<table>
<thead>
<tr>
<th>CECW-OE-P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation No. 500-1-18</td>
</tr>
<tr>
<td>Department of the Army</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers</td>
</tr>
<tr>
<td>Washington, DC 20314-1000</td>
</tr>
<tr>
<td>ER 500-1-18</td>
</tr>
<tr>
<td>30 Mar 85</td>
</tr>
<tr>
<td>CORPS OF ENGINEERS CONTINUITY OF OPERATIONS PLANNING SYSTEM (CECOPS)</td>
</tr>
<tr>
<td>Distribution Restriction Statement</td>
</tr>
<tr>
<td>Approved for public release; distribution is unlimited.</td>
</tr>
</tbody>
</table>
REPLY TO
ATTENTION OF:

CECS

SUBJECT: USACE Continuity of Operations Planning

SEE DISTRIBUTION

1. ER 500-1-18, The Corps of Engineers Continuity of Operations Planning System (CECOPS) is enclosed. CECOPS provides continuity policy and planning guidance to all USACE field operating activities (FOA) and prescribes actions that must be taken within USACE during peacetime to prepare for a catastrophic national emergency. This revision supersedes the previous CECOPS dated 31 January 1984.

2. Readiness is the responsibility of every commander. All commanders will become personally involved with these requirements and their continuity planning activities. CECOPS is published to allow subordinate commands maximum individual freedom in planning while still providing a single source of policy guidance to each FOA.

3. This document was based on numerous comments and recommendations from the staff and FOA. Because of the dynamics of continuity planning, we will revise and publish CECOPS annually. Comments and recommendations regarding CECOPS may be forwarded to CDR USACE (DAEN-CWO-EM), Washington, D. C. 20314-1000.

FOR THE COMMANDER:

PAUL W. TAYLOR
Colonel, Corps of Engineers
Chief of Staff

Enclosure

DISTRIBUTION:
SEE CECOPS ANNEX Z

This edition supersedes all previous editions of CECOPS.
CHAPTER 1

BASIC PLAN
U.S. ARMY CORPS OF ENGINEERS CONTINUITY OF OPERATIONS PLANNING SYSTEM (CECOPS)

1-1. Purpose. CECOPS provides policy and planning guidance for the continuity of essential operations of the U. S. Army Corps of Engineers (USACE) during an impending or actual national emergency. Although oriented primarily toward a nuclear attack upon the United States, many policies and procedures described herein are equally applicable to other national emergency situations, (e.g., civil disturbances, espionage, sabotage, terrorists incidents, natural disasters, and strategic wars).

1-2. Applicability. This regulation is applicable to all HQUSACE/OCE Field Operating Activities (FOA) except Europe Division, Al Batin, Riyadh, Far East and Japan Districts.

1-3. References. See Annex U to this publication.

1-4. CECOPS Documents. This document and the Corps of Engineers Continuity of Operations Plan (CECOOP) describe the USACE continuity planning system. This regulation is applicable to all HQUSACE/OCE elements, divisions, districts, and all separate field operating activities (FOA) except Europe Division, Middle East Division, Al Batin, Riyadh, Far East, and Japan Districts.

a. The CECOPS contains a basic plan and appendixes A through Z, which expand on the guidance given in this basic plan.

b. The CECOOP prescribes HQUSACE/OCE actions to be taken upon awareness/notification of and during a national emergency scenario.

1-5. Mission. USACE will take those actions necessary to accomplish the wartime and continuity of operations and government requirements as directed by the Department of Army or higher authority. In the absence of such direction, appropriate actions will be taken as preplanned in accordance with established war plans. This plan will take effect automatically under the Alfa condition (i.e., nuclear attack without warning) or upon the direction of the Chief of Engineers or higher authority.

1-6. Responsibilities.

a. Pre-Attack Preparedness.

(1) All commands shall continually:
(a) Determine and maintain functions required to conduct essential operations.

(b) Maintain an organizational structure designed to ensure continuity of operations.

(c) Develop readiness exercises that evaluate emergency plans and training of USACE employees.

(d) Prepare, publish, and refine COOPs.

(e) Identify emergency actions required for execution of operations under various DEFCONs as stated in the Corps of Engineers Emergency Action Procedures CEEAP and/or COOP. These actions include identification of emergency personnel assignments, emergency duty stations, alert notification procedures, and other actions deemed appropriate. Emergency actions shall be included in each organization's COOP, and appropriate unclassified extracts (e.g., emergency actions listed without associated DEFCON) shall be given the widest distribution necessary for maximum preparedness.

(2) The Chief of Engineers shall continue as the HQDA principal advisor on engineering matters (acting through the Assistant Chief of Engineers), as Commander of USACE. The chief also supports the nation by providing engineering expertise to other Federal agencies. Information regarding the roles, functions, and organization of the Office of the Assistant Chief of Engineers is contained in the HQDA COOP.

(3) The Director, Civil Works shall:

(a) Develop, publish, and maintain CECOPS.

(b) Develop, publish, and maintain the HQUSACE Continuity of Operations Plan (CECOOP).

(c) Task HQUSACE staff elements and subordinate commands to prepare appropriate portions of CECOPS and the CECOOP.

(d) Program manpower and funds for USACE COOP planning, training, and equipment.

(4) HQUSACE directors and separate office chiefs shall:

(a) Assist the Director of Civil Works in maintaining and refining CECOPS and CECOOP.

(b) Develop internal continuity of operations Standing Operating Procedure (SOP) IAW CECOPS and CECOOP.

(c) Ensure Bravo personnel (i.e., relocatees) are thoroughly trained. This should include the following at a minimum:

1-2
(5) Operational Requirements Pre-Attack: All commanders shall:

(a) Estimate personnel requirements to carry out essential functions.

(b) Designate an alternate headquarters (AH).

(c) Establish and maintain an ERS. (Per guidance from HQUSACE)

(d) Where non-Corps facilities may be needed to house ERS, coordinate with real estate elements to ensure their designation and availability.

(e) Provide for expedient handling and transport of essential records necessary for continuity of operations.

(f) Develop emergency action lists, as required.

(g) Develop procedures for succession and reconstitution, including damage assessment procedures (see para B-3e to Annex B to this publication).

(h) Maintain a radiological protection and safety program (RADPS).

(i) Maintain a biological and chemical protection program.

(j) Establish and maintain liaison with CONUS Army or unified commanders, as appropriate, FEMA regional directors, and state organizations concerning Military Emergency Response Plan (MERP) as directed in Annexes C and S to this publication.

(k) Conduct interagency coordination on identified Federal emergency preparedness functions for which the Corps has primary responsibility or a supporting role to another Federal agency.

(l) Establish a communication system for continuity of operations purposes that will minimize the effects of a nuclear detonation. Joint use of existing systems shall be maximized.

(m) Develop procedures for continuity of operations at each project facility. (Include such procedures in operation and maintenance (O&M) manuals per ER 1130-2-304.)

(6) Organizational Requirements (Pre Attack). All commanders shall:

(a) Pre-designate an emergency advanced cadre that will move to an ERS prior to full augmentation by Bravo relocatees. See Annex G to this publication.
(b) Pre-designate an emergency organization (Bravo relocatees) for performance of essential functions at emergency sites.

(c) Pre-designate a Crisis Management Team (CMT) at all predetermined AH. A summary of the CMT duties is outlined in the Corps of Engineers Mobilization Plan (CEMP).

(d) Ensure that members of emergency staffs are briefed on departure points, routes to designated relocation sites, and are familiar with facilities and operations at designated sites.

(e) Ensure that the emergency staffs do not have military or other commitments which preclude reporting to emergency duty stations and carrying out assignments (e.g., civilian emergency staff should not be individual mobilization augmentees (IMA) who are assigned elsewhere, have a Reserve or National Guard assignment leading to activation in an emergency, or are retired military eligible for recall to active duty). This does not preclude use of IMA personnel who would be assigned to a division/district upon military mobilization.

(f) Designate qualified alternates for essential personnel.

(g) List personnel and positions (names, title, and grade) essential to COOP functions in the organization's COOP. Emergency personnel lists shall be current. (Update lists at a frequency determined by the local commander.)

(h) Establish procedures to obtain passes/badges and ensure that required national emergency passes or badges are provided active Corps employees designated to perform emergency duties. Federal employees who have been assigned emergency duty functions, are expected to be in need of freedom of movement in order to report for and carry out their emergency assignments. Corps employees so designated will be issued a Federal Emergency Management Identification Card, FEMA Form 12-11. The card will be obtained locally through normal publication channels. Procedures established for obtaining and having the card will also contain strict accountability requirements, to include:

1 An annual review of assignments of personnel issued a card to determine if the holders continue to qualify under the above issuance criteria.

2 Recalling cards issued to personnel whose emergency assignments are withdrawn.

3 Ensuring that cards are authenticated (signed) by an appropriate official.

4 Maintaining the following records.

a Number of cards issued and outstanding.
b Card numbers and names of employees issued cards.

c Total number of cards recalled.

d Total number of cards destroyed.

e Total number of cards lost or unaccounted for.

f Cards available for issue.

g Providing FEMA (through this HQ) with copies of any directives locally published to implement procedures outlined above.

(h) Test emergency procedures annually to ensure that essential personnel are familiar with assigned duties.

(i) Provide training in post-nuclear attack survival and recovery (see Annexes B and Q to this document).

(j) Establish COOP procedures for personnel other than emergency staff designees per local civil defense instructions. Civil Works facilities may be used as fallout shelters for USACE personnel and by the general public if shelter space is available after consideration of USACE requirements. Additional guidance is provided in Appendix A.

b. Essential Functions (Post Attack).

a. Many functions may be curtailed, de-emphasized, or eliminated under national emergency conditions. Additionally, some current functions will receive greater emphasis and some new emergency functions will have to be implemented. Each level of command shall carefully review and designate those functions which are indispensable to the presently identified missions and other missions expected to be assigned upon emergency declaration. These functions will provide the basis for defining requirements for duplicate emergency files. All essential functions shall be identified using DA Form 4541, included in the CECOOP, and reviewed annually by the commander of the addressed headquarters.

b. Post-attack functions associated with preserving both organizational integrity and response capability include:

(1) Reconstituting a command headquarters and staff.

(2) Restoring command, control, communications, and computer functions (C4).

(3) Conducting a residual capabilities assessment (see Annex E to this publication).
(4) Providing resources in support of military operations and/or mobilization activities.

(5) Establishing a database of available construction resources.

(6) Supporting civil authorities.

(7) Operating primary Corps of Engineers facilities.

(8) Identification and acquisition of replacement facilities in support of the Corps, Army, DOD, and other requirements as directed, including support required in the Military Emergency Response Plan (MERP).

(9) Administration of priorities and allocations of water resources.

(10) Reports - see Annex P to this publication.

1-7. Concept of Operations.

a. Introduction.

(1) Planning for the continuity of operations is necessary so that CDR USACE can continue to perform essential functions and operations in any national emergency situation.

(2) Continuity of operations activities may require execution during a military mobilization or during a variety of peacetime situations. (In response to condition ALFA/Bravo.) Therefore, FOA COOP shall be comprehensive enough to satisfactorily address transition from a military mobilization situation as well as from peacetime situations.

(3) Military mobilization planning shall accommodate the sudden activation of COOPs during a military mobilization with as little adverse effect as possible on USACE’s ability to meet mobilization manpower and resources requirements.

b. Resource Management.

(1) General. Commanders at all levels shall plan, program, budget, and manage resources to ensure adequate funding of continuity of operations preparedness activities, including establishing and stocking an ERS.

(2) Programming and Budgeting (Operational Guidance). The Emergency Management element in coordination with the program development office and/or chief, resource management office (or comptroller) is responsible to the commander for ensuring that resources necessary to ensure continuity of operations planning and execution are included within appropriate programs and budget submittals. Funding of COOP activities should be programmed under the Code 903-500, O&M, General Appropriation.
(3) **Finance and Accounting (Planning Guidance).** Resource management officers/comptrollers are responsible for planning and coordinating the finance and accounting activity for continuity of operations. Plans shall address but not be limited to:

(a) Alternate automated data processing (ADP) sites.

(b) Maintenance of duplicate accounting databases.

(c) Conversion to manual accounting.

(d) Local maintenance of payroll records.

c. **Duplicate Emergency Files.**

(1) Commanders at all levels shall establish and maintain a duplicate emergency files program and develop implementing instructions in their COOPs in accordance with AR 340-26.

(2) Copies of documents, manuals, and ADP files identified by commanders as required to carry out essential functions shall be filed in depositories outside likely target areas or in appropriately protected facilities. Each subordinate command is responsible for establishing and maintaining data in duplicate emergency files. Semiannual reviews shall be conducted to ensure contents are current.

(3) Depositories shall be located, where practicable, at designated alternate headquarters and relocation sites. If not appropriate, arrangements shall be made for prompt transmission of records and ADP files and portable hardware (terminals) from depositories to emergency relocation or reconstitution sites. ADP equipment shall not be purchased to support the continuity of operations mission without prior HQUSACE approval. Capabilities of ADP facilities available to the alternate headquarters and access to required ADP capability from ERS shall be assessed for planning purposes.

1-8. **General Policy**

a. **Implementation.** Continuity of Operations Plans (COOP) are automatically implemented during condition ALFA. Warnings, notification and emergency actions shall be in accordance with the CEEAP. Divisions, districts, and separate field operating activities (FOA) COOPs shall be activated in accordance with CECOOP (HQUSACE COOP). Under condition BRAVO, any relocation of division, district or FOA headquarters shall be directed by CDR USACE.

b. **National Emergencies.** Every national emergency situation shall not be addressed in this publication either in type or degree. The policy and guidance contained herein shall be utilized to conduct continuity of operations planning for any unspecified contingency as each commander deems necessary or is otherwise directed.
c. **Interface with Associated Planning and Execution Activities.** Continuity of operations planning is to be considered one phase of mobilization planning, where the term "mobilization" is not limited to military mobilization activities in support of the armed forces. Mobilization planning encompasses preparation to support "customers," military and civilian, as well as preparation to enable USACE to function effectively through changing conditions. All aspects of mobilization planning shall be closely correlated with COOP development.

d. **Succession.** Maintenance of the existing command structure through survivability is the preferred method of maintaining continuity. However, there is no assurance that any headquarters or individuals will survive or be able to function effectively. Therefore, successors and alternates shall be designated and resources allocated to perform essential functions. Authority and responsibility shall be delegated to command successors, each of whom shall be knowledgeable of essential functions. Designated successors, order of succession, and conditions under which succession shall occur, shall be specified in the COOP. Commanders at all levels shall establish procedures for identifying survivors and conditions of succession to the next higher command level.

e. **Control and Reconstitution.** Each subordinate command's COOP shall identify the circumstances under which an alternate headquarters or emergency relocation site, once established, assumes or relinquishes control during the trans-attack period and then as part of reconstitution. It shall also stipulate the order of succession when two or more alternate headquarters or ERS are used, including the required verification procedures.

f. **Operations.**

   (1) Subordinate commands shall establish plans and standing operating procedures (SOP) for operation under condition ALFA. Instructions shall focus on survival, responsibilities during duty and non-duty hours, movement to constitution sites, identification of survivors, reestablishment of authorities, and reconstitution of headquarters.

   (2) Under condition BRAVO, commands shall proceed to assigned ERS's when directed by CDR USACE. All subordinate USACE commanders are also authorized to relocate personnel as deemed necessary under Defense Readiness Conditions (DEFCON) as designated in their approved COOP.

g. **Alternate Headquarters.** Subordinate commands shall designate an alternate headquarters. If relocation to an area outside of the high-risk area is not practical, use of existing hardened or semihardened facilities shall be authorized, subject to HQUSACE approval.

h. **Emergency Relocation Sites.** The ERS shall be capable of rapid activation. Alert cadre shall be in place within 24 hours of activation notice and full augmentation will be in place at the ERS within 48 hours. See Appendix B to CECOPS for criteria selection.
i. Family Members. While not encouraged to reside within the ERS, family members of essential personnel may be authorized to be located in protected facilities within the ERS or in the immediate vicinity of the ERS. It is the responsibility of each individual who has accepted an emergency assignment to make arrangements for the care of his/her dependents. It is in the interest of HQUSACE and subordinate commands to guide and assist members of emergency staffs in making satisfactory arrangements for the care of their families in an emergency. Relocates and their families members should have appropriate clothing, prescription drugs, and toilet articles in their possession to exist for a minimum of 30 days. Transportation may be furnished by USACE when possible, but personal transportation must be used if necessary. The extent of guidance and assistance provided for dependent care shall be at the discretion of individual commanders and shall be accomplished within available resources.

j. Alternate Headquarters Coordination. Division commanders are authorized to approve division/district alternate headquarters located within their own geographical civil works boundaries. If the alternate headquarters is identified outside division boundaries, coordination and agreement with the applicable division commander is required. In either case, division commanders shall coordinate with FEMA regarding ongoing Federal Regional Reconstitution Area (FRRA) planning and with other Federal agencies through the Regional Preparedness Committee regarding possible conflict in ERS siting. It is recommended that divisions assign a subordinate district as the division AH and that districts assign a parallel district within the division boundary as the district AH. (Additional classified guidance will be forwarded to FOA.)

k. COOP Coordination and Review Instructions.

(1) Division commanders are responsible for coordinating district COOPs. District COOP shall be reviewed annually, revised as necessary, and forwarded to the division commander each year.

(2) Divisions and separate FOA shall forward their COOP (or changes thereto) to CDR USACE (DAEN-CWO-E) WASH DC 20314-1000 for review and comment by 30 August each year.

l. Conflicting Guidance. Any conflicts between guidance contained herein and in other directives shall be reported to CDR USACE (DAEN-CWO-E) WASH DC 20314-1000. If instructions in this publication conflict with engineer regulations or with guidance previously issued by HQUSACE, provisions herein shall have precedence pending resolution of conflict.

1-9. Resources.

a. Allocation of resources will be in accordance with the Defense Materials System and the Defense Priorities System (DMS/DPS) as implemented by AR 715-5 (DOD Priorities and Allocations Manual). The primary goals of these systems are:
(1) To assure timely availability of necessary industrial resources to meet current national defense requirements.

(2) To provide a framework for rapid industrial mobilization in case of national emergency.

b. DMS is a specialized system which is currently limited to four controlled materials - copper, aluminum, steel, and nickel alloys.

c. DPS is a general priority system relating to products and materials. Priority ratings for approved programs are assigned to contracts or orders for products and materials needed by authorized government agencies. Contractors use ratings to acquire supplies, equipment, or materials from vendors.

FOR THE COMMANDER:

PAUL W. TAYLOR  
Colonel, Corps of Engineer  
Chief of Staff
A-1. GENERAL. Responsibility for providing sufficient public fallout shelter space rests with state and local governments. The Federal Emergency Management Agency provides overall guidance and supervises the National Shelter Program. It is the policy of USACE to design and construct Federal civil works structures to meet requirements of the National Shelter Program (AR 415-15). This includes making space available in USACE civil works structures where such access and use does not prevent or interfere with the operations of the facility.

A-2. CONCEPT OF OPERATIONS.
   a. Fallout shelter for on-site USACE personnel is limited to protection inherent in existing structures. The use of such structures may be enhanced by temporary sandbagging or earth cover. If it is determined that adequate fallout shelter is not available, relocation shall be planned. Local civil defense authorities are responsible for developing public shelter utilization plans within the community and they shall be made aware of USACE requirements.
   b. Commanders are authorized to allocate space for public fallout shelters at civil works facilities. Available shelter space for public use shall include consideration of USACE personnel, safety, health, effects on operations during the survival period, and physical security. If shelter space is available for public use, shelter plans shall be developed by local civil defense organizations.
   c. Commanders may provide storage space in designated shelters for public fallout shelter equipment and stocks. Marking of designated shelters may be permitted. USACE shall assume no responsibility or liability for the care, protection or maintenance of public shelter equipment or stocks, nor shall any civil works appropriations be expended on such equipment or stocks.
   d. That portion of project space and facilities specifically set aside as shelter for USACE personnel shall not be available as public fallout shelters. Programming, budgeting and funding for fallout shelter equipment and supplies for sole USACE use is authorized.
   e. Additional guidance and criteria for planning and equipping fallout shelters are contained in AR 500-3.

A-3. SHELTER MANAGERS.
   a. General.
   HQUSACE will forward additional guidance to all FOA.
ANNEX B
EMERGENCY RELOCATION SITES
PLANNING AND OPERATIONS GUIDELINES

B-1. SELECTION CRITERIA.

a. A major HQUSACE work group has formulated classified strategic guidance for the field for Emergency Relocation Site (ERS) planning (expect this to be published summer 85).

b. Selection of an ERS is the responsibility of each commander.

c. Establishment of an ERS is required whether or not a division, district, or FOA headquarters is located in a high-risk area designated by FEMA TR-82. This is so because of the uncertainty in predicting a nuclear strike and the need for USACE to be prepared to function under any laydown scenario. However, the TR-82 should be used as a guide in selecting the ERS.

d. If the placement of an ERS within a high-risk area is necessary or deemed appropriate by subordinate commanders, the specific location of the ERS shall be approved by the next higher command. If outside the divisions civil works boundaries, the location shall be coordinated with the appropriate division commander and other authorities having jurisdiction over the location and approved by DAEN-CWO-E.

e. The site shall be reasonably accessible by ground transportation by the emergency staff.

f. Government-owned facilities shall be used if possible.

g. When considering a non-USACE facility as an ERS, it is essential that extensive coordination be conducted with Real Estate and other elements to ensure availability of the facility for occupation during an emergency. The selection process should be carried out with the district real estate office that will write the real estate planning report that lists the alternative sites examined. Likewise, coordination with FEMA and state governments is necessary when USACE facilities are designated as ER's to prevent potential problems or conflicts with crisis relocation planning.

h. Facilities shall be capable of accommodating the emergency staff and expanding to meet estimated post-attack capability assessment activities and reporting requirements of JCS Pub. 6.

i. Conflicts or problems regarding selection of an ERS shall be submitted to CDR USACE (DAEN-CWO-E), WASH DC 20314-1000 for resolution prior to expenditure of significant resources.

Note: This annex incorporates considerable amounts of information and research developed and submitted by the Middle East Division (Winchester).
It is desirable that each subordinate command establish a separate ERS. However, relocation by two or more commands to the same ERS is authorized.

B-2. EMERGENCY RELOCATION SITE STANDARDS.

a. These standards apply to ERS facilities utilized by emergency staff. Standards for any billeting of dependents and non-emergency staff at other protected sites are left to the discretion of individual commanders, and are to be developed within existing funding levels (AR 500-3).

b. Minimum protection factor of 100. This PF number may be excessive for some geographic areas. A shelter with a protection factor of 100 means that a person inside the shelter would be exposed to a radiation dose rate of 1/100th of the exposure in the same location if unprotected. (Classified guidance available from HQUSACE is beyond the scope of this ER)

c. If the ERS must be located within a high-risk area, existing hardened or semihardened facilities shall be utilized.

d. Space. (Criteria are provided only for general guidance, local conditions may require adjustments)

(1) Office/Work stations - 50 square feet (sq ft) per person.
(2) EOC - 50 sq. ft. per person.
(3) Sleeping - 55 sq. ft. per person.
(4) Dining - 10 sq. ft. per 50% of assigned personnel.
(5) Relaxation - 10 sq. ft. per 20% of assigned personnel.
(6) Storage space as required.

e. Civil defense (CD) or equivalent medical kits shall be provided in all shelters. Divisions shall contact FEMA regions for information regarding procurement of CD kits. Drugs or other medical supplies subject to theft shall be protected in a secure location.

f. Sufficient food stocks to provide a minimum of 2500 calories per day per person shall be required for 30-day occupation.

g. Emergency source of water is essential. Potable water may be obtained from a well within or adjacent to the facility, covered or underground storage tanks, trapped water available in the building system, or water stored in drums. If storage tanks are used, they should be placed in the normal service line to assure a fresh supply and be equipped with shut-off valves at appropriate points. Sufficient water capacity to provide a minimum of 10 gallons per day per person for drinking and sanitary purposes, plus any other requirements for equipment or essential operations shall be required for a 30-day occupation.

B-2
h. Sanitation construction standards for water closets, lavatories, and showers should be provided per local building codes. Chemical toilets may be used where more practical.

i. Provision for emergency power shall be made. If emergency generators are used, sufficient fuel to last 30 days shall be provided.

j. Additional guidance for shelters is contained in AR 500-3.

k. Emergency relocation sites shall be maintained so as to be fully operable within two days following notice to relocate. Supplies shall either be in place or plans shall be developed to ensure prompt emergency stocking upon receipt of a relocation order.

l. Construction activity shall be limited to rehabilitation of existing structures. This shall include exterior work to increase security, decontamination capabilities and radiation protection, and interior alterations directly associated with essential facility functions, such as security, fire protection, personnel decontamination, stockage equipment storage areas and blocking in windows. Purchase of materials to be used for beneficial improvement to ERS interior space may be funded if such improvement shall be accomplished by ERS forces during the in-shelter period.

m. If location of an ERS within a high-risk area is considered, an analysis indicating that the structure can withstand the expected overpressure and dynamic pressure, or existing certification thereof, shall be submitted to the command approving the ERS. If location of an ERS within a high-risk area is approved, limited blast protection construction may be considered by the approving commander. All ERS modifications shall compete with other national emergency preparedness activities for available funds in the budget process. Therefore, all ERS modifications proposals shall be sufficiently justifiable in terms of survival and performance of essential functions.

n. Minimum essential communication requirements will be addressed in USACE EOC guidance (to be published).

B-3. GEOGRAPHIC CRITERIA:

a. Outside Target Area: By definition, an ERS is a site located outside a prime target area to which all or portions of a civilian or military headquarters may be moved. The ERS location must provide adequate protection from blast, heat, fire, and radiation. Although no area of the United States is safe from fallout, prevailing winds and target locations provide areas with a higher probability of reduced radiological hazard in the event of a nuclear attack. In that the danger zone for heat and fire are smaller than the danger zone for blast over-pressures, the effects of nuclear blast over-pressures are used as the primary consideration to identify safe distances from targets. The hazard zone, of course, depends upon the size of the explosion. For planning purposes, a location which limits the maximum over-pressure to 1.0 p.s.i. was used. For a 1 MT surface burst, the less than 1.0 p.s.i. over-pressure zone starts at approximately 7.0 miles from point of impact. For a 5 MT surface burst the distance is approximately 13 miles and for a 25 MT...
surface burst the distance is approximately 22 miles. The High Risk Areas identified in FEMA TR-82 were made on a worst case basis (large bursts in the general area of targets). TR-82 has not been updated to reflect potential new targets and the trend to deploy more accurate delivery systems with smaller yield weapons. Knowledge of local conditions (i.e., identification of potential targets) and the limits over-pressure zones defined above should be used in conjunction with TR-82 to establish the geographic areas which are outside of potential target areas. In general, a site that is 22 miles or greater from a potential target will be safe as far as blast over-pressure is concerned.

b. Fire Hazard: The hazard of primary fire ignition, as stated above, diminishes more rapidly than does the over-pressure hazard. At safe over-pressure distances there is only a slight danger of primary fire ignition. However, it is possible for fire to spread via conflagration from the primary ignition zone through areas of dense frame construction or wooded areas. This hazard shall be avoided through proper site selection for the location of the ERS.

B-4. DESIGN FEATURES WHICH ENHANCE RADIATION PROTECTION FACTORS:

a. Does the facility obtain benefit from mutual shielding from adjacent buildings? (In other words do adjacent structures limit the exposure of the facility to fallout exposure?)

b. Does the site slope down away from the facility and thus reduce the direct wall exposure to fallout?

c. Does the facility have earth berms or planter boxes against the wall which will increase the protection factor for the walls?

d. Does the facility include screen walls, retaining walls, or planter boxes (three feet minimum height) which will limit the shelter wall exposure?

e. Is the proposed shelter area in the basement of the facility?

f. Is the proposed shelter area at least partially depressed below ground level?

g. Are there a minimum number of openings in the wall (windows, etc.)?

h. Has roof resistance been maximized by not using any skylights?

i. Are interior corridors located so that they provide additional protection rather than serving as a conduit from the outside to the shelter area?

j. Are stairwells positioned to provide additional barrier shielding?

k. Does the facility used dense (concrete) walls on the exterior?

l. Are interior walls of dense construction?
m. If hollow block wall construction was used, have the voids been filled with sand, gravel, or grout?

n. Are interior walls located to block entry of radiation into the shelter area?

o. Are openings in partitions and exterior walls staggered so as to avoid direct penetration of radiation to the shelter area?

p. Are doorways provided with a stub-wall baffle to reduce radiation penetration?

q. Is the shelter area protected by more massive wall and ceiling construction than normal?

r. Does the roof structure provide enhanced protection?

s. Does the method of ventilation to the shelter contribute to its protection factor? (Fallout does not remain airborne for an extended period. A ventilation system can compromise protection if it provides an unprotected path to the outside. This can be often eliminated by the use of baffles in the system.)

t. Are materials readily at hand (or can they be stored nearby) to enhance the protection of the facility, or can temporary modifications be accomplished rapidly? Such items might include:

(1) Deep plowing the adjacent site to reduce field radiation to the shelter.

(2) Bulldozing berms to enhance shielding.

(3) Spreading of earth on the roof structure.

(4) Placement of sandbags in wall openings or to create screen walls.

**B-5. PROTECTION FACTOR RANGES FOR VARIOUS STRUCTURES:**

<table>
<thead>
<tr>
<th>TYPE OF STRUCTURE</th>
<th>PROTECTION FACTOR RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground shelters (3 ft earth cover or equivalent). Subbasements of multi-story buildings.*</td>
<td>1,000 or greater</td>
</tr>
<tr>
<td>Basement fallout shelters (heavy masonry residences). Basements without exposed walls of multi-story masonry buildings.</td>
<td>250 to 1,000</td>
</tr>
</tbody>
</table>

* Multi-story buildings are those having from 3 to about 10 stories.
** High-rise buildings have more than 10 stories.
B-6. OPERATIONS. Continuity of operations activities at the ERS consist of radiological monitoring, assessment of capabilities, and reestablishing operations. Commands at all levels shall provide assessment reports to higher headquarters by the fastest communications mode. See Annex P to this publication.

B-7. RADIOLOGICAL DEFENSE PROGRAM.

a. Scope. A Radiological Defense (RADEF) Program is essential to minimize effects of radiation hazards in the event of a nuclear attack and to facilitate recovery efforts. RADEF provides:

(1) Shelter monitoring to assess and evaluate protection of occupants against radiation.

(2) Radiological monitoring for self-protection of personnel engaged in emergency services functions, operation of primary facilities, and in recovery operations.

(3) Recovery techniques including decontamination and related countermeasures.

b. Responsibilities. There are three types of RADPS personnel: radiological officer (RO), radiological response team member (RRT), and radiological monitor (RM). The RO organizes and manages the facility RADPS, develops response plans coordinating the facilities EOC and RRT activities, and advises the facility commander on matters pertaining to radiological protection and safety. The RRT completely assesses the situation and makes
interim protective actions while keeping the EOC informed of actions taken. The RM identifies the hazard and takes immediate initial protective action while keeping the RRT informed of actions taken. Divisions, districts, and FOA shall train at least two RDs, four RRTs, and a minimum of 10 percent Rms for each ERs and primary facility analyzing radiation hazards and recommending appropriate measures for reducing radiation exposures. Divisions, districts, and FOA shall train at least two RDOs for each ERs and primary facility. A minimum of 10 percent RMs are required of the total number of USACE personnel at the ERS or primary facility.

c. Training. As soon as possible after an attack, the radiation environment must be assessed and the actual hazard evaluated. This can be done only with radiation monitoring instruments used by people who know how they operate and how to analyze the readings. FEMA has developed a comprehensive RDO and RM training program available at local, state, and regional or national levels, depending upon the type of training needed. A listing of available RADPS training is to be published under separate cover by DAEN-CWO-E. The Safety and Occupational Health Division (DAEN-ECS) shall review all questions or problems associated with applying FEMA training to USACE operations.

d. Equipment. Radiological monitoring equipment is federally procured and is maintained at state maintenance and calibration centers. USACE equipment requirements can be satisfied by the appropriate state radiological defense officer. Recommended RADPS instruments to be used are:

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>NOMENCLATURE</th>
<th>NOMENCLATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Survey Meter</td>
<td>CD V-715, (0-500 r/hr)</td>
</tr>
<tr>
<td>2</td>
<td>Survey Meter</td>
<td>CD V-700, (0-150 mr/hr)</td>
</tr>
<tr>
<td>1</td>
<td>Dosimeter Charger</td>
<td>CD V-750</td>
</tr>
<tr>
<td>3</td>
<td>Remote Survey Meter</td>
<td>CDV-717, (0-500 r/hr)</td>
</tr>
<tr>
<td>one per person</td>
<td>Dosimeter</td>
<td>CD-V-742</td>
</tr>
</tbody>
</table>

e. Readiness. The entire RADPS system shall be exercised annually to evaluate operational procedures, maintain technical competency, and determine need for additional equipment and training for both shelter and recovery operations. The results of these exercises shall be reported to the next higher authority.

B-8. REFERENCES.

a. North Central Division Pilot ERS Protection and Consolidated Review Comments from OCE.

c. ER-500-1, Emergency Operations Center, to be published.


g. FEMA TR-20 (Vol 1), Shelter Design and Analysis, June 1976.

h. FEMA TR-20 (Vol 2), Shelter Design and Analysis, February 1976.

i. FEMA TR-30, Protective Construction, August 1981.

NOTE -- In considering the 1985 Energy and Water Resources Development Appropriations Act, Congress deleted language that read: "Funds appropriated to the Corps of Engineers -- Civil, Operation and Maintenance, General account may be used to acquire and develop emergency relocation sites for the various offices of the Corps of Engineers." The conference committee directed the Corps to "prepare a detailed plan outlining the purpose, number, and costs of emergency relocation sites proposed in connection with its National Emergency Preparedness Program." That plan is now being prepared at HQUSACE and will be submitted to Congress shortly.

Pending Congress' response and future guidance from HQUSACE, expenditures for permanent emergency relocation sites shall be limited to those necessary for operating and maintaining existing sites. Acquisition (i.e., purchase or lease) of new sites and development (i.e., significant improvement) of all sites must await Congressional approval.
DIVISION LIAISON ASSIGNMENTS

C-1. COORDINATION. Division commanders, having jurisdiction within the same CONUSA area, Federal region or state listed below, shall closely coordinate COOP planning and execution activities. The initial points of contact designated are responsible to ensure that concerns and input from other USACE offices having common geographic jurisdiction are addressed or reflected in coordination with outside agencies. Conversely, all USACE offices within any given geographic area have a responsibility to provide their concerns and input to the designated USACE liaison in a timely and comprehensive manner in order that a unified USACE position can be presented by the designated office.

C-2. DIVISIONS LIAISON ASSIGNMENTS.

<table>
<thead>
<tr>
<th>FEMA REGIONS*</th>
<th>Activity</th>
<th>Division</th>
<th>Activity</th>
<th>STATES</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEMA Region 1</td>
<td>New England</td>
<td>Alabama</td>
<td>South Atlantic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 2</td>
<td>North Atlantic</td>
<td>Alaska</td>
<td>North Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 3</td>
<td>North Atlantic</td>
<td>Arizona</td>
<td>South Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 4</td>
<td>South Atlantic</td>
<td>Arkansas</td>
<td>Southwestern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 5</td>
<td>North Central</td>
<td>California</td>
<td>South Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 6</td>
<td>Southwestern</td>
<td>Colorado</td>
<td>Missouri River</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 7</td>
<td>Missouri River</td>
<td>Connecticut</td>
<td>New England</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 8</td>
<td>Missouri River</td>
<td>Delaware</td>
<td>North Atlantic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 9</td>
<td>South Pacific</td>
<td>Florida</td>
<td>South Atlantic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMA Region 10</td>
<td>North Pacific</td>
<td>Georgia</td>
<td>South Atlantic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hawaii</td>
<td>Pacific Ocean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Idaho</td>
<td>North Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Illinois</td>
<td>North Central</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indiana</td>
<td>Ohio River</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. ARMY</td>
<td>First U.S. Army</td>
<td>North Atlantic</td>
<td>Iowa</td>
<td>North Central</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second U.S. Army</td>
<td>South Atlantic</td>
<td>Kansas</td>
<td>Missouri River</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third U.S. Army</td>
<td>South Atlantic</td>
<td>Kentucky</td>
<td>Ohio River</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fourth U.S. Army</td>
<td>North Central</td>
<td>Louisiana</td>
<td>Lower Mississippi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fifth U.S. Army</td>
<td>Southwestern</td>
<td>Maine</td>
<td>New England</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sixth U.S. Army</td>
<td>South Pacific</td>
<td>Maryland</td>
<td>North Atlantic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FORSCOM</td>
<td>South Atlantic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRADOC</td>
<td>North Atlantic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MTMC</td>
<td>WRSC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* All interagency activities shall continue in the traditional relationship where each Corps of Engineers Civil Works Division coordinates activities.
within its designated boundaries with the appropriate FEMA regions(s). The identification of division liaison assignment will facilitate FEMA-USACE interface regarding unprecedented issue.

**STATES (continued)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mississippi</td>
<td>Lower Miss. Valley</td>
</tr>
<tr>
<td>Missouri</td>
<td>Missouri River</td>
</tr>
<tr>
<td>Montana</td>
<td>Missouri River</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Missouri River</td>
</tr>
<tr>
<td>Nevada</td>
<td>South Pacific</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>New England</td>
</tr>
<tr>
<td>New Jersey</td>
<td>North Atlantic</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Southwestern</td>
</tr>
<tr>
<td>New York</td>
<td>North Pacific</td>
</tr>
<tr>
<td>North Carolina</td>
<td>South Atlantic</td>
</tr>
<tr>
<td>North Dakota</td>
<td>Missouri River</td>
</tr>
<tr>
<td>Ohio</td>
<td>Ohio River</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Southwestern</td>
</tr>
<tr>
<td>Oregon</td>
<td>North Pacific</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>North Atlantic</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>New England</td>
</tr>
<tr>
<td>South Carolina</td>
<td>South Atlantic</td>
</tr>
<tr>
<td>South Dakota</td>
<td>Missouri River</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Ohio River</td>
</tr>
<tr>
<td>Texas</td>
<td>Southwestern</td>
</tr>
<tr>
<td>Utah</td>
<td>South Pacific</td>
</tr>
<tr>
<td>Vermont</td>
<td>New England</td>
</tr>
<tr>
<td>Virginia</td>
<td>North Atlantic</td>
</tr>
<tr>
<td>Washington</td>
<td>North Pacific</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Ohio River</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>North Central</td>
</tr>
<tr>
<td>Wyoming</td>
<td>Missouri River</td>
</tr>
</tbody>
</table>
ANNEX D

ESSENTIAL GENERAL WAR FUNCTION
STATEMENT
(DA FORM 4541)

D-1. ESSENTIAL GENERAL WAR FUNCTION.

General. The DA Form 4541 is to be used as a tool to identify essential General War Functions during a national emergency. However, this control method must not lead USACE personnel to a conclusion that additional missions will not surface during a COOP scenario. In essence, FOA should continually review these documents which are eligible for revision (pen and ink) at any time.
E-1. REFERENCES:
   b. JCS Pub 6, Vol II, Part 2, Chapter 1, Unit Status and Identity Report.
   c. JFW PUB 6, Vol II, Part 9, Appendix A, Joint Resource Assessment Data Base Record Format and Data Field Codes.
   e. JCS Pub 6, Col II Part 9, Chapter 1, Joint Resource Assessment Data Base Report.
   f. CSR Reg 200 500-2, Army Staff Functions and Responsibilities for Residual Capability Assessment.
   g. CSM UM 251-80, CCTC Residual Capability Assessment System.
   h. Plan 84-1, Corps of Engineers Continuity of Operations Plan (CECOOP).
   i. Chief of Engineers Joint Resource Assessment Data Base.

E-2. GENERAL. Residual Capabilities Assessment System (RECAS) is the system established by the Joint Chiefs of Staff and is a designated essential function following a nuclear attack on CONUS. Facilities, projects, and relative information pertaining to those locations are listed in the Corps of Engineers (COE) Data Base (a secret document). Further classified RECA information can be found in the Corps of Engineers Continuity of Operations Plan (CECOOP).

E-3. COE DATA BASE.
   a. General. The Corps of Engineers Data Base is a secret document that contains a list of selected Corps-owned or operated facilities and installations. Information needed in the data base is gathered at division and district levels; however, due to a USACE-wide shortage in card-type automated systems, the information is forwarded from the divisions to HQUSACE for manual transfer to the central data storage facility. A major COE data base update is in process. A correct and up-to-date data base will greatly enhance the Corps' ability to respond to a national emergency utilizing RECAS.
   b. Facilities Listed in COE Data Base. References 1c and 1d outline the minimum information each FOA must gather on facilities or projects that are to be included in the Corps' Data Base. However, in all cases, FOA that are
updating the data base will include only those installations or facilities that are capable of producing a significant effort in or impact on the war fighting/recovery capability of the United States. Decision to include or not to include a facility will be made at FOA level. HQUSACE will continue to provide one-to-one guidance to any FOA as requested. FOA should submit all corrections or changes to the COE Joint Resource Assessment Data Base to CDRUSACE, ATTN: DAEN-CWO-EM NLT 15 June yearly.

E-4. RESPONSIBILITIES.

a. U. S. Army Corps of Engineers (MACOM).

(1) Ensure subordinate organizations have established pre-attack responsibilities and procedures for submitting and upgrading data and in providing Joint Resource Assessment Data Base Report (JADREP) following an attack.

(2) Establish and document USACE procedures for obtaining information on identified assessment categories, to include modifications to automated reporting requirements. Within USACE, automated reporting by FOA is not considered feasible following a nuclear attack on CONUS. HQUSACE may use automated procedures, when possible, to submit consolidated data to the Army Residual Capabilities Assessment Team (ARECAT).

(3) Provide engineer specific data to the ARECAT and other information as requested.

(4) Establish RECA element within the HQUSACE Emergency Operations Center (EOC).

b. Field Operating Activities.

(1) Establish pre-attack and post-attack responsibilities and procedures for submitting and upgrading required reports. See CECOOP Annex C for required reports.

(2) Establish residual capabilities assessment element to compile post-attack capabilities and respond to requests for information.

(3) Establish procedures for assessing Corps of Engineers facilities and capabilities not listed in the JAD Base.

(4) Be prepared to provide information on other categories listed in Appendix 1 to this Annex.

E-5. PROCEDURES. Field operating activities. See Annex C to CECOOP.
ANNEX F
SECURITY AND LAW ENFORCEMENT

F-1. Coordination. Commanders shall ensure physical security plans are developed for all primary facilities and coordinated with appropriate local, state, Federal, and military authorization. Security and law enforcement offices shall review copies of the appropriate Continental United States Army (CONUSA) land and air defense plans.

F-2. Planning. Continuity of operations requires proper planning of physical security. Security personnel at every level shall coordinate with staff elements to ensure security measures are included as a part of the overall planning process. Continuity of operations planning requires security personnel to coordinate requirements for protection of primary facilities with appropriate civil and military authorities. At all times, security personnel shall ensure compliance with the provisions of AR 530-1.

F-3. Classification Guidance.
   a. Unclassified Information.
      (1) Instructions regarding alert procedures, transportation, general duties, financial arrangements, and other similar matters that must be known by involved personnel.
      (2) General information pertaining to the overall continuity of operations program, such as the fact that USACE has alternate plans and facilities, and that periodic tests will be conducted.
      (3) Information pertaining to executive direction, such as designation of successors in command and delegation of authority. (Note: Alternate Headquarters designations within USACE will be classified confidential.)
   b. Classified Information.
      (1) Location of duplicate emergency files, an Alternate Headquarters (AH), or Emergency Relocation Site (ERS).
      (2) Planning assumptions regarding nature of threat and weapons effects, except those unclassified assumptions developed by JCS for crisis relocation planning.
      (3) Security measures to be used for protection of personnel in transit to and during occupation of ERS.
      (4) Special communication preparations.
      (5) Overall personnel strength and composition within an AH or ERS.
      (6) Details regarding operations of the EOC, AH, or ERS.
(7) Resource management reports which relate nature of expenditures, payroll, size of work force strategic locations, key facility operations, manpower shortages, or finance/accounting or budget activities likely to be of value to a hostile force.

c. **Review.** Completed draft and final FOA COOPs will be reviewed by security and law enforcement officers for compliance with classification standards.
ANNEX G

ADVANCE CADRE

G-1. Purpose. This annex will be used by FOA to develop expedient plans to activate the Emergency Relocation Sites (ERS) under a Bravo scenario.

G-2. General. The number of personnel required to be assigned as an advance cadre is solely dependent upon the missions of that cadre upon arrival at the ERS. Missions of the advance cadre will be, but not limited to, the following:

1. Maintain constant state of readiness and be prepared to depart domicile or FOA (during duty hours) within six (6) hours of notification to activate ERS.

2. Secure the ERS.

3. Prepare the ERS for full augmentation.

4. Establish communications with parent unit, Alternate Headquarters (AH), and higher/lower ERS (if activated).

5. Ensure ERS is stocked with appropriate quality and quantity of administrative and survival stocks.

6. Accomplish all additional missions established in FOA COOP.
ANNEX P

REPORTS

P-1. Joint Resource Assessment Data Base Reporting (JADREP) system - See Annex C to the Corps of Engineers Continuity of Operations Plan (CECOOP).

P-2. Situation Report (SITREP) - The need for specific information during a COOP scenario requires a unique situation report. Situation Reports should reach HQUSACE or its acting Headquarters from FOA twice daily (2300hrZ and 1300hrZ).

Line 1. FOA name/Situation Report No. ________.

*Line 2. Weather (conditions adversely affecting operations).

*Line 3. Theft, Loss, Sabotage (non nuclear), contact by enemy.

Line 4. Reporting Period (As of date time group (DTG) or from when to when DTG).

*Line 5. Ongoing Projects.

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>% Complete</th>
<th>Expected Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Road Repair</td>
<td>Melrose, Mass.</td>
<td>65</td>
<td>14 Nov 82</td>
</tr>
<tr>
<td>b.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


*Line 7. Number of personnel reported in to FOA.

*Line 8. Number of FOA work force known or suspected dead.


   ALPHA - (Operational, FOA structure is stable, chain of command functioning, commo functioning, adequate personnel to maintain essential functions).

   Bravo - (Semi-Operational, structure intact, chain of command functioning, commo damaged but operational, minor personnel losses).

   Charlie - (Not functioning, structure damaged, chain of command functioning, commo severely damaged but operational, major personnel losses).

   Delta - (Not functioning and not operational, FOA has catastrophic damage, alternate headquarters activated).
Echo (Other category)

*Line 10. Condition of Communications equipment.

- Telephones
- Radios
- Autodin

Alpha - 100% functioning.
Bravo - Minimum damage, can reach most subordinate and higher headquarters elements.
Charlie - Minimum communications capabilities, must use relay to reach higher and lower units.
Delta - (0% operational).

*Line 11. Number of Contractors contacted by FOA.


- Alpha: 100% operational
- Bravo: Minor damage, operational
- Charlie: Major damage, not operational within 96 hrs
- Delta: Major damage, totally destroyed

Line 13. Commo still exists with FEMA and CONUSA.

Line 14. Spare
Line 15. Spare
Line 16. Spare

* These lines need to be reported only as change occur.

Notes. 1. Encode as necessary for security purposes if non-secure communications means are used.
2. Transmit and encode only the cryptic letters in lines 9, 10 and 12.
ANNEX Q
TRAINING

Q-1. Purpose. Through training, to orient USACE personnel to accomplish all phases of continuity of operations and government. Tasks that will need to be accomplished range from basic survival to specific engineer-oriented missions.

Q-2. Concept of Operation.

a. Commanders will ensure that all personnel designated as Bravo Relocatees are familiarized (yearly) with the following information, at a minimum:

   (1) Published Bravo Relocatee Roster.
   (2) Location of Emergency Relocation Site (ERS).
   (3) Best route to ERS.
   (4) When to go to ERS.
   (5) What to bring to ERS.
   (6) Individual responsibilities at ERS.
   (7) Group responsibilities at ERS.

b. Training for a national level emergency must encompass all facets of survival. At a minimum, teams should be predesignated and trained in the following areas:

   (1) Basic Red Cross emergency procedures.
   (2) Sanitation.
   (3) Radiological and chemical detection.
   (4) Radiological and chemical decontamination.
   (5) Food preparation.
   (6) Communications.
   (7) Specific mission-related teams (i.e., RECA teams)

c. HQUSACE has recently completed a professional development program for emergency management personnel. Corps-wide deficiencies in select areas of the COOP scenario were identified. The following areas have tentatively been identified by HQUSACE for the development of training materials by Huntsville Division. Projected completion is CY 87.
(1) Introduction to Continuity of Operations and Emergency Relocations Sites.

(2) Residual Capability Assessment System (RECAS).

(3) Updating a Joint Resource Assessment Data Base.

(4) CONTRAST Courses and their applicability.

d. Any additional training suggestions should be forwarded to CDR HQUSACE ATTN: DAEN-CWO-EM and DAEN-PE.
Electromagnetic Pulse (EMP) Protection: EMP is comparable to lightning, but its distributed effect is many times more intense; its area of influence is significantly larger, and its rise time to peak voltage is much shorter. One critical problem resulting from EMP is failure of electronics systems caused by burnout, uncoupling, or other malfunction of electrical networks and components. While some electrical components are more sensitive to EMP than others, the potential current is large enough to cause damage to most unprotected electronic systems. The most economical means of providing EMP protection at an ERS is to place a metallic (lead base) enclosure around the areas containing the equipment to be protected. Other considerations include suitable EMP grounding, shunting devices across wiring penetrating an enclosure, wave guides for dissipating electrical openings, shortening cables to antennas or other metallic conductors of electrical energy, and disconnecting the power source.
ANNEX S
MILITARY SUPPORT TO CIVIL DEFENSE (MSCD)

a. Following an attack on CONUS, significant military effort will be required to support civil defense. DOD is responsible for this mission.

b. MSCD will be executed through the Commander-in-Chief, US Army Readiness Command (CINCARRED). The chain-of-command extends from CINCARRED through the appropriate CONUSAs to the State Area Commands (STARC). Efforts of the STARC will be coordinated with those of FEMA regional coordinators. Decisions concerning priorities for provision of assistance will be made by the Regional Preparedness Committee, FEMA and the STARC.

c. Commanders will ensure that support to civil defense does not detract from the performance of assigned USACE military support missions or execution of essential functions following declaration of MSCD by the Joint Chiefs of Staff. Except for immediate life saving situations, USACE support to civil defense will be authorized only through the CONUSA or the STARC.

d. For pre-attack planning purposes, USACE divisions are assigned specific responsibilities for coordination with FEMA regions, CONUSA, and state adjutants general to identify post-attack construction requirements, and for planning post-attack management of construction resources. Division commanders are designated engineer advisors to CONUSA commanders located within civil works boundaries and will provide required engineer assistance to DOD representatives on the Regional Preparedness Committees. Appendix C provides a listing of the initial division points of contact for coordination with CONUSA, FEMA, and state adjutants general.

e. MSCD tasks for which the Corps of Engineers may use its construction, engineering, and administrative capabilities to provide engineering support are outlined in Table 2-5 of AR 500-70.

f. The Federal Emergency Management Agency (FEMA) and DOD are developing the Military Emergency Response Plan (MERP), this plan should greatly enhance the planning process for the Corps’ support of MSCD and Military Assistance to Civilian Authorities (MACA).
ANNEX T

EMERGENCY WATER PLANNING GUIDELINES

T-1. PURPOSE. To provide guidance for executing water and water resource preparedness activities.

T-2. GENERAL.

a. In accordance with Executive Order 11490, ASA(CW) as amended, the Secretary of Defense, acting through the Secretary of the Army (ASA(CW)), is responsible to develop and be prepared to execute overall plans for the management, control allocation, and use of the water and water resources of the nation upon lawful declaration of a national emergency. The Chief of Engineers has been delegated the authority to execute these responsibilities. These are civil functions to be executed by the Directorate of Civil Works.

b. The emergency water preparedness program will meet defense and essential civilian needs during national security and major domestic emergencies. The Corps role in this new mission will be clarified as it is further defined.

T-3. FEDERAL REGIONAL CENTERS (FRC).

a. The federal Regional Centers mission during a trans-attack and immediate post-attack period of a nuclear war is to preserve the continuity of the non-military elements of the executive branch of the Federal Government, so as to ensure the regional level performance of essential functions. The FRC will function based upon preplanning accomplished for FEMA's Regional Office of Emergency Resources concept and by the Regional Preparedness Committee (RPC).

b. Assigned divisions will develop plans to administer the emergency water planning mission for integration into FRC operating procedures using the division/FEMA assignments established in Annex C to this regulation. The plan should address USACE emergency water functions, staffing requirements, cadres, essential records, ADP equipment requirements, communications, reporting, interface with FEMA regional office responsible for Emergency Resources and other participating Federal agencies.

T-4. ALTERNATE HEADQUARTERS (AH). In view of this newly assigned mission, all USACE AH staffs must become aware of the program's scope as well as implementation plans as they are developed.

T-5. SCOPE OF WORK.

a. USACE efforts will involve extensive coordination with other Federal, state, and local agencies. Regional Coordination Groups will be established to facilitate interagency responses in an emergency situation. Water and water resource requirements will be received from other Federal agencies,
states, private industry, and local government as well as DOD activities. Guidance and assistance are being developed and will be provided as necessary to execute the priorities and allocations system for managing water and its support requirements as a resource.

b. Additional HQUSACE guidance concerning reference materials, plan format, development schedule, and submission to HQUSACE is provided in DAEN-CWO-W Instructions for Developing Emergency Water Planning Program.
REFERENCES


2. Joint Chiefs of Staff (JCS) Publication No. 6 (Joint Reporting Structure (JRS) General Instructions (complete set)).


5. USACE Emergency Action Procedures (CEEAP) (U).


8. HQUSACE Mobilization Plan (CEMP).


11. AR 190-13 (The Army Physical Security Program).

12. AR 190-51 (Security of Army Property at Unit and Installation Level).

13. AR 335-15 (Management Information Control System).

14. AR 340-26 (Duplicate Emergency Files Program).

15. AR 380-5 (Department of the Army Information Security Program).


17. AR 500-3 (Army Survival Measures) (U).

18. AR 500-70 (Military Support to Civil Defense).

19. AR 530-1 (Operations Security (OPSEC)).


22. AR 570-4 (Manpower Management).
ANNEX V
DEFINITIONS AND COMMON TERMS

1. **Alternate Headquarters (AH)**. An existing headquarters of a subordinate command that is predesignated to assume the authorities, responsibilities, and functions of the designating headquarters under prescribed emergency conditions.

2. **Bravo Roster**. A list of those personnel designated by USACE FOA to relocate to the ERS under a Bravo condition.

3. **Condition ALFA**. The USACE posture resulting from a surprise nuclear attack on the CONUS which may destroy the entire or portion of the seat of government and the key personnel of HQUSACE. Planning for this condition is based on employment of an alternate command element and/or predesignated AH to provide continuity of operations.

4. **Condition BRAVO**. The USACE posture resulting from either actual or suspected nuclear attack on CONUS or allied countries which was preceded by sufficient warning to permit selected USACE personnel to relocate prior to the attack. Continuity planning for this condition is based on the concept of selected personnel moving to and operation from predesignated ERS's.

5. **Continuity of Government (COG) (Support to the Nation)**. Actions taken to assure that essential functions of the government are continued during an enemy attack upon CONUS.

6. **Continuity of Operations (COOP) (Support to DA, DOD and other Federal agencies)**. Actions taken to assure that essential military missions are continued during an enemy attack upon CONUS or the national defense strategy. The Continuity of Operations Plan for the Headquarters, Corps of Engineers is contained in the Corps of Engineers Continuity of Operations Plan (CECOOP), a confidential document.

7. **Continuity of Operations Phases**.
   
   a. **Pre-attack**: That phase that includes all planning and testing of existing facilities, plans and Emergency Action Procedures.

   b. **Trans-attack period**: From initial attack until civil defense personnel determine that radiation levels permit leaving shelters. Essential functions during this period would include at a minimum all FOA generated Essential War Functions (outlined in Annex D to this publication) and any additional requirements generated by HQUSACE or AH.
c. Post-attack period.

   (1) Immediate phase. Emphasis on recovery, would include:

      (a) Continuing survival activities and military operations.

      (b) Mobilizing military and civilian resources.

      (c) Restoring essential communications and transportation.

      (d) Increasing procurement and production of essential items.

   (2) Long-term phase. Activities related to rehabilitation, rejuvenation and restructuring from remaining resources.

8. Dependents. Members of the immediate family who are residents in the households of USACE essential personnel at the time of relocation.

9. Designated Successor to Authority. An individual, who by virtue of the position held, is designated by law or executive order to succeed to the position of and act as a particular statutory official in the event of the death, disability, or absence of that official. Such succession to office is on a temporary or interim basis and does not vacate the statutory position currently held by the incumbent.

10. Duplicate Emergency Files. These essential directives, instructions, programs, plans, standing operating procedures, operation and maintenance manuals, and other documents (including microfilm and computer software) as specified on DA Form 4541 (essential General War Function Statement) which are required to perform essential functions. The emergency files are maintained at the AH and at the ERS.

11. Emergency Operations Officer (EOC). A facility accommodating essential life support facilities, administrative equipment, communications capabilities, and personnel essential to the commander for planning, directing and controlling emergency operations of assigned missions.

12. Emergency Relocation Site (ERS). A site located outside of a prime target area to which all portions of a civilian or military headquarters is moved to help assure COOP and COG. The site may be held inactive or on a stand-by basis, or may be staffed to provide for the maintenance of the facility, communications and data base. It should be capable of rapid activation, supporting the requirements of the relocated headquarters for a predetermined period, and expanding to meet wartime requirements of the relocated headquarters.

13. Essential Functions. USACE functions that are considered necessary, in consonance with the direction of the Department of the Army, for the accomplishment of indispensable operations of USACE in national emergency situations.
14. **Essential Personnel.** Those USACE personnel, identified by each commander, who are required for ERS operations.

15. **High-Risk Area.** The Federal Emergency Management Agency (FEMA) has analyzed the potential targets during a nuclear attack and has defined high-risk areas as those considered relatively more likely to experience direct weapons effect (blast, heat and immediate nuclear radiation). (FEMA Pub. TR-82.)

16. **Key Facilities.** Those facilities, public and private, that DOD indicates are crucial to the national security and defense of the United States.

17. **Military Support of Civil Defense (MSCD).** MSCD is the emergency activity taken by DOD components when directed by the Secretary of Defense to help the civilian population overcome an enemy attack on CONUS, its territories and possessions.

18. **National Emergency.** A condition, declared by the President pursuant to 50 U.S.C. 1601 et seq. or by the Congress, which authorizes certain emergency actions to be undertaken in the national interest. Actions to be taken may include partial or full mobilization of national resources. The term is all encompassing unless further defined as:

   a. **Defense Emergency.** An emergency relating to the military security of the United States. A war involving the United States is a defense emergency whether or not proclaimed.

   b. **Civil Emergency.** An emergency relating to other than the military security of the United States.

19. **Primary Facilities:** USACE facilities defined as primary facilities for security emphasis are:

   a. Hydroelectric/hydropower projects in operation or under construction.

   b. Navigation locks and dams on major transportation arteries in operation or under construction, such as those on the Mississippi, Ohio, St. Mary's, Missouri, Illinois, Snake, and Columbia Rivers.

   c. Projects considered to be mission essential/critical by the division commander.

      (1) Criteria for selection as mission essential/critical should include:

      a) Projects where loss or damage would cause significant delay or reduction in the national defense effort during emergencies or mobilization.

      b) Projects where loss or damage would produce conditions tantamount to local disasters, such as industrial shutdown, water supply disruption, flooding, and interruption of commercial transportation.
(2) Types of projects should include:

(a) Reservoirs.
(b) Canals.
(c) Flood control structures.
(d) Pumped storage facilities.
(e) Hurricane barriers.
(f) Inland waterways.
(g) Harbors and Ports.

20. Reconstruction. Actions taken under the surviving command authority to reestablish a damaged or destroyed headquarters staffed by survivors of the attack.

21. Reconstruction Site. A location selected by the surviving command authority as the site at which a damaged or destroyed headquarters can be reformed from survivors of the attack and/or personnel from other sources, predesignated as replacements.

22. Regional Preparedness Committee (RPC). The primary regional organization to assist FEMA Regional Directors with implementing national preparedness policy at the regional level. It serves as the regional counterpart to the Interagency Emergency Coordinating Group (IECG) which has been established at the national level to perform coordinating functions and provide assistance to the Director, FEMA, on national emergency preparedness matters.

23. Succession of Command. A process whereby a subordinate commander substitutes for and assumes the authority, duties, and functions of a disabled/missing senior commander.
## ANNEX Z
### DISTRIBUTION

Z-1. U.S. Army Corps of Engineers Divisions and Districts.

<table>
<thead>
<tr>
<th>Division</th>
<th>No. of copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Army Engineer Division, Europe</td>
<td>25</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, Huntsville</td>
<td>25</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, Lower Mississippi Valley</td>
<td>25</td>
</tr>
<tr>
<td>Memphis District</td>
<td>10</td>
</tr>
<tr>
<td>New Orleans District</td>
<td>10</td>
</tr>
<tr>
<td>St. Louis District</td>
<td>10</td>
</tr>
<tr>
<td>Vicksburg District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, Middle East (Winchester)</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, Missouri River</td>
<td>25</td>
</tr>
<tr>
<td>Kansas City District</td>
<td>10</td>
</tr>
<tr>
<td>Omaha District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, New England</td>
<td>25</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, North Atlantic</td>
<td>25</td>
</tr>
<tr>
<td>Baltimore District</td>
<td>10</td>
</tr>
<tr>
<td>New York District</td>
<td>10</td>
</tr>
<tr>
<td>Norfolk District</td>
<td>10</td>
</tr>
<tr>
<td>Philadelphia District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, North Central</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>No. of copies</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Buffalo District</td>
<td>10</td>
</tr>
<tr>
<td>Chicago District</td>
<td>10</td>
</tr>
<tr>
<td>Detroit District</td>
<td>10</td>
</tr>
<tr>
<td>Rock Island District</td>
<td>10</td>
</tr>
<tr>
<td>St. Paul District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division,</td>
<td>25</td>
</tr>
<tr>
<td>North Pacific</td>
<td></td>
</tr>
<tr>
<td>Alaska District</td>
<td>10</td>
</tr>
<tr>
<td>Portland District</td>
<td>10</td>
</tr>
<tr>
<td>Seattle District</td>
<td>10</td>
</tr>
<tr>
<td>Walla Walla District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division,</td>
<td>25</td>
</tr>
<tr>
<td>Ohio River</td>
<td></td>
</tr>
<tr>
<td>Huntington District</td>
<td>10</td>
</tr>
<tr>
<td>Louisville District</td>
<td>10</td>
</tr>
<tr>
<td>Nashville District</td>
<td>10</td>
</tr>
<tr>
<td>Pittsburgh District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division,</td>
<td>25</td>
</tr>
<tr>
<td>Pacific Ocean</td>
<td></td>
</tr>
<tr>
<td>Far East District</td>
<td>10</td>
</tr>
<tr>
<td>Japan District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division,</td>
<td>25</td>
</tr>
<tr>
<td>South Atlantic</td>
<td></td>
</tr>
<tr>
<td>Charleston District</td>
<td>10</td>
</tr>
<tr>
<td>Jacksonville District</td>
<td>10</td>
</tr>
<tr>
<td>Mobile District</td>
<td>10</td>
</tr>
<tr>
<td>District/Division</td>
<td>No. of copies</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Savannah District</td>
<td>10</td>
</tr>
<tr>
<td>Wilmington District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, South Pacific</td>
<td>25</td>
</tr>
<tr>
<td>Los Angeles District</td>
<td>10</td>
</tr>
<tr>
<td>Sacramento District</td>
<td>10</td>
</tr>
<tr>
<td>San Francisco District</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Division, Southwestern</td>
<td>25</td>
</tr>
<tr>
<td>Albuquerque District</td>
<td>10</td>
</tr>
<tr>
<td>Fort Worth District</td>
<td>10</td>
</tr>
<tr>
<td>Galveston District</td>
<td>10</td>
</tr>
<tr>
<td>Little Rock District</td>
<td>10</td>
</tr>
<tr>
<td>Tulsa District</td>
<td>10</td>
</tr>
<tr>
<td>Z-2. Separate USACE Field Operating Activities</td>
<td></td>
</tr>
<tr>
<td>U.S. Army Engineering Topographic Laboratories</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineering Waterways Experiment Station</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Cold Regions Research and Engineering Laboratory</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Construction Engineering Research Laboratory</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Facilities Engineering Support Agency</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Automation Support Activity</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Army Engineer Studies Center</td>
<td>10</td>
</tr>
<tr>
<td>Board of Engineers for Rivers and Harbors</td>
<td>10</td>
</tr>
</tbody>
</table>
U.S. Army Corps of Engineers Missile Construction Office
U.S. Army Humphreys Engineer Center Support Activity

Z-3. HQUSACE STAFF.

DAEN-ZD  2
DAEN-EC  35
DAEN-ZC  14
DAEN-CW  30
DAEN-RE  4
DAEN-RD  4
DAEN-RM  15
DAEN-AS  4
DAEN-ASC  4
DAEN-ASP-R  3
DAEN-CC  4
DAEN-IG  4
DAEN-MRA-L  2
DAEN-PA  4
DAEN-PM  10
DAEN-EO  10
DAEN-PE  10
DAEN-CWO-E  150
DAEN-DB  4
DAEN-EE  4
DAEN-PR  4

Z-4. HQ, Department of the Army, Agency.

Office, Secretary of the Army  2
Office, Asst Secretary of the Army (Civil Works)  5
Chief of Staff, Army  2
Deputy Chief of Staff for Operations & Plans  2
Deputy Chief of Staff for Personnel  5
Deputy Chief of Staff for Logistics  2
The Inspector General  2

Z-5. Commander.

US Army Forces Command  2
US Army Training and Doctrine Command  2
US Army Europe  2
US Army Western Command  2
US Army Japan  2
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Z-6. Commandant.

- National War College: 2
- US Army War College: 2
- Industrial College of the Armed Forces: 2
- US Army Command and General Staff College: 2
- Armed Forces Staff College: 2
- US Coast Guard: 2

Z-7. Copies Furnished.

- Federal Emergency Management Agency: 5
- US Army Forces Command, ATTN: AFEN: 5
- US Army Training and Doctrine Command, ATTN: ATEN: 5
- US Army Communications Command, ATTN: CC-ENGR: 5
- US Army Health Services Command, ATTN: HSLO-F: 5
- The Army Operations Center: 5
- US Army Europe, ATTN: DCSENGR: 2
- Eight U.S. Army, ATTN: ENGINEERS: 2
- US Army Japan, ATTN: ENGINEERS: 2
- US Army Western Command, ATTN: ENGINEERS: 2

Z-8. Other.

- Depot Stock: 300

Z-5