

CHAPTER 21

CIVIL FUNCTIONS OF THE DEPARTMENT OF THE ARMY

“We must now look forward to the future needs of the Nation.... Protecting investments, developing and marshalling resources to enhance trade and economic growth and helping others (for example in toxic and nuclear waste clean-up) through planning and engineering management, are important components of a ...strong and responsive program that promotes economic growth and protects the environment, thereby enhancing the quality of life for all our citizens and future generations.”

Dr. Joseph W. Westphal, Assistant Secretary of the Army (Civil Works)

SECTION I INTRODUCTION

21-1. Civil functions defined

A number of activities traditionally carried out by the Department of the Army are commonly referred to as civil functions. The most extensive of these functions is the Civil Works Program managed by the U.S. Army Corps of Engineers (USACE or "the Corps"). The Civil Works Program focuses on responsible development, protection and restoration of the Nation's water and related land resources. Civil works projects are implemented and operated for commercial navigation, flood damage reduction, environmental restoration and allied purposes. Civil functions also include USACE engineering and construction support to non-Defense-related activities of the Federal Government, State, and local agencies; and USACE foreign activities not exclusively in support of U.S. forces overseas. Arlington National Cemetery and Soldiers' and Airmen's Home National Cemetery complete the list of civil functions.

21-2. Funding sources for civil functions

Several funding sources finance these activities. For example, the financial and personnel resources associated with the Civil Works Program are principally authorized and funded under the biennial *Water Resources Development Acts* and the annual *Energy and Water Development Appropriations Acts*, respectively. Civil Works Program authorization acts require contributions from State and local government project sponsors to help fund many civil works activities. USACE support activities for other, non-Defense, agencies are reimbursed by those agencies. Moreover, congressional committees like the Subcommittee on Water Resources and Environment of the House Transportation and Infrastructure Committee (for the Civil Works Program) and the Subcommittee on Compensation, Pension, Insurance and Memorial Affairs of the House Committee on Veterans Affairs (for Arlington National Cemetery) provide legislative oversight. Although they differ from other Army programs in financing and oversight, the civil

functions are an integral part of the overall mission of the Army and the service it provides to the Nation.

21-3. Relationship to warfighting competencies

The civil functions complement and augment the Army's warfighting competencies, providing the capability to respond to a variety of situations across the spectrum of conflict. They provide a valuable tool with which to support the national security strategy by maintaining a trained and ready engineer force, sustained at a world-class level of expertise, at no expense to the Department of Defense military budget and at minimum expense to personnel allocations (military personnel assigned to USACE are funded from civil appropriations). This force is familiar with the Army culture and responsive to the chain of command. Skills developed in managing large, complex projects transfer to most tactical engineering-related operations. In addition, the expertise and research developed for the civil functions are leveraged to support military operational needs. As a byproduct, the civil functions provide Army engineer officers with valuable training — available nowhere else — in contracting and managing large projects.

21-4. Leadership and organization

a. The Assistant Secretary of the Army (Civil Works). Through specific statutory provisions, General Orders from the Secretary of the Army (SA), and internal Department of the Army regulation, the Assistant Secretary of the Army (Civil Works) ((ASA(CW)) has been assigned responsibilities for civil functions. The ASA(CW) reports directly to the SA. Congress established the position of the ASA(CW) in Section 211 of the *Flood Control Act of 1970*, Public Law (PL) 91-611, and reaffirmed it in Section 501 of the *Goldwater-Nichols Department of Defense Reorganization Act of 1986*, PL 99-433. The *Goldwater-Nichols Act* specifies that the Assistant Secretary's duties include overall supervision of the functions of the Department of Army relating to programs for conservation and development of national water resources, including flood control, navigation, shore protection and related purposes.

b. USACE. Most of the Army's civil functions are executed by USACE, a major Army command (MACOM) consisting of about 34,000 people, which also plans, designs, and builds military facilities for the Army, Air Force, and other Federal agencies. USACE is commanded by the Chief of Engineers, who holds positions as both a principal HQDA Staff officer and a MACOM commander. The Chief of Engineers and the Corps' Director of Civil Works report to the ASA(CW) on the Civil Works Program. Under the Chief's command are eight divisions, the Engineer Research and Development Center, two engineer centers, and one MTOE battalion—the 249th Engineer Battalion (Prime Power). Under the divisions, there are 41 districts, 38 of which are within the United States. Division and district boundaries for the Civil Works Program within the CONUS generally follow watersheds and drainage basins, as shown in Figure 21-1. This distinction is reflective of the water resources mission of the Corps of Engineers. Boundaries for military construction districts follow State boundaries, as shown in Figure 21-2. The Corps also includes a number of overseas offices with missions in construction in support of U.S. Forces, assistance to other countries and international organizations, and support to other U.S. agencies. The Pacific Ocean Division, headquartered in Honolulu, Hawaii, includes subordinate districts in Hawaii, Alaska, Japan, and Korea. The North Atlantic Division includes Europe District as well as five stateside districts. Several CONUS-based districts carry out overseas missions, such as Mobile District's support of USSOUTHCOM. One of the engineer centers, the Transatlantic Programs Center, in Winchester, Virginia, oversees most Corps of Engineers activities in Africa, and the Middle East. The other center, the Huntsville Engineering and Support Center, has a world-wide mission of providing engineering and technical services as

well project management for functions, such as chemical demilitarization, which are not accomplished by other USACE elements.

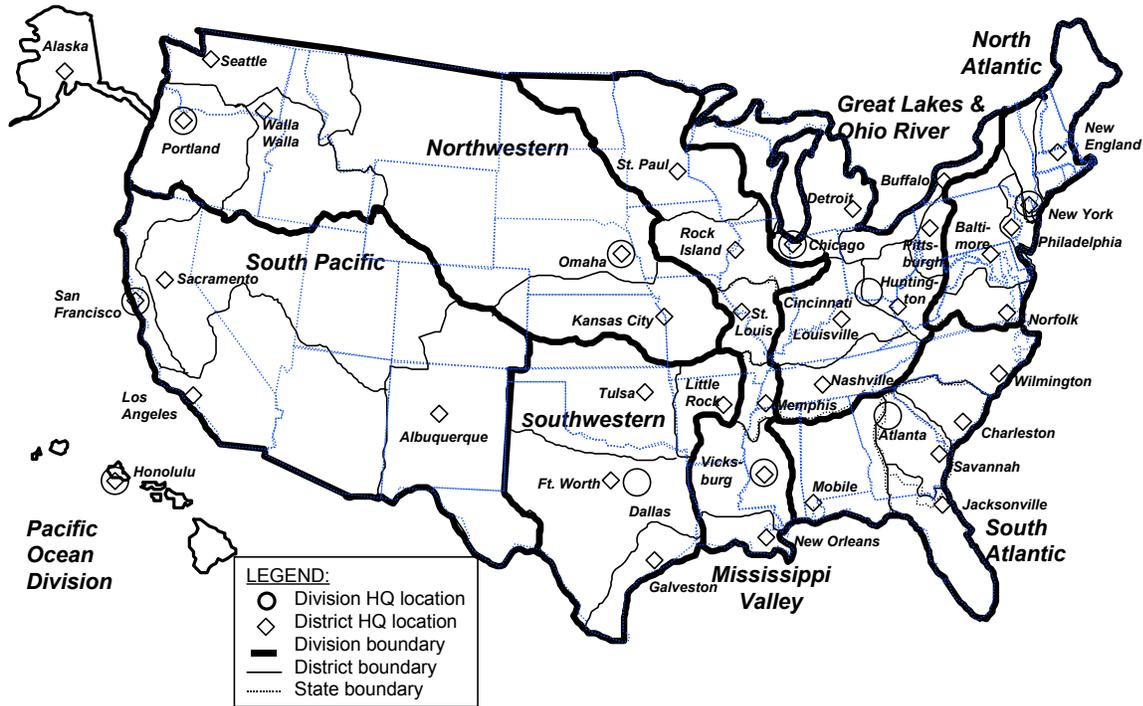


Figure 21-1. Civil Works Divisions and Districts

c. The role of the private sector. The private sector is an essential element of the Engineer team. The Corps employs private architectural, engineering and construction firms for over half of its design and all of its construction work. The partnership between USACE and the private sector represents an immediate force multiplier of several hundred thousand architects, engineers, and builders, ready to support the Nation in times of emergency.

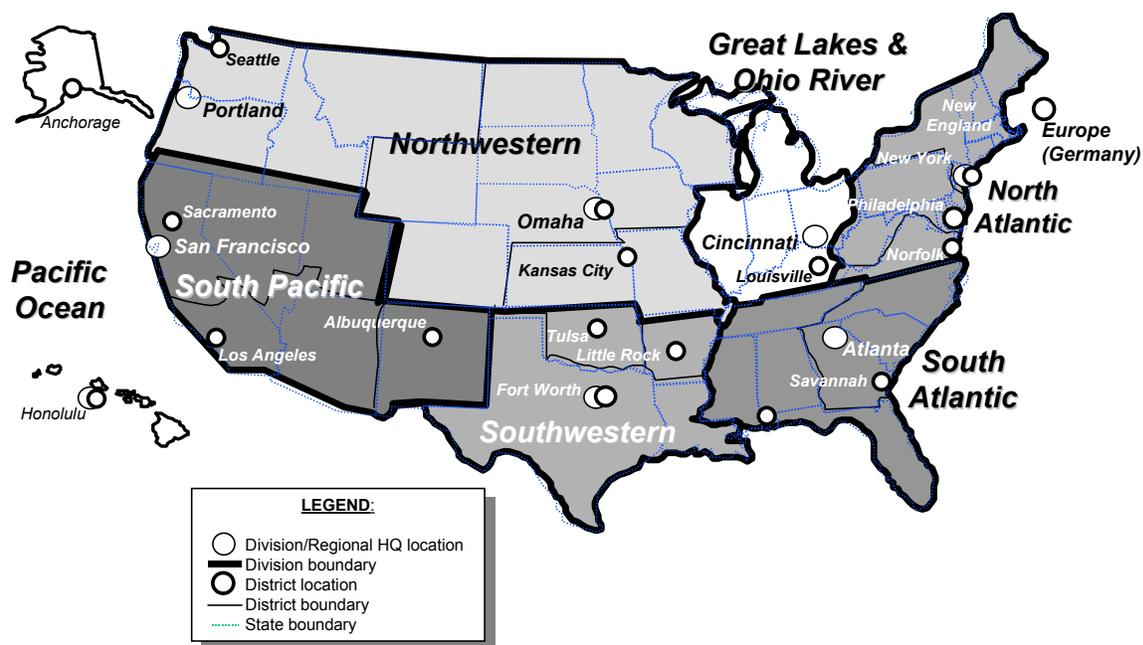


Figure 21-2. Military Programs Organization

SECTION II CIVIL WORKS PROGRAM

21-5. Civil works program activities

a. Overview. The Civil Works Program provides for nationwide resources development and management, including the planning, design, construction, rehabilitation, operation and maintenance of flood control, navigation, ecosystem and other environmental restoration, and multiple-purpose water resource projects. Completed Corps projects may include hydroelectric power, water supply, recreation, and natural and cultural resource management and, collectively, they include approximately 12 million acres of land and water. Replacement value of these projects is estimated at over \$150 billion. In addition to this direct Federal investment program, the Civil Works Program includes an important regulatory mission in which the Corps of Engineers regulates construction in navigable waters under the *Rivers and Harbors Appropriation Act of 1899*. The Corps also regulates the deposition of dredged and fill material in waters of the United States, including wetlands, under the *Clean Water Act of 1972*. In addition, the Civil Works Program includes emergency flood fighting, recovery operations, repair and restoration of flood control works, all performed under USACE's own authority as specified in PL 84-99. USACE also carries out DOD's responsibilities under the Federal Response Plan as the lead planning and operating agent for public works and engineering, in support of the Federal Emergency Management Agency (FEMA) and other Federal agencies.

b. Funding sources. The Civil Works Program receives its principal funding through the annual *Energy and Water Development Appropriations Acts*. The program also receives funding from non-Federal project sponsors who share in project costs according to formulas established by Congress in PL 99-662, the *Water Resources Development Act of 1986*, and subsequent water project authorization acts. Figure 21-3 shows Civil Works Program FY 2001 funding totaling \$5.0 billion, identified by funding sources. Of this amount, \$140 million is appropriated by Congress for the Formerly Utilized Sites Remedial Action Program (FUSRAP). This continues the policy, begun in FY 1998, of placing program administration and execution responsibilities for the FUSRAP in the Civil Works Program. The safe, timely cleanup of these Department of Energy facilities is a high priority for the Corps.

Energy and Water Development Appropriations	\$ Millions
General Investigations (Potential Project	160
Construction, General (Note	1,717
Operation and Maintenance, General	1,902
Flood Control, Mississippi River and	348
Regulatory Program (Waterway/wetland	125
Flood Control and Coastal	0
General	152
Formerly Utilized Sites Remedial Action	140
Sub Total Energy and Water Development	4,544
Contributions from Non-Federal	281
Bonnevill Power	108
Coastal Wetlands Restoration Trust	55
Permanent	16
Total Funding: Civil Works	5,004

Notes:

1. Includes \$96M from Inland Waterway Trust Fund and \$4M from Harbor Maintenance Trust Fund
2. Includes \$700M from Harbor Maintenance Trust Fund and \$34M from Recreation User Fee Receipts

Figure 21-3. Fiscal Year 2001 Sources of Funding for Civil Works Program

c. Economic infrastructure.

(1) The Corps of Engineers traditionally has been a major contributor to the development, construction, and maintenance of a sound water resources infrastructure. Commercial navigation and flood damage reduction are long-standing missions of the Civil Works Program. The navigation function includes improvement and maintenance of harbors handling all of the Nation's seaborne commerce. With funds from the Harbor Maintenance Trust Fund, the Corps maintains navigability in 299 deep draft harbors and more than 600 smaller harbors. With more than 15 million American jobs dependent on U.S. import and export trade, the Nation's commercial ports are vital to the economic security of the United States.

(2) The Corps has built an intracoastal and inland commercial waterway network of 12,000 miles and over 200 locks and dams. Major segments of this network include these waterways: Lower Mississippi River (1,015 miles), Upper Mississippi River (936 miles), Ohio River (981 miles), Tennessee River (785 miles), Missouri River (735 miles), Arkansas and White River (706 miles), Columbia River System (468 miles), South Atlantic Coast (1,111 miles), Gulf Intracoastal Waterway (GIWW)-West (1,501 miles), and GIWW-East (431 miles). Major improvements to inland waterway facilities are financed in part by the Inland Waterway Trust Fund. More than 600 million tons of commerce are moved every year on these waterways. Maintaining the system of ports and inland waterways involves removing more than 300 million cubic yards of dredged material each year.

(3) The Nation's \$38.5 billion investment in flood control (1928 through 1997) has prevented over \$387 billion in flood damages — a return of more than ten dollars in flood damage reduction for each dollar invested. Civil works projects seek to prevent flooding and its related damages with structural measures such as reservoirs, levees, improved channels, and floodwalls. Nonstructural measures, such as advice and encouragement for local zoning regulations, flood proofing of individual homes, and setting aside land in the floodplain as open space also contribute to this mission. Flood control efforts range from small, local protection projects to large lakes and dams. Today, 383 dams and reservoirs are maintained and operated by the Corps for the purpose of flood control. Since passage of the *Water Resources Development Act of 1986*, most flood control projects have been constructed as joint ventures between the Federal Government and non-Federal sponsors. These projects, once built, are operated and maintained by the sponsor.

(4) The Corps operates 75 power plants, which represent almost one fourth of the Nation's hydroelectric capacity or three percent of the Nation's total generating capacity. This makes the Corps of Engineers the Nation's fourth largest electric utility. Dams built by USACE provide water storage for drinking water, irrigation, and fish and wildlife habitat. Additionally, 456 of the flood control dams and reservoirs and multiple purpose power projects mentioned above (mostly lakes) are developed for recreational use. These projects accommodate nearly 400 million visits a year. The Corps estimates that 25 million Americans (one in ten) visit a civil works project at least once a year. Visitors to these recreation areas generate 600,000 private and public sector jobs. For many citizens, USACE rangers at the recreation sites will represent their only contact with the Department of the Army. The Army is exploring ways to take advantage of these visits to Army Engineer facilities to inform the public about the Army.

(5) The transportation infrastructure developed in the Civil Works Program plays a role in national defense. Ports and waterways serve as a vital logistics link when large volumes of materiel and personnel must be moved around the country and around the world. Practically all the heavy equipment and supplies bound for operation Desert Shield and Desert Storm moved by ship through ports maintained by the Civil Works Program. USACE works with the Military Traffic Management Command (MTMC) and the local port authorities to ensure that ports are ready when needed. Waterways built and operated and maintained by the Army Corps of Engineers similarly have direct military uses for strategic mobility. Units of the Texas, Oklahoma, and Arkansas National Guard have conducted successful movements over the Arkansas, Mississippi, and Illinois Rivers to their summer training sites, and the 101st Air Assault Division conducts annual movements by waterway from Ft. Campbell, Kentucky to Louisiana. This saves thousands of dollars from the cost of other modes of transportation. Corps of Engineers flood control projects also contribute to force projection by protecting important highway and railway links. Thus, through activities as diverse as facilitating the movement of

material to protecting vital infrastructure, the Civil Works Program contributes to National security.

d. The environment.

(1) *Project activities and regulatory programs.* The Civil Works Program makes important contributions toward meeting the Nation's environmental goals by constructing projects for restoration and protection of ecosystem and other environmental functions and values. In addition, USACE provides stewardship for Corps-administered lands, includes appropriate mitigation in the design of all its projects, protects important aquatic resources such as wetlands through its regulatory program, and ensures environmental compliance at civil works project sites. Much of this work proceeds in partnership with other Federal and State agencies, as well as local communities. Some work may involve federally recognized American Indian Tribes or Alaskan Natives.

(2) *Project authorities.* Legislation passed in 1990 established environmental restoration and protection as one of the primary missions in the planning, design, construction, operation and maintenance of water resources projects — along with navigation and flood damage reduction. This new direction has allowed USACE to expand its traditional environmental activities and enhance or restore natural resources at civil works projects as well as plan and implement new projects with environmental restoration as a primary project purpose. Like other Corps projects, large restoration projects must be authorized specifically. In one of the largest environmental restoration and protection projects ever undertaken, the Departments of the Army and the Interior have been cooperating with the State of Florida to restore the physical form, functions, and hydrologic regime of the Everglades in South Central Florida. Congress authorized the Corps' Comprehensive Everglades Restoration Plan as a planning framework for this project as well as ten initial construction projects in Title VI of the *Water Resources Development Act of 2000*, PL 106-541. In addition to specifically authorized projects such as the Everglades restoration project described above, environmental restoration is accomplished through three programmatic authorities for small projects. Under Section 1135 of the *Water Resources Development Act of 1986*, PL 99-662, USACE is authorized to modify projects constructed by the Corps in the interest of improvement of the environment. Section 1135 also authorizes USACE to accomplish environmental restoration when the original Corps project contributed to environmental loss. Section 204 of the *Water Resources Development Act of 1992*, provided authority for beneficial uses of dredged material. This authority allows USACE to utilize material from the dredging of authorized Corps navigation projects for environmental restoration projects. The third authority is Section 206 of the *Water Resources Development Act of 1996*. This provision established a program for Aquatic Ecosystem Restoration under which small projects may be constructed and no link to an existing Corps' project is required. Working toward a national goal of “no net loss of wetlands,” the Civil Works Program is undertaking projects to restore existing wetlands and to create new ones.

(3) *Regulatory program.*

(a) The regulatory program of the Corps of Engineers has a long history of protecting the Nation's waters. The *Rivers and Harbors Act of 1899* authorizes the regulation, by permit, of dredging, construction and similar activities in navigable waters of the United States. A principal objective of this program is to ensure that unobstructed waterways are maintained for commercial and recreational users. Over time, the Corps “public interest review” has become an important part of the decision process used by Corps district commanders in granting, modifying or denying permit applications. This review involves the consideration and balancing of a

number of interests besides navigation — among them aesthetics, conservation, economics, and general environmental factors.

(b) The *1972 Clean Water Act* authorized the regulation, by permit, of dredge and fill material discharge activities in all waters of the United States, including wetlands. This Act expanded the Corps of Engineers' regulatory responsibilities beyond those contemplated in the *Rivers and Harbors Act of 1899*. Also, other environmental laws that were enacted at about the same time require Federal decision makers to consider and take responsibility for the environmental consequences of their actions. Section 103 of the *Marine Protection, Research and Sanctuaries Act of 1972*, as amended, authorizes the Secretary of the Army (SA) to issue permits for the transportation of dredged material for ocean disposal. In its determination, the Corps insures that the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological system, or economic potentialities.

(c) Today the regulatory program consolidates the public interest and environmental consequence reviews into a comprehensive evaluation process for decision-making. The evaluation process promotes the balancing of environmental protection with responsible economic growth. This balancing is reflected in the program's goals to protect the aquatic environment, render fair and reasonable decisions, and use efficient decision-making procedures. The Corps regulatory program provides the public a valuable service—protection of the Nation's waters and wetlands.

(4) *Stewardship*. The Corps of Engineers is steward for almost 12 million acres of land and water in 42 States. Conservation of forests, range wildlife habitat, fisheries, and soils involves multiple use of resources and practice of sound ecosystem management principles. USACE accomplishes this through a mix of its own management capabilities, partnerships with State and local governments, volunteers, and working agreements with a wide range of interest groups.

(5) *Compliance*. The Corps of Engineers conducts compliance assessments at all of its projects on a five-year cycle through the environmental compliance assessment program. The Environmental Review Guide for Operations (ERGO), the tool used to conduct assessments, is a checklist containing Federal and State environmental statutes and Corps requirements. Project and facility managers, as well as external organizations, use ERGO to systematically locate and correct environmental deficiencies.

(6) *Environmental activities and warfighting competencies*. Environmental activities in the Civil Works Program are essential elements of the Army's Environmental Strategy now and for the 21st Century. People who learn their specialties in civil missions that concern natural and cultural resources, water quality, flood plain management or hazardous waste management help the Army go "beyond compliance" to take on a leadership role in natural resources stewardship. Civil works expertise helped the Army develop such tools as the Environmental Compliance Assessment System (ECAS) and Integrated Training Area Management (ITAM). The Civil Works Program is responsible for about half the Army's land holdings, and is familiar with balancing preservation of the natural environment with human use — a major issue facing the Army. This program is also the Army's reservoir of cultural resources expertise, which the Army has used on several priority missions.

e. Emergency preparedness and disaster response.

(1) The U.S. Army Corps of Engineers responds to the Nation's needs in case of natural or man-made disasters and emergencies. USACE programs provide a wide variety of assistance to protect human life and improved property, reduce human suffering, help communities recover

from the effects of disasters, and mitigate damage and future threats. Response and recovery activities supplement State and local efforts.

(2) Under PL 84-99, USACE undertakes planning and preparedness activities for all types of natural disasters, and provides response and recovery activities necessitated by floods and coastal storms. PL 84-99 activities are funded by the Flood Control and Coastal Emergencies (FCCE) appropriation. Included in these preparedness and response efforts are disaster preparedness measures, advance measures to alleviate high potential flood threats, flood fighting activities, preservation of threatened Federally-constructed shore protection projects, and life-saving rescue operations. Recovery and mitigation measures include repair and rehabilitation of damaged flood control works and shore protection projects or nonstructural projects in place of structural rehabilitation. PL 84-99 also authorizes USACE to provide emergency supplies of clean water to localities whose water source has been contaminated and to drought-affected areas. In addition, USACE is authorized to provide essential services and restore essential public infrastructure, for a period of up to 10 days, in any area victimized by a natural disaster for which the Governor of a State has requested Federal assistance under *Stafford Act* authority.

(3) Under The *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (42 USC 5121 et seq.) (88 Stat.143) (the *Stafford Act*), USACE uses its engineering expertise and its response and recovery capabilities to carry out DOD's responsibilities under the Federal Response Plan (FRP) as the lead planning and operating agent for the Public Works and Engineering Emergency Support Function in support of the Federal Emergency Management Agency (FEMA) and other Federal agencies in responding to disasters and emergencies of all kinds. Under authority of the *Stafford Act*, FEMA has developed the FRP, which coordinates the execution of response and recovery operations of the 28 Federal signatory departments and agencies. Under the FRP, DOD has delegated its responsibility for Emergency Support Function Number 3 (ESF-3), Public Works and Engineering, to USACE.

(4) As the lead DOD (and Federal) agency for ESF-3, USACE has a number of standing missions, to include provision of water, ice, emergency power, debris removal, temporary housing, and temporary roofing. Other missions in the Public Works and Engineering area are assigned by FEMA to USACE, as needed. All of these missions are tailored to the needs of, and coordinated with the impacted State, and all are funded by FEMA. Each mission assignment is based on the capabilities of USACE, including its significant and responsive contracting capability. The Deputy Chief of Staff for Operations and Plans (DCSOPS), Directorate of Military Support, coordinates DOD requirements not in the realm of ESF-3 missions.

(5) No new funding for the FCCE account has been provided since \$415 million was provided in the *1997 Emergency Supplemental Appropriations Act*. The carryover of available funds has been sufficient to fund all needed PL 84-99 activities and is expected to be sufficient through the end of FY 2001. After that, however, or if an extraordinary natural disaster occurs before the end of FY 2001, additional funding will be required for the FCCE account to carry out authorized activities.

(6) In FY 1999 and FY 2000, the USACE responded to several significant natural disasters. The largest event was Hurricane Floyd, which devastated portions of North Carolina and Virginia with high winds, storm surges, and massive floods. Another significant event was the Cerro Grande fire. The USACE assisted the Los Alamos National Laboratory and two Indian pueblos with flood-fighting assistance, constructed a 113-unit temporary housing development, and constructed a major Advance Measures project to protect a main road in the city of Los Alamos from the threat of heavy flooding resulting from the burned watershed. Other events to

which USACE responded included Hurricanes Irene, Dennis, Lenny and Brett and small-scale floods in the Midwest, Oregon, and Washington.

21-6. Research and development

a. Organizing philosophy. The U.S. Army Engineer Research and Development Center (ERDC) includes all of the Corps of Engineers dispersed research and development (R&D) facilities. The Center supports the Army and the Nation with high quality research, leading edge technology, and state of the art facilities. ERDC applies the “One Door to the Corps” philosophy to the Corps’ vast R&D capabilities to undertake research not only for Corps civil works and military projects, but also for other Federal agencies, State and municipal authorities, and, through innovative work agreements, for U.S. industry. This research and testing has produced excellent results, including innovation and significant improvements in the cost-effectiveness of support to civil works projects and associated operations and maintenance activities.

b. Laboratories and locations. The ERDC organization consists of eight unique laboratories in four locations: Construction Engineering Research Laboratory (CERL) at Champaign, Illinois; Cold Regions Research and Engineering Laboratory (CRREL) at Hanover, New Hampshire; Topographic Engineering Center (TEC) at Alexandria, Virginia; and the Coastal and Hydraulics, Structures, Geotechnical, Environmental, and Information Technology Laboratories at Vicksburg, Mississippi. ERDC laboratories work both individually and cooperatively to address a wide range of problems facing civil works projects. ERDC staff totals over 2,500 engineers, scientists and support personnel. Its scientific and engineering assets include some of the most modern facilities and equipment in the world and are valued at \$1.2 billion.

c. Mission areas. ERDC civil works research mission areas are highly diverse and encompass some of the toughest engineering problems faced by our Nation today. Research is conducted in the fields of mapping and terrain analysis; infrastructure design; construction and maintenance; cold region effects (snow, ice, frozen ground); flooding and coastal storm damage reduction; navigation channels and harbors; hydraulic structures (locks, levees, reservoirs, dams); dredging; groundwater modeling and contaminants; hazardous wastes and environmental chemistry; water quality; wetlands; threatened, endangered and nuisance species; earthquake engineering; concrete research; high performance computing; geographic information systems; and scientific visualization.

d. Unique laboratory capabilities. Each laboratory has unique capabilities. TEC does state of the art research in mapping and charting, including exploring applications for satellite ground positioning systems (used to position dredges when working on navigation channels), stand-off sensing (to check underwater channel conditions), and computer/satellite based terrain analyses. CERL specializes in construction technologies, energy conservation, and environmental operations. CRREL studies the effects of low temperature on materials, equipment, and engineer operations. CRREL’s research includes the effects of cold weather on tactical engineering. The five laboratories located in Vicksburg, collectively known as the Waterways Experiment Station (WES), specialize in water systems, but they also conduct research in soil and rock mechanics, earthquake engineering, coastal engineering, mobility assessments, computer aided design and drafting, and weapons effects on structures.

SECTION III SUPPORT TO OTHER GOVERNMENT AGENCIES

21-7. Overview of support to other government agencies

The U.S. Army Corps of Engineers provides engineering and construction support to over 60 non-DOD Federal agencies, State, and local governments under the Support for Others Program. Funds for this program are included in the appropriations of the agencies receiving support and payment made to USACE. USACE support of other agency infrastructure programs includes managing the design and construction of border control and detention facilities for the Immigration and Naturalization Service, construction management support for the Drug Enforcement Agency, engineering and construction management support for the upgrade and modernization of the Washington, DC Public Schools, and emergency management assistance to the Federal Emergency Management Assistance agency. USACE also supports programs and projects of other Federal agencies designed to meet important national environmental objectives. These include the Superfund Program of the Environmental Protection Agency, cleanup and decommissioning of a nuclear reactor for the National Aeronautics and Space Administration, and cleanup of nuclear production facilities for the Department of Energy.

21-8. Value of support activities

In FY 1999, the value of the engineering and construction effort managed by USACE was approximately \$717 million. Non-DOD entities having Corps support costing more than \$1,000,000 in FY 1999 are listed in Figure 21-4.

<u>Agency</u>	<u>Construction Effort</u>
Department of Agriculture	\$ 1,838,000
Department of Commerce	2,507,000
Department of Energy	25,496,000
Environmental Protection Agency	372,610,000
Federal Emergency Management Agency	80,934,000
General Services Administration	5,133,000
Dept of Health and Human Services	1,529,000
Dept Housing and Urban Development	3,232,000
Department of the Interior	43,773,000
JFK Center for the Performing Arts	1,033,000
Department of Justice	124,244,000
Department of Transportation	14,997,000
Department of Treasury	3,083,000
Panama Canal Commission	3,648,000

Figure 21-4. Construction Support for Non-DOD Agencies

SECTION IV NATIONAL CEMETERIES

21-9. Overview of national cemeteries

For over 125 years, Arlington National Cemetery (ANC) has served as a place of honor and recognition for the men and women who have served in the Nation's Armed Forces. It is the site of numerous important national ceremonies. The Soldiers' and Airmen's Home National Cemetery, located in Washington, D.C., also provides a final resting place for those with military service. The Army takes pride in exercising its assigned responsibilities for operation, maintenance, and improvement of these cemeteries. The ASA(CW) provides program formulation and budget oversight to Arlington and Soldiers' and Airmen's Home National Cemeteries. The day-to-day activities of the cemeteries are the responsibility of the Commanding General, Military District of Washington, who executes these responsibilities through the Superintendent, ANC. The Assistant Secretary of the Army (Manpower and Reserve Affairs) is responsible for burial policy. The Corps of Engineers supports Arlington National Cemetery by providing planning, engineering, design and construction management assistance for cemetery property and facilities.

21-10. Funding

The Army receives funds to operate these cemeteries in the Cemeterial Expenses, Army, appropriations account. These funds are included in the Departments of Veterans Affairs, Housing and Urban Development, and *Independent Agencies Appropriations Act*. The amount sought by the Administration and appropriated by Congress in FY 2001 — \$17.9 million — will provide for a continuation of the high standard of maintenance expected for these two important national cemeteries.

21-11. Master plan for Arlington National Cemetery

The development and improvement of the infrastructure at ANC had been based on a master plan that originally was prepared in 1967. In 1998, a new master plan was completed and approved by the SA. That plan provides a vision of the cemetery's priorities and needs into the next century. The master plan identifies projects and policies to respond to the challenges confronting ANC. These challenges include an aging infrastructure, declining availability of space for initial interment, and preserving the dignity and serenity of ANC while accommodating over 4,000,000 visitors annually.

SECTION V

ENGINEER OVERSEAS ACTIVITIES

21-12. Overview of engineer overseas activities

The Army Corps of Engineers conducts a broad range of foreign activities. Many are exclusively in support of U.S. forces overseas. All others are considered part of the civil functions of the Army. In coordination with the Deputy Undersecretary of the Army (International Affairs), the ASA(CW) provides program direction to the foreign activities of the Corps of Engineers, except those which are exclusively in support of U.S. military forces overseas. In FY 2000, the Engineers supported U.S. foreign policy in about 80 countries. Through the Africa Civil Action Program, assistance and support was provided to developing African nations to improve the construction expertise of their military engineers. The Corps also continued several major efforts to support U.S. initiatives in Africa including assisting on the U.S.-Nigeria Joint Economic Partnership Committee and the U.S.A.-Angola Bi-National Cooperation Commission. Through the Counter-Narcotics Program in three Central and South American countries, the Corps provided reimbursable engineering and construction support on 17 projects required to control the production and trafficking of illicit narcotics. It also provided significant remediation support to the U.S. Agency for International Development resulting from Hurricane Mitch.

21-13. Foreign military sales

As the DOD Construction Agent in many parts of the world, the Corps provides reimbursable design and construction services under the Foreign Military Sales (FMS) Program. FMS assistance currently is being provided to nine countries in Latin America and the Middle East, with a total project value of approximately one billion dollars. Working for the Defense Special Weapons Agency, the Corps is supporting the Cooperative Threat Reduction Programs with work in Russia, Belarus, and Ukraine. The work includes design and construction assistance for nuclear storage facilities and a chemical weapons destruction program. The current program is valued at approximately \$600 million.

21-14. Partnership for Peace

The Corps assists the Deputy Under Secretary of the Army (International Affairs) in developing programs to increase trans-boundary cooperation between civilian and military emergency planners in Partnership for Peace (PfP) nations. Numerous workshops are being conducted in the PfP nations to leverage USACE expertise in disaster planning, flood damage reduction, and application of topographic and remote sensing technologies.

21-15. Support for U.S. agencies

The Corps is also called upon frequently to provide support for U.S. agencies overseas. For example, the Corps is managing construction of a \$150 million road project in Palau for the U.S. Department of Interior as part of the Compact of Free Association with that country.

21-16. Benefits to warfighting capabilities

Goodwill generated by international work sometimes pays unexpected dividends. In the 1970's and 1980's, a team drawn largely from the Civil Works Program managed the construction of billions of dollars worth of military and transportation facilities in Saudi Arabia, all financed by the Saudi government. The trust developed between the Army and the Saudi government was vital in reaching agreements needed for Desert Shield and Desert Storm. The facilities themselves also played a key role. Troops and equipment moved through ports and airfields developed under the Corps program, and King Khalid Military City, near the Iraqi border, became a major staging center.

SECTION VI

SUPPORT TO COMMANDERS IN CHIEF

21-17. Overview of support to commanders in chief (CINCs)

Expertise in water resource development, flood damage reduction, waterway operations, dredging, coastal engineering, environmental stewardship, and disaster response supplement the skills maintained through the Army's military construction and installation support programs. This expertise is routinely called upon by the warfighting CINCs and by other DOD agencies and is supplied by the Corps of Engineers on a reimbursable basis. When the Army goes to war, personnel involved in civil functions provide timely information to the battlefield. Corps of Engineers knowledge of beach dynamics—including the Sea State Prediction Models developed at the Waterways Experiment Station, Vicksburg, Mississippi—help determine the sites for shore landings. Corps expertise in soil mechanics determines the best routes for armored vehicles; often roads are built using technologies developed in the Civil Works Program. Corps of Engineers experience gained from work on winter navigation helps the Army to cross frozen rivers. Commanders at all levels make use of topographic products and satellite-based navigation systems developed at the Topographic Engineering Center at Fort Belvoir, Virginia.

21-18. Examples of support to CINCs

Soldiers and civilians who are assigned to civil functions are available to deploy with the Army, and have done so in support of operations in Grenada, Panama, Saudi Arabia, Somalia, Haiti, and Bosnia. They are key to evaluating and developing the infrastructure the force needs to enter and move about. For Operations Desert Shield and Desert Storm, more civil works personnel volunteered for deployment than the mission required. Especially noteworthy are the Contingency Real Estate Support Teams (CRESTS) who can deploy within 48 hours, worldwide, to acquire the troop housing, work space, hardstands, and covered storage areas the entering

force will need. Other examples of how civil capabilities can be used to support CINCs include the following:

- Digital mapping and soil trafficability studies for Central Command in support of Operations Desert Shield and Desert Storm.
- Post-conflict cleanup of Kuwait, reestablishing utilities, and supervising repair of roads, buildings, and airfields.
- Water/flood level prediction modeling as Engineer soldiers bridged the Sava River in Bosnia.
- Environmental and water resource assessments in Central and South America.
- River channel surveys in Bangladesh at the request of USARPAC.
- Dam safety, disaster response, and water resource development.
- Expertise for military-to-military contacts in European Command.
- Archaeological support to the Army Central Identification Lab to help recover the remains of U.S. Servicemen in Southeast Asia.
- Coastal modeling to map optimum locations for logistics over-the-shore (LOTS) operations in the Persian Gulf, Somalia, and Haiti.

SECTION VII

SUMMARY AND REFERENCES

21-19. Summary

The Army, through its civil functions, provides valuable services in maintaining and enhancing the economic and environmental health of the Nation. Civil functions also continue to prove invaluable in furthering national security objectives, both directly and indirectly. The financial and personnel resources associated with these functions are principally authorized and funded under the biennial *Water Resources Development Acts* and annual *Energy and Water Development Appropriations Acts*, respectively. Consequently, civil functions activities, as well as the significant training of Corps of Engineers personnel they provide, are at virtually no cost to the Department of Defense's military budget.

21-20. References

- a. Public Law 84-99, *Amendment of Flood Control Act of August 18, 1941 (Emergency Flood Control Work)*.
- b. Public Law 91-611, *Flood Control Act of 1970*.
- c. Public Law 93-288, *Disaster Relief Act of 1974* (also known as the *Stafford Act*).
- d. Public Law 99-433, *DOD Reorganization Act of 1986* (also known as the *Goldwater-Nichols Act*).
- e. Public Law 99-662, *Water Resources Development Act of 1986*.
- f. Public Law 105-245, *Energy and Water Development Appropriations Act, 1999*.
- g. Public Law 105-277, *Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999*.
- h. Public Law 106-541, *Water Resources Development Act, 2000*.

i. HQDA General Orders No. 10, *Assignment of Functions, Responsibilities, and Duties within the Army Secretariat, 12 August 1997.*