system, and an auxiliary power unit. These improvements should result in better reliability, maintainability, productivity, and survivability.

The HMMWV and the commercial utility cargo vehicle (CUCV) are complementary, light load carrying vehicles which will replace the current fleet of M880s, Gama Goats, Mules, and Jeeps. The HMMWV, after undergoing extensive initial production and user testing, was released to Army units, with initial fielding at 9th Infantry Division. Initial quality problems associated with the CUCV appear to have been resolved and fielding of the vehicle continues.

The Army's heavy load fleet is being updated with the new ten-ton, eight-wheel drive heavy expanded mobility tactical truck (HEMTT). The new truck is an assemblage of commercial components which meets high priority ammunition and fuel transport needs for the MLRS, Patriot, and Pershing II (CONUS). The HEMTT satisfactorily completed its third production test in December 1984 with high marks for substantially stronger front and rear axles and new cranes.

The Logistics Unit Productivity System (LUPS), an ODCSLOG initiative significantly changing the way the Army performs its logistics mission, will significantly increase per capita combat service support (CSS) productivity when key CSS units convert from a labor-intensive Table of Organization and Equipment (TOE) to an equipment-intensive TOE. Materiel items required to convert these units are being procured under management of ODCSLOG.

Soldier Support

Soldier support covers items that directly support the individual soldier. This includes organizational clothing and indi-

vidual equipment, chemical and biological defense equipment, night vision devices, and individual weapons.

Improved items of clothing are currently under development that will enhance the soldier's ability to carry out his or her mission, maximize survivability, and minimize stress and encumbrance. Future development will focus on better cold and hot weather clothing, and improved individual clothing and equipment for protection against noise, fire, blast overpressure, nuclear flash, and chemical agents.

Chemical-biological defense (CBD) equipment is being developed to ensure survival on the chemical-biological contaminated battlefield and reduce the severe degradation to mission accomplishment which the present gear causes. CBD equipment development and acquisition includes the NBC protective mask, NBC protective clothing, collective protection, detection and warning, and decontamination equipment.

Night vision devices allow the individual soldier to function as well at night as during day operations and under conditions of haze, fog, and smoke. Future technology will focus on reducing the life cycle cost of these devices, miniaturization, and weight reduction.

Individual weapon improvements are also an important segment of the soldier support mission. Improvements in the M16A2 rifle permit the use of NATO's standard 5.56-mm. round. The Advance Combat Rifle, currently in the technology phase of development at the Armament Research and Development Command, should be ready for fielding around the year 1995. It is expected to provide a significant improvement in performance over the M16 rifle. A contract has recently been signed with Beretta, U.S.A., to replace the aged .45-caliber pistol with a 9-mm. handgun which will fire NATO standard 9-mm. ammunition. The new handgun will be more accurate, reliable, and more effective than the revered .45-caliber pistol due to dual action firing mechanisms and ambidextrous safeties.

5

Mobilizing, Deploying, and Sustaining the Army

The success of the Army in staffing, training, and equipping combat and supporting forces to the high degree of proficiency required to meet the enemy and win must be matched by the Army's ability to mobilize, deploy, and sustain those forces in the field. During the past year gains have been made in each of these areas. Mobilization preparedness has been enhanced through increased reserve component readiness, improvements in the Individual Ready Reserve and the Individual Mobilization Augmentation programs, and a more responsive mobilization training base. Deployment capabilities gained in several areas—the ability of installations within the continental United States to process units for overseas movement, the amount of unit equipment pre-positioned overseas for use by deploying units, and the development of a more effective command and control structure to oversee the timely movement of critical resources. But serious deficiencies remained, especially in the area of strategic lift capability, both sea and air. Sustaining the force in peace and in war is a multifaceted undertaking involving such diverse concerns as providing adequate logistics support for the Army in the field; ensuring the readiness of peacetime forces, both active and reserve; protecting personnel and materiel from terrorist attack; and maintaining high morale within the Army Family of components, units, and people.

Mobilization

Mobilization planning during fiscal year 1985 benefited from the participation of planners at CONUS base commands and installations and the continuation of actions begun in fiscal year 1982 to improve the capabilities of the mobilization training base. These included the purchase of war reserve stocks of individual clothing and equipment, the acquisition of addition-

al major end items for the training base, and new construction starts for facilities to support base expansion upon mobilization. Also, a prototype for the Mobilization Equipment Redistribution System (MOBERS), which will provide the Army with the capability to centrally plan the redistribution of equipment to units engaged in a crisis situation, was developed. It will be used during MOBILIZATION EXERCISE 86.

A major mobilization concern continued to be the availability of trained individuals to meet the needs of Army units, both active and reserve, scheduled for early deployment. The Individual Ready Reserve (IRR), the Individual Mobilization Augmentation (IMA) Program, and the Army Retiree Recall Program are key elements in satisfying this requirement.

The IRR strength continued to show improvement during the year, rising from 276,651 in September 1984 to 301,825 in September 1985. One factor responsible for the good results was the IRR Reenlistment Bonus, which was begun in June 1984. It provides $750 for IRR members having critical skills who reenlist for three years. Beginning in fiscal year 1990, IRR strength should increase significantly due to a recent change in enlistment contracts which extended the military service obligation from six to eight years. Plans moved forward during the year to develop a comprehensive refresher training program for IRR members that is scheduled to begin in fiscal year 1988. Additional active duty training tours for members of the IRR are also needed. Current dollar restraints limit such tours to less than 20 percent of the IRR annually.

The IMA Program, which assigns individual members of the Selected Reserve to Modification Table of Organization and Equipment-Modification Table of Distribution and Allowances (MTOE-MTDA) positions in the active Army, as well as to agencies outside the Army such as the Office of the Joint Chiefs of Staff and the Office of the Secretary of Defense, and which are authorized to be filled only in wartime, continued to receive emphasis. The IMA strength increased from just under 11,000 at the beginning of fiscal year 1985 to 11,922 at the close of the fiscal year, as the Army moved forward in its efforts to reach an IMA strength of 27,000 officers and enlisted men by fiscal year 1991.

Plans to utilize retirees under the Retiree Recall Program were strengthened as the Army took advantage of provisions in the Department of Defense Authorization Act of 1984, which broadened the scope of potential recallees to include most retired enlisted members and retired reservists of all ranks as

well as retired regular officers who were already liable. The Army has identified 180,000 jobs that could be filled by retirees, and plans call for the issuance of up to 140,000 "hip pocket" mobilization orders directing retirees to report to various posts here and abroad in event of mobilization. The program is restricted to officers and noncommissioned officers under the age of 60. Participants are contacted annually to update medical and personal data. About 400 volunteer retirees participated in a test (Exercise CERTAIN SAGE) conducted at eight Army posts to evaluate installation-level notification, assignment, employment, and support procedures for bringing retired soldiers into active service during a mobilization.

Deployment

Fiscal year 1985 was marked by additional progress in correcting deficiencies in CONUS installations' ability to outload early deploying units so that they are able to meet required closure dates at ports of embarkation. These deficiencies, which are especially critical in support of military deployments, include deteriorated rail trackage, inadequate blocking and bracing of materiel stocks, and insufficient loading facilities. A five-year program begun this year earmarks over $44 million for upgrading outloading capabilities of the deficient installations, but over 163 million in additional funds are required through fiscal year 1991 to bring the facilities up to standards.

Another essential aspect in providing for the successful deployment of forces overseas is a comprehensive command and control structure to assure the timely movement of critical resources. In this regard, work continued on modernizing the Worldwide Military Command and Control System (WWMCCS), and initiatives were begun to upgrade command and control systems between deployment agencies and to improve the Army WWMCCS, the Defense Satellite Communications Systems (DSCS), and the Tactical Area Communications System (TACS).

Strategic mobility continued to be a primary concern in achieving the deployment capability needed to meet war and contingency plan requirements. Despite notable improvements in the sealift and airlift capabilities provided by the Army's sister services, serious deficiencies remain which are exacerbated by the decline of the U.S. Merchant Marine fleet and its ability to support wartime needs.

An improved strategic airlift capability, which is particularly critical during the early stages of war or crisis, has resulted from increased utilization rates for Military Airlift Command (MAC) aircraft, the C141 stretch program, the C5-A wing modification program, and the procurement of forty additional C5-B and forty-four more KC-10 aircraft. Intra-theater airlift capability will remain inadequate, especially for outsized cargo and will not improve substantially until fielding of the C-17 Airlifter, which is expected to begin in fiscal year 1992.

Sealift capabilities improved through the acquisition by the Navy of eight SL-7 containerships and their conversion to fast sealift ships (FSS) with roll-on/roll-off configurations. The eight FSSs have a cargo capacity of 200,000 square feet each. When all eight vessels are in operation, they will be able to transport a mechanized or armored division to Europe in 5 days and to the Persian Gulf in 14-16 days. In support of the REFORGER exercises, the FSS has successfully transported, for example, 271 tracked and 652 wheeled vehicles and 230 small military containers from Beaumont, Texas, to Amsterdam, the Netherlands. To counter the decline in the capability of the U.S. merchant fleet to meet wartime needs, the Navy increased the size of the Ready Reserve Force from 56 to 71 ships during fiscal year 1985. This program takes militarily-suitable ships being retired and maintains them in five- to ten-day readiness status for support of overseas contingencies.

The movement of materiel from cargo vessels offshore to ground units, part of the logistics-over-the-shore (LOTS) mission, is an Army responsibility. Deficiencies in this area were reduced during fiscal year 1985 by the activation of a second LACV-30 company and the funding for additional landing craft, causeways, and logistics support vessels. These actions are part of a comprehensive modernization of the Army's watercraft fleet. The Army is working very closely with the Navy under a memorandum of agreement (MOA) on strategic mobility to develop a balanced sealift and cargo off-load program. The MOA, which was signed by the chiefs of Army and Navy logistics on 9 July 1985, represents a commitment to maintain the momentum generated by previous MOAs.

While working closely with the Air Force and the Navy in seeking solutions to the problem of inadequate strategic mobility, the Army is also seeking to reduce air and sealift requirements through its land- and sea-based prepositioning programs and to increase deployment flexibility with its light forces initiative. During fiscal year 1985 plans were solidified

to place 8,000 tons of combat service support equipment aboard a newly procured Heavy Lift Pre-positioning Ship. This ship will be pre-positioned in the Indian Ocean next year. The equipment will be used to unload early arriving equipment and supplies to support Central Command (CENTCOM) contingency operations in Southwest Asia. Also, progress continued in raising the number of unit sets of equipment prepositioned in Europe under the pre-positioning of materiel configured to unit sets (POMCUS) program from four to six division sets, and in pre-positioning war materiel in the Reichel Logistics Facility in the Northern Army Group (NORTHAG) area of NATO's defense perimeter.

Sustainment

Sustainment of the Army in peacetime and wartime involves a number of diverse considerations. In wartime, tactical water support, petroleum distribution, medical support, preplanned contingency contracting, host nation support, and war reserve stocks are important factors in the ability of the Army to be sustained. In peacetime, the Army also must have the ability to sustain itself in a state of readiness, and in this regard such factors as depot maintenance, spare and repair parts, training materiel and ammunition, educational opportunities, the safety, security, and survivability of nonstrategic nuclear weapons, protection against acts of terrorism, and personal safety play a significant role. Also, the Army must show a genuine concern and commitment to the welfare of the soldier and his family if it is to sustain itself as an institution capable of performing its various roles and missions during peace or war.

Tactical water support is essential to support CENTCOM forces operating in arid environments. This support involves water detection, production, treatment and storage, distribution, and cooling. During the past year plans to operationally test a 150,000 gallon a day water purification system on a LASH Barge and mount a system of twice that capacity on a BC 231A Barge moved ahead.

To compensate for the thirty- to forty-year-old bulk petroleum (POL) pipeline distribution equipment in the Army Facilities Distribution System, which is labor intensive and no longer commercially viable, the Army has programmed funds to improve POL off-load and inland distribution through use of nondevelopmental pipeline items already "on the shelf." Use of this equipment will increase the rate at which pipeline may

be laid from one to fifteen miles per day. The Army has also begun procurement of 5,000-barrel, collapsible POL storage tanks and is pursuing jointly with the Navy the purchase of an offshore petroleum discharge system for use in LOTS operations. The system was successfully demonstrated in September 1985.

The Army's wartime medical readiness continued to be severely limited due to a shortage of professional medical personnel, particularly in the reserve components, and a shortage of medical equipment. Improvements in the situation were noted as deliveries of equipment for six hospitals purchased in 1983 began and active duty physician strength reached full peacetime authorization. Also, recruiting programs are being modified and developed to target critical shortfalls in professional medical personnel.

Other programs to support wartime forces moved forward during the year. These included industrial preparedness planning; wartime host nation support, with particular emphasis given to the decision of the Federal Government of Germany to activate reserve units to meet U.S. Army wartime needs in such areas as transportation, medical evacuation, POL/ammunition handling, and security; preplanned contingency contracting; war reserve stockage; ammunition war reserve stockage; and alternative energy resources to reduce reliance on Arab and Iranian oil.

Depot maintenance activities are a critical element of peacetime readiness. Progress has been made in recent years to reduce the chronic backlog in maintenance and repair, and the fiscal year 1985 budget provides a balanced depot maintenance program which should serve to reduce the backlog still further.

A host of initiatives were under way to improve repair parts supply at both the retail and wholesale levels. These included continued restructuring of Authorized Stockage Lists (ASL) and the Prescribed Load List (PLL) at division level to provide sufficient parts to support maintenance operations under combat conditions.

Another measure of peacetime readiness is the adequacy of reserve component training and storage facilities to support the critical missions entrusted to the Army National Guard and the Army Reserve under the Total Force policy. In the Army National Guard, for example, the number of facilities has expanded over the past five years to 2,956 armories, 918 surface equipment maintenance shops, 100 aviation support facilities, and 271 training sites. Programs are under way to acquire stor-

age facilities for safeguarding and maintaining the increased level of supplies and equipment required to perform the combat and combat support missions assigned Army National Guard units, new weapons training ranges to upgrade combat readiness, and maintenance facilities to support new combat equipment and weapons systems entering the Guard inventory. In spite of recent improvements, a recent survey revealed that 1,400 armories were inadequate and required replacement or major rehabilitation and expansion.

Fiscal year 1985 saw a continuation of efforts to implement the Long Range Security Program, which was developed to improve security at U.S. Army special weapons storage sites. Construction of hardened facilities for protection of site security forces is about to get under way and installation of the Intrusion Detection System has begun. The Weapons Access Delay System (WADS), a recent initiative to delay intruders from removing weapons at storage sites, is in the construction stage and should be ready for installation next year.

In response to the increased threat of terrorism, the Army Staff Anti-Terrorist Task Force conducted a major study to determine mission responsibilities and requirements to counteract terrorist threats. Increased funding will be required for the next several years to implement a long-term improvement program for total force protection.

This past year was the second in a five-year program to reduce military and civilian personal injuries by 3 percent each year. The program affirms the Army's commitment to promoting personal safety, which preserves fighting strength, is an indication of superior training and leadership, and demonstrates the Army's concern for its military and civilian members. Figures for fiscal year 1984 show that the Army exceeded the 3 percent reduction goal on the military side, registering a 4 percent reduction, but fell I percent short of meeting the goal in the civilian sector. Actions taken during fiscal year 1985 to ensure that the annual 3 percent goal is met include improvements in the materiel acquisition process, greater stress on safety in the Army school system, and dealing with high injury situations involving tracked and wheeled vehicles. Also, with the cooperation of the National Safety Council, the Army is conducting a study to examine the extent and character of accidents involving Army family members and developing countermeasures to reduce or eliminate problem areas.

Increased funding to support noncommissioned officer education in fiscal year 1985 represented the continued commit-

ment to obtaining and retaining well educated leaders in the noncommissioned and warrant officer levels, a significant element in peacetime sustainment and readiness. The centerpiece of this effort is the Service Members Opportunity Colleges Associate Degree (SOCAD) Program, which offers instruction in fifteen technical occupational areas and one general area which are related to NCO and warrant officer occupational specialties. The program is voluntary, conducted during off-duty hours, and participants receive tuition assistance from the Army. Another program, the Basic Skills Education Program, provides education in basic academic skills to soldiers prior to or during SOCAD courses.

Sustainment of the Army in peacetime has been nurtured during the past year by a continued emphasis on the Army Family, which was the Army theme in 1984. This involved support of programs and activities which promote all three facets of the Army Family: the Family of Components, the Family of Units, and the Family of People.

The Family of Components encompasses the roles and relationships among the active Army, Army National Guard, Army Reserve, civilian employees, and retirees. The Family of Units addresses the relationship of soldiers with their units and the ties of units to other organizational elements. The Family of People is concerned with the individual's sense of responsibility and the Army's concern for its members and their families.

Specific developments in furthering the growth and well-being of Army components and Army units are covered elsewhere in this report. Some of the major actions promoting people in the Army which are not covered elsewhere are noted below.

There was no letup during the year in the efforts of the Army staff and the major commands in seeking resolution of the sixty-seven issues outlined in the Family Action Plan put forth in 1984. During the year a new regulation was published to ease the stress of relocation and to provide soldiers and families with information, advice, and support to help newcomers make a good adjustment to new environments. Family housing policies were changed to make relocation easier and to open facilities to junior enlisted soldiers in pay grade E–4 and below. Employment policies have been revised to make job hunting easier for family members on and off post. Volunteer family support groups were formed at small unit level; adjustment programs for bicultural families were established; and comprehensive programs for prevention, education, and coun-

seling for drug and alcohol abuse have been developed and are being implemented.

The U.S. Army Corps of Engineers (USACE) executed for the Army and the Air Force the most massive construction program since the Korean War. The Army's portion of the program directly supported both the Army Family Action Plan and troop quality of life issues. Continued emphasis on new hard stands increased the soldier's ability to care for new equipment. A boom in construction and improvements in family quarters and barracks provided a dramatic boost in the morale of both families and soldiers. Large-scale modernization programs at both Tripler and Madigan hospitals were also morale boosters. The huge Air Force program, primarily executed by Corps contracting efforts, was a further direct contribution to the nation's tactical and strategic defense vitality.

6

Structuring the Force

Fiscal year 1985 was highly successful in the Army's continuing efforts to mold the total force—Regular, Army National Guard, and Army Reserve—into a balanced force of heavy, light, and special operations units; streamlined to execute Air-Land Battle doctrine; organized to employ the large quantities of modern equipment coming on line; and sustainable on the integrated (nuclear, chemical, electronic warfare) battlefield. Major force structuring actions undertaken during the year centered around the activation of two active Army divisions, which will bring the total to eighteen; refinement of the design for heavy divisions; reorganization of the 7th Infantry Division to a light configuration; continued organization of the Army National Guard's (ARNG) new mechanized division (35th), and activation of a new ARNG light infantry division (29th); and providing a second combat aviation company for light infantry divisions.

Divisions

Following an extensive review of force structure dispositions, national strategy, and the changing world situation conducted in 1983, the Army began to modernize its light forces in order to provide a more flexible response to emerging low intensity threats as well as to improve its ability to execute Air-Land Battle doctrine. Light forces, correctly employed in urban areas and close terrain, enable heavier armored and mechanized forces to counter the enemy on more open terrain. Also, increased strategic mobility permits early commitment to a developing situation in a deterrent role, possibly avoiding the choice of deploying larger forces at a later time or abandoning the field.

Army plans to enhance the potential of its light forces were built on the organization of five light divisions—two new active

Army divisions (each with two active brigades and one reserve component brigade), a new reserve component division, and two reorganized active Army divisions. The new 10,800-soldier light infantry divisions would contain a high ratio of combat power to overall strength and could deploy in approximately five hundred C141B sorties, about one-third the number required for currently organized infantry divisions. Reduction in support personnel for the new divisions is seen, for example, in the provision made for the light division engineer battalion, which will contain about 300 men as compared to the nearly 800-man units assigned to heavy divisions.

In spite of Office of the Secretary of Defense efforts during the summer of 1985 to delay light force initiatives in response to congressional demands to pare the fiscal year 1986 DOD budget request as an economy move, the Army moved forward in meeting its objectives in this area. In February 1985 the 10th Mountain Division (Light Infantry) was activated at Fort Drum, New York. Its strength will be built up in increments with one of its two active brigades temporarily located at Fort Benning, Georgia, until needed permanent facilities are built at Fort Drum, which heretofore had served as a reserve component summer training facility. Plans also moved forward during the year for activating the 6th Infantry Division (Light) early in fiscal year 1986, which will be organized around the 172d Infantry Brigade based in Alaska; and organizing the Army National Guard's light infantry division, the 29th, which was activated on 30 September 1985.

At the same time the Army was giving added emphasis to expanding its light division forces, it continued to reorganize its heavy divisions along Division 86 lines, which have been refined to increase operational flexibility and to implement Air-Land Battle doctrine. Certain functions have been shifted from division to corps, the number of tank and infantry companies assigned to maneuver battalions increased from three to four, the forward support battalion concept has been adopted in the division support command, a long-range surveillance detachment has been placed in the divisional cavalry squadron, the sound and flash platoon and division artillery observation and lasing teams have been deleted, and infantry squads and 155-mm. howitzer sections have been reduced to nine men each. Other Division 86 initiatives currently being implemented in CONUS and USAREUR heavy divisions are scheduled to be completed late next year, while reconfigurations taking place in Army National Guard heavy divisions will not be finished until

fiscal year 1991, due to fiscal constraints. When the changes have been completed, 16,800-man armor divisions will contain six tank battalions and four mechanized infantry battalions, while 17,000-man mechanized infantry divisions will have five tank battalions and five mechanized infantry battalions. Also, heavy division artillery pieces will increase from sixty-six to seventy-two howitzers plus a nine launcher MLRS battery, aviation assets will be contained in the division's cavalry brigade, a smoke generating capability will be added, and nuclear, biological, and chemical (NBC) defense will be enhanced. Plans to replace the heavy division's air defense battalion 24-gun Vulcan system with a 36-gun Sgt. York system were cancelled this summer when the Secretary of Defense halted the problem-plagued Sgt. York program.

Acting upon force designs adopted in fiscal year 1984, the Army pushed ahead with plans to reconfigure its air assault and airborne divisions. The new division structure will provide a broader range of communications capabilities, organic NBC decontamination and smoke assets, heavier anti-armor strength, and a third medical area support company for the air assault division, which will begin conversion in fiscal year 1986, and the airborne division, which will begin its reorganization the following year. A unique feature of the air assault division will be the air-combat aviation brigade, which will include a general support aviation battalion, two combat support aviation battalions, four attack helicopter battalions, a medium helicopter battalion, and a cavalry squadron.

In other divisional reorganization initiatives, the 2d Infantry Division has been redesigned to provide increased firepower and modernization for a forward deployed division without the availability of normal corps support. In 1985 an interim design was approved for the reorganization of the 9th Infantry Division as the 9th Infantry Division (Motorized). The design includes three infantry brigade headquarters and nine maneuver battalions, seven of which are combined arms. The division also has a unique organization in the form of a fourth maneuver brigade called the Cavalry Brigade Air Attack and has high tactical mobility common to the light division combined with firepower associated with the capabilities of the heavy division. The 9th Infantry Division artillery contains three direct support artillery battalions of eighteen 155-mm. towed howitzers each and a general support battalion consisting of two 105-mm. towed howitzer batteries (IX6), and a nine launcher MLRS battery. The 9th Infantry Division was organized for

service in Southwest Asia as part of the Rapid Deployment Force, in Europe, or other parts of the world.

Corps

The lean infantry-heavy structure of the new, highly mobile light divisions and expanded responsibilities for bringing the fight to the enemy's rear under AirLand Battle doctrine have increased the role of corps-level operations in future large-scale conflicts. The redesign of corps units to meet the challenge of these tasks has begun. New corps force structure designs being planned and/or implemented include increasing the strength of command operations battalions and area signal battalions in the corps signal brigade, transferring division Chaparral battalions, and adding Hawk battalions to the air defense artillery brigade, converting active chemical companies to mechanized, strengthening the corps military police brigade, transferring eight-inch field artillery cannons to the corps, converting cannon artillery battalions to three batteries of eight howitzers each, adding multiple launch rocket system (MLRS) battalions and a target acquisition battalion to the corps artillery brigade, and adding attack helicopter battalions to the corps aviation brigade.

Special Operations Forces

The activation of the 3d Battalion, 75th Infantry (Ranger) was the most significant event during fiscal year 1985 in the enhancement program initiated in 1982 to improve the readiness and capabilities of the Army's Special Operations Forces (SOF). These include Special Forces, Rangers, Psychological Operations, Civil Affairs, and Special Operations Aviation units. The program made additional headway during the past year with the activation of the Army's 3d Ranger Battalion—3d Battalion, 75th Infantry (Ranger), an increase in SOF aviation assets with the organization of a second reinforced aviation battalion—this one in the reserve components, improved authorization levels of organization for SOF units, and increased staffing for Headquarters, 1st Special Operations Command (SOCOM). The reserve components continued to play a significant role in the SOF area, particularly in Psychological Oper-

ations (PSYOPS) and Civil Affairs (CA). During the year new operational concepts were developed for PSYOPS and CA units which may lead to the development of new Tables of Organization and Equipment (TOEs) for both types of units.

Reserve Components

The role of the reserve components in providing roundout brigades for the two new light infantry divisions now being organized or planned for the active Army reinforced the policy of Active-Guard-Reserve integration to a degree unprecedented in recent history. Today's Army cannot meet any major contingency without the reserve components. The Total Army is no longer a concept, but a guiding principle.

Major Army National Guard force structure actions during the year included the continued activation of the 35th Infantry Division (Mechanized), and activation of the Guard's only light division, the 29th, formed from separate brigades in Virginia and Maryland, organization of the reserve components' only mountain battalion from units in the Vermont Army National Guard, and beginning the conversion of the Guard's three heavy divisions to Division 86 design. During the year the Guard will undergo 27 unit activations and 263 unit conversions.

Army Reserve troop actions during the year emphasized improved service support capabilities in the critical areas of conventional ammunition supply, water production and storage, chemical decontamination, communications, and medical support. The number of U.S. Army Reserve (USAR) roundout units was expanded by the activation of ten units to replace a like number of inactivated active Army units.

Fiscal Year 1985 marked the completion of the principal phases of a major reorganization in Forces Command's reserve component management structure. On 1 October 1984, a full year ahead of schedule, the last of the Army Readiness and Mobilization Regions were eliminated and the Fourth U.S. Army was established. The resulting structure, with five continental U.S. armies and no Readiness Regions, eliminates one management layer and provides increased responsibility for the Army National Guard and the Army Reserve as their role in national defense continues to grow.

Other Force Structure Actions

The Army's plan to establish more than thirty combat arms regimental headquarters during the year in support of the New Manning System took a back seat to more pressing issues, including the effort required to lighten and modernize the force, and only six new headquarters were organized . Implementation of the regimental system, although delayed, is expected to gain momentum in the coming year.

Planning continued during the year for standardizing selected Army Tables of Distribution and Allowances (TDAs) and to identify TDAs for conversion to Modification Tables of Organization and Equipment (MTOEs). A standardized TDA for the garrison Base Operating Information System (BASOPS) which can be applied horizontally across command lines has been developed. Vertical standardization is also being considered for other types of units, such as training centers and communications centers.

An Army-Air Force agreement to transfer the Air Force's rotary-wing aircraft having a Special Operations mission to the Army was deferred by the Deputy Secretary of Defense in December 1984. The proposal was one of thirty-one joint force development process initiatives the two services agreed to in May 1984, which were designed to provide better coordination of budget priorities, eliminate duplicative functions, and provide more efficient combat operations. The number of initiatives has now increased to thirty-five.

7

Organization, Management, and Budget

The Army's efforts to mold its combat forces to successfully meet any military contingency are complemented by the Army's striving to organize its administrative and support structure to provide more effective and efficient management of all Army resources at all levels of command.

Organization

At Headquarters, Department of the Army, a major change in the Army Secretariat involved the disestablishment of the position of Assistant Secretary of the Army (Installations, Logistics, and Financial Management) and the establishment of the positions of the Assistant Secretary of the Army (Financial Management) and the Assistant Secretary of the Army (Installations and Logistics), making a total of five Assistant Secretaries. Major responsibilities of the Assistant Secretary (Financial Management) included the Army Planning, Programming, Budgeting, and Execution System (PPBES); cost and economic analysis; management evaluation and improvement; financial systems; finance and accounting operations; and information management. The Assistant Secretary of the Army (Installation and Logistics) is responsible for logistics management; installations facilities management; environment, safety, and occupational health management; commercial activities management; contract policies, procedures, and administration related to installation operations and logistics; mobilization requirements; cooperative efforts involving the Department of the Army, District of Columbia National Guard, and the District of Columbia government; oversight of a number of activities, including the Civilian Marksmanship Program, the Kwajalein Missile Range, and Director of Military Support activities involving civilian law enforcement support, drug interdiction, domestic terrorism,

disaster relief, and civil disturbances; supervision and guidance over Military Traffic Management Command operations; and serving as the designated safety and occupational health official of the Army and principal advisor to the Secretary of the Army for safety and chemical demilitarization operations.

The Army Space Office achieved full operational status within the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS). In October 1984 the Army Space Council met for the first time, and met three additional times during the course of the fiscal year. In other significant actions related to the Army's role in space, a new additional skill identifier was created to identify space-related positions and officers with space-related background and experience; the Army Space Policy was approved (5 June 1985) and two major studies in the area of space were initiated—the Rand/Arroyo Center Study on the Army Role in Space and the Army Space Initiatives Study.

In response to the creation of the Strategic Defense Initiative Organization within the Office of the Secretary of Defense, the Ballistic Missile Defense Organization was redesignated the U.S. Army Strategic Defense Command (USASDC) on 1 July 1985. The new command, a field operating agency of the Office of the Chief of Staff, U.S. Army, has responsibility for the Army's role within the Strategic Defense Initiative. USASDC will continue and build on the Army's previous ballistic missile defense program, including research and development in the technologies of interceptor missiles, radar and optical sensors, computers, reentry phenomenology, and directed energy beams.

Early in the fiscal year the role of The Adjutant General of the Army was reduced sharply with the transfer of support functions previously performed by The Adjutant General Center to the new U.S. Army Community and Family Support Center, a field operating agency of the Office of the Deputy Chief of Staff for Personnel. The change better positioned Headquarters, Department of the Army, to focus support of Army families and community life management. In August 1985 the Army information management responsibilities, traditionally referred to as Administration, were transferred from The Adjutant General Center (TAGCEN) to the newly created Office of the Assistant Chief of Staff for Information Management and Information Systems Command. This left The Adjutant General with responsibilities for the Armed Forces Courier Services; the Military Postal Service Agency; the Army Physi-

cal Disability Agency; the Army Reserve Components Personnel and Administration Center; the Environmental Support Group; and the Institute of Heraldry. The realignment also brought the organization of the Army staff more in line with major command and installation configurations, providing a clearer delineation of authority and improved communications and responsiveness.

Plans to upgrade the position of Assistant Chief of Staff for Information Management to Deputy Chief of Staff status moved forward during the year, but Congress had not enacted the necessary legislation by the close of the fiscal year. Congress also denied an Army request to create an Army component for the U.S. Southern Command (USOUTHCOM) in Panama, U.S. Army, South (USARSO), by not approving a reprogramming request for fiscal year 1985 funds needed to form the command.

As noted in an earlier chapter, a fifth CONUS Army (Fourth U.S. Army) was organized as part of a reorganization of the reserve component management structure which also involved the elimination of all Army Readiness Regions. New proposals put forth by U.S. Army Forces Command, now under evaluation, would reduce the number of Army Reserve Commands from nineteen to ten so as to conform to the boundaries and numbers of Federal Emergency Mobilization Agency Regions; and would also provide for the organization of additional functional commands, such as medical, engineer, and signal.

The Army announced a number of basing decisions during the year in a continuing effort to improve organization and achieve more efficient use of existing facilities and limited resources. The move of the U.S. Army Engineer Center and School from Fort Belvoir, Virginia, to Fort Leonard Wood, Missouri, to take place in fiscal year 1989, will consolidate and standardize engineer officer and enlisted training, materially reduce existing duplication in personnel and equipment, and eliminate training restrictions at Fort Belvoir due to urbanization. Moving to Fort Belvoir in fiscal year 1990, from leased space in and around Washington, D.C., will be the U.S. Army Corps of Engineers, including the Chief of Engineers.

In another move, the U.S. Army Intelligence and Security Command (INSCOM) will consolidate its offices, currently located at Fort Meade, Maryland, and Arlington Hall, Virginia, in a new facility at Fort Belvoir by the close of fiscal year 1988. The consolidation of INSCOM in a modern facility will signifi-

cantly enhance the command's operations and will improve security. Also, the Criminal Investigation Command will move from leased space in northern Virginia to Fort Meade in fiscal year 1987 and 1988.

Management

In June of this year, President Reagan announced the creation of a Blue Ribbon Commission on Defense Management to be headed by former Deputy Secretary of Defense David Packard. The fourteen-member commission, composed of former military leaders and government officials, business leaders, educators and scholars, will study the defense budget process, the procurement system, legislative oversight, and organizational and operational arrangements within the Department of Defense. The commission will give particular stress to the adequacy of the acquisition process, the value of intervening layers of command on the direction and control of military forces in peace and war, procedures for developing and fielding military systems incorporating new technologies in a timely fashion, and providing for a more stable and effective allocation of resources. The commission will report procurement issues by 31 December, and issue a final report on the remaining issues in mid-1986.

The fiscal year 1985 DOD Authorization Act directed the formation of the President's Blue Ribbon Task Group (BRTG) on Nuclear Weapons Program Management, which was chartered by Presidential Executive Order in January 1985. Congress took the action out of concern that Department of Energy (DOE) nuclear weapons production costs were not fully considered by the Department of Defense (DOD) in nuclear weapons development. The Army staff, Army Materiel Command (AMC), and Training and Doctrine Command (TRADOC) assisted the BRTG by providing information on how the nuclear weapons requirements process works in the Army. By July 1985 the BRTG had completed a six-volume report and made nine recommendations for developing a process for improving the integrated DOD-DOE determination of nuclear weapons requirements and the management of nuclear weapons production, especially in terms of keeping costs down, maintaining accountability, and preserving the advantages of dual agency responsibility.

Most of the nine BRTG recommendations were acceptable to the Army, the Office of the Secretary of Defense (OSD), the

Office of the Joint Chiefs of Staff (OJCS), the other services, and DOE. There was concern, however, over recommendations to strengthen the Military Liaison Committee (MLC) to the DOE (MLC); integrating DOE incremental costs for nuclear weapons production and nuclear material production, and nuclear testing of stockpile weapons after a production decision is reached into the DOD Planning, Programming, and Budgeting System (PPBS); and directing the Joint Chiefs of Staff (JCS) to play a major role in the trade-off and resource allocation process for theater nuclear force issues. In implementing the recommendation to strengthen the MLC, OSD added a DOD Nuclear Weapons Council (NWC) to be senior to the MLC and junior to the Defense Resources Board (DRB) to consider nuclear weapons costs.

By the end of fiscal year 1985, the Departments of Defense and Energy were analyzing the report and had formed an interdepartmental working group to resolve issues raised by the BRTG recommendations.

Army management initiatives undertaken during the year focused on the weapon systems acquisition process, force modernization and integration, resource management, and information management.

The Army exceeded its 1985 goals for supporting the Small and Disadvantaged Business Utilization programs. Army contracting officers awarded contracts for $7.7 billion, or 24.8 percent of its procurement dollars to small businesses. The Director of the Office of Small and Disadvantaged Business Utilization represented the Secretary of the Army before congressional committees, responded to congressional inquiries, provided timely policy to the field, and counseled members of the business community. These efforts continued the Army's leading record among the other military services for small business support.

In the area of acquisition management, the Army instituted a number of improvements during fiscal year 1985. Responsibility for critical review and approval of requests for conditional release (for fielding) of major and designated program equipment was elevated to Headquarters, Department of the Army (HQDA), staff level from MACOM (HQAMC) level. Within the Office of the Deputy Chief of Staff for Logistics, the Contracting and Production Directorate was formed to provide guidance, direction, and assistance to more than 240 Army contracting offices and to develop management information systems, policies, procedures, and methods to make contract-

ing operations more effective and efficient. The Office of the Deputy Chief of Staff for Logistics (ODCSLOG) sponsored the first ever DA-level Integrated Logistics Support (ILS) Conference which brought together ILS leaders from all materiel and combat developer MACOMs. Improved product quality was the goal for doubling the number of quality and reliability engineering interns in fiscal year 1984. In a follow-up action, the position of Product Assurance Director was upgraded at four major subordinate commands, and training for deputy project managers and product assurance directors in reliability growth management was instituted. Independent reviews of contractors conducted by the Army during the year emphasized the correction of problems before procurement items enter production. Also, the Army implemented a new equipment redistribution policy for major items replaced by force modernization equipment. The policy places redistribution responsibility on item managers and relieves the retail system of responsibility for directing the redistribution of replaced equipment.

The role of the U.S. Army Development and Employment Agency (ADEA) in the Army's accelerated pace towards modernization and integration was expanded during the year to include consideration of operational concepts, organization, and materiel requirements of not only the light forces on which it had concentrated its efforts in the past, but also of heavy divisions, special operations, and low intensity initiatives. Since its organization in September 1983 at Fort Lewis, Washington, to replace the High Technology Test Bed, ADEA has been the Army's innovation leader in improving the combat power, deployability, and sustainability of Army divisions. It is supported by TRADOC, AMC, and Air Force and Marine Corps liaison elements.

A key initiative in the Army's resource management system is to link program and budget actions and provide financial and performance data required by managers in both areas in order to establish the necessary balance between force structure objectives and weapons deliveries, between stationing plans and installation support requirements, and between tactical and nontactical mission activities.

During the past year, the Army began converting to a standard installation organization (SIO) for the garrisons which operate Army installations. Standardization is expected to improve the Army's mobilization potential, provide a better capability to deliver services, improve the competitive position of

the Army's "in-house" work force vis-a-vis the private sector, and improve the administration of contracts at the local level.

In a related matter, the Army has undertaken a Model Installation Program involving ten installations around the country, which will serve as "test beds" for deregulation and decentralization of authority. As part of the test, higher headquarters will generally waive regulations and cut red tape to permit the commanders of the ten installations and their managers to have greater flexibility in developing innovative approaches to improving operations. As an incentive any savings resulting from the program will be reapplied at the installation generating the savings to improve working and living conditions.

The Commercial Activities Program compares the cost of "in-house" operations providing commercial-type services to the cost for similar services provided by private companies. The purpose of the program is to acquire the best services at the least cost. During fiscal year 1985, 39 commercial activities cost studies were completed involving 1,819 civilian and 706 military spaces. Contracts were let replacing 1,321 civilian and 638 military spaces, which were reapplied to high priority Army missions.

The Quick Return on Investment Program, Return on Investment Program, and the Productivity Enhancing Capital Investment Program all rely on "seed money" for the quick purchase of tools, equipment, and facilities that will result in manpower savings, reduced costs, increased productivity, and improved readiness. In the past these programs have returned $14 for every dollar invested. Capital investments in fiscal year 1985 of $74 million are expected to achieve annual savings of $97 million. Next year's investments should reach $100 million with budget and avoidance savings of $127 million.

During fiscal year 1985 two additional major commands, Training and Doctrine Command and Forces Command, were brought into the Value Engineering Program, bringing the number to six. The other participating commands are Army Materiel Command, U.S. Army Information Systems Command, U.S. Army, Europe, and Office, Chief of Engineers. The addition of the two commands and increased emphasis on the application of Value Engineering to spare parts and contractor-developed change proposals should increase savings realized under the program from the current level of $400+ million to $600 million by the end of fiscal year 1986.

A number of finance and accounting reforms moved forward during the year in an effort to cut down personnel costs

by automating labor-intensive functions; provide more timely and accurate management information to formulate and track planning, programming, and budgeting decisions; and improve financial services to soldiers and their families. Specific actions included the automation of manual active Army pay processes which have permitted the reassignment of 500 soldiers from clerical duties to combat missions; institution of "positive" reserve component drill pay systems to eliminate fraud and improve pay service; and the development of internal control systems to ensure compliance with the Federal Managers Financial Integrity Act, which are being implemented throughout the Army.

The Information Science and Technology Assessment for Research (ISTAR) pilot project seeks the cooperation and assistance of industry, other government agencies, and universities in maintaining a technologically up-to-date Army information system. The goal is to maintain technological currency, avoid obsolescence, and provide a method for incorporating improved technology in existing systems in a cost-effective way and without disrupting automation and communications support to the Army. As a first step to accomplish this, the Office of the Assistant Chief of Staff for Information Management undertook a cooperative effort with the Armed Forces Communication and Electronics Association and the information representatives of the major commands. An ISTAR conference was held from 22–24 May 1985 in Washington, D.C., to discover what technology already exists to meet critical needs, to discern what technology can be expected to be commercially available in the next five years, and to identify technology requirements which cannot be met in the next five years.

Another initiative involved the development of an Army Corporate Data Base (CDB) to address the Army's comprehensive data needs in both a secure and unclassified environment. The CDB will permit the integration, coordination, and synchronization of shared data required by Army personnel to do their job. The goal is to create a centrally controlled but physically distributed data base which contains accurate data and provides decisionmakers access to organization-wide information. The CDB will permit logically, functionally, and geographically integrated views of the data. This major effort will be evolutionary and will take many years to complete. Thus far, an Army Data Management Plan has been written for de-

velopment of the CDB in three phases. Data element standardization, which is vital to this effort, is taking place. Other steps in the development of the CDB include creation of a Data Base Management Systems Forum at HQDA to discuss Army data base issues, the start of a data encyclopedia for the entire CDB, and the establishment of the Interim HQDA CDB.

The Army is currently replacing antiquated WWII-vintage telephone switches at Army posts, camps, and stations throughout the continental United States with new state-of-the-art electronic switched systems. The existing systems have become extremely costly to maintain and do not serve the needs of the Army. The new switches, being procured under the Stable Annual Investment for Required Systems (STAIRS) Program, will require less maintenance, will be much more reliable, and will provide the Army with key features and enhancements commensurate with today's technology. The concept of the telephone system upgrade was approved by the Under Secretary of the Army on 9 December 1982. Since this program was initiated, the Army has awarded contracts for the upgrade or replacement of twenty-eight locations throughout the continental United States. The plan is to award contracts for as many as ten sites per year until 1994. These actions parallel actions under way to upgrade outdated and unreliable switches in Europe, Japan, and Korea. Many of these switches in CONUS and overseas will also serve as Defense Switched Network (DSN) dual function switches. The DSN is an ongoing program to improve the overall DOD-wide switched systems architecture.

Budget

In spite of the Army's increased capability to meet potential threats in 1985 as compared to 1980, there is still much to be done. The major budget increases provided in fiscal years 1981 through 1985 accelerated programs to eliminate or substantially reduce decade-old deficiencies. The fiscal year 1986 budget, which granted the Army $75.4 billion—as compared to $73.5 billion in fiscal year 1985, would continue the Army's progress in correcting deficiencies and improving force readiness. A comparison of fiscal year 1985 funding and the Army projection in the President's fiscal year 1986 budget, with Gramm-Rudman reductions, is shown in *Table 6.*

TABLE 6—ARMY BUDGET

($ in millions)

	FY 85 ACTUAL	FY 86 ESTIMATE
Military Personnel	26,725	28,537
Retired Pay Accrual	(6,762)	(7,139)
Military Personnel, Army	21,725	22,712
Retired Pay Accrual	(5,468)	(5,640)
National Guard Personnel, Army	2,890	3,297
Retired Pay Accrual	(740)	(825)
Reserve Personnel, Army	2,091	2,394
Retired Pay Accrual	(532)	(602)
Operation and Maintenance	21,859	23,698
Operation & Maintenance, Army	18,604	20,191
Operation & Maintenance, Army National Guard	1,437	1,626
Operation & Maintenance, Army Reserve	733	780
Army Family Housing	1,082	1,121
National Board for the Promotion of Rifle Practice	1	1
Investment	25,294	24,827
Procurement	18,313	17,292
Aircraft Procurement, Army	(3,810)	(3,277)
Missiles Procurement, Army	(3,026)	(2,760)
Weapons & Tracked Combat Vehicles Procurement, Army	(4,232)	(4,055)
Ammunition Procurement, Army	(2,462)	(2,338)
Other Procurement, Army	(4,783)	(4,862)
Research, Development, Test, and Evaluation	4,305	4,567
Military Construction	2,011	2,684
Military Construction, Army	(1,593)	(2,021)
Military Construction, Army National Guard	(99)	(102)
Military Construction, Army Reserve	(69)	(71)
Army Family Housing Construction	(250)	(490)
Stock Fund	366	442
Stock Fund War Reserve	(210)	(285)
Peacetime Stock Fund Inventories	(156)	(157)
TOTAL PROGRAM	74,712	82,006

Note: Columns may not add due to rounding.

The Army's pace in attaining its program goals was slowed by congressional resistance to the President's defense request. By midsummer the fiscal year 1986 Department of Defense budget request had been pared from $313.7 billion to $302.5 billion, and the Army had absorbed a good portion of the cut to the detriment of a number of personnel, modernization, and research and development programs.

The Army Plan, published each year in December as *Army Guidance Volume I,* was initiated to link the planning and pro-

gramming cycles of the Army Planning, Programming, Budgeting, and Execution System. It is the first step in building the annual Program Objective Memorandum. Each plan represents the culmination of a six-month planning cycle which integrates senior Army leadership guidance with appropriate planning documents and provides instructions for Army staff and major command programmers. Each plan focuses on developing the wherewithal to attain the highest state of capability and performance for all individuals, leaders, units, and systems to achieve Total Army Goals and produce an Army of Excellence. The Army Plan, FY 1987–2001, was approved by Secretary of the Army John O. Marsh, Jr., and Chief of Staff John A. Wickham, Jr., in December 1984. This edition of The Army Plan places additional emphasis on providing realistic planning objectives and programming tasks in the face of increasingly constrained resources. Readiness remains the central theme and first priority in this Army blueprint for the future.

In April 1985 Secretary of Defense Caspar W. Weinberger announced the initiation of a biennial planning cycle for the Department of Defense PPBS. The shift to a biennial planning cycle is expected to result in a more efficient and coherent budget process. It will curtail Department of Defense-wide planning activities required for an annual cycle, and will allow for a more in-depth review of Defense Guidance. The institution of a biennial planning cycle would also be supportive of proposals within the Department of Defense and Congress to implement two-year budget authorizations. This action would save both the Department of Defense and Congress considerable time and resources. The first biennial Defense Guidance is expected to cover the fiscal year 1988–92 planning period.

8

Civil Works

The Army's civil works mission has largely revolved around water resource development since its beginning in 1824, when Congress authorized the Corps of Engineers to undertake navigation improvements on the Ohio and Mississippi rivers and to deepen several harbors. Today the Corps carries out congressionally mandated planning, design, construction, operations, and maintenance of projects in navigation, flood control, shore and hurricane protection, hydroelectric power, municipal and industrial water supply, recreation and natural resource management, and emergency operations. The Corps of Engineers also regulates construction, dredging, and fill operations done by others in waterways and wetlands, and is the Army's mobilization construction planner.

In addition to providing benefits to the nation through economic development facilitated by its projects, the civil works program supports the responsibility the Corps of Engineers bears for the Army's military construction program by providing a trained, experienced manpower pool in the large-scale engineering and construction management disciplines the Army would need in the early stages of mobilization. In fiscal year 1985 the Corps carried out two mobilization exercises to test the ability of its division and district personnel to shift from peacetime to mobilization roles.

The construction portion of the civil works mission continued to decline from its peak in the 1970s as more ongoing work was completed than new construction started. Included in the civil works projects opened for operation in fiscal year 1985 was the Tennessee-Tombigbee Waterway, a 234-mile "shortcut" from the Tennessee River to the existing Warrior-Tombigbee Waterway in Alabama. This project, first conceived by Sieur de Bienville, the French governor of Louisiana in the early 1700s, shortens the distance from the Tennessee Basin to the Gulf of Mexico by 800 miles. The Secretary of the Army dedicated the waterway in June 1985.

The operations and maintenance portion of the civil works program, on the other hand, continued to increase as more projects were put into operation, and existing projects aged and required more extensive maintenance. Fiscal year 1985 marked the second year in a row, and in history, that Congress appropriated more for the Corps to operate and maintain existing civil works projects than to build new ones.

During the past year, the Department of the Army continued to work with congressional leaders and other Executive Branch agencies to develop omnibus legislation that would authorize new civil works projects and specify cost-sharing responsibilities to be borne by nonfederal interests. A breakthrough occurred in July, when OMB and key Senate leaders reached a compromise on cost-sharing provisions. No omnibus bill was passed in Congress this year, but in August a supplemental appropriation was passed that included start-up construction funds for forty-one Corps civil works projects. Twenty of these projects had been authorized in previous omnibus water source legislation but never funded for construction; the remaining twenty-one were included in the omnibus bills pending in Congress at the end of the fiscal year. An important provision in the supplemental appropriation was the requirement for cost-sharing agreements to be executed with local sponsors, following the terms of the OMB-Senate compromise, before any construction could begin.

Other major Corps efforts in the area of civil works involved the Regulatory Program, which continued to seek significant reductions in the time necessary to process permits; the Support for Other Agencies Program, where the Corps pursued memorandums of agreement with several agencies; and the International Activities Program.

Legislation

On 19 October 1984 the President signed Public Law (PL) 98–501, the Public Works Improvement Act of 1984. This law established a National Council on Public Works Improvement—three members appointed by the President, one by the Senate, and one by the House—and charged them to prepare a series of annual reports to be submitted to Congress and the White House.

Under PL 98–501, the Secretary of the Army was named as chairman of a twelve-member advisory group to the council, the other members being the Secretaries of Agriculture, Hous-

ing and Urban Development, Transportation, and Commerce, the Administrator of the Environmental Protection Agency, the Chairman of the National Governors Association, and the Presidents of the National Conference of State Legislatures, the National Association of Counties, the National Association of Regional Councils, the National League of Cities, and the U.S. Conference of Mayors. The Corps, in turn, was charged to provide administrative support as well as $3.2 million in first-year funding to the council.

On 15 January 1985 the Assistant Secretary for Civil Works authorized the Corps to prepare an annotated bibliography addressing infrastructure issues, and to develop a conceptual framework for accomplishing the reports. The Secretary of the Army hosted the first council meeting on 22 and 23 August 1985.

The regular fiscal year 1985 appropriations for the Corps of Engineers amounted to about $2.85 billion. Appropriations for the Operation and Maintenance, General, account for the second straight year were greater than those for the Construction, General, account. In addition to the regular appropriations, Congress also passed the fiscal year 1985 Supplemental Appropriations Act (PL 99–88), which represented a breakthrough in the stalemate over the authorization and funding of new construction starts. Since fiscal year 1980, only three projects were funded as new construction starts and no authorization bill had been enacted in almost ten years. Public Law 99–88 demonstrated a basic recognition and acceptance that nonfederal interests must absorb an increased share of both the capital and operation and maintenance costs of water resources development projects.

Public Law 99–88 appropriated $48.8 million for 41 new construction starts, 21 of which have not been authorized for construction. The 41 projects had a total implementing cost of almost $4.6 billion. The act provided that no funds could be expended for construction unless a Local Cooperation Agreement (LCA) acceptable to the Secretary of the Army was signed. Public Law 99–88 established a firm deadline of 30 June 1986 by which the LCAs must be executed on the 41 projects and further provided that implementation of the 41 projects would be contingent upon enactment of a Water Resources Development Act and cost sharing legislation. However, if this legislation was not passed by 15 May 1986, implementation could proceed and the 21 unauthorized projects would be considered authorized.

The District Commanders will be responsible for negotiating a draft LCA that is acceptable to the project sponsor and the Assistant Secretary of the Army for Civil Works (ASA/CW). The negotiations will focus on (1) the phasing of work (engineering and design, as well as construction) to be undertaken initially and long term within the scope of authorization; and (2) terms of financing for work agreed to and scheduled for the initial phase of development. Normally the sponsor would provide all necessary construction funds during the construction period, except when otherwise mandated as an additional repayment after construction (navigation ports only). Work not programmed for immediate development will be carried as unscheduled until it becomes covered by subsequent LCAs or is deauthorized.

Operations

In fiscal year 1985 the Corps of Engineers operated and maintained 330 harbors, more than 25,000 miles of channels which formed the inland waterway system, 280 flood control projects, and 72 multipurpose projects which included a major portion of the nation's hydropower facilities. Approximately 250 million cubic yards of material was dredged and almost 20 million kilowatts of electricity was generated—one third of the nation's hydroelectric power production. Two projects were placed in caretaker status during the year because of the lack of commercial tonnage. These were the Savannah River project below Augusta, Georgia, and the Fox River project in Wisconsin. Two other projects became fully operational during the year. These were the flood control project at Skiatook Lake in Oklahoma, and the opening of the Tennessee-Tombigbee Waterway in Alabama and Mississippi to through navigation.

In another important action, the Corps of Engineers completed the environmental and water quality operations studies research program initiated in fiscal year 1978. The goal of the program is to achieve national environmental quality objectives while simultaneously achieving economic development, energy production, and quality of life improvement goals in Corps projects.

Disaster Relief

The Army helps other government agencies as well as local and state authorities and foreign governments meet human needs in the event of natural disasters and other emergency situations. The focal point for this effort is the U.S. Army Corps of Engineers (USACE), which in fiscal year 1985 expended $34.7 million for disaster preparedness activities and emergency operations. The funding enabled the Corps of Engineers to respond to flood emergencies; provide emergency support to other agencies and authorities, particularly the Federal Emergency Management Agency; establish and maintain emergency operations centers required for command and control of responses to disasters; and manage the inspection program for nonfederal flood control projects repaired or eligible for repair under PL 84-99. Activities to support these efforts included the development, review, and update of required response plans; the training of response personnel; the development and participation in exercises to test plans, personnel, and training; the procurement of supplies and equipment necessary to support response efforts; and the overall management of the Disaster Preparedness activities.

As the year progressed, the USACE responded to flood problems on the Mississippi River and its tributaries in February and March 1985; and across the midwest from the Lower Great Lakes to the Ohio River Valley during the period January-May 1985. The Corps provided technical assistance, flood fighting equipment, and materials to federal, state, and local entities.

In the south and east, the USACE responded to several hurricanes and tropical storms from July to September 1985. Four hurricanes struck the U.S. in fiscal year 1985, killing 13 and doing more than $2 billion in damage. Hurricane Bob moved across Florida as a tropical storm, then hit South Carolina with 75 mile per hour winds on 25 June, killing 1 and causing $20 million in damage. Hurricane Danny hit Louisiana on 15 August with winds of up to 100 miles per hour, and later spawned tornadoes in Alabama. Danny caused more than $50 million in damage and killed 3. Hurricane Elena battered the Gulf coast for several days before hitting Mississippi on 2 September with 125 mile per hour winds. Over 1 1/2 million people were evacuated, 500,000 of them twice. Damages exceeded $1 billion, and 3 were killed. Finally, Hurricane Gloria swept the east coast from North Carolina to Maine on 26-27

September. Nearly 1 million people were evacuated. There were 6 deaths, and damages were more than $1 billion.

On 19 September a major earthquake rocked Mexico City causing widespread damage and burying thousands of people. The Corps of Engineers was asked to provide two types of advisory assistance to the earthquake recovery effort—advice in the use of construction equipment and geotechnical evaluations. With respect to the construction effort, the Corps of Engineers was represented on damage assessment teams organized under the direction of the Secretary of State. The teams assessed the requirements for rubble removal, demolition of damaged structures, and the need for additional U.S. Government resources. In addition to construction advice, the Corps of Engineers participated on a U.S. National Academy of Sciences team evaluating the overall impact of the earthquake.

Regulatory Activities

Since 1890, the Corps of Engineers has had regulatory authority over construction activities by others in the Nation's navigable waterways. This authority was codified in section 10 of the Rivers and Harbors Act of 1899, and Corps jurisdiction was greatly expanded by section 404 of the Clean Water Act of 1972 and several court decisions made under the act. The Corps now exercises jurisdiction over discharge of dredge or fill material in the "Waters of the United States," including wetlands.

At the behest of the Task Force on Regulatory Reform, chaired by Vice President Bush, the Corps has, since 1982, undertaken a program to clarify the scope and jurisdiction of the regulatory program, eliminate duplication of effort with other programs, allow more permit decisions to be made at the local level, and reduce processing time for applications. On 5 October 1984 the final regulations resulting from this reform effort were published. Generally, these regulations clarified provisions of the program relating to the consideration of environmental concerns. A new information pamphlet for permit applicants, distributed to about 20,000 permit applicants a year, was completely revised as a result of the regulatory reform effort. By substantially improving guidance on what constitutes a complete application, the new publication should speed permit processing by eliminating the need to contact applicants for further information. Also, the background provided

in the pamphlet on the regulatory program is expected to increase public involvement and cooperation.

Significant litigation involving the Corps' regulatory program, the Riverside Bayview Homes enforcement case, made its way to the U.S. Supreme Court in fiscal year 1985. Riverside had begun filling an eighty-acre site in Macomb County, Michigan, in 1976, and was issued a cease and desist order by the Corps' Detroit District. Riverside refused to comply with this order, and the district engineer referred the case to the U.S. Attorney for legal action. In 1979 Riverside was permanently enjoined by the U.S. District Court from discharging further fill at the site without a Corps permit; but in 1984, the Sixth Circuit Court of Appeals vacated the lower court ruling, saying that a wetland must be frequently flooded by water from a navigable waterway to be subject to Corps jurisdiction under section 404. The government appealed this ruling to the Supreme Court, which heard the case on 16 October 1985 and unanimously overruled the appeals court, affirming Corps jurisdiction over isolated wetlands.

Army Support to Other Agencies

The Corps provided reimbursable support to twenty-five federal agencies, several state and local governments, and foreign nations during fiscal year 1985. The work involved the equivalent of nearly 950 man-years, about 90 percent of which was in support of other federal agencies.

Three quarters of the support provided went to three agencies: the Environmental Protection Agency for its sewage treatment plant construction grants program and its "Superfund" toxic waste removal program; the Federal Emergency Management Agency for flood insurance studies, emergency activities, and the key worker blast shelter program; and the Department of Energy for a number of civilian and defense-related programs.

During fiscal year 1985 new agreements were signed with the U.S. Information Agency to support the Voice of America's $1.6 billion radio transmitter modernization program; the Environmental Protection Agency to renew and expand the Corps' role in the "Superfund" program; and the Department of Energy (DOE) to support construction of defense-related and civilian radioactive waste management activities. Among federal agencies receiving real estate support services in fiscal year 1985, DOE continued to receive the largest share, as the

Corps provided planning, land acquisition, and site selection services for several DOE endeavors, including the strategic petroleum reserve, salt repository, and uranium mill tailings radiation control projects. The Corps entered into a memorandum of understanding with the Department of Commerce to assist in the acquisition of seven weather radar sites for the National Weather Service. Land acquisition for the Tensas River National Wildlife Refuge in Louisiana was largely completed. A total of 52,506 acres was acquired at a cost of $49,950,000. The acreage will be managed by the U.S. Fish and Wildlife Service of the Department of Interior. The Corps also completed leasing arrangements for forty-nine of the fifty-six Ground Wave Emergency Network (GWEN) sites it is handling for the Air Force. Each site comprises about fifteen acres of land.

In other real estate actions taken during the year, the Corps of Engineers developed new policies and procedures governing local cooperation agreements for the forty-one new construction projects authorized by the fiscal year 1985 Supplemental Appropriations Act (PL 99-88). The new policies provide for changes in cost sharing arrangements and innovative financing requirements associated with the projects. Also, the real estate plan for the Tug Fork Valley, Mingo County, West Virginia, project was approved. The plan breaks new ground in that it calls for entirely nonstructural flood control alternatives, such as floodproofing and relocating homes and businesses.

During fiscal year 1985 the Corps continued to provide technical assistance to friendly foreign countries on a reimbursable basis and in support of U.S. foreign policy objectives.

In Asia, in accordance with the Protocol on Cooperation in Hydroelectric Power and Related Water Resources Management under the Science and Technology Agreement between the United States and the People's Republic of China (PRC), the Corps provided a year of on-the-job training for seventeen PRC engineers. At the request of the Vice Premier of the PRC's State Council, the ASA/CW and the Chief of Engineers (COE) hosted a visit to the Rock Island District for the Vice Premier to observe the Corps' navigation and lock operations and management on that portion of the Mississippi River. The Deputy Director of Civil Works also hosted a visit to the Tennessee-Tombigbee Waterway by the Commissioner of the Yangtze Valley Planning Office. As fiscal year 1985 ended, preparations advanced for the Corps to assist with the locks and other navigation aspects of the proposed Three Gorges

Dam project on the Yangtze River, provide expertise on ports and waterborne transportation under a Transportation Protocol between the U.S. Department of Transportation and the PRC Ministry of Communications, and establish technology exchange agreements between the Corps' Waterways Experiment Station (WES) and the Nanjing Hydraulic Research Institute and between WES and the East China Technical University of Water Resources for research on muddy coastlines.

The Corps also performed a study for the United Nations on inland water transport in ten Southeast Asian countries and provided preliminary analyses of ways to alleviate the pollution of the Ganges River in India and flooding problems in Bangkok, Thailand.

In the western hemisphere, the Corps advised Peru on solutions to a number of river control problems and on concrete technology for cold regions, such as the high Andes. The Corps also continued its long association with the Panama Canal Commission by assisting in a feasibility study for widening the Gaillard Cut and beginning a five-year study of alternatives to the present canal (a new sea level canal, a third set of locks, transshipment facilities, etc.).

In Africa, work for the Niger Basin Authority, a nine-country organization in West Africa, continued as the Corps proceeded with the development of a mathematical model of the 2,500-mile Niger River. The model will enable planners to evaluate the effects of proposed projects on the river. In Sudan, the Corps completed assistance in recommending and implementing solutions to recurrent debris and sediment blockage of the power plant intakes of a major dam on the Blue Nile. The Corps' Marine Design Center functioned as Sudan's design and contract agent for the procurement of equipment recommended to solve the problem, including a specialized dredge. Finally, in other African countries, the Corps assisted the U.S. Agency for International Development by establishing a computer-aided cost estimating system for construction projects, patterned after the one developed over the past two decades of Corps management assistance to Saudi Arabia.

Glossary

ADEA	Army Development and Employment Agency
AFATDS	Advanced Field Artillery Tactical Data System
AFQT	Armed Forces Qualification Test
AHIP	Army Helicopter Improvement Program
AHUAS TARA II	The 1985 version of the U.S.-Honduran exercise conducted in 1983 and 1984 which included an anti-armor field training phase, bringing tanks into the manuevers for the first time.
AMC	Army Materiel Command
AMEDD	Army Medical Department
ARNG	Army National Guard
ARTBASS	Army Training Battle Simulation System
ASA/CW	Assistant Secretary of the Army for Civil Works
ASI	Additional skill identifier
ASL	Authorized Stockage Lists
AWCCSC	Army War College Corresponding Studies Course
Basops	Base Operating Information System
BCS	Battery Computer System
BFVS	Bradley Fighting Vehicle Systems
BORDER STAR 85	A joint readiness exercise to train, test, and evaluate commanders, staffs, and forces in joint operations.
BRTG	Blue Ribbon Task Group
C^3	Command, control, and communications
CA	Civil Affairs

CAPSTONE	A program aligning reserve component units scheduled for Europe with their wartime chain of command.
CBD	Chemical-biological defense
CDB	Corporate Data Base
CENTCOM	Central Command
CERTAIN SAGE	An exercise testing mobilization procedures at the installation level.
C-FLEX	Cobra Fleet Life Extension Program
C^2I	Command, control, and intelligence
COE	Chief of Engineers
COHORT	Cohesion, operational readiness, and training
CONUS	Continental United States
CPX	Command post exercise
C&GSC	Command and General Staff College
CSS	Combat service support
CUCV	Commercial utility cargo vehicle
DC3I	Distributed command, control, communications, and intelligence
DIVAD	Division Air Defense
DLA	Defense Logistics Agency
DOD	Department of Defense
DOE	Department of Energy
DRB	Defense Resources Board
DSCS	Defense Satellite Communications Systems
DSN	Defense Switched Network
EIDS	Electronic Information Delivery System
EUSA	Eighth U.S. Army
FAADS	Forward Area Air Defense System
FAP I	Force Alignment Plan I
FISTV	Fire support team vehicle
FLIR	Forward-looking infrared
FAASV	Field artillery ammunition support vehicle
FOFA	Follow-on forces attack
FOG-M	Fiber Optic Guided Missile
FORSCOM	U.S. Army Forces Command
FRG	Federal Republic of Germany
FSS	Fast sealift ships

G/VLLD	Ground/Vehicle Laser Locator Designator
GWEN	Ground Wave Emergency Network
HEMTT	Heavy expanded mobility tactical truck
HMMWV	High mobility multipurpose wheeled vehicle
HQDA	Headquarters, Department of the Army
ILS	Integrated Logistics Support
IMA	Individual Mobilization Augmentation
INSCOM	Intelligence and Security Command
IRR	Individual ready reserve
ISTAR	Information Science and Technology Assessment for Research
ITEP	Individual Training and Evaluation Program
JCS	Joint Chiefs of Staff
LCA	Local Cooperation Agreement
LOS-F-H	Line of Sight-Forward-Heavy
LOS-R	Line of Sight-Rear
LOTS	Logistics-over-the-shore
LUPS	Logistics Unit Productivity System
MAC	Military Airlift Command
MACOM	Major Army Command
MEL	Military Education Levels
MILES	Multiple Integrated Laser System
MLC	Military Liaison Committee
MLRS	Multiple launch rocket system
MOA	Memorandum of agreement
MOBERS	Mobilization Equipment Redistribution System
MOS	Military Occupational Specialty
MOUT	Military operations on urbanized terrain
MTDA	Modification Table of Distribution and Allowance
MTOE	Modification Table of Organization and Equipment
NATO	North Atlantic Treaty Organization

NBC	Nuclear, biological, and chemical
NCO	Noncommissioned officer
NCOES	Noncommissioned Officer Education System
NDI	Nondevelopmental items
NLOS	Nonline of Sight
NORTHAG	Northern Army Group
NWC	Nuclear Weapons Council
OCS	Officer Candidate School
ODCSLOG	Office of the Deputy Chief of Staff for Logistics
ODCSOPS	Office of the Deputy Chief of Staff for Operations and Plans
OJCS	Office of the Joint Chiefs of Staff
OMB	Office of Management and Budget
OPMS	Officer Personnel Management System
OSD	Office of the Secretary of Defense
OSUT	One station unit training
P^{3}I	Preplanned product improvements
PDOS	Professional Development of Officers Study
PL	Public Law
PLL	Prescribed Load List
POL	Petroleum, oils, and lubricants
POMCUS	Pre-positioning of materiel configured to unit sets
POWDER RIVER 85	A mobilization and deployment exercise.
PPBES	Planning, Programming, Budgeting, and Execution System
PPBS	Planning, Programming, and Budgeting System
PRC	People's Republic of China
PSYOPS	Psychological Operations
REFORGER	An exercise conducted in western Europe to test the readiness of reserve component units in reinforcing active components already engaged in a European conflict. It involved the deployment and redeployment of U.S. units in Europe.

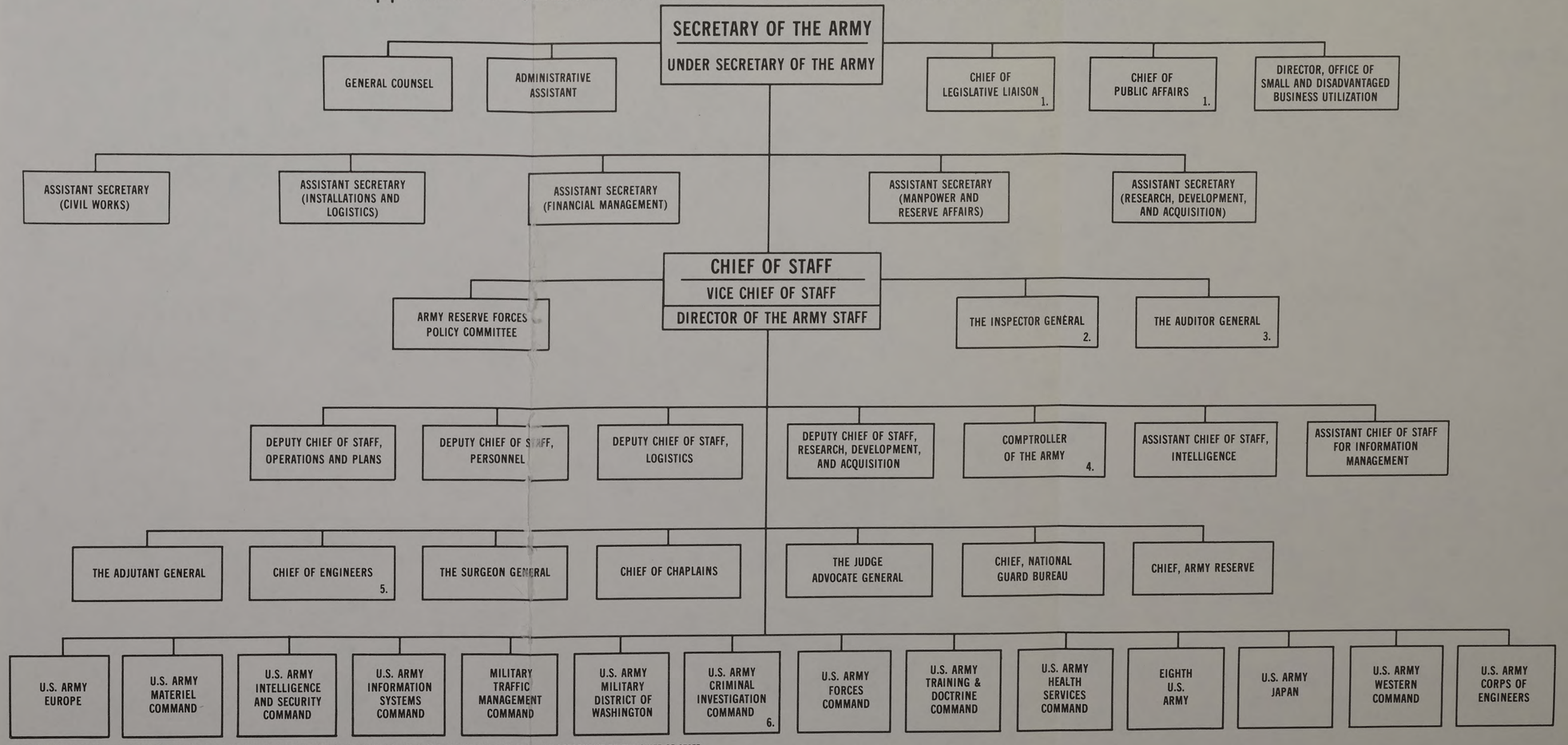
RETO	Review of Education and Training for Officers
ROK	Republic of Korea
ROTC	Reserve Officers' Training Corps
RPV	Remotely piloted vehicle
RSI	Rationalization, Standardization, and Interoperability
RSTA	Reconnaissance, surveillance, and target acquisition
SCAT	Scout/attack
SCEP	Staff College Enhancement Program
SCM	Self-contained munitions
SHORAD	Short-range air defense
SIO	Standard installation organization
SOCAD	Service Members Opportunity Colleges Associate Degree
SOF	Special Operations Forces
SQT	Skill Qualification Test
SSC	Senior Service College
STAIRS	Stable Annual Investment for Required Systems
SUPE	Soldier and Unit Performance Enhancement
TACS	Tactical Area Communications System
TAGCEN	The Adjutant General Center
TDA	Tables of distribution and allowances
TEAM SPIRIT 85	An exercise conducted in Korea.
TOE	Table of organization and equipment
TOW	Tube-launched, optically-tracked, wire-guided
TRADOC	Training and Doctrine Command
UCOFT	Unit conduct of fire trainer
UNIVERSAL TREK 85	A joint U.S./Honduran amphibious exercise.
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USAREUR	U.S. Army, Europe
USARSO	U.S. Army, South
USASDC	U.S. Army Strategic Defense Command
USOUTHCOM	U.S. Southern Command
USREDCOM	U.S. Readiness Command

VISTA	Very intelligent surveillance and target acquisition
WADS	Weapons Access Delay System
WES	Waterways Experiment Station
WINTEX/CIMEX 85	A biennial NATO exercise with U.S. participation.
WWMCCS	Worldwide Military Command and Control System

Index

U.S. GOVERNMENT PRINTING OFFICE: 1989—221-427 (F5410)

Appendix A. ORGANIZATION OF THE DEPARTMENT OF THE ARMY



1. THE CHIEF OF LEGISLATIVE LIAISON AND THE CHIEF OF PUBLIC AFFAIRS REPORT DIRECTLY TO THE SECRETARY OF THE ARMY AND ARE RESPONSIVE TO THE CHIEF OF STAFF.
2. THE INSPECTOR GENERAL SERVES AS THE CONFIDENTIAL REPRESENTATIVE OF, AND REPORTS DIRECTLY TO, THE SECRETARY OF THE ARMY AND TO THE CHIEF OF STAFF UPON THE MORALE, DISCIPLINE, EFFICIENCY, AND ECONOMY OF THE ARMY.
3. THE AUDITOR GENERAL REPORTS DIRECTLY TO THE CHIEF OF STAFF WITH CONCURRENT RESPONSIBILITY TO THE SECRETARY OF THE ARMY.
4. THE COMPTROLLER OF THE ARMY IS UNDER THE DIRECTION AND SUPERVISION OF, AND IS DIRECTLY RESPONSIBLE TO, THE ASSISTANT SECRETARY OF THE ARMY (FM) WITH CONCURRENT RESPONSIBILITY TO THE CHIEF OF STAFF.
5. THE CHIEF OF ENGINEERS REPORTS THROUGH THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS), TO THE SECRETARY OF THE ARMY ON CIVIL WORKS MATTERS.
6. THE COMMANDER, U.S. ARMY CRIMINAL INVESTIGATION COMMAND, REPORTS DIRECTLY AND CONCURRENTLY TO THE SECRETARY OF THE ARMY AND TO THE CHIEF OF STAFF ON CRIMINAL INVESTIGATION MATTERS.

AS OF 30 SEPTEMBER 1985