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	Emergency Employment of Army and Other Resources USACE SUPPORT IN THE THEATER OF OPERATIONS	
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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
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Emergency Employment of Army and Other Resources
USACE
SUPPORT IN THE THEATER
OF OPERATIONS

TABLE OF CONTENTS

		Paragraph	Page
CHAPTER 1.	INTRODUCTION		
	Purpose	1-1	1-1
	Applicability	1-2	1-1
	References	1-3	1-1
	Scope	1-4	1-1
CHAPTER 2.	AUTHORITIES AND DOCTRINE		
	General	2-1	2-1
	Basic DOD Authorities	2-2	2-1
	Doctrine	2-3	2-3
CHAPTER 3.	DEPARTMENT OF DEFENSE ORGANIZATION		
	General	3-1	3-1
	Department of Defense and National Security	3-2	3-1
	Department of the Army	3-3	3-3
CHAPTER 4.	DEPARTMENT OF DEFENSE PLANNING SYSTEMS		
	General	4-1	4-1
	DOD Planning Systems	4-2	4-1
CHAPTER 5.	ENGINEER THEATER SUPPORT OPERATIONS		
	General	5-1	5-1
	Concepts	5-2	5-1
	Missions	5-3	5-1

This pamphlet supersedes EP 500-1-2, 30 May 1984

	Paragraph	Page
	Engineer Command and Control	5-4 5-2
	Theater Facilities Acquisition Policies	5-5 5-3
	Army Engineer Operations Supports	5-6 5-4
CHAPTER 6.	USACE TO CONTINGENCY MISSION	
	Power Projection	6-1 6-1
	USACE Response	6-2 6-1
	USACE Theater Missions	6-3 6-1
	USACE Readiness	6-4 6-2
CHAPTER 7.	OVERSEAS DISASTER RESPONSE AND RECOVERY OPERATIONS	
	General	7-1 7-1
	Authorization and Funding	7-2 7-2
	Missions	7-3 7-3
	Imperatives	7-4 7-3
	Concepts of Operations	7-5 7-4
	Organization	7-6 7-5
	Contracting Strategy	7-7 7-11
APPENDIX A.	REFERENCES	A-1
APPENDIX B.	UNIFIED COMMANDS	B-1
APPENDIX C.	USACE OCONUS CONTINGENCY AREAS OF RESPONSIBILITY	C-1
APPENDIX D.	CIVIL ENGINEERING SUPPORT PLAN (CESP)	D-1
APPENDIX E.	JOINT ENGINEER DOCTRINE	E-1
APPENDIX F.	LOGISTICS CIVIL AUGMENTATION PROGRAM (LOGCAP)	F-1
APPENDIX G.	CONTINGENCY REAL ESTATE	G-1
APPENDIX H.	CONTINGENCY SUBSURFACE WATER DETECTION	H-1

	Paragraph	Page
APPENDIX I.	THEATER CONSTRUCTION MANAGEMENT SYSTEM (TCMS)	I-1
APPENDIX J.	WARTIME MILCON FUNDING	J-1
APPENDIX K.	COMBINED COMMAND CONCEPTS	K-1
APPENDIX L.	GLOSSARY	L-1
APPENDIX M.	TERMS	M-1

CHAPTER 1 INTRODUCTION

1-1. **Purpose.** This pamphlet is a companion document to Engineer Regulation (ER) 500-1-2, The Corps of Engineers Mobilization Planning and Execution System (CEMOPES) - Theater of Operations (TO). As a supporting Army major command (MACOM), it is not possible for the U.S. Army Corps of Engineers (USACE) commander to provide absolute guidance to USACE commanders on operating in the theater of operations. This pamphlet is intended to provide USACE subordinate commanders and their planning and functional staffs with a reference document to assist in preparing to support OCONUS military contingency operations at the operational level of war and within operations other than war (OOTW).

1-2. **Applicability.** This pamphlet applies to commands with missions to provide contingency support to OCONUS unified command commanders in chief (CINC) and their Army component commands in the conduct of operations outside of the United States and its territories.

1-3. **References.** See Appendix A.

1-4. **Scope.** This pamphlet addresses three major concepts:

a. **Theater Support.** Defines the USACE mission in support of the Army and Department of Defense and its functions in theater. This includes functional responsibilities of Headquarters (HQ), USACE and the USACE major subordinate command (MSC), districts and subordinate elements in theater.

b. **Command and Control.** Defines the command relationships between the supporting USACE element and the unified command, the Army component commander, the tactical corps and the Army MSCs in the communications zone (COMMZ) engineer organization. Variations of this traditional structure will cover support within the joint task force (JTF) and discussion of support to a combined task force (e.g., United Nations or North Atlantic Treaty Organization).

EP 500-1-2
30 Oct 95

c. Policies and Procedures. Defines the peacetime policies and procedures for development, review and maintenance of USACE theater support plans related to USACE MSCs and districts which support unified commands. In addition, it addresses USACE readiness programs (e.g., Logistics Civil Augmentation Program (LOGCAP) and Theater Construction Management System (TCMS)), its rapid response capabilities (e.g., Contingency Real Estate Support Teams (CREST) and Water Detection Response Team (WDRT)) and maintenance and support requirements.

CHAPTER 2 AUTHORITIES AND DOCTRINE

2-1. General. USACE is an Army MACOM assigned responsibilities to execute Army and Department of Defense (DOD) programs and missions related to military construction and civil works. All of USACE's authorities (including Civil Works) are derived from authorities vested in the Secretary of the Army. All USACE activities are generated by law and prescribed through DOD and Army regulations. All USACE contingency missions are as an Army component in support of DOD.

2-2. Basic DOD Authorities. The Corps of Engineers National Security Emergency Preparedness Program supports readiness and execution for both civil and military emergencies. The Corps' emergency preparedness and execution authorities can be derived primarily from the following laws and directives:

a. **The National Security Act of 1947**, as amended, established DOD, and changed the role of the Services which became military departments within DOD. It established the Joint Chiefs of Staff (JCS) and unified commands. This act also provides the basis for FEMA's national mobilization programs.

b. The Corps' military preparedness is controlled by many regulations and directives recognizing certain legal constraints (environmental and appropriation) and command relationships. The guidance fundamental to USACE military preparedness is as follows:

(1) **DOD Directive 5100.1, "Functions of the Department of Defense and Its Major Components,"** prescribes the functions of the Department of the Army. In addition to the provisions to organize, train, and equip forces for land combat operations; it authorizes the Army to conduct the "authorized civil works program."

(2) **AR 10-5, "Department of the Army Organization and Functions,"** assigns the Commanding General, U.S. Army Corps of Engineers, the following missions applicable in peace and war:

(a) Manage and execute engineering, construction, and real estate programs for the Army and the Air Force.

(b) Provide specialized engineer and technical support.

(c) Manage and execute civil works programs.

(d) Assist in recovery from natural disasters.

(3) **AR 500-5, "The Army Mobilization and Operations Planning and Execution System (AMOPES),"** is the Army's single integrated mobilization and deployment planning system. It is based on the Joint Strategic Capabilities Plan (JSCP) which provides strategic planning guidance to the CINC and the Service Chiefs. The AMOPES implements the Army's portion of the JSCP. It provides operational and administrative guidance for the employment and support of Army forces controlled by major commands (MACOM). Annex N of the AMOPES provides guidance for the Office of the Chief of Engineers (OCE), the Assistant Chief of Staff for Installation Management (ACSIM) and the U.S. Army Corps of Engineers (USACE).

(4) **DOD Directive 4270.5, "Military Construction Responsibilities,"** designates DOD Construction Agents for execution of contract construction overseas. The contract construction agent (CCA) responsibilities are divided among the Services. The Corps and the Naval Facilities Engineering Command (NAVFACENGCOM) are the two primary CCAs. The purpose of this division of responsibility is to avoid unnecessary duplication of capability and effort. It is a basis for USACE's military OCONUS planning requirements and contingency execution responsibilities. Note that USACE's mission extends beyond contract construction.

(5) **Army Federal Acquisition Regulation Supplement Manual No. 2, "Contingency Contracting."** This manual covers the acquisition process and system support for contracting in a contingency or field environment. It provides guidance for implementing the Federal Acquisition Regulation (FAR), the Department of Defense FAR Supplement, and the Army FAR Supplement. This pamphlet provides procedures, techniques, and examples for the conduct of contracting actions in the field.

2-3. **Doctrine.** "Doctrine provides a military organization with a common philosophy; a common language, a common purpose, and a unity of effort."¹

a. Army Doctrine. Doctrine specifies the actions that Army units must plan and conduct in land force operations. The Army invests heavily in doctrine, which is delineated in its field manuals. It is the basis for unit organizational structure, the mix of units in the Army force structure, the equipping and manning of units, the training that soldiers receive to assure individual competency and the training that units conduct to attain and maintain their readiness standards. Doctrine is not directive; it is authoritative and changes over time. Specific to USACE is the incorporation of its capabilities and structure within the Army doctrinal publications and its roles in theater support operations.

b. Joint Doctrine. The Joint Staff Officer's Guide 1993 defines joint doctrine as "Fundamental principles issued by the Chairman of the Joint Chiefs of Staff that guide the employment of forces of two or more Services in coordinated action toward a common objective." Joint operations are about team work among the Service components with the direction provided by the combatant commanders. As a designated DOD construction agent, or CCA, USACE supports the CINC and the forces of all Services in joint operations. Joint doctrine states that "As a minimum, the combatant command should be able to: ... Coordinate with and provide guidance to DOD-specified contract construction agents (CCA)."²

¹ General George H. Decker, USA, speech given at the US Army Command and General Staff College, Fort Leavenworth, Kansas, 16 December 1960, quoted in Robert D. Heinl, Jr., *Dictionary of Military and Naval Quotations* (Annapolis, Maryland: Naval Institute Press, 1966), 95.

²Joint Pub 4-04, "Joint Doctrine for Civil Engineering Support, p I-3."

CHAPTER 3
DEPARTMENT OF DEFENSE ORGANIZATION

3-1. General. The U.S. Army Corps of Engineers operates as a supporting MACOM within the Army. USACE also has a broader mission to support the Air Force and in contingencies may be required to support all the Services as well as other DOD agencies. This chapter provides background and lays the groundwork for USACE's support role for DOD contingency missions.

3-2. Department of Defense and National Security. DOD is but one part (albeit the major component) of the nation's organization for national security. Virtually every department and agency in the Federal Government has responsibilities for support of national security. Constitutionally the ultimate authority and responsibility for national defense rests with the President as Commander-in-Chief of the Armed Forces.

a. **The National Security Act of 1947**, as amended, established the DOD as we know it today. The Secretary of Defense (SECDEF) has statutory authority, direction, and control over the military departments and is responsible for the effective, efficient, and economical operation of DOD.

(1) **The National Command Authorities (NCA)** are the President and the SECDEF. The NCA signifies the President's constitutional authority to direct the Armed Forces of the United States in combat operations. Only the NCA can direct both the movement of forces and execution of combat operations. No one else in the military chain of command has that authority.

(2) **The National Security Council (NSC)** was established by the National Security Act of 1947 as a forum to consider national security issues that require a Presidential decision. There are four statutory members: the President, the Vice-President, the SECDEF, and the Secretary of State. The Chairman of the Joint Chiefs of Staff (CJCS) and the Director of Central Intelligence are statutory advisors to the NSC. The President's National Security Advisor is responsible for day-to-day operation of the NSC staff. Aside from the statutory members, the President may invite any senior officials to attend NSC meetings.

b. The **Goldwater-Nichols DOD Reorganization Act of 1986** was intended to clarify the command line between the CINC and the National Command Authorities (NCA). As stated before, only the NCA can deploy and direct the Armed Forces into combat. The operational chain of command is from the NCA to the commanders of the unified or combatant commands.

(1) DOD Directive 5100.1 outlines the functions of the Department of Defense. DOD consists of the Office of the Secretary of Defense (OSD), the Chairman and Joint Chiefs of Staff (JCS), the Joint Staff (JS), thirteen defense agencies, seven DOD field activities, the three military departments, and the unified commands.

(2) Unified commands are established by the President and have broad continuing missions and are composed of forces from two or more military departments. Combatant command is the authority of a CINC to exercise command over assigned forces for the purpose of conducting military operations. Combatant command is exercised through subordinate commanders (e.g., the Army component commander). There are two types of unified commands: those which have functional responsibilities (Space Command, Transportation Command and Special Operations Command) and those with responsibilities based on a geographic area (European Command, Pacific Command, etc.).

(3) The Chairman of the Joint Chiefs of Staff (CJCS) is not in the operational chain of command. Communication from the NCA to the CINC is through the CJCS, placing the CJCS in the communications chain of command. In addition, the SECDEF is permitted wide latitude in assigning oversight responsibilities to the CJCS for control and coordination of the CINC.

(4) The CINC are responsible to the NCA for the performance of their assigned missions. To give the CINC the authority needed to conduct joint operations and yet to recognize Service responsibilities for support to component commands, the DOD Reorganization Act of 1986 defines the command authority of the CINC as:

- give authoritative direction to subordinate commands, including all aspects of military operations, joint training, and logistics;

- prescribe the chain of command within the command;
- organize commands and forces to carry out assigned missions;
- employ forces necessary to carry out assigned missions
- coordinate and approve administration, support, and discipline, and;
- exercise authority to select subordinate commanders and combatant command staff.

3-3. Department of the Army.

a. **AR 10-5** describes the functions of the Army. The Department of the Army (DA) is organized under the Secretary of the Army (SA) who supervises the Chief of Staff of the Army (CSA) in matters relating to the Service. Neither the SA nor the department are part of the chain of command (i.e., DA is not directly involved in combat operations). DA consists primarily of the Office of the Secretary of the Army (OSA), the Army Staff (ARSTAF), and the Army major commands (MACOM). The function of the department is to recruit; organize, equip, and supply units; train; mobilize/demobilize; service; administer; construct, outfit, and repair equipment; and construct, maintain, and repair buildings. Thus, DA is the developer of Army forces and logistics support which are provided to the unified combatant commands to support military operations.

b. Headquarters, Department of the Army (HQDA).

(1) The SA has responsibility for and the authority to conduct all DA affairs. The OSA staff consists of the Under Secretary and the Assistant Secretaries and their staffs. All officers in the Army report on any matter, at the direction of the Secretary, to the Secretary, Under Secretary, or an Assistant Secretary (ASA). Commander, USACE reports to the Assistant Secretary of the Army (Civil Works) (ASA(CW)) on the Civil Works program and work overseas for other than direct support to U.S. military forces and reports to the ASA (Installations, Logistics, and Environment (IL&E)) for military construction (MILCON) and real property related issues.

(2) The ARSTAF is presided over by the CSA and assists the SA on long-range planning, resource allocation, the development of Army objectives, the formulation of policy guidance, and the supervision and control of operations. The CSA is authorized by the SA to supervise the Army. Elements of the Army Staff provide the professional assistance necessary to conduct the affairs of the Army.

(a) The Chief of Engineers (COE) is the principal staff advisor to the CSA on Army military engineering and topography.

(b) The Office of the Chief of Engineers (Pentagon), OCE-P, is an ARSTAF office in the Pentagon which conducts the business of the COE on the ARSTAF. OCE-P consists of the COE and a support staff in the Pentagon. While there is a great deal of interaction between OCE-P and HQUSACE, OCE-P interests and activities span the entire Army engineer community, of which USACE is but one component.

c. Army MACOM.

(1) There are two types of Army MACOM, support and field commands. The support MACOM provide specialized support for the entire Army and include such MACOM as Training and Doctrine Command (TRADOC), Army Materiel Command (AMC), and the Army Corps of Engineers (USACE). The field commands (U.S. Army, Pacific (USARPAC), Europe (USAREUR), South (USARSO), Central (USARCENT), Eighth U.S. Army (EUSA) and Forces Command (FORSCOM)) are component commands of the unified commands. Note that FORSCOM is a component of U.S. Atlantic Command (USACOM) and, when tasked, provides forces for the other Army component commands. The component commands are assigned units, installations, activities, and subordinate commands by HQDA. The support MACOM provide functional support to the Army component commands and each other.

(2) As a supporting Army MACOM which also has an execution mission in the theater of operations, USACE provides two functions within DOD -- support responsibilities and operational responsibilities.

CHAPTER 4
DEPARTMENT OF DEFENSE PLANNING SYSTEMS

4-1. General. The national security process sets strategic direction, determine national military policy, request resources from Congress to execute that policy, and translates the funded capability into plans for military operations. The process is accomplished at national, DOD and military department levels and attempts to meet political objectives within resourcing constraints and available technology. The intent here is not to explain every step of every process nor to review the purpose of each product of each step. Note that there is no true beginning or ending to the national security planning process. The process is a logical, not perfect, process for translating political will into military capability. It is within this process that USACE develops resource requirements, justifies its contingency support programs, and develops contingency support plans.

4-2. DOD Planning Systems. The following three DOD strategic planning and operations systems are the heart of DOD planning and capabilities development and are of singular importance to the USACE OCONUS mission:

a. **Joint Strategic Planning System (JSPS).** This is the formal process for review of the national security environment and U.S. national security objectives; threat evaluation; assessment of current strategy and existing or proposed programs and budgets; and proposal of military strategy, programs and forces necessary to achieve national security objectives. It is the means by which the CJCS discharges his/her responsibility to give strategic plans and direction to the CINC and Services and to interact with the DOD Planning, Programming, and Budgeting System (PPBS).

(1) Joint strategic planning is initiated by the **Joint Strategy Review (JSR)**. The JSR is the process by which information is gathered; issues raised; and the integration of the strategy, operational planning, and program assessments is facilitated.

(2) Among the documents produced (at different times) are the **National Military Strategy Document (NMSD)** which conveys the CJCS's strategy advice to the NCA/NSC and the **Joint Strategic**

Capability Plan (JSCP) which, biennially, conveys military tasks for the next two years to the CINC and Service Chiefs. The JSCP apportions forces and provides planning guidance to the CINC and Chiefs of Services based on the capabilities of the available forces and the near term threat. The planning guidance and apportionment of forces within the JSCP are the basis for initiating CINC operational planning.

b. **Planning, Programming, and Budgeting System (PPBS)**. The PPBS (in the Army, this is the Planning, Programming, Budgeting and Execution System (PPBES)) is initiated by the **Defense Planning Guidance (DPG)** which is, in effect, the link between planning and programming. The DPG is the guidance to the military departments for developing their **Program Objective Memoranda (POM)**. It is the POM process through which the Army programs for resources to support the MACOM for missions, acquisitions, etc. The **Chairman's Program Assessment (CPA)** and the NMSD are developed to influence resourcing issues in the PPBS. The DOD's board of directors, the Defense Planning and Resources Board (DPRB), reviews the CPA and the Service POMs to resolve issues and consolidates decisions into **Program Decision Memoranda (PDMs)** which generates OSD agency and Service budget estimates for the President's Budget and Concept Exploration within the Acquisition Cycle.

c. **The Joint Operation Planning and Execution System (JOPES)**. JOPES is the DOD-directed, JCS-specified system for conducting joint level planning by the combatant CINC. JOPES is the conventional command and control (C2) system used to support military operation monitoring, planning and execution activities. It establishes the procedures for developing and reviewing peacetime, crisis and wartime planning. The system is designed to integrate the complex strategic mobility problems associated with force mobilization, deployment, employment and sustainment.

(1) The JOPES is being developed to replace Joint Operation Planning System (JOPS) through the integrated enhancement of the JOPS and the Joint Deployment System (JDS) with new capabilities. The JOPES is designed primarily to satisfy the information needs of senior-level decision makers in conducting joint planning and operations.

(2) Based on the forces assigned to the CINC (known as the supported CINC) for a given plan, the CINC develops a deployment schedule working with the U.S. Transportation Command (USTRANSCOM), the U.S. Atlantic Command (USACOM), and various other supporting commands. Supplies required to sustain these deployed forces are factored into the plan based on arrival dates of deploying units in theater. Deployment planning considers equipment and number of personnel for each unit to be deployed; ships and aircraft by type, capacity, and availability; air and sea ports of embarkation and debarkation, and general materiel by measurement tons. Even with automation, the data bases are enormous and require extensive coordination among the CINC and Services. The goal of the process is to develop a supportable operation plan (OPLAN). In other words, the deployment is planned so that the forces and their materiel arrive in theater in sufficient time and strength to accomplish the CINC's mission. Since it is assumed that the forces assigned are sufficient to accomplish the mission, the focus of JOPES is transportation feasibility. The analytical tools are not sufficiently developed to fully identify sustainment requirements and assess logistics supportability.

(3) The deliberate planning process (as opposed to crisis or wartime planning) is conducted in peacetime when there is sufficient time and resources for full plan development and coordination among the supported and supporting command staffs. The process takes two years and is broken down into five phases:

(a) Initiation. The CINC receives planning guidance and major forces (combat units) available for planning via the JSCP.

(b) Concept Development. The CINC derives the mission from the assigned task, issues planning guidance to his/her staff and subordinate commands and gets information on the enemy collected and analyzed. The staff develops several courses of action (COA) for CINC consideration and then develops a concept of operations based on the selected COA. The concept of operations is submitted to the CJCS for review. If approved, the concept of operations is then used by the CINC for further planning.

(c) Plan Development. This is the development of an OPLAN. The CINC and component command staffs with support from other CINC and Service MACOM select forces, time-phase their deployment, develop unit and logistics support requirements, simulate strategic deployment, identify shortfalls, and resolve

issues. Persistent shortfalls are determined to be risks. No OPLAN has been developed without having "risk." It is during this phase that the **Civil Engineering Support Plan (CESP)** is developed. The supporting USACE command provides input to the Army component staff engineer or designee (usually the supporting Engineer Command (ENCOM)) which is responsible for the Army component's input to the CINC in the development of the CESP. Depending on the CINC, the ENCOM may be the CINC's executive agent for CESP development. Also, depending on the CINC, USACE may provide plan input directly to the CINC's plan.

(d) Plan Review. The OPLAN is reviewed and approved by the CJCS. This review is conducted by the Joint Staff and the staffs of the Services.

(e) Supporting Plans. Subordinate and supporting commands then develop their support plans. This is the phase during which the supporting USACE command develops its support plan. The USACE support plan is subject to review and approval by the USACE commander and the Army component commander. The Army component commander includes the USACE support plan as part of his/her support plan which is submitted to the CINC for review and approval.

CHAPTER 5
ENGINEER THEATER SUPPORT OPERATIONS

5-1. General. Engineers support CINC operations throughout all echelons of the battlefield from the foxhole to the industrial base and all phases of operations from early entry through redeployment and reconstitution. This spectrum of requirements is supported by the operational capabilities that Army engineers, troop unit and USACE, bring to the theater. The Army engineers are expanding their versatility. The JCS expects all U.S. forces to react quickly, solve the problem and redeploy. In this context, the theater engineers (engineer command (ENCOM) and USACE) focus on strategic and operational level engineering.

5-2. Concept. The theater Army component commander tailors the engineer structure to meet anticipated theater requirements over time. The force structure development is an iterative process that considers constrained, politically set ceilings and strategic lift; and requires balance between the urgency to bring in combat forces, the need for support forces, the host nation infrastructure and funding available for contracting. All resources applied to theater are based on requirements to generate combat power.

5-3. Missions. The senior engineer commander may be responsible for the following missions:

- a. Planning and coordinating engineer support for combat operations.
- b. Identifying operational requirements for engineering support.
- c. Engineering assessments of theater infrastructure.
- d. Planning, coordinating and supervising military and contract construction and engineering services to the Army, the other Services and coalition forces in theater.
- e. Allocating engineer resources (units, contractors, materials, and equipment) to meet mission requirements.

f. Prioritizing the use of available theater engineer assets, to include tradeoffs between troop and contract construction.

g. Coordinating topographic and military geographic intelligence support to the force.

h. Providing real estate support to the Army, the other Services and allies throughout the theater.

i. Providing technical assistance to Real Property Maintenance Activities (RPMA) throughout the theater.

j. Planning construction material requirements and prioritizing their use.

5-4. Engineer Command and Control. The following organizations have command and control functions in theater:

a. Engineer Command (ENCOM). The ENCOM commander is the senior Army engineer in theater and the ENCOM is a theater Army MSC. The ENCOM provides the only theater-level engineer planning capability in the Army. The ENCOM has a modular capability to deploy an early planning team and C2 capability. In a mature, multi-corps theater; the ENCOM may command two or more engineer brigades, a topographic battalion and other specialized units. In lesser contingencies the ENCOM presence in theater may not grow beyond a planning or C2 cell. There are a number of potential relationships between the USACE forward element and the ENCOM. Two such relationships are as follows:

(1) The USACE forward organization in theater may be placed under the operational control (OPCON) of the ENCOM either when the ENCOM is serving as the Army engineer or as the theater engineer. The principle which supports this is that of unity of command. In an engineer intensive theater, facilities acquisition (including leasing and construction execution) should be under the control of one commander for optimization of resources.

(2) The ENCOM may deploy a forward team to establish an engineer planning capability and early engineer C2 in support of

a small JTF engineer force. The USACE forward element may be requested to provide administrative support for that forward deployed ENCOM team.

b. Engineer Brigade (Theater Army). The Theater Army (TA) engineer brigade consists of a headquarters and headquarters company (HHC) and assigned subordinate units including group HQ's, battalions, companies and smaller units. With augmentation from the ENCOM and/or USACE, the engineer brigade can deploy and serve as the theater's senior engineer headquarters.

c. Engineer Group. The engineer group has an organic HHC and can provide C2 for as many as seven engineer battalions, plus a number of separate units. The group is the principal subordinate unit of the brigade. The construction group has a large construction management section with a planning and design capability. Note that the tactical corps have engineer brigades and groups also which have less capability for construction planning and design.

d. USACE District. The district and its forward element in the theater are capable of supporting a number of engineer facilities acquisition (leasing and construction) missions, engineering technical support in theater and provision of logistics services augmentation through the LOGCAP contract. The district conducts split base operations with a combination of physical presence in the theater and support from the district headquarters.

(1) USACE districts are not structured to provide command and control for troop units.

(2) USACE can provide augmentation teams to troop units and engineer unit headquarters.

(3) USACE can provide administrative support to early deploying engineer cells (such as those from an ENCOM).

5-5. Theater Facilities Acquisition Policies. The fundamental business of USACE is the acquisition of facilities whether by lease or construction, including repair or modification of existing facilities. Every commander in theater takes a rapid interest in engineer support when their unit operational readiness rates decline due to a lack of adequate facilities. It

is incumbent upon all engineers and real estate personnel to take whatever legal, innovative means are available to provide adequate facilities to as many customers as possible in the shortest amount of time. The challenge to the engineer community in theater is to balance funding, engineer logistics and construction capabilities to achieve maximum results.

a. The CINC sets the theater construction policies to include construction standards and priorities. In addition, the CINC may balance resources among his/her component commanders to assure that necessary assets are appropriately allocated to support his/her concept of operations.

b. In general (excluding relocatable facilities and host nation support), contingency facility requirements will be satisfied, in priority, by:

(1) Use of existing facilities. This includes U.S. Government owned or operated, host nation provided or lease of commercially available facilities.

(2) Modification or repair of existing facilities. This applies only to the extent that repair or modification is more effective than new construction. Effectiveness is evaluated on the basis of cost, timing for beneficial occupancy and mission support capability.

(3) New construction. There are two doctrinal standards for construction in the theater of operations. The Initial Standard for construction applies to facilities which may be used for up to six months. The Temporary Standard for construction applies to facilities which may be used for up to two years. Depending on the circumstances, it may be operationally effective to build a temporary standard structure during the initial phase of the operation or to continue with initial standard structures for a portion or all of the facility needs throughout the entire time frame.

(4) The term expedient construction is also used. This refers to very minimal efforts such as clearing and grubbing for the erection of tents. Very little engineer effort is required.

5-6. Army Engineer Operations Support. Future contingency operations will usually consist of some mix of troop units and

USACE capability (where USACE is the CCA). USACE should be a planning partner and play a role in operational engineer support. With LOGCAP capability, USACE can support deployed engineer units with additional equipment, transportation, and regional construction Class IV acquisition and management augmentation.

CHAPTER 6 USACE TO CONTINGENCY MISSION

6-1. Power Projection. Crisis response is a primary component of the National Military Strategy and therefore, a primary focus of USACE military readiness. It is USACE's mission to leverage the construction industry and its technology base to support the Army in peacetime, lead the industry in support of crisis response operations and leverage locally available assets in theater. Very few of our forces are forward deployed. The Army of today is a power projection Army. It is an Army which is strategically flexible. In support of that flexibility, USACE must be ready to rapidly deploy and initiate support operations anywhere in the world, under any circumstances and with virtually no notice.

6-2. USACE Response. A fundamental tenet of USACE response is that contingency support to combatant commands is a USACE command responsibility. USACE must be prepared to respond strategically as a command and operationally through its individual divisions and districts. This requires preparation for support to MACOM in the U.S. in their deployment roles and to TO commands in the reception, employment and sustainment of forces. The TO mission for the Corps is probably the most demanding and risky. The Corps played a vital role in the success of Operation DESERT STORM (ODS). The initial Corps deployment provided the first and the largest construction and leasing capability in theater. The Corps conducted a rapid response and employed local assets (contractors and host nation facilities) to meet the rapidly growing facilities demands of deploying forces. In the future, the Army envisions a much faster deployment and employment of forces. The fact that Saudi Arabia was unmatched in its relative abundance of available facilities and contractors, indicates how critical future Corps contingency support planning and training will be to provide critical facilities.

6-3. USACE Theater Missions. Current Army doctrine discusses a myriad of missions in support of the spectrum of CINC operations from OOTW to war. USACE supports the CINC through the following:

a. Provision of planning, acquisition and management for contract construction.

- b. Acquisition of local facilities through leasing.
- c. Provision of topographic engineer support.
- d. Provision of technical engineering and environmental support to solve theater problems.
- e. Provision of augmentation capability for logistics services through LOGCAP.
- f. Provision of software support and maintenance of the TCMS.

6-4. USACE Readiness. That USACE exists and has written guidance does not mean that it is ready. Readiness is a function of leadership, organization, organizational culture, plans, training, equipment and experience. All USACE organizations with OCONUS missions must be able to achieve the following at any time, with little or no warning.

a. Command. Throughout the USACE chain of command, commanders must continue to execute their peacetime missions and leverage the personnel and expertise available within the whole command to respond to military contingency missions. The USACE commander must be able to adapt his/her organizational structure and USACE personnel in support of CINC operations.

b. Organization. Philosophically, USACE divisions and districts with TO support missions are already established and organized in much the same manner as they would be to support contingency operations. The district headquarters is the support base for all project support operations. Field offices are established and functionally staffed for specific mission requirements in a limited geographic area and supported by the district Headquarters. Split-basing is routine for the Corps overseas.

(1) All planning, major design and administrative support for field operations are accomplished at the district Headquarters. USACE mission requirements are assessed and additional resources which the district cannot fulfill internally are passed on to higher headquarters. The district is the focal point for control of all USACE resources supporting the theater of operations, regardless of who the customer is in theater.

(2) If the district Headquarters is not within the area of operations, a forward commander will be designated by the district commander. The forward commander will tailor his/her organization and resources to meet the mission requirements. The forward commander is accountable for all USACE personnel in theater. This includes personnel sent into theater for a specific purpose of short duration (e.g., a technical team from a laboratory to assess and solve a unique problem). A large operation may require a forward office with many of the characteristics of a district. The forward office and its personnel must be self-sustaining, unless other support from the supported command has been arranged. All transportation, equipment, supplies, and care of personnel must be brought in or acquired, locally.

(3) Field offices are established to support an enduring workload and consist primarily of functional area specialists. Field offices may be associated with the headquarters of a major subordinate command or a major logistics or operations base.

(4) Teams and liaison. The multiplicity of customers and interests in theater drive a significant liaison and support requirement. Coordination with engineer troop commanders, Army component staff and CINC or JTF staff are essential for USACE mission accomplishment. In addition, it is possible that a USACE support cell may be required by an engineer troop commander (e.g., engineer brigade) to either support his/her operations or coordinate the optimal allocation of engineer tasks between troop and contract capabilities.

c. Organizational Culture. This may be among the most critical determinants of organizational readiness. The organization must have an operational focus as well as its daily program and project management focus. All personnel, including key managers, technical staff, and support staff; must buy into the importance of the contingency mission, the effort it takes to be prepared, and the effort required to support a contingency mission.

d. Plans. The planning process never stops. For success, all planning agencies and their staffs must participate in the effort.

(1) The USACE supporting district must be a participant in

the Army component command planning process and may also participate in the combatant commander planning process. The district provides input to Army component planners in terms of initial personnel deployment and funding requirements based on the concept of operations. The Army component may require the development of a USACE Support Plan.

(2) Internally, the USACE district must develop its own concept of operations based on the input of all supporting functional staff. Plans must be thorough to assure that the deployed organization can begin support operations almost immediately and interface smoothly with its supporting headquarters.

e. Training. USACE succeeds due to its aggressive leadership and highly skilled and experienced work force. USACE is a world leader in many contracting and engineering technical areas. Contingency operations require that USACE focus its leadership and work force to solve crisis response operational problems. Time is at a premium. The command must have personnel trained as individuals, ready to maximize the application of their expertise to theater problems, and organizations ready to shift workloads and priorities to meet the immediate needs of national defense.

(1) Individuals must be functionally trained to operate in an austere environment and apply their skills with a minimal support structure. Independence, resourcefulness and an understanding of military culture and command are required for success. Personnel must be trained to apply their functional skills to a less bureaucratically constrained environment. For example, national building codes do not apply to theater construction, but engineers must know the Army's minimum safety and health standards as reflected in the Army Facilities Components System (AFCS).

(2) As an organization, the district must plan and train to function in an austere environment and a split-based mode. It must be able to support operations in locations remote from the Headquarters, balance mission support for deployed personnel in theater, other district missions, and provide support to the families of deployed personnel.

f. Equipment. USACE must be prepared to support deployed operations using its own or, additional commercially available, equipment. Transportation, communications and automated data processing (ADP) equipment are critical to USACE mission support.

(1) Transportation acquired locally or brought in must be supportable locally and meet operational mobility needs given the condition of the local infrastructure.

(2) Communications must be redundant, whether communicating with higher headquarters or within theater. Communications in theater must be compatible with that of U.S. forces in theater.

(3) ADP which supports district internal needs may not satisfy theater needs requirements. Exchanging information with customers, engineer units and other coordinating agencies may require additional software and data bases. The district's Theater Construction Management System (TCMS) software is the same software that is used by Army engineer troop units and other commands in theater with facilities related missions.

g. Experience. Experience is gained through actual operations and exercises. Experience is perishable. A robust exercise program is vital to organization and individual readiness. The exercise program must be designed to test plans, practice internal operations, train personnel, educate customers, coordinate with other commands and surface issues to higher headquarters.

CHAPTER 7 OVERSEAS DISASTER RESPONSE AND RECOVERY OPERATIONS

On 4 March 1991, the advance party of the USACE Kuwait Emergency Recovery Office (KERO) entered Kuwait to begin recovery operations. The tasks ahead included restoration of the national electric power generation and distribution system, the water system, the highway network, sewerage system, two seaports, the international airport, and over 150 public schools. In the following 300 days, KERO (with a staff averaging 140 American and 60 Kuwaiti professionals) designed and placed \$300 million in repair work with American and foreign construction firms and in the process helped a nation get back on its feet.

7-1. **General.** This chapter addresses those operations in which the U.S. Government (USG) provides a significant amount of assistance in foreign disaster response and recovery. Except in former trust territories of the U.S., the USG usually limits its aid to some relief materiel and technical expertise. USG disaster assistance is a multi-agency effort led by the State Department which makes a determination as to whether emergency disaster relief should be provided. The in-country Office of Foreign Disaster Assistance (OFDA) representative or country team disaster designee assists the ambassador in determining the emergency disaster relief required and making requests for USG assistance. In execution, disaster response and recovery operations are developed and executed in concert with the U.S. Ambassador and in partnership with the host nation. Disaster response and recovery operations are subject to cultural, financial and political factors which can create priorities which differ from those found in similar situations in the U.S. For many governments, managing recovery from a catastrophic disaster whether caused by a technological, natural, or military event is beyond their capability, especially if the government was also adversely impacted by the event. While this chapter addresses disaster overseas response in the context of those rare operations in which the USG provides a significant amount of assistance in nation restoration, the principles apply to less resource intensive assistance, as well.

7-2. Authorization and Funding. As a rule, DOD would respond under the legal authorities of other agencies in providing infrastructure reconstruction assistance in response to overseas disasters.

a. Section 607A of the Foreign Assistance Act of 1961 (Public Law 87-195, as amended) would be used to provide restoration of civil infrastructure. This provision of law permits any USG agency to provide commodities and services to friendly countries and non-government and private volunteer organizations (NGOs and PVOs) on an advance-of-funds, or reimbursable basis.

b. Arms Export Control Act (AECA) of 1976 (Public Law 90-629, as amended). Restoration of military facilities may be accomplished under the Foreign Military Sales (FMS) provisions of this authority.

c. DOD Directive 5100.46, "Responsibilities for Foreign Disaster Relief". Normally, DOD components may participate in foreign disaster relief operations only after a determination is made by the State. This directive allows the military commander at the scene of a disaster to undertake disaster relief operations without prior approval of the Ambassador/Chief of Mission when the emergency is so acute that immediate action is required to save life and property. Under this authority, USACE can provide emergency response in support of CINC operations.

d. Under the Army Technical Assistance Program (authorized by Title 33 USC 2314(a)), USACE can provide technical assistance to U.S. private firms bidding or executing overseas projects, including disaster response and recovery work.

e. The Economy in Government Act (Title 31 USC 1535) allows USG agencies to support each other provided that the supported agency has the funds and authority to do the work requested. It is under this authority that USACE often provides technical assistance to the U.S. Agency for International Development (USAID) and Office of Foreign Disaster Assistance (OFDA) (e.g., Ecuador mudslide and Mount Pinatubo flooding/remediation).

f. DOD receives an annual appropriation under Title 10 USC 401, Humanitarian and Civic Assistance (H/CA) to promote U.S. and host nation security interests. It is intended that the

participating U.S. military personnel will exercise their operational and readiness skills while improving the condition of the host nation. The Joint Staff administers the program and the Secretary of State must approve the application of H/CA in any given country. Conceivably, H/CA could be used in support of a recovery project. This provision of law would have limited application to USACE (e.g., prime power battalion soldiers or some technical assistance in support of Army engineer units executing an H/CA project).

7-3. Mission. Provide assistance to the national government in managing the restoration of essential civil and military infrastructure.

7-4. Imperatives. There are five basic imperatives which shape USG and DOD overseas operations in the conduct of response and recovery activities.

a. The USG is there to assist the national government. This is critical from two perspectives. The first is that the U.S. always honors national sovereignty. The second is that it facilitates the host government's ability to reestablish control and organizational structure. There is an implied caveat that USG activities should not be disruptive to the social or cultural fabric of the people. In some cultures, cost and value are more important than time.

b. Get in quickly and get out quickly. Generally, U.S. troop units will arrive first. The objective of DOD is to replace troop units as soon as possible with contractor support. In turn, USACE will use contractors for essential restoration activities until the host nation government can reestablish its own recovery capabilities.

c. Maximize the use of local assets without hyperinflating the economy. That is, do not compete with local government or business for the use of limited resources. The USG contractors should employ only those local resources which would otherwise be idle or otherwise engaged in low priority activities.

d. Do not adversely impact local initiatives. One or more local contractors may be capable of executing work. However, if the host nation or a local government has some capability for recovery, it will be easiest for that government to start first

with and maximize the use of its own contractors. The host nation government may need some assistance in the logistics associated with reestablishing local capabilities.

e. USG assistance should be used for the highest and best purposes which afford the maximum positive image and the least risk, political or otherwise, to our government and our personnel. Projects which do not fill this criteria should be recommended for construction by private contractors working directly for the host government. Close cooperation with the U.S. ambassador and his/her staff will serve to provide the political sensitivity necessary to properly screen projects."¹

7-5. Concept of Operations. Disaster operations have two major phases, response and recovery. Response activities address the immediate or short-term effects of a disaster and includes immediate operations to save life/property and meet basic human needs. Recovery operations are those activities necessary to reestablish full governmental services and commerce. The second phase, recovery, requires an assessment of damages and restoration of basic infrastructure for the reestablishment of government and commerce. The national government will determine which needs it can meet and those for which it requires assistance. At most, the USG will conduct response operations in support of requirements which are beyond the capability of the national government. In overseas operations, the USG provides support through its military capabilities, technical assistance, and contracting for and management of contractors. The keys to effective response operations are organization, training, and, most critically, experience.

a. Timeliness and quantity of response by U.S. forces are limited by proximity to the disaster. Usually, assistance consists of critical items needed to provide temporary shelter and food. USACE may provide structural specialists trained in urban search and rescue operations or technical experts who advise government officials on appropriate follow-on actions to mitigate against further damage.

¹BG Ralph V. Locurcio, "Nation Assistance in Kuwait," Engineer, p 9, April 1992.

b. USACE is rarely called upon to provide anything more than technical expertise in response to OFDA or occasional CINC requests. Conceptually, USACE approaches overseas recovery operations with the same precepts and procedures as used in executing its Federal Response Plan missions within the U.S. In foreign response and recovery operations, the Corps organizes itself to facilitate communications with the host government and provide immediate field support. As operations phase from response to recovery, USACE transitions to a structure that is more familiar to Corps employees who are drawn from districts and divisions throughout the Corps. However, there are differences due to requirements for fewer in country personnel and electronic connectivity (split-basing) with the parent headquarters. USACE districts are structured to support state and local governments, and do so on a daily basis. With modification, that structure also facilitates overseas response and recovery operations.

(1) The initial deployment mission is to assess damage. Damage assessment groups (DAG) and teams (DAT) are organized to support the requirements of specific government ministries. The teams are assigned technical experts who are trained in response operations. The DAGs work with each ministry's staff on its infrastructure assessment and coordinate the priorities of the DATs. The DATs work with ministry technical personnel to produce damage survey reports (DSR). The DSR describes the extent of damages for a given facility, a statement of the scope of work, and a detailed cost estimate.

(2) As the DSRs are accepted by the host government, they become the basis for developing a scope of work for repair or reconstruction. If USACE support is requested for contracting and/or construction management, then the deployed field organization transitions to a project management organization along the lines of a conventional Corps district.

7-6. Organization. The organization's effectiveness is a function of its structure and the commander's ability to command and control that structure. The distinguishing characteristic of an overseas operation is the commander's ability to redirect the organization's activities and change its structure to meet operational needs. Flexibility and responsiveness of personnel and organization are critical in the overseas contingency

environment. The USACE(Fwd) is operations oriented. Teamwork is critical. There can be no primacy of function (i.e., engineering, contracting, etc.).

a. As with all contingency deployments, USACE plans on being self-sustaining. Even with split-basing, a minimum support structure is deployed to provide the necessary support for operations. Experience has shown that having a minimum support staff of personnel, logistics, information management, legal, audit, and safety is necessary to successfully initiate and sustain any significant contingency operation. This staff is tailored to minimize the numerous distractions for the personnel engaged in mission execution.

b. Response Organization. In the theater of operations, the structure for damage assessment is driven by requirements to coordinate with national/local government, coordinate operations, and assure accountability, accurate data collection, and reporting. The response organization is structured to function, in many respects, as a district. The following model is scoped for damage assessment and does not consider a troop support requirement.

(1) The commander will be heavily engaged with the host nation government, the U.S. Ambassador, and the senior commander engaged in response operations. If contract support is required for support to U.S. forces or extended to displaced persons, the USACE(Fwd) commander has an added dimension to his/her mission. The commander is supported by deputies to carry out his/her mission guidance and assure the coordination of USACE(Fwd) activities. Legal and public affairs are directly under the commander due to requirements to interface with counterparts on the embassy staff and military command staff. In addition, the legal counsel provides legal oversight for all the USACE(Fwd) activities.

(2) Depending on the number of ministries supported, the deputy for operations may have a large span of control. The deputy for operations is required to oversee day-to-day operations and operational coordination with ministries. In addition to the DAGs, he/she is supported by a plans and operations cell to provide immediate command and control for the DAGs and plan for the transition to recovery operations.

RESPONSE ORGANIZATION

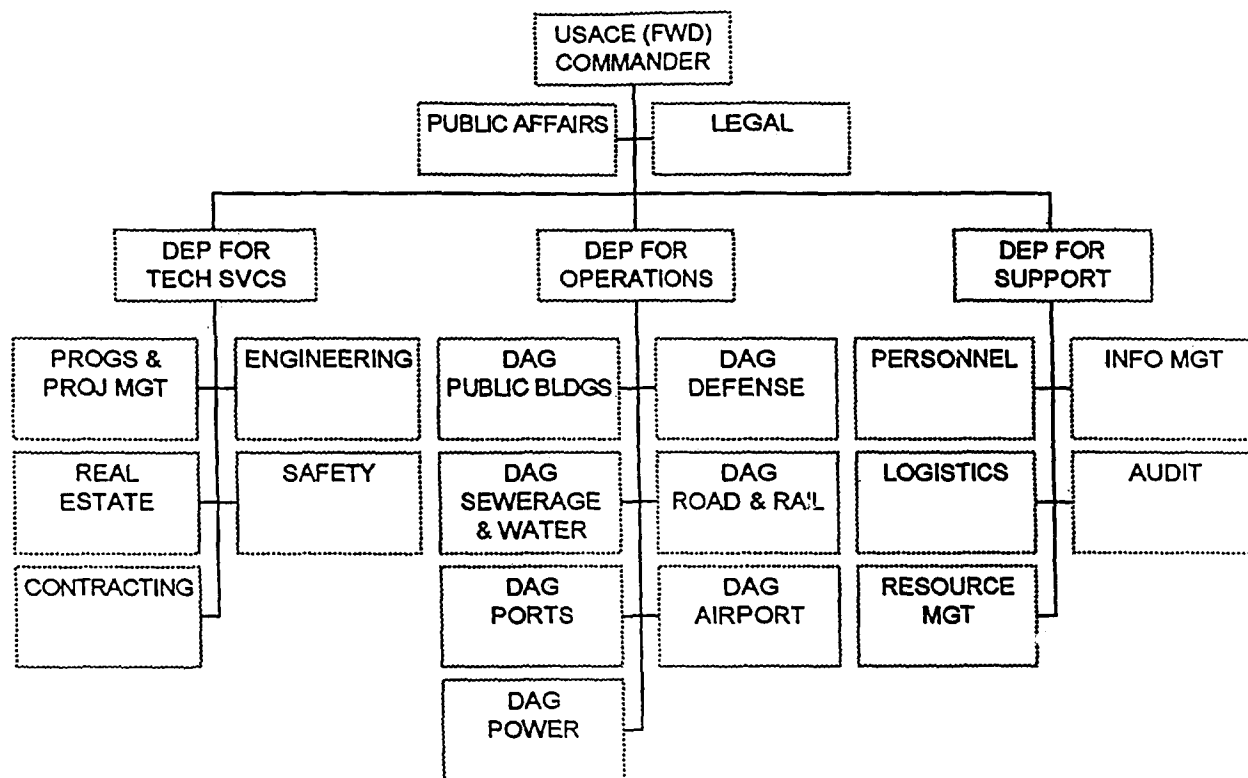


Figure 7-1

(3) The deputy for technical services provides technical engineering support for the DAGs. The project management and contracting cells are designed to support those projects which are likely to be initiated relatively early-on in the operations. Contracting is located within technical services to assure rapid and coordinated transition from assessment through contract execution. Engineering services provide not only additional and specialized support and analysis; but serve as an interface, through electronic connectivity, with the district headquarters and experts in the Corps' laboratories. Real estate supports the USACE(Fwd) requirements for operational activities and USG beddown facilities, and any other requirements for the USG in country. In response operations, the predominant real estate focus is operational. Initially, the safety function is located within technical services to provide direct input to U.S. and contractor operations.

(4) The deputy for support provides sustainment for the organization's operations and provides for the care of USACE(Fwd) personnel. This staff is an action staff, not a policy staff. Logistics support may be the largest element as it must provide for transportation, housing, meals, laundry, etc. The personnel specialist is there to handle and coordinate personnel issues with the parent headquarters on behalf of the deployed staff. Resource management addresses all funding and financial management activities for both USACE operational costs and contract funding. The audit capability must be in place to prepare for the contracting missions early-on. Most early contracting will be some form of letter or indefinite delivery contract which requires more intensive oversight than fixed price contracting. Information management establishes communications links and assures support for automated systems.

c. Recovery Organization. In the recovery phase, construction management becomes the dominant activity of the organization. The organization must begin the reshaping process soon after arrival in-country. The pressure to transition from damage assessment activities to restoration will increase daily. This organization may establish resident engineer offices to manage contractor activities in the field. Depending on the geographical dispersion, several offices may be required. This organization operates in a more stabilized environment and functions more like a traditional district emphasizing its project and financial management responsibilities.

(1) Here too, the commander will be heavily engaged with the host nation government, the U.S. ambassador, and the senior military commander engaged in response operations. If contract support is required for support to U.S. forces or extended to displaced persons, the USACE(Fwd) commander has an added dimension to his/her mission. The CINC will want to withdraw as many support troops as possible and replace those troop units with contractor capability, as soon as possible.

(2) Project execution is the focus of the recovery organization. The deputy for execution has two major components:

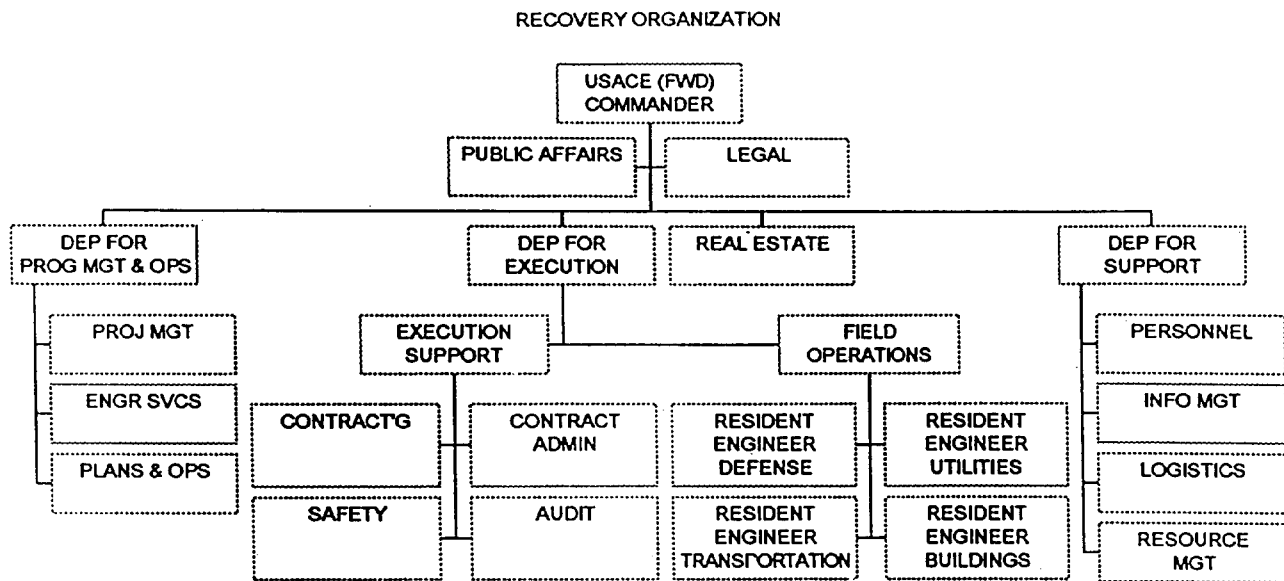


Figure 7-2

(a) The field organizations or resident engineers are situated to manage contract administration and project delivery and assure that contractor construction projects are completed to Corps' quality standards. The resident engineer offices are formed around the DAGs (but not necessarily a straight transition for the DAGs). As with the DAGs, the resident engineer offices are functionally organized to continue the close coordination with host government ministries. The resident offices provide construction management, contract administration, project modifications, and claims resolution functions. Note that while construction may be austere, the resident engineer assures that construction is both serviceable and of good workmanship.

(b) The execution support team is located at the USACE (Fwd) Headquarters to provide centralized support for the contract award and administration process.

(1) The chief of contracting provides oversight of contracting and contract management operations. The chief will liaison with other supporting and supported contracting activities to ensure coordination and control of acquisitions

within the AOR. The chief will assure that appropriate small and small disadvantaged business participation goals/targets will be addressed in the contracting process.

(2) The Federal Acquisition Regulations (FARs) must be followed even in contingencies. The audit process will be in place to support the contracting process. Given the nature of the contract forms used in these contingencies and the value of the contracts, the Defense Contracting Audit Agency will also be there.

(3) The deputy for technical services has transitioned from a technical support role to a more traditional district project management function with an operations and planning role. This consolidates reporting requirements, planning for future work, and management of any residual DSR work.

(a) The project management cell is designed to coordinate the development of projects for each mission sector and manage all the projects for that assigned sector from concept through completion. This gives each ministry a single point of contact for all information regarding their projects. Accurate and detailed reporting of priorities, issues, and progress is one of the most visible and significant outputs of this section.

(b) Engineering services provide both specialized support and analysis and serve as an interface, through electronic connectivity, with the district headquarters and experts in the Corps' laboratories. In general, engineering services cover design, cost estimating, scheduling, specifications, technical analysis, value engineering, and consultation to the field.

(c) Plans and operations. As stated previously, this section is co-located with project management to facilitate reporting and the development of organizational plans for future operations and contingencies. In addition, even after major recovery work has begun, DSR work is continuing. This section will continue to manage the DSR teams. Another important role performed by this section is the coordination with U.S. military troop unit requirements and support. This section will have TCMS and provide support for real property requirements and planning for U.S. forces in country.

(4) Real estate is shown as a separate element in this

concept. The actual requirement for real estate support may range from very limited to extensive depending on host nation abilities to execute real estate activities, US troop presence, and USACE requirements for operational and beddown facilities.

7-7. Contracting Strategy. In any contingency, time is of the essence. The initial contracting objective is to get the contractors working on the critical requirements as soon as possible. The FARs allow for expedited contracting processes, given urgent and compelling reasons. This includes the capability to modify the scope of an existing contract and the award of contracts without full and open competition.

a. Considerations in overseas contingency contracting.

(1) Conditions and requirements may be unknown. The success of a fixed price contract is predicated on knowing all of the conditions. Under most overseas contingency conditions, a fixed price contract is impractical and would be very difficult to both award and manage (due to the large number of modifications).

(2) Small and small disadvantaged business goals are also applicable to contingency contracting. While not legally required in overseas contingency operations, the USG will set goals which are within reason, given the circumstances. These goals may be met in a number of ways through subcontracts and modifications to contracts.

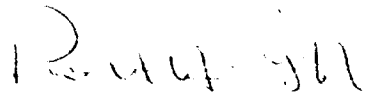
b. For the above reasons, cost-plus contracts are awarded to support contingencies. Letter contracts or LOGCAP (see Appendix E) may be used for support to overseas contingencies. The advantage of cost-plus contracts is the time savings and under the circumstances, they are the most equitable. Quality controls and assurances are a component of the contract execution, just as with fixed price contracting. However, cost-plus contracts require more government personnel for contract management and cost auditing. Auditors, Defense Contract Auditing Agency (DCAA), are required to assure that the USG pays only for the allowable costs.

c. Job order contracting is another tool which may be considered. This is an indefinite delivery contract, competitively bid, and based on fixed unit prices. The actual prices are determined in the field and specified in delivery orders. The delivery orders may be generated from the DSRs. The out of scope work associated with the fixed price items is then negotiated as a modification. This type of contract requires significant government preparation and requires general knowledge of scope, costs, and availability of materials, labor, etc. For these reasons, it is not used very often in contingency situation.

d. Over time, the drivers (unknown requirements/uncertain environment) for cost-plus contracting will diminish. Time will not be as critical, conditions will become known, and requirements should become easier to definitize. Thus cost-plus contracts will give way to fixed price contracts. This should also provide for increased competition and lower costs.

FOR THE COMMANDER:

13 Appendices
(See Table of Contents)



ROBERT H. GRIFFIN
Colonel, Corps of Engineers
Chief of Staff

**APPENDIX A
REFERENCES**

**Section I
Required Publications**

DOD Dir 4070.5 Military Construction Responsibilities

AR 10-5 Department of the Army Organization and
Functions

AR 415-15 Military Construction, Army (MCA) Program
Development

AR 415-16 Army Facilities Components System (AFCS)

AR 500-5 Army Mobilization and Operations Planning and
Execution System (AMOPES)

AR 700-137 Logistics Civil Augmentation Program (LOGCAP)

ER 500-1-2 CEMOPES Theater of Operations

**Section II
Related Law and Directives**

Title 10, United States Code, Sections 2801 through 2805, 2807
and 2808.

National Security Act of 1947, as amended.

Foreign Assistance Act of 1961 (Public Law 87-195, as amended)

Arms Export Control Act of 1976 (Public Law 90-629, as amended)

Goldwater-Nichols DOD Reorganization Act of 1986

DOD Dir 4270.32 Secretary of Defense Military Construction
Contingency Authorities

EP 500-1-2
30 Oct 95

DOD Dir 5100.1 Functions of the Department of Defense and Its
 Major Components

DOD Dir 5100.46 Responsibilities for Foreign Disaster Relief

DOD Dir 6050.7 Environmental Effects Abroad of Major
 Department of Defense Actions

DOD Dir 6050.16 DOD Policy for Establishing Environmental
 Standards at Overseas Installations

Armed Forces Staff College, Joint Staff Officers Guide 1993

OASA(FM) message, subject: "Operation RESTORE HOPE (#2) Cost
Estimates," 241808Z December 1992.

APPENDIX B
UNIFIED COMMANDS

1. Purpose. This appendix contains figures B-1 thru B-7 depicting the areas of responsibility (AOR) for the combatant commands and their component and subordinate commands.
2. Scope. The AORs of the U.S. Atlantic Command (USACOM), Central Command (CENTCOM), European Command (EUCOM), Pacific Command (PACOM) and Southern Command (SOUTHCOM).

Commanders' Area of Responsibility (U)

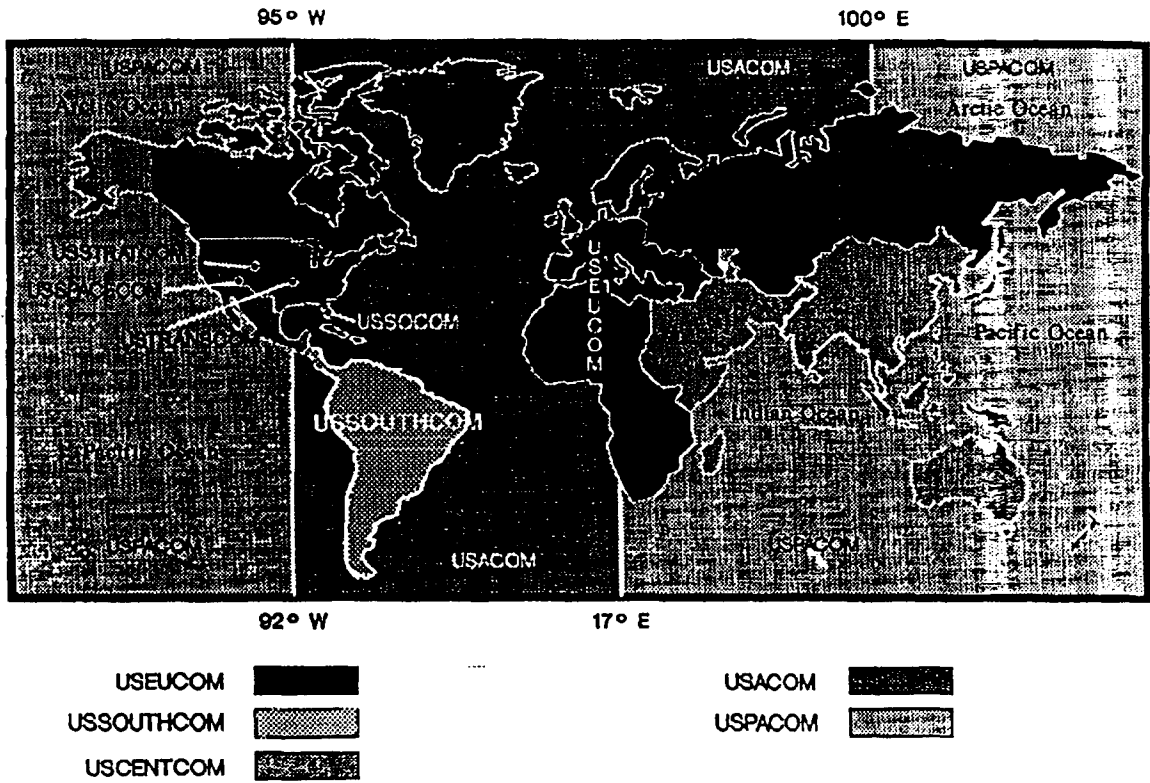


Figure B-1

Combatant Commands

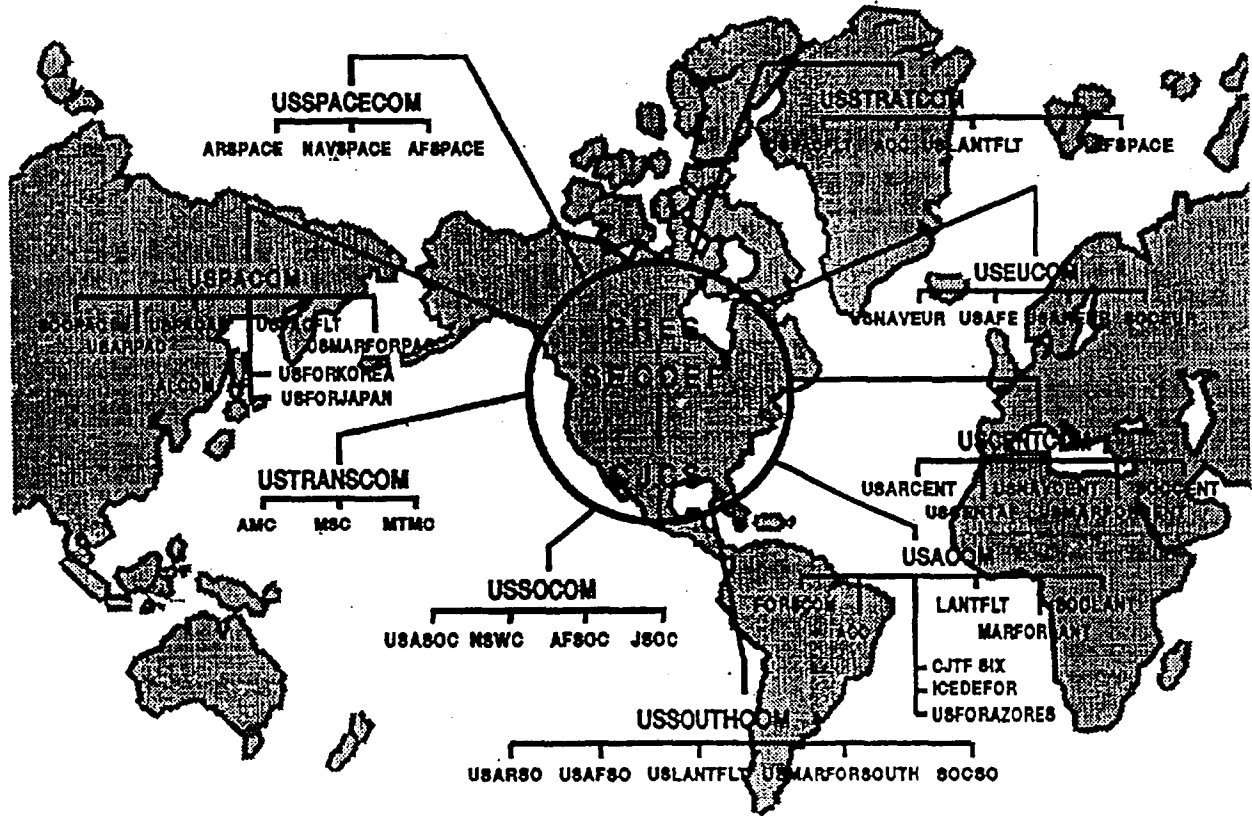


Figure B-2

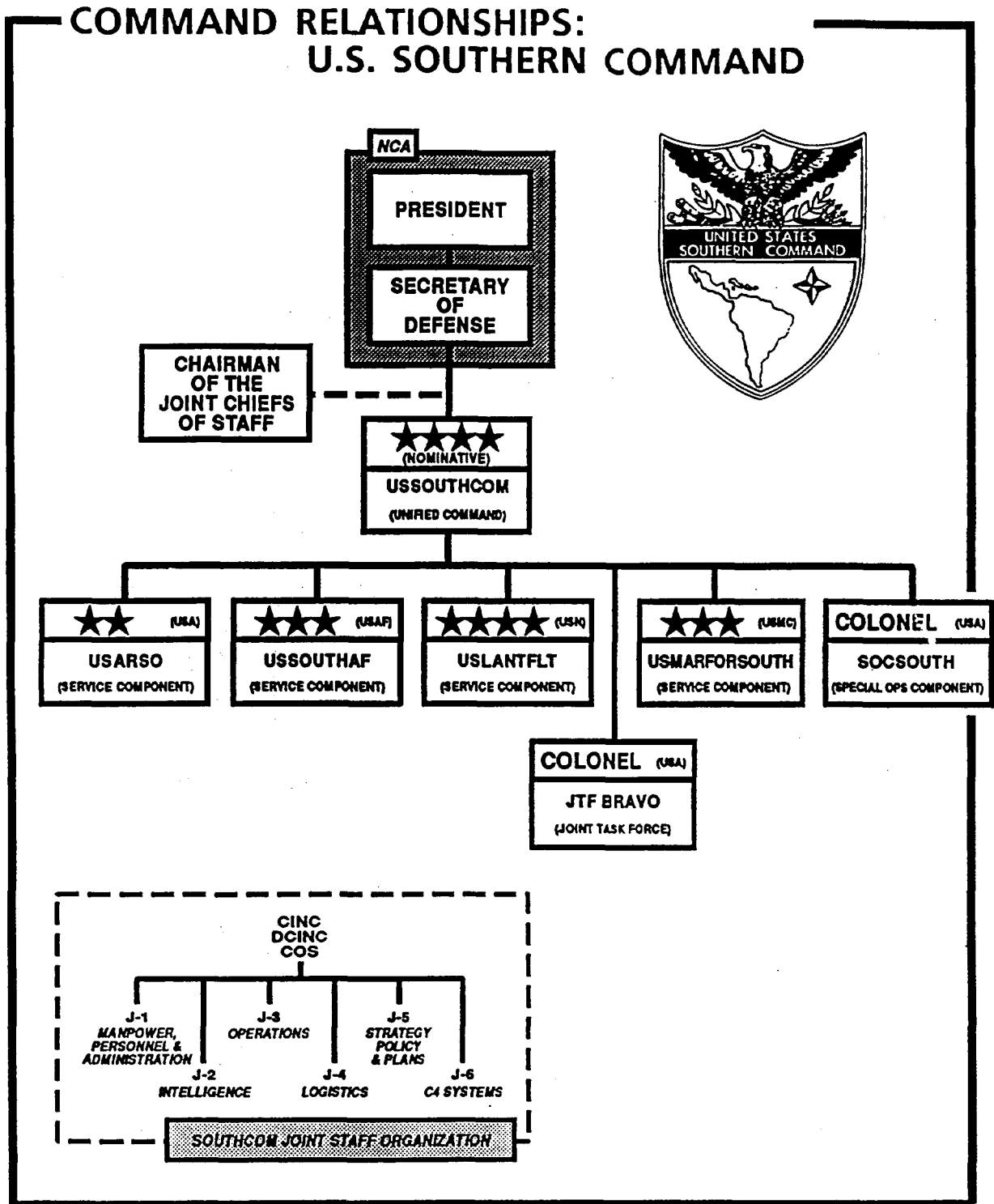


Figure B-3

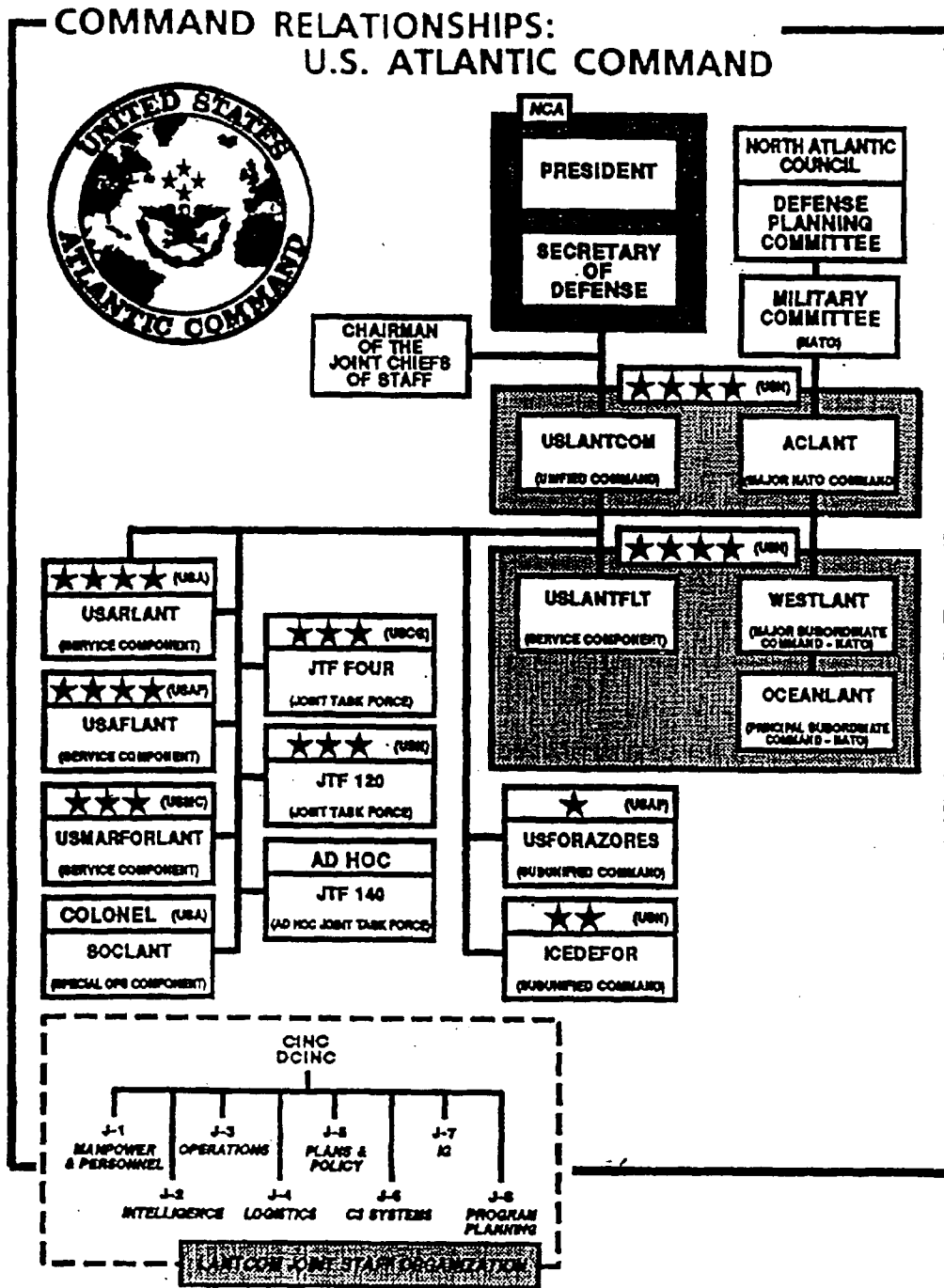


Figure B-4

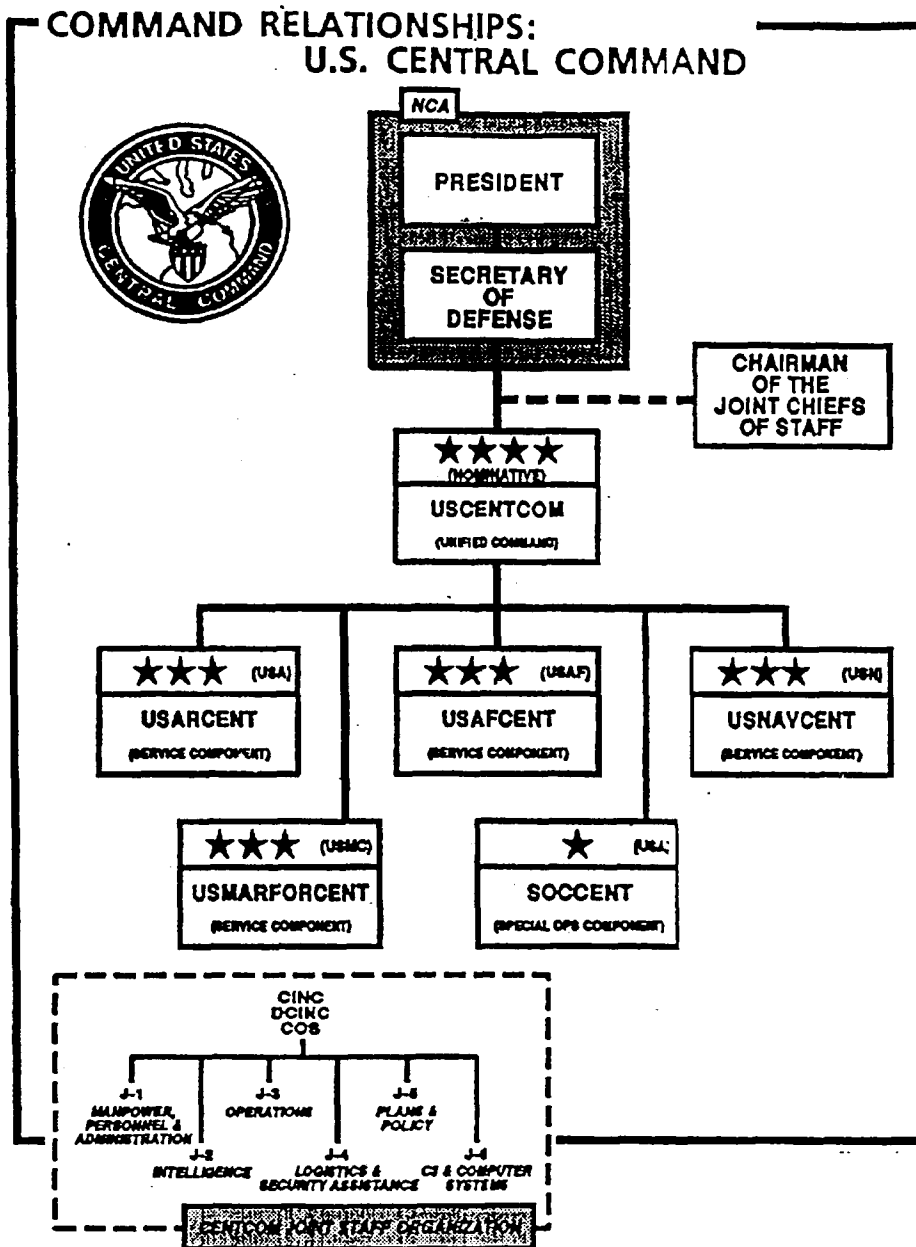


Figure B-5

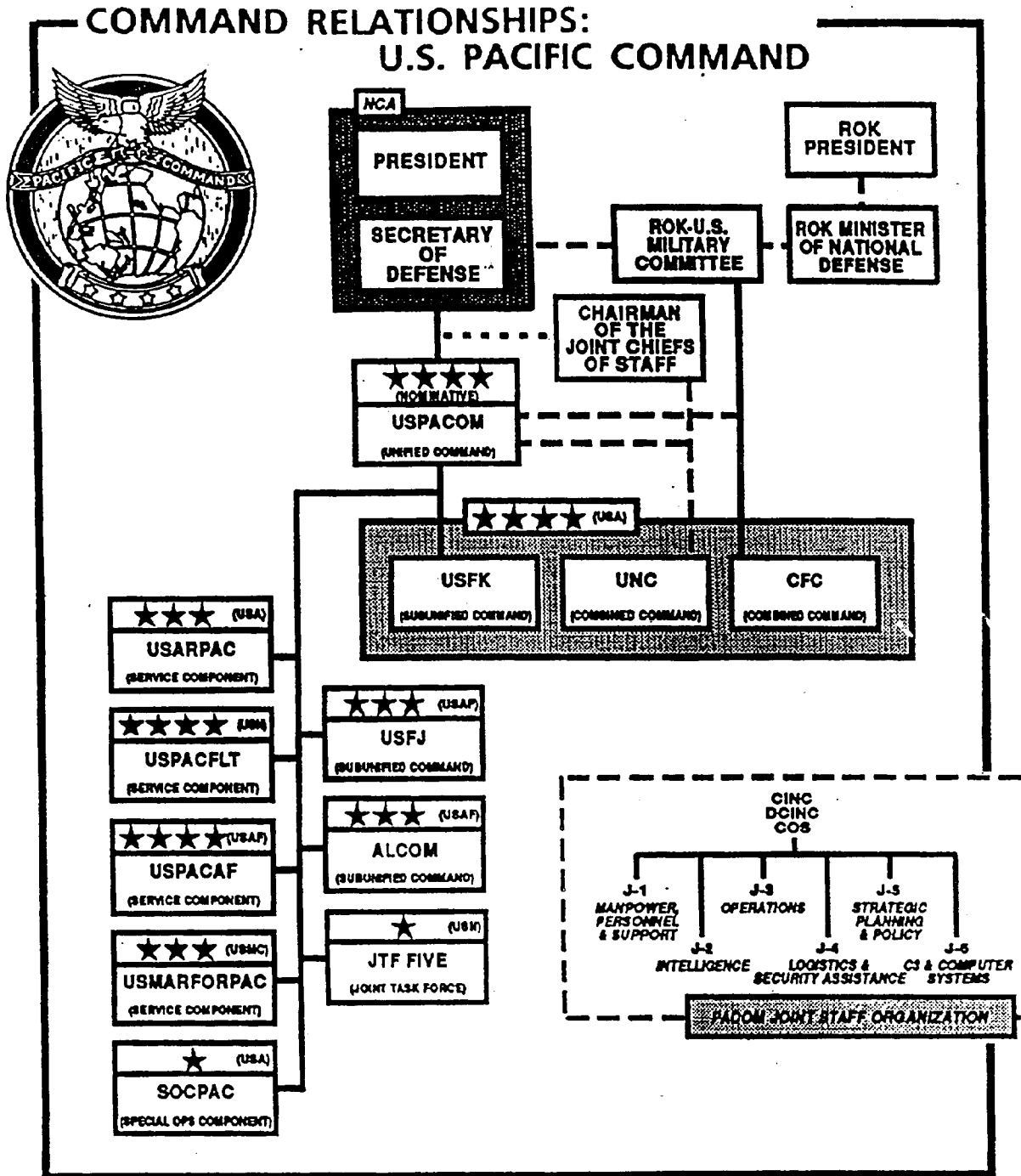


Figure B-6

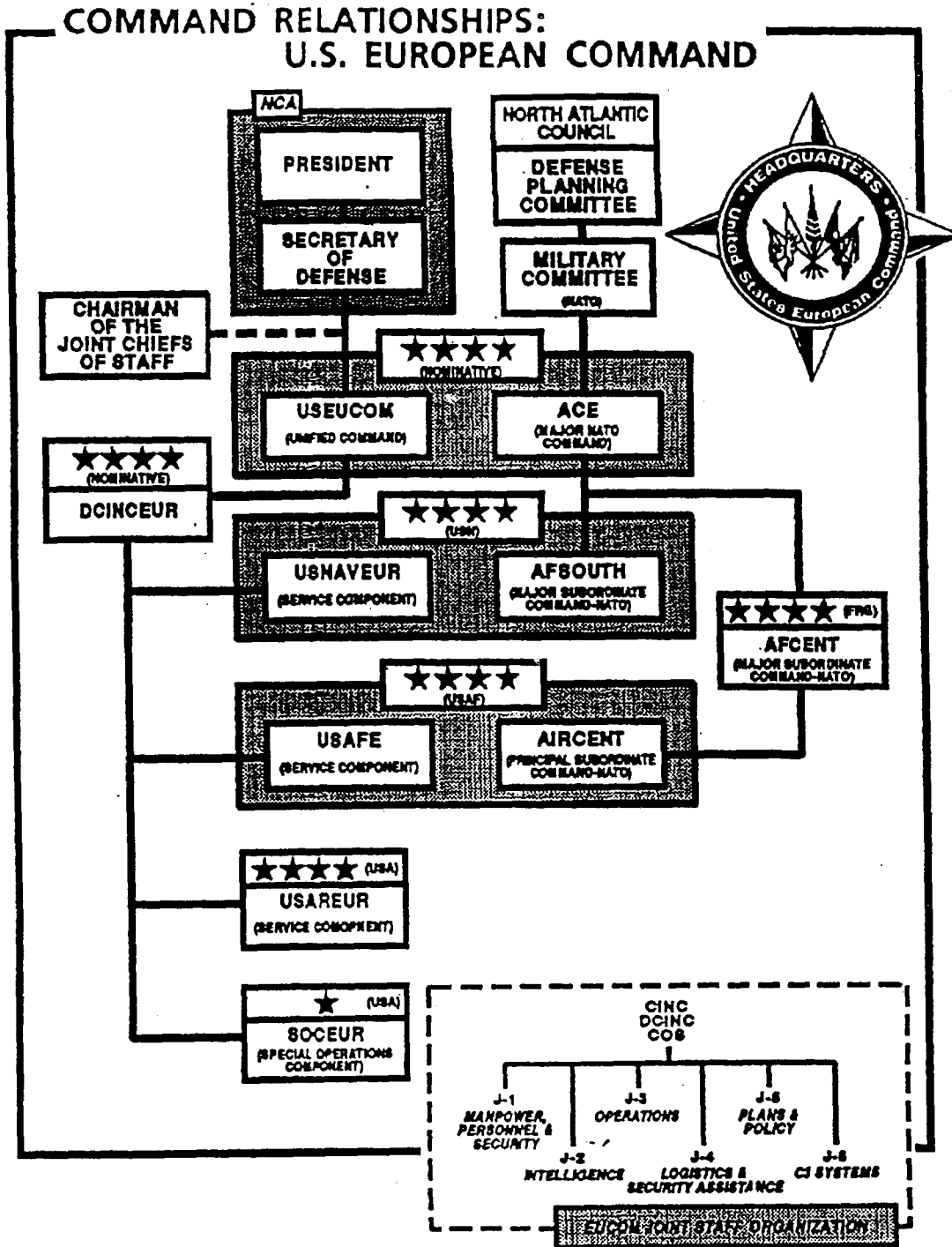


Figure B-7

APPENDIX C
USACE OCONUS CONTINGENCY AREAS OF
RESPONSIBILITIES

<u>MSCs and DISTRICTS</u>	<u>AREA of RESPONSIBILITY</u>
1. NORTH ATLANTIC DIVISION	
New York District	Greenland, Goose Bay AFB
Baltimore District	Provides design and technical assistance for U.S. MILCON in Israel.
2. PACIFIC OCEAN DIVISION	For assigned countries within PACOM AOR.
Far East District	Korea
Japan District	Japan
3. SOUTH ATLANTIC DIVISION	For SOUTHCOM AOR and general support to the Army Component of Atlantic Command (FORSCOM) for OCONUS planning and operations support when USACE support is requested.
Mobile District	For assigned countries in SOUTHCOM AOR
4. TRANSATLANTIC PROGRAMS CENTER	Within CENTCOM and EUCOM AORs
Transatlantic Programs Center (Europe)	For assigned countries within EUCOM AOR.

NOTE: Planning and execution in unassigned countries will be per CINC request.

APPENDIX D
CIVIL ENGINEERING SUPPORT PLAN (CESP)

1. The single most important process to engineers in the joint arena is the development of the CESP. Joint engineer planning in support of the unified combatant command is considered a function of logistics. CESP development is supported by a software model (known as the CESP Generator (CESPG)) which is run on the Worldwide Military Command and Control System (WWMCCS). It provides macro-level estimates for facility requirements and shortfalls and the associated engineer workload in support of objectives as stated in the CINC's OPLAN. In coordination with JOPEs development the JS has developed the Joint Engineer Planning and Execution System (JEPES), which is a personal computer based system to replace the Civil Engineering Support Plan Generator (CESPG).

2. The CESP is a jointly produced document found in Appendix 5 of Annex D (Logistics) of the OPLAN. It is theater-wide oriented and addresses engineer requirements generated by relatively stationary forces. The CESP describes the engineer effort required to support the CINC's intent, to include facility and Class IV requirements, critical engineer tasks necessary for OPLAN execution and an assessment of the engineer capability contained in the OPLAN.

3. The CINC engineer staff promulgates the unified commander's construction policy for a given plan. Using that guidance, each Service component determines its facilities requirements based on the units listed in the time-phased force deployment data (TPFDD), the DOD facility assets available in theater, the wartime host nation support (WHNS) facility assets available (sometimes assumed), any host nation construction capability and the U.S. engineer forces available (either in-country or on the TPFDD) for construction missions.

4. The purpose of the CESPG/JEPES is to provide the engineer planner with an automated capability to assess various engineer COAs in support of CESP development. The input to the model consists of the TPFDD unit data for each of the units requiring facilities, construction priorities for each type of facility, war damage repair estimates, data for deploying theater construction units and their capabilities, facilities components

data (Army Facilities Components System (AFCS) for the Army's standard engineer data) and data on existing facilities (DOD or WHNS) available for use. These data are analyzed for each base complex (made up of one or more geographic locations; called GEOLOC in CESP terminology) in theater. The CESP/JEPES uses an algorithmic model to process the input, identify the facilities shortfall and, based on engineer construction capability in theater, identify critical engineer shortfalls.

5. The CESP is not just the output from the CESP/JEPES. The engineer planners analyze the output data and determine the follow-up measures necessary to balance the assets and resources in theater against shortfalls. Some options include deferring some construction, moving units to different bases in theater, scheduling engineer units to arrive earlier, identifying a requirement for more WHNS, and planning to use more contract construction. All but the first and last require intensive coordination with transportation, operations and logistics planners since they require changes to deployment schedules and perhaps the OPLAN. Ultimately, the CESP becomes the theater commander's statement on the OPLAN's requirement for facilities and how that requirement will be met.

6. The CESP/JEPES are macro-level tools which place the Service engineer planners on a roughly common basis. The model is designed to provide data for an engineer plan assessment on a theater-wide basis; not on a unit or installation basis. From an Army perspective, the planning factors are based on head counts and limited data on facilities requirements and options. The Services have their own systems for contingency planning and execution which conform to their respective doctrines, engineer capabilities, facilities requirements and logistics support systems. The Army's system for that planning is the Theater Construction Management System (TCMS), which integrates AFCS and other Army data bases with commercial software to support Army unit facilities requirements, engineer execution planning, bills of materials (BOM) development, facilities design and project construction management.

APPENDIX E
JOINT ENGINEER DOCTRINE

1. Joint Engineer Doctrine. The joint organization staff and functions provided in Figures E-1 and E-2 are provided as notional and do not necessarily reflect actual CINC or Joint Staff organizations. In peacetime, the joint engineer staff is small and usually located within the J-4. This tends to color engineer issues at the joint level as logistics support versus the Army view that a substantial and vital portion of the facilities that engineers provide is operational support not logistics support.

2. CINC Authorities. The CINC and combatant commanders are accountable to the NCA for the execution of their assigned missions. To that end, they are given certain command and control authorities over the forces assigned for the execution of those missions. Normally, the CINC exercises his/her authority through his/her component commanders.

a. Combatant Command. This authority includes organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command.

b. Directive Authority for Logistics. This authority supports the combatant commander's responsibility to effectively execute operational plans, maintain effectiveness and economy of operation, and prevent duplication of facilities and resources. The military departments are still responsible for logistics and administrative support of forces assigned or attached to the combatant commands. This authority allows the CINC to set construction policy, general priorities, balance resources as necessary and assure that logistics supports the concept of operations.

3. Joint Responsibilities. The CINC's joint engineer staff sets theater-level policies and priorities for construction, assesses civil engineer requirements against capabilities in the context of the CINC's concept of operations and prepares civil engineer support plans. Component commanders generate priorities and

requirements for facilities and construction projects to support both operational and logistics requirements. In general, CINC and component commanders have the same priorities; however, translation of those priorities into actual projects are not always the same among services -- nor do they have to be. The component engineer commanders execute construction missions in accordance with CINC overall guidance and component priorities. The CINC staff may set the relative priorities among the component commanders.

4. Standards of Construction. There are two standards of construction in joint doctrine:

a. Initial standard facilities are austere, require minimal engineer effort and are intended to provide support to operations for up to six months. Tents and aggregate-surfaced roads fall into this category.

b. Temporary standard facilities are more durable than initial standard facilities, increase the efficiency and effectiveness of the users and are intended to provide support to operations for up to two years. Wood frame structures fall into this category.

c. A third, unofficial term, "expedient construction," can be described as quick and dirty. Clearing and grubbing or a temporary repair may fall into this definition.

d. By its nature, some forms of construction transcend these standards of construction, such as some commercial building systems which are quickly erectable but also have longer lives than envisioned for the theater of operations. The key is minimization of engineer effort and logistics requirements.

5. Environment. DOD Directive 6050.7, 31 March 1979, "Environmental Effects Abroad of Major Department of Defense Actions" and DOD Directive 6050.16, 20 September 1991, "DOD Policy for Establishing Environmental Standards at Overseas Installations" guide contingency environmental policy for CINC in executing missions OCONUS.

a. In general, all civil engineering operations will be conducted in compliance with host nation or U.S. standards on OCONUS installations operated by the U.S.

b. In contingency operations, attention will be given to environmental considerations. Even in war, action should be taken to temporarily store hazardous materials for subsequent removal or treatment, to protect the local environment from long term damage, and to assure that we do no environmental harm to the local populace.

6. Command and Control. The Services have responsibility for logistics and administrative support to their Service forces assigned or attached to joint commands.

a. Many functions are performed by one Service for all Services. This may be accomplished one of two ways.

(1) Common Servicing. One Service supports other Services without charge. The Army is responsible for distribution of bulk fuels, food, and other common materiel to land forces.

(2) Cross-Servicing. One Service supports other Services and may charge. This is the service that USACE, as a DOD CCA, provides in real estate and contract construction services.

b. The CINC have the authority to task Services to provide support. In addition, the CINC may establish joint staff organizations to oversee critical areas of functional support. These organizations are usually staffed from the component commands. They are formed to assure consistency among the component commanders, resolve inter-Service issues and balance resources, if necessary. CINC establish boards as a last resort because they create another layer of bureaucracy and require additional time for the resolution of issues.

(1) The Theater or Regional Contingency Engineering Management (TCEM and RCEM, respectively) concept, when implemented, is used as an augmentation to the CINC's or joint subordinate organization's engineer staff. The TCEM/RCEM function is to continuously analyze the CINC's concept of operations and assure that the theater-level engineering effort supports that concept. Included in this responsibility is participation in CINC planning, assessing the adequacy of engineer forces in theater, and promulgating CINC guidance concerning construction policies.

(2) A Joint Civil-Military Engineering Board (JCMEB) may be activated by the CINC to establish policies, procedures, priorities, and overall direction for construction and engineering requirements in theater. Normally, this board would only be necessary in a very large theater with multiple RCEMs and a large theater-level engineer mission.

(3) A Joint Facilities Utilization Board (JFUB) manages allocation of existing facilities (host nation or U.S. owned/operated) to meet facility requirements within the theater.

c. Joint Task Force (JTF) Operations. A JTF is composed of units or elements of two or more component commands organized to execute a specific mission. A JTF tends to be relatively small and functions for a limited period of time. JTFs are the common form of CINC response to significant contingencies.

(1) Most Service doctrine and command and control concepts support large force operations and their support requirements. Most of the Army's combat service (CS) and combat service support (CSS) force structure is in the reserve components. Since activation of reserve components for contingency operations is infrequent and active duty CS/CSS forces are inadequate, JTFs usually consist of active maneuver units augmented by contractor(s) (i.e., LOGCAP).

(2) The JTF Engineer may have both a coordinating staff responsibility and an execution responsibility. This is possibly due to the small number of engineer tasks to execute and small number of engineers available for execution. Due to the small engineer staff at the CINC level, the JTF engineer and staff may be selected from components and CONUS commands. Thus, the JTF staff may have to organize itself while also planning, deploying and executing the operation.

(a) The JTF Engineer and staff may have the following JTF staff duties:

- Conduct engineer planning in coordination with the JTF Staff.
- Monitor the conduct of engineer operations.
- Provide staff oversight of topographic engineering activities.

- Monitor the status of Class IV and critical engineer equipment.
- Promulgate CINC Environmental policy.

(b) The JTF Engineer may be supported by a separate staff and have the following execution responsibilities:

- Exercise OPCON of all engineer construction units assigned.
- Coordinate all mission and tasking assignments to units.
- Exercise OPCON of the supporting USACE forward USACE(Fwd) element.

(c) The structure described above requires that supporting organizations and their people must be flexible and versatile. USACE personnel deployed in support of a JTF: must understand the military system; should be able to simultaneously address multiple issues; must be able to readily communicate with higher headquarters; must respond quickly to requirements; should provide sound advice to commanders who are not familiar with leasing regulations and contractor capabilities; and should be capable of living in an austere environment. The USACE(Fwd) commander has the following responsibilities:

- Command all USACE personnel in theater, less Prime Power assets assigned to the JTF.
- Organize and equip USACE(Fwd) to execute the following missions:
 - In-house/contract design
 - Contract construction
 - Real estate acquisition
 - Cost Estimation
 - Master planning
 - Project management
 - Support of unique engineer missions (e.g. water detection, security engineering, etc)
 - Technical engineering support
 - Finance and accounting support for MILCON

- Establish field/area offices as required to support engineer units and customers.
- Establish Forward Headquarters to provide:
- Minimum administrative support, policy guidance and technical support to field/area offices.
- Liaison personnel to customer Headquarters and the JTF. This may also include augmentation to the JTF Engineer Staff.
- When LOGCAP is activated, be ready to act as the Administrative Contracting Officer (ACO) for LOGCAP contract construction and logistics services and be ready to work with the Defense Contract Management Command, International (DCMC-I) when they assume the ACO role.

A JOINT STAFF ORGANIZATION

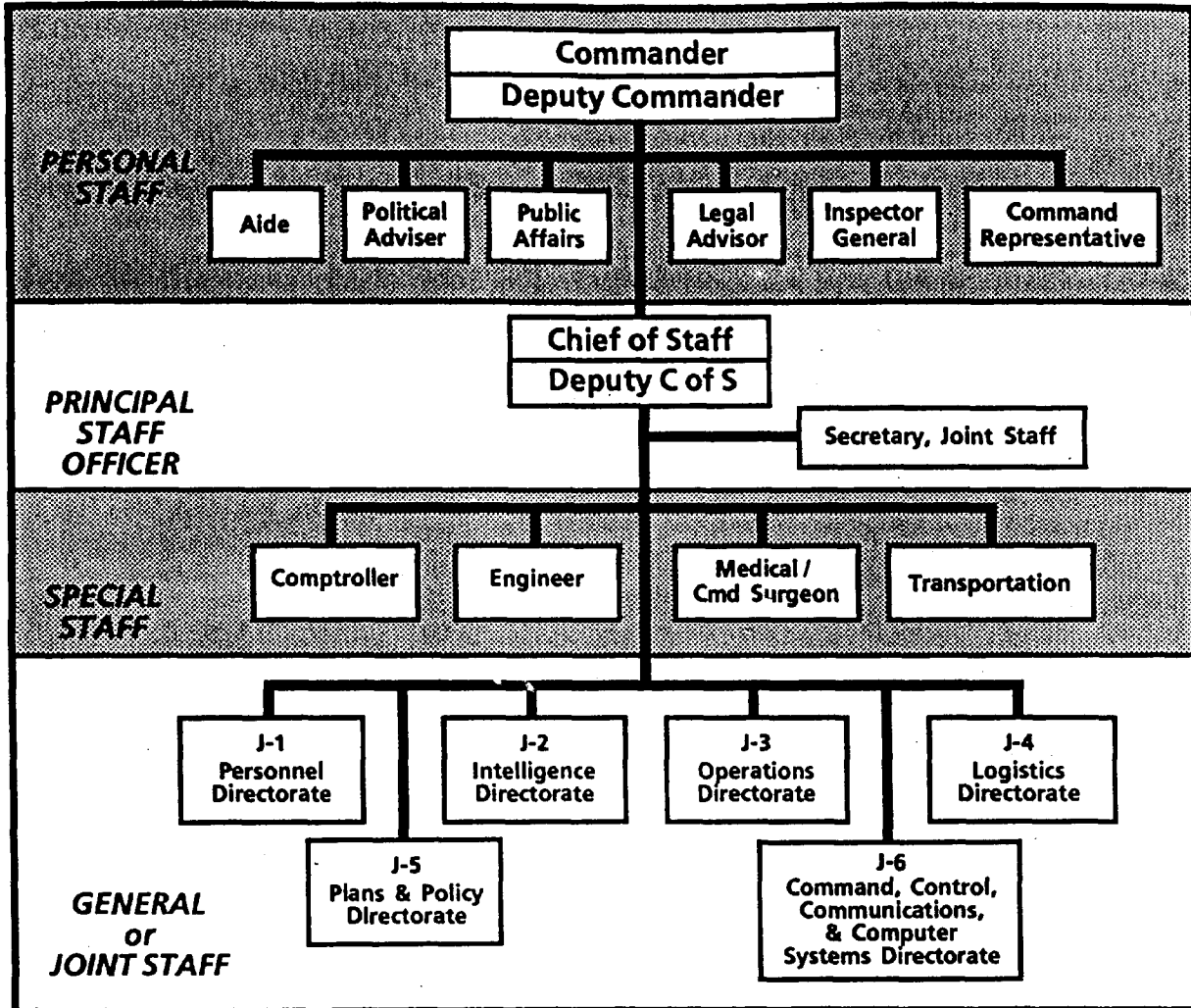


Figure E-1

FUNCTIONS OF JOINT STAFF DIVISIONS

DIRECTORATE OR DIVISION	RESPONSIBILITIES
MANPOWER AND PERSONNEL (J - 1)	<ul style="list-style-type: none"> • Manage manpower • Formulate personnel policies • Supervise administration of personnel, including civilians and prisoners of war
INTELLIGENCE (J - 2)	<ul style="list-style-type: none"> • Ensure availability of sound intelligence on area and enemy locations, activities, and capabilities • Direct intelligence efforts on proper enemy items of interest • Ensure adequate intelligence coverage and response • Disclose enemy capabilities and intentions
OPERATIONS (J - 3)	<ul style="list-style-type: none"> • Assist in direction and control of operations • Plan, coordinate, and integrate operations
LOGISTICS (J - 4)	<ul style="list-style-type: none"> • Formulate logistics plans • Coordinate and supervise supply, maintenance, repair, evacuation, transportation, construction, and related logistic matters • Ensure effective logistic support for all forces in the command
PLANS AND POLICY (J - 5)	<ul style="list-style-type: none"> • Assist commander in long-range or future planning • Prepare campaign and operation plans • Prepare estimates of the situation <p style="text-align: center;">J-5 functions may be included in operations directorate</p>
COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTERS or COMMUNICATIONS-ELECTRONICS AND AUTOMATED SYSTEMS [J-6]	<ul style="list-style-type: none"> • Assist commander with responsibilities for communications-electronics and automated data systems • Prepare communications and data systems plans to support operational and strategic concepts • Furnish communications to exercise command in mission execution <p style="text-align: center;">J-6 functions may be included in operations directorate or in the special staff</p>
SPECIAL STAFF	<ul style="list-style-type: none"> • Give technical, administrative, and tactical advice • Prepare parts of plans, estimates, and orders • Coordinate and supervise staff activities <p style="text-align: center;">Special staff may be included as branches of directorates</p>
PERSONAL STAFF	<ul style="list-style-type: none"> • Responsible directly to the commander • Special matters over which the commander chooses to exercise close personal control • Usually includes the political adviser and public affairs

Figure E-2

APPENDIX F
LOGISTICS CIVIL AUGMENTATION PROGRAM (LOGCAP)

1. **GENERAL.** LOGCAP is a Department of the Army program that provides responsive, worldwide, contract capability to augment U.S. Forces with facility and logistics support services during contingencies or crisis.

2. **CONCEPT.** The fundamental concepts guiding the development and maturation of LOGCAP are:

- a. Plan during peacetime for the effective use of contractors in wartime/crisis.
- b. Use existing, global/regional corporate resources as logistics multipliers.
- c. Provide an alternative capability to meet US force facility/logistics shortfalls.
- d. Provide quick reaction to war/crisis requirements.
- e. Reduce the logistics dependence on strategic lift.

3. **PROPONENCY.** LOGCAP is promulgated by AR 700-137, Logistics Civil Augmentation Program (LOGCAP). The stated objective of LOGCAP is to pre-plan for the use of civilian contractors to perform selected facility construction and logistic services support during contingencies to augment US Forces. DA DCSLOG is the Army Staff proponent for LOGCAP.

4. **PROGRAM MANAGEMENT.** The U.S. Army Corps of Engineers (USACE) has developed and awarded a LOGCAP contract for contingency construction and logistics services, worldwide. USACE leverages its existing global presence and construction contracting expertise to administer the LOGCAP contract.

a. As an Army program, LOGCAP is coordinated with HQDA and Joint Staff, individual Unified Commands, Army component commands, and respective supporting USACE MSCs. The USACE Divisions/Districts involved in planning and executing LOGCAP are those with OCONUS responsibilities (see Appendix B). These USACE Divisions/Districts work with supported MACOM

war/contingency planners to identify facility and logistics requirements which may be supported by LOGCAP.

b. The LOGCAP contract is a cost-reimbursement type contract. The LOGCAP contract supports three major types of activities:

- (1) Facilities operation, maintenance, repair, and construction services.
- (2) All other non-facility logistics support services (eg. transportation, food, maintenance).
- (3) Contractor planning expertise to assist MACOM planners concerning the use of regional/local contract resources.

5. GENERIC LOGCAP CAPABILITIES. The generic LOGCAP planning scenario focuses on facility and logistic support services required to support the reception, staging and onward movement of a 20,000-person force. The planning requirement for the contractor is to be prepared to support a 1,300-person force beginning 15 days after notification and support a 20,000-person force 30 days after notification. Support includes billeting, mess halls, food preparation, potable water, sanitation, showers, laundry, transportation, and utilities and is to continue for 180 days with options to increase the size of the supported force to 50,000 persons and to extend support for an additional 180 days.

NOTE: LOGCAP support capabilities are tailored to an actual contingency based upon the requirements identified in a supported MACOM's scope of work.

6. ADDITIONAL LOGCAP SUPPORT CAPABILITIES. In addition to the variety of facilities and logistics support services required to support the generic planning scenario, LOGCAP capabilities have matured and have expanded to include the following:

- a. Support to arriving forces.
- b. Force sustainment.
- c. Support to departing forces.
- d. Construction support.

- e. General logistics support services.
- f. Augmentation to Engineer units.
- g. Facility Engineer support.

7. SUPPORTED MACOM RESPONSIBILITIES. In order to capitalize on LOGCAP's capability as a facility and logistics multiplier, supported MACOM must execute the following responsibilities (supporting USACE offices will assist in planning and mission identification):

- a. Review OPLANs and identify potential LOGCAP requirements.
- b. Develop and provide a LOGCAP scope of work.
- c. Participate in LOGCAP plan development.
- d. Develop a staff organization to: receive, approve, and prioritize MACOM LOGCAP work requirements; and a desired procedure to interact with the LOGCAP Administrative Contracting Officer.
- e. Include LOGCAP participation in CPXs.
- f. Participate in LOGCAP award fee review boards.
- g. Fund LOGCAP execution during actual contingency.
- h. Provide security for the LOGCAP contractor during actual contingency.

8. LOGCAP OPERATIONAL STRENGTHS. LOGCAP has been integrated as an Army asset. LOGCAP's operational strengths include:

- a. Quick and responsive support.
- b. Support is flexible and easily tailored.
- c. Well suited for early entry, sustainment, and redeployment requirements.

EP 500-1-2
30 Oct 95

- d. Contractor can provide own inter-theater lift.
- e. Provides rapid contracting capability for operations not covered by a contingency plan.
- f. Capitalizes on existing global/regional corporate resources.

APPENDIX G
CONTINGENCY REAL ESTATE

1. Theater Real Estate Policy. The Department of State establishes real estate policies for the theater of operations. The policy of the U.S. Government is to acquire real estate for U.S. forces using contracting instruments acceptable to both the host nation and the U.S. Government. Only in combat and within a hostile nation can real estate be taken without compensation.

2. Responsibilities. The theater Army commander establishes policies for the acquisition, maintenance and disposal of real estate in theater. USACE is the Army's real estate agent for acquisition and disposal of real property and may provide real estate services for all services. The Theater Army Area Command (TAACOM) and its Area Support Groups (ASG) are responsible for maintaining real estate in theater.

3. Preparation. Real estate planning must be initiated as contingency plans are developed to ensure that adequate facilities are provided to support the reception, staging, onward movement, and integration (RSO&I) of U.S. troops. Facilities requirements must be identified in terms of space, utilities, structural characteristics, anticipated duration of use and proximity to supporting and supported facilities.

4. Contingency Real Estate Support Team (CREST). Real estate personnel must be part of the initial deploying personnel to effect leases for RSO&I support. The CREST was established to provide that initial contingency support capability. CREST personnel are volunteers with the requisite knowledge and skills to successfully accomplish real estate assessment, acquisition and disposal missions within an austere environment. CREST member preparation includes participation in exercises, training for the theater environment and advance processing for deployment. CREST personnel deploy to theater as part of the initial USACE forward organization. CREST members also help train the Army Engineer Detachments (Real Estate) (AERE) in selected real estate processes and mission support. The AERE teams may provide general support to the TAACOM in fulfilling its responsibilities to maintain real estate under its control.

5. USACE CREST Operations in Theater. CREST provides the real estate component of the USACE forward commander's staff. This real estate staff has the following duties:

a. Assess, acquire and dispose of real estate used within the theater of operations. This includes turning over leased facilities to using commands (usually the TAACOM) for maintenance and administration. As part of the disposal process the real estate personnel handle claims for damages.

b. The USACE commander may provide real estate personnel to augment the Army component commander's engineer staff and/or theater commander's engineer staff to develop theater real estate policies and guidance.

c. The real estate staff ensures that all real estate activities are conducted in conformance with status of forces agreements, theater policies and the laws of land warfare. This includes directing processes for seizure, requisition, or lease of real property in liberated or occupied countries.

APPENDIX H CONTINGENCY SUBSURFACE WATER DETECTION

1. **Requirement.** Adequate water supply is a fundamental requirement for any military operation. Water is critical to both the care and health of soldiers and maintenance of equipment for continued generation of combat power. Both potable and non-potable water are required to initiate and sustain combat operations. Any significant military operation requires the acquisition of water from within the area of operations. Often surface water is not sufficient to support military operations, either because there is not enough of it or it is needed to support the local economy. Subsurface water is a valuable source of water for military operations. Military well drilling operations (whether by troop units or contractor) can tap into that vital source of water for US operations.

2. **Water Detection Response Team (WDRT).** Locating subsurface water in adequate quantities and within drilling capability is a highly developed and specialized science. The US Army Topographic Engineering Center's Terrain Analysis Center (TAC) and US Army Engineer Waterways Experiment Station (WES) have combined their expertise to form the WDRT. The WDRT is an on-call rapid response team ready to assist military terrain and well-drilling teams locate adequate subsurface water supplies. The team consists of US Government scientists and engineers who keep abreast of the latest developments in remote sensing, data acquisition, ground water resource data, geophysical techniques, equipment, field procedures, and drilling and well-completion innovations.

a. The WDRT consists of four elements: Data Base, Remote Sensing, Geophysics, and Supporting Specialists. TAC is responsible for team management.

(1) Data Base. TAC maintains a worldwide data base of available water supply and hydrologic data. These data are derived from the Army Central Terrain Intelligence File and the DOD Water Resources Data Base, as well as other data bases on water supply. When specific missions/requests are received for areas whose data are uncertain or inconclusive, the team will research additional literature and data unique to the area.

(2) Remote Sensing. If data bases and other supplemental information are inadequate, aerial or satellite imagery will be studied and analyzed for indications of ground water.

(3) Geophysics. Should local site investigation be necessary, the geophysicists from WES conduct electrical resistivity, seismic refraction, or other on site tests to define the subsurface over a local area in terms of geologic structure.

(4) Supporting Specialists. Supporting Specialists conduct field reconnaissance and contact host nation ground water experts to evaluate existing or abandoned water wells, conduct hydrogeologic reconnaissance of specific areas, and assist with interpreting well cuttings and down-hole electric logging.

b. Mission. Successful development of subsurface water is a combination of science, engineering, and art. Subsurface water quality, quantity, and location (depth) vary even within local areas depending on the strata level(s) in which it is found. It can range from highly saline to high mineral content to pure. The objective is to identify the high-potential areas for the best quality of water within the drilling capability available (troop or contract) to meet water production requirements.

c. Concept of Operations. The WDRT does not necessarily have to deploy to provide technical support for military operations. If activated, the WDRT's first effort at identifying high-potential areas will be the examination of existing data bases, textural information, and in-house experience. If high-potential water sources cannot be identified from source data and imagery, teams from the geophysics and/or Supporting Specialists elements can be deployed for on-site investigations. This process should take place prior to arrival of the well drillers.

3. In the theater of operations, the WDRT operates as a component of the USACE commander in theater. As with any USACE capability, activation of the WDRT is not automatic; it must be requested through the supporting USACE commander in theater. The USACE commander provides/arranges for the WDRT logistics and administrative support necessary for mission accomplishment.

APPENDIX I
THEATER CONSTRUCTION MANAGEMENT SYSTEM

1. The Theater Construction Management System (TCMS) is an integrated software system for engineer planning, design, construction management, material acquisition planning, and project reporting within the theater of operations.

2. TCMS integrates the Army Facilities Components System (AFCS) as a database for facility drawings, plans, and materials with other army software and commercial software. Prior to TCMS, AFCS was distributed in Training Manuals: TMs 5-301; 5-302; and 5-303.

3. TCMS is intended for use by military planners, engineers, logisticians, and constructors. The integrated software will support the USACE Divisions/Districts, MACOM Engineers, and Engineer Commands and subordinate units in the planning, managing, and engineer construction missions.

4. TCMS automates the requirements for the engineer construction mission through commercial software integrated by government produced software. Planners can analyze beddown and mission facility requirements by organization TO&Es, and the engineer labor and material required to provide the facilities being considered. Design drawing requirements for engineering plans in TCMS are accomplished by using a library of CADD drawings of various facilities and installations. In the planning or management module, the drawings can be viewed and marked up. The plans can also be modified by using CADD, which is linked by menus in TCMS. Bills of Material (BOM) are related to the drawings using a data base of class IV material, maintained by national stock number (NSN). Construction project management and reporting in TCMS are handled by using commercial, Critical Path Method (CPM) scheduling software. TCMS also supports word processing software for documents and reports. Various printers and plotters are supported by the software for hard copy of the drawings, schedules or reports. Communications software is also included to allow data to be sent via modem to remote computers. These programs run on a MS-DOS environment personal computer. A high speed 486 microprocessor with at least 300 MB of hard disk memory is the preferred personal computer, but TCMS will run on a 386 machine.

EP 500-1-2
30 Oct 95

5. TCMS data bases, software improvements and enhanced features are maintained and distributed by the AFCS Branch, U.S. Army Engineering and Support Center, Huntsville.

APPENDIX J
WARTIME MILCON FUNDING

1. The purpose of this appendix is to outline the basics of military construction (MILCON) funding as they may apply to contingency construction. Funding for operations support (logistics, engineering, payroll, transportation, etc.) is a Service responsibility. It is the responsibility of the Service component commands (the supporting Army MACOM) of the combatant commanders to provide funding for the Army's mission.

2. The following subparagraphs are keyed to Title 10, United States Code, Sections 2801-2808. These sections apply to all construction in support of U.S. forces. They do not apply to construction in support of others (e.g.; refugee camps, drug interdiction camps for the Drug Enforcement Agency, and facilities for coalition forces).

a. **Section 2801** defines MILCON. It is an all inclusive definition; i.e., there are no exceptions for wartime.

(1) MILCON "...includes any construction, development, conversion, or extension of any kind carried out with respect to a military installation."

(2) A MILCON project "...includes all military construction work, or any contribution authorized by this chapter, necessary to produce a complete and usable facility ... or improvement as is specifically authorized by law."

(3) Facility "... means a building, structure, or other improvement to real property."

(4) Military installation "... means a base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of Defense."

b. **Section 2802** defines the included phases/components of a MILCON project from surveying through construction.

c. **Section 2803**, "Emergency Construction" provides the Service Secretaries with the authority to reprogram unobligated MILCON appropriations to projects urgently required for "national security."

(1) The fiscal year limit is \$30 million.

(2) The Service secretary must submit a written report to the committees on his/her decision to invoke this authority.

(a) For each project, the report must include the project justification, cost estimate, and a statement on the source of funds. The source of funds must be from a previously authorized and funded MILCON project(s).

(b) From the day the Service secretary submits the report to the committees (four committees, two each in the House and Senate), the committees have 21 calendar days to disapprove the project(s).

d. **Section 2804**, "Contingency Construction" is similar to Section 2803. However, this section applies only to appropriations specifically provided under this section of law. Since no funds have been appropriated under this provision of law in recent years, it has not been applicable to military operations to date.

e. **Section 2805**, "Unspecified Minor Construction" provides for several programs which have limited authority and relatively small appropriations. Fundamental to this section is the \$1.5M limitation to project costs. The projects which meet the criteria of this provision are submitted by the Service MACOM prior to the beginning of the fiscal year. There are always more requirements than funds available. As a result, the total amount appropriated is committed to projects at the beginning of the fiscal year.

(1) The Service secretary must approve projects costing more than \$750,000 and notify the committees in much the same way that is required in Section 2803.

(2) Exercise Related Construction (ERC) is covered here. The aggregate amount appropriated for ERC is also limited. The Joint Staff administers the program. Again, any project

costing more than \$750,000 must be "approved in advance by the Secretary concerned."

(3) Subparagraph (c)(1) provides for the use of Operations and Maintenance (O&M) funds to execute MILCON projects. The current limit is \$300,000. There are two key elements here. First, OMA funded projects do not get visibility in Congress or the Pentagon. Second, OMA funded projects are still MILCON. See paragraph 4, below for additional discussion on the use of OMA for contingency projects.

f. **Section 2806** applies only to contributions for NATO infrastructure.

g. **Section 2807** authorizes the expenditure of MILCON funds for the use of A&E firms and construction design not otherwise authorized by law.

h. **Section 2808**, "Construction authority in the event of a declaration of war or national emergency" is crucial to any major contingency. It allows the SECDEF and the Service Secretaries to reprogram their unobligated MILCON funds for construction projects, not otherwise authorized by law, to support the U.S. armed forces. The MILCON funds may be applied to requirements in support of any CINC.

(1) Congress must be notified, but there is no waiting period. The SECDEF must notify the committees of the decision and estimated costs, including real estate costs.

(2) Since the SECDEF has to report on the contingency projects, it is very likely that the Service secretaries will require DD Forms 1391 as the reporting format. The standard eleven paragraphs should be completed, but not in detail. This includes a brief general description of the requirement, standard of construction, and estimated costs. The justification should include a brief statement on the urgency and importance to the mission. Generally, technical details are not required; the goal is to provide enough data to satisfy the questions of the Service secretaries and to provide a report to Congress.

(3) As soon as an operation seems imminent, the CINC will make clear to the SECDEF his/her anticipated need of construction. Section 2808 must be specifically included in the

construction. Section 2808 must be specifically included in the executive order that initiates the declaration of war or national emergency; it is not automatic. As part of an emergency order, it must be approved by the Secretaries of State, Justice, and Treasury; the Director of Central Intelligence, and the Office of Management and Budget prior to submission for the President's signature. This takes time, therefore, the CINC will not wait for an actual project(s) to be identified prior to requesting that this provision be invoked.

3. A Deputy Assistant Secretary of the Army for Army Budget (SAFM-BUC-E) message, DTG 241808Z December 1992, subject: "Operation RESTORE HOPE (#2) Cost Estimates" revised Army policy with regard to the use of OMA funds in support of contingencies. It states: "Operations and maintenance funds are the appropriate funding source to be utilized for acquisition of materials and/or cost of erection of structures which are clearly of a temporary operational nature and intended to be used for only a temporary period by operational forces as required to facilitate operations in connection with the Somalia relief effort and which will not be used to sustain permanent or contingency operations at the conclusion of the relief effort. MILCON criteria apply to all other situations, including construction for which the United States would have a follow-on or contingency use after the termination of the military operations necessitating the construction." While this guidance was provided in support of a specific event, it applies to all subsequent operations in support of Army forces.

a. Therefore, the following conditions must be met to use OMA funding for projects whose costs would otherwise exceed the OMA funding limitations for construction as specified in Section 2805, above.

(1) The construction must be clearly of a temporary nature; not just used temporarily. Some types of commercial building systems which have a relatively long economic life would still be subject to the provisions of Title 10 Section 2805(c)(1) even though the intent is for temporary use.

(2) The project(s) intent must be for use only during the temporary period by operational forces. This means that the project(s) will not be used to sustain operations beyond the end of the contingency for which it was constructed. Care must be taken with regard to any declaration that a given contingency has

been concluded and that a sustained operation is in effect. Once a continuing (not necessarily permanent) presence is established, the provisions of Title 10 USC, Section 2805(c)(1) apply (per paragraph 2e(4) above).

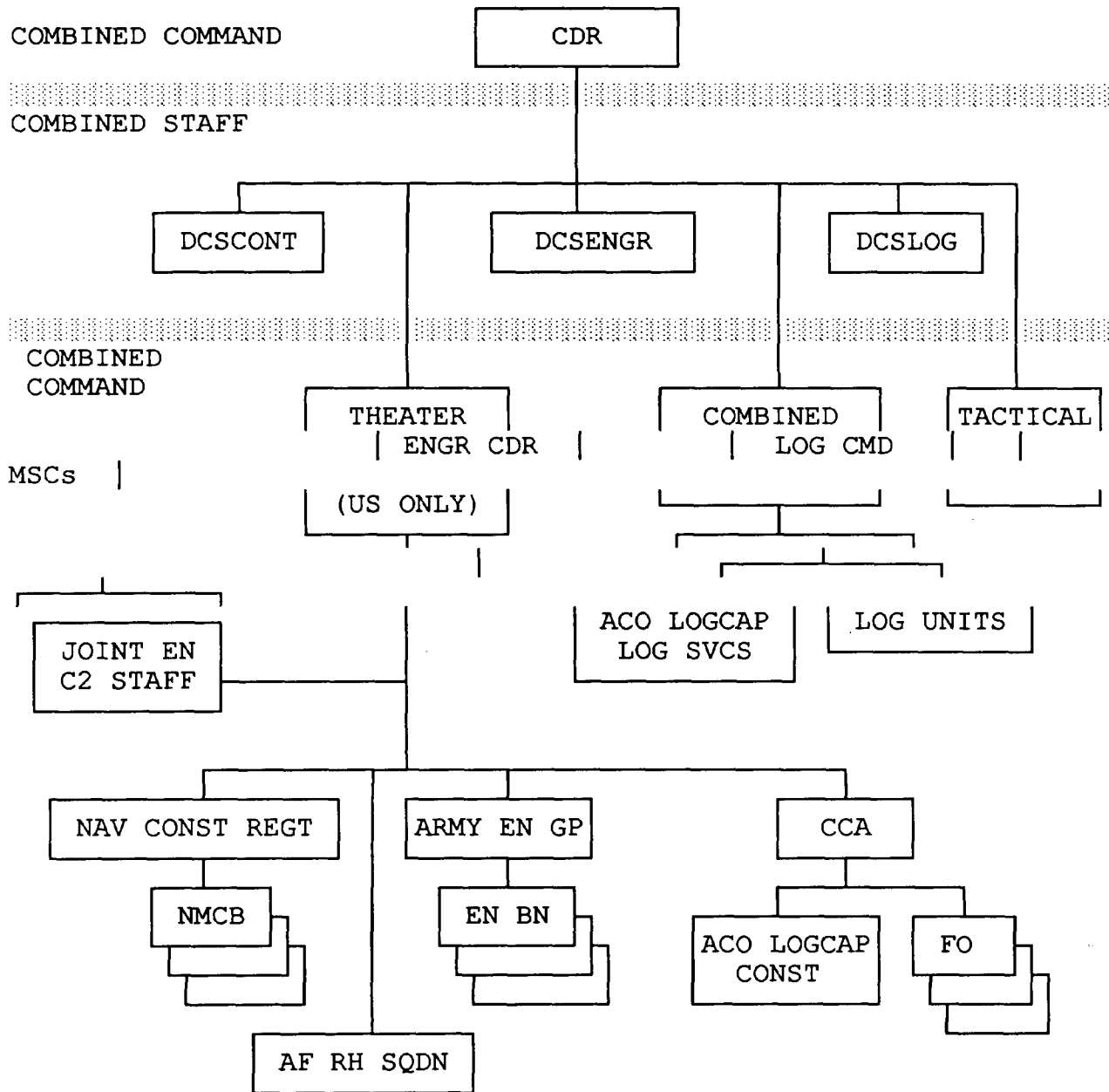
(3) The project is not on a U.S. owned or operated installation nor an installation with a continuing U.S. presence.

b. All the provisions of MILCON apply with regard to modification of or improvements to existing host nation facilities for use by U.S. forces. An example of a modification requiring appropriated funds (e.g., Military Construction, Army (MCA)) would be the installation of air conditioning, associated up-graded wiring, and insulation to a leased warehouse structure which exceeds the limits for OMA funding per Title 10, USC 2805(c)(1). In this example, the intent may be for temporary use but, as with improvements to any leased structure, the improvement(s) remain with the structure after use and are therefore subject to the provisions of Title 10 USC, Section 2805(c)(1).

4. In theater, the USACE commander may have customers from other Services. The issue of the use of their appropriations (military construction or operations and maintenance) is the same as for the Army. However, their guidance may vary from that of the Army which is reflected above. If the differences can not be quickly and successfully resolved in theater, the USACE commander must quickly advise the USACE chain of command. As a DOD Contract Construction Agent, USACE must take great care to execute its missions within the law.

APPENDIX K
COMBINED COMMAND CONCEPTS

POSSIBLE ENGINEER C2 IN SUPPORT OF COMBINED OPERATIONS



NOTES:

1. This is only a model. The intent is to generate a context for command and control planning.

2. Combined staff. Both the United Nations and North Atlantic Treaty Organization (NATO) have separate staff elements and organizations for all contracting. Both organizations tend to apportion contracts to participating countries in proportion to their participation (funding and troops) in the operation. The combined staff develops policies, develops command plans and prioritizes theater requirements for support. As with any of the deputy chief of staffs, the Deputy Chief of Staff for Engineering (DCSENG) may be of any nationality.

3. In this model, the U.S. is providing all of the construction capability. This may not be unusual in that very few nations have any deployable construction units in their military. Therefore, in this model, the theater engineer commander is a U.S. senior engineer commander, with a U.S. joint staff to support his/her execution mission.

a. The theater engineer commander may be dual-hatted as the combined engineer or his/her deputy. The combined engineer, however, cannot be dual-hatted and assume engineer command. Regardless, the combined command engineer staff should be a separate staff from the engineer C2 staff.

b. The joint staff coordinates requirements with the combined staff and plans execution taskings to the engineer commanders. The CCA has one or more personnel assigned to the joint staff to support planning and coordination.

4. The CCA establishes field offices and coordinates LOGCAP ACO requirements and construction management for general construction related support to the theater engineer commander.

5. General logistics support to the combined forces is usually a combination of multi-national logistics units and contractors. If the LOGCAP contract is activated for support to the combined forces, then a combined logistics command (if established) would probably coordinate priorities, requirements and funding and provide the LOGCAP ACO prioritized scopes of work for LOGCAP support. If LOGCAP were used for U.S. forces only, then a joint logistics command may be established to support U.S. requirements.

**APPENDIX L
GLOSSARY**

ABBREVIATIONS

ACSIM	ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
ACO	ADMINISTRATIVE CONTRACTING OFFICER
ADP	AUTOMATED DATA PROCESSING
AFCS	ARMY FACILITIES COMPONENTS SYSTEM
AMC	ARMY MATERIEL COMMAND
AMOPES	ARMY MOBILIZATION AND OPERATIONS PLANNING AND EXECUTION SYSTEM
AOR	AREA OF RESPONSIBILITY
ARSTAF	ARMY STAFF
ASA	ASSISTANT SECRETARY OF THE ARMY
ASA (CW)	ASSISTANT SECRETARY OF THE ARMY CIVIL WORKS
BOM	BILLS OF MATERIALS
CCA	CONTRACT CONSTRUCTION AGENT
CEMOPES	CORPS OF ENGINEERS MOBILIZATION PLANNING AND EXECUTION SYSTEM
CESP	CIVIL ENGINEERING SUPPORT PLAN
CESPG	CIVIL ENGINEERING SUPPORT PLAN GENERATOR
CINC	COMMANDER IN CHIEFS
CJCS	CHAIRMAN OF THE JOINT CHIEF OF STAFF
CMT	CRISIS MANAGEMENT TEAM
COA	COURSE OF ACTION
COMMZ	COMMUNICATIONS ZONE
CONUS	CONTINENTAL UNITED STATES
CPA	CHAIRMAN'S PROGRAM ASSESSMENT
CPM	CRITICAL PATH METHOD
CREST	CONTINGENCY REAL ESTATE SUPPORT TEAM
CS	COMBAT SERVICE
CSS	COMBAT SERVICE SUPPORT
DA	DEPARTMENT OF THE ARMY
DCSENG	DEPUTY CHIEF OF STAFF FOR ENGINEERING
DOD	DEPARTMENT OF DEFENSE
DPG	DEFENSE PLANNING GUIDANCE

DPRB	DEFENSE PLANNING AND RESOURCES BOARD
ENCOM	ENGINEER COMMAND
ERA	EXERCISE RELATED CONSTRUCTION
EUSA	EIGHTH U.S. ARMY
FAR	FEDERAL ACQUISITION REGULATION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FOA	FIELD OPERATING ACTIVITY
FORSCOM	FORCES COMMAND
GEOLOC	GEOGRAPHIC LOCATIONS
HHC	HEADQUARTERS AND HEADQUARTERS COMPANY
HQ	HEADQUARTERS
HQ (FWD)	FORWARD ELEMENT Headquarters
HQDA	HEADQUARTERS, DEPARTMENT OF THE ARMY
IL&E	INSTALLATIONS, LOGISTICS, AND ENVIRONMENT
JCS	JOINT CHIEF OF STAFF
JDS	JOINT DEPLOYMENT SYSTEM
JEPES	JOINT ENGINEER PLANNING AND EXECUTION SYSTEM
JOPEP	JOINT OPERATION PLANNING AND EXECUTION SYSTEM
JOPS	JOINT OPERATION PLANNING SYSTEM
JS	JOINT STAFF
JSCP	JOINT STRATEGIC CAPABILITIES PLAN
JSPS	JOINT STRATEGIC PLANNING SYSTEM
JSR	JOINT STRATEGY REVIEW
JTF	JOINT TASK FORCE
LOGCAP	LOGISTICS CIVIL AUGMENTATION PROGRAM
MACOM	MAJOR COMMAND
MILCON	MILITARY CONSTRUCTION
MSC	MAJOR SUBORDINATE COMMAND
NATO	NORTH ATLANTIC TREATY ORGANIZATION
NAVFACENGCOM	NAVAL FACILITIES ENGINEERING COMMAND
NCA	NATIONAL COMMAND AUTHORITIES
NMSD	NATIONAL MILITARY STRATEGY DOCUMENT
NSC	NATIONAL SECURITY COUNCIL
NSN	NATIONAL STOCK NUMBER
OCE	OFFICE OF THE CHIEF OF ENGINEERS
OCE-P	OFFICE OF THE CHIEF OF ENGINEERS - PENTAGON
OCONUS	OUTSIDE THE CONTINENTAL UNITED STATES
ODS	OPERATION DESERT STORM
OOTW	OPERATIONS OTHER THAN WAR
OPCON	OPERATION CONTROL
OPLAN	OPERATION PLAN
OSD	OFFICE OF THE SECRETARY OF DEFENSE

OSD	OFFICE OF THE SECRETARY OF DEFENSE
PDMs	PROGRAM DECISION MEMORANDUMS
POMs	PROGRAM OBJECTIVE MEMORANDUMS
SECDEF	SECRETARY OF DEFENSE
TA	THEATER ARMY
TAACOM	THEATER ARMY AREA COMMAND
TCEM	THEATER CONTINGENCY ENGINEERING MANAGEMENT
TCMS	THEATER CONSTRUCTION MANAGEMENT SYSTEM
TM	TRAINING MANUALS
TO	THEATER OF OPERATIONS
TPFDD	TIME-PHASE FORCE DEPLOYMENT DATA
TRADOC	TRAINING AND DOCTRINE COMMAND
USACE	U.S. ARMY CORPS OF ENGINEERS
USACOM	U.S. ATLANTIC COMMAND
USARCENT	U.S. ARMY CENTRAL
USAREUR	U.S. ARMY EUROPE
USARPAC	U.S. ARMY PACIFIC
USARSO	U.S. ARMY SOUTH
USTRANSCOM	U.S. TRANSPORTATION COMMAND
WHNS	WARTIME HOST NATION SUPPORT
WWMCCS	WORLDWIDE MILITARY COMMAND AND CONTROL SYSTEM

**APPENDIX M
TERMS**

Army Facilities Components System (AFCS) AFCS is the Army's military engineering construction support system for theater of operations construction planning and execution. It provides standard designs, bills of materials and construction resource estimating data. The principal operational tool offered by AFCS is the Theater Construction Management System (TCMS).

Army Mobilization and Operations Planning and Execution System (AMOPES) AMOPES is the Army's single integrated mobilization and deployment planning system and is the Army's implementor of the JSCP. It provides administrative and operational guidance to Army agencies, commands and component commanders of unified commands for the employment and support of Army forces.

Civil Engineering Support Plan (CESP) The CESP is the civil engineer component of the Logistics Annex of a combatant commander's OPLAN. It identifies the minimum essential facilities and construction requirements that are necessary to support the combatant commander's concept of operations.

Combatant Commander The combatant commander is the commander of a unified command.

Combined Command A command consisting of the forces of two or more allies.

Commander in Chief (CINC) The term CINC refers to the combatant commander who is the commander of a unified command.

Communications Zone (COMMZ) The COMMZ is the rear part of the TO (behind but contiguous to the combat zone) which contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces.

Contract Construction Agent (CCA) CCA refers to the DOD construction agents designated in DOD Directive 4270.5 which are assigned the design or construction execution responsibilities associated with military construction program facilities.

Crisis Management Team (CMT) The CMT provides the commander with the operations staff for monitoring, coordinating and directing (i.e., implementing decisions of the commander) activities of the command during contingencies. The CMT is that staff of the commander which shifts the command from management of authorized projects to the execution of crisis response missions.

Field Operating Activity (FOA) FOAs are functional organizations which provide specific technical support to USACE MSCs and customers. The USACE FOAs are the centers (e.g., U.S. Army Center for Public Works) and the laboratories.

Forward Element Headquarters (Headquarters(Fwd)) The Headquarters(Fwd) refers to the USACE command and control organization operating in theater to support a contingency. The "forward element" may be a division or district headquarters or a deployed team from one of those organizations.

Joint Operations Planning and Execution System (JOPES) JOPES is a continuously evolving system developed through the integrated enhancement of the Joint Operations Planning System (JOPS) and the Joint Deployment System (JDS). It provides the foundation for conventional command and control by national- and theater-level commanders and their staffs. JOPES includes operational planning policies, procedures and reporting structures supported by communications and automated data processing systems and is used to monitor, plan and execute mobilization, deployment, employment, sustainment and redeployment activities associated with joint operations.

Joint Strategic Capabilities Plan (JSCP) The JSCP is a biennial document which furnishes guidance to the combatant commanders on the development of contingency plans and assignment of major combat forces and strategic lift for planning purposes. In addition, it provides guidance to the Services on developing and maintaining strategic capabilities. In turn, the JSCP becomes the framework for giving capabilities-based military advice to the NCA.

Joint Task Force (JTF) A force composed of two or more assigned or attached elements of the Services which is constituted and so designated by the Secretary of Defense or a unified commander or an existing JTF commander.

Logistics Civil Augmentation Program (LOGCAP) LOGCAP is a Department of the Army program (DA DCSLOG is the proponent) that provides responsive worldwide, contractor capability to augment U.S. forces with theater operational facilities and logistics services support during contingency operations. The only current LOGCAP contract is the USACE LOGCAP contract which is supporting all of the Army's field commands and their respective combatant commands.

Major Command (MACOM) MACOM are the Department of the Army's major subordinate units for the command and control, equipping, training and maintaining of Army forces. There are two types of MACOM -- support and field commands. Support commands (e.g., USACE) provide support for all Army commands. Field commands are Army components of the unified commands and are assigned units, installations, activities and subordinate commands by HeadquartersDA.

Major Subordinate Command (MSC) MSCs are the principal field organizations of Army MACOM which are responsible for the execution of MACOM missions within assigned geographical areas of responsibility. In USACE, MSCs are the divisions whose commanders are responsible to the Commander, USACE for the execution of the USACE mission.

Military Construction (MILCON) MILCON includes any construction, development, conversion, or extension of any kind carried out with respect to a military installation. This applies to installations either owned or operated by the U.S. Government.

National Command Authorities (NCA) The President and the Secretary of Defense or their duly deputized alternates or successors.

Operation Plan (OPLAN) A plan for a single or series of connected joint operations to be carried out simultaneously or in succession. An OPLAN is prepared by the combatant commander in response to requirements established by the Chairman of the Joint Chiefs of Staff. An OPLAN identifies the time-phased forces and supplies required to execute the CINC's strategic concept. The OPLAN includes all phases of the operation. An OPLAN in abbreviated format is a concept plan (CONPLAN). A CONPLAN does not include troop lists, detailed planning requirements, or time phasing of forces.

Operational Control (OPCON) That transferable authority which may be exercised between commanders at any echelon at or below the level of combatant command. OPCON provides the gaining commander the authority to organize and employ commands and forces and includes assigning tasks, designating objectives and giving authoritative direction necessary to accomplish the mission. It should be exercised through the subordinate commanders (e.g., CINC exercise OPCON through their component commanders).

Operations Other Than War (OOTW) Military activities during peacetime and conflict that do not necessarily involve armed conflict between two organized forces.

Power Projection The ability of a nation to apply all or some of the instruments of national power--diplomatic, economic, informational, or military--to respond to crisis, to contribute to deterrence, and to enhance regional stability.

Reconstitution At the strategic level, reconstitution is defined as those functions and activities required to restore the Army's capability to respond to any mission across the full range of possible operations. At the operational and tactical levels, reconstitution consists of actions that commanders plan and implement to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources.

Split-Basing Split-basing is the technique of physically dividing engineer support between those functions and support which must be performed on-site or in-country and those which, through the use of communications systems, allows other functions to be accomplished from CONUS or elsewhere in proximity to the TO.

Subordinate Commands Subordinate commands or districts are the principal operating organizations of the MSCs for the execution and maintenance of civil works and military projects, as authorized, in support of DOD missions.

Support Plan An operation plan prepared by a subordinate or supporting commander to satisfy the requirements or requests of the supported commander's plan.

Theater Construction Management System (TCMS) TCMS is the Army engineer integrated software system for engineer planning, design, construction management, material acquisition planning and project reporting within the theater of operations. AFCS provides the underlying data bases for the TCMS functional software.

Theater of Operations (TO) That portion of an area of conflict necessary for military operations, either offensive or defensive, pursuant to an assigned mission, and for the administration incident to such military operations. For the purposes of this regulation, the TO is that geographical area necessary for conducting military operations outside of the United States and its territories.