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Operations

**CIVIL ENGINEER CONTINGENCY
RESPONSE PLANNING**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 10-2, *Readiness* and complements AFI 10-210, *Prime Base Engineer Emergency Force (BEEF) Program*. This instruction gives the directive requirements for civil engineer unique contingency response planning. It helps civil engineers plan initial responses to enemy actions, major accidents, natural disasters, civil disorders, and other contingencies. **Attachment 1** provides an explanation of terms used in this instruction. **Attachment 2** provides additional guidance and suggestions on preparing and packaging the contingency response plan. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule at <https://webrims.amc.af.mil>.

SUMMARY OF REVISIONS

This instruction has numerous and extensive changes, including: updated references; nomenclature changes; addition of antiterrorism standards for facility protection; and the inclusion of recovery from use of chemical, biological, radiological and nuclear, and high-yield explosive (CBRNE) substance by terrorist in the CE Contingency Response Plan. Users are urged to carefully review the entire document to familiarize themselves with all changes.

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Chapter 1

RESPONSIBILITIES

1.1. Headquarters US Air Force (HQ USAF):

1.1.1. HQ USAF/ILE. The Air Force Civil Engineer is responsible for all civil engineer (CE) contingency response programs and policies.

1.1.2. HQ USAF/ILEX. The Chief, Operations Division establishes general civil engineer contingency response policy.

1.2. HQ Air Force Civil Engineer Support Agency. HQ AFCESA establishes standards, procedures, guidelines, and instructions relating to civil engineer contingency response. HQ AFCESA/CEX serves as the focal point for the civil engineer contingency response guidance and Air Force instructions.

1.3. Major Commands (MAJCOMs). MAJCOMs give specific guidance and assistance to subordinate commands or installations, monitor contingency response programs at all subordinate levels, evaluate CE contingency response capabilities during staff visits and inspector general (IG) inspections and review contingency response training programs for compliance with Air Force publications and this instruction.

1.4. Base Civil Engineer/CE Unit Commander. Units will establish a CE contingency response plan and maintain contingency response capabilities to restore operations, save lives, mitigate human suffering, and minimize damage during and after a crisis occurring on or near the installation. The Base Civil Engineer (BCE) will provide trained forces and available equipment and materials to quickly return the installation to a condition where the primary mission can be executed.

1.4.1. The BCE ensures the CE contingency response plan is consistent with AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*; AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*; AFMAN 10-2502, Volume 1 (when published; partially replaces AFMAN 32-4004), *Air Force Emergency Management (EM) Program*; AFMAN 10-2517, Volume 2, *Major Accident and Natural Disaster Techniques, Tactics, and Procedures* (when published; partially replaces AFMAN 32-4004), and other installation emergency support and war plans.

1.4.2. The BCE and engineer staff advises the installation commander and other concerned installation officials on all contingency planning, response, and recovery operations.

1.4.3. The BCE and engineer staff provides the MAJCOM with current copies of their CE Contingency Response Plan in an unalterable file format, such as a portable document file (PDF), as required in paragraph **1.3.** above.

Chapter 2

CONTINGENCY RESPONSE PLANNING AND PREPARATIONS

2.1. Peacetime Planning. Each civil engineer organization must plan for and exercise contingency responses to ensure it can respond effectively to emergencies. BCEs must prepare clear and useful contingency response plans and keep them current.

2.1.1. Civil Engineer Contingency Response Plan. Crises, hostile actions, and natural disasters are often unpredictable. The unpredictable nature requires that response procedures be developed in advance to ensure continuity of Air Force operations during and after these contingencies. Advance planning reduces the chaos and hastens effective contingency response.

2.1.1.1. Plan Objective. The main objective of any CE contingency response plan is to provide guidance and information so that civil engineers respond quickly and effectively to all contingencies and in doing so, maintain or help to restore the installation's operational capability to meet its wartime or peacetime missions. Good planning and periodic training mitigate confusion inherent in initial responses to accidents, disasters, war, etc. The CE contingency response plan must include provisions for:

2.1.1.1.1. Emergency and follow-on repair of facility damage caused by natural disaster, sabotage, war, etc.

2.1.1.1.2. Force beddown.

2.1.1.1.3. Operations and maintenance of facilities and installations during contingencies.

2.1.1.1.4. Aircraft and structural fire protection and technical rescue.

2.1.1.1.5. Rendering safe and removal of hazardous munitions and antiterrorism support.

2.1.1.1.6. Managing Air Force contracts for contingency and war damage repairs and force beddown.

2.1.1.1.7. Recovery from use of CBRNE substances by terrorist.

2.1.1.1.8. Recovery of damaged utility systems (water, electric, etc).

2.1.1.2. Basic Content. The CE contingency response plan will contain, as a minimum, a table of contents, basic plan, and annexes. **Attachment 2** contains the recommended format. More definitive guidance for developing this plan is provided in AFPAM 10-219, Volume 1, Contingency and Disaster Planning.

2.1.1.3. Continental United States (CONUS) Requirements. At CONUS active duty bases, the CE contingency response plan must include provisions for responding to situations both with and without the BCE's deployable Prime BEEF resources (AFI 10-210, Prime Base Engineer Emergency Force (BEEF) Program). The BCE's remaining work force, without contractor supplementation or other augmentation, must be trained to initially support critical mission-sustaining requirements and to operate and maintain essential base functions during both wartime operations and peacetime disasters.

2.1.1.4. Theater Requirements. At overseas theater locations, response plans must include provisions for responding to situations both with and without their deployable Prime BEEF resources

and CONUS Prime BEEF augmentation forces. Civil engineers may include other in-theater augmentation forces, such as Army engineer units, assured host nation support, and locally available civilian and contractor support.

2.1.2. Other Plans. CE provides contingency support to numerous other operations plans (see AFPAM 10-219, Volume 1). These support requirements, as well as the requirements other organizations provide to civil engineers, need to be documented in the CE contingency response plan.

2.1.3. Environmental Protection. The BCE ensures contingency response operations and training activities comply with the environmental laws and standards as described in AFPD 32-70, *Environmental Quality*; AFI 10-2501, Air Force Emergency Management (EM) Program Planning and Operations; AFMAN 32-4013, Hazardous Material Emergency Planning and Response Guide; AFMAN 10-2602, Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards, and AFH 10-222, Volume 4, Environmental Guide for Contingency Operations. In contingency operations, the BCE normally conducts an environmental impact analysis (EIAP) prior to deployment. However, during times of war it is not feasible to conduct an EIAP. In these situations an environmental baseline survey (EBS) is conducted to determine the extent of pre-existing damage and that information is then used mitigate any potential US military impacts to host nation assets.

2.1.4. Back Filling Deployed Prime BEEF Positions. Establish guidelines and procedures to ensure mission-essential work is accomplished if any or all civil engineer mobility forces deploy. Plan to efficiently receive and employ backfill personnel, if needed, when Prime BEEF mobility personnel deploy in support of major contingency operations. The BCE must:

2.1.4.1. Identify and prioritize all mission-essential tasks that backfill forces must perform (for example, sewage, water, and power plant operations; emergency service call operations; readiness; EOD; fire and emergency services; etc.).

2.1.4.2. Quantify the expected voids in the work force when unit mobility teams deploy. Indicate which voids can be filled with military, civilian or contract personnel overtime, which voids can be filled using the Air Force Contract Augmentation Program (AFCAP), and which voids will require active or reserve military backfill.

2.1.4.3. Identify all mission-essential tasks that require special licenses and certifications (for example, water plant operations, industrial waste plant operations, fire and emergency services, etc.).

2.1.4.4. Address the use of non-deployed active duty base personnel and key or mission-essential civilian members to support the installation's mission.

2.1.4.5. List all Air Reserve Component units located on or near the base who potentially could rapidly backfill mission-essential positions. Consider developing a list of Individual Mobilization Augmentee (IMA) personnel who reside within the local area that are qualified and willing to fill short-term requirements.

2.1.4.6. List the minimal training requirements for the CONUS sustaining back fill program to ensure that augmenting personnel are familiar with the base's equipment and operations.

2.1.4.7. List all contractors in the vicinity of the base who could rapidly support mission-essential functions.

2.1.5. Memorandums of Agreement (MOAs). Establish MOAs with local authorities for fire and emergency services and EOD support, as available and advantageous to the Air Force, to enhance base capabilities. List these agreements with points of contact in the contingency response plan.

2.2. Predisaster and Preattack Preparations. Good predisaster and preattack preparations can save lives and reduce property damage resulting from accidents, disasters, terrorism, and war. Such preparations effectively protect key resources while minimizing cost, labor, and materials. Many preparations can and should be made in advance of any crisis. Each CE unit, as part of a base effort, should complete these preparations during peacetime or plan to complete them in priority order when disasters threaten. As a minimum, provisions for expedient preparations must be included in the CE contingency response plan. Examples of predisaster preparations include:

2.2.1. Vulnerability Reduction. Assist base organizations in identifying and programming requirements to reduce vulnerability of critical base facilities, equipment, and personnel. Perform site-specific risk assessments and identify resources to be protected and the level of protection to be afforded. The BCE must:

2.2.1.1. Identify all facilities on the base that could be used as shelters to protect personnel, equipment, aircraft, and armament from the effects of CBRNE weapons (see AFMAN 10-2602) and the consequences of natural disasters (see AFI 10-2501). Determine the capacity for each shelter and list them in the CE contingency response plan.

2.2.1.2. Consider redundancy when designing/redesigning critical utility systems or permit reconfiguration for continued operations and identify facilities that can be used as substitutes if prime facilities are destroyed.

2.2.1.3. Consider hardening command posts, access and perimeter gates, utility generating plants, and mission-essential shelters during initial construction or renovation of existing facilities. Hardening requirements for facilities located in CBRNE medium and high threat areas can be found in AFMAN 10-2602.

2.2.1.4. Survey and identify dispersal and evacuation sites on and off base that meet security, access, and service requirements for storing essential resources and decrease vulnerability from a single-point attack or natural disaster. Include background data on both dispersal and evacuation sites as part of the contingency response plan.

2.2.1.5. Consider Camouflage, Concealment, and Deception (CCD) measures for key facilities and systems when the appropriate threat exists.

2.2.1.6. Implement actions to increase a facility's physical and passive protection against terrorist activities; see AFI 10-245, *Air Force Antiterrorism (AT) Standards*, Unified Facilities Criteria (UFC) 4-010-01, *Design: DOD Minimum Antiterrorism Standards for Buildings*, and UFC 4-021-01, *Design and O&M: Mass Notification Systems*. The installation Force Protection Working Group or security forces should identify the appropriate requirements.

2.2.1.7. Provide design, labor, equipment, and materials to help base organizations install and repair bunkers and revetments in threat areas to protect personnel, equipment, and weapon systems from the effects of CBRNE attacks; see AFMAN 10-2602 and UFC 3-340-01, *Design and Analysis of Hardened Structures to Conventional Weapons Effects*.

2.2.2. Communications-Computer Systems. Work with base communications to provide installation primary and secondary warning systems and communications among the primary and alternate Installation Operations Center (IOC), Emergency Operations Center (EOC), CE Damage Control Centers (DCC), and the Fire Alarm Communications Center. Establish manual procedures, such as the use of runners or signal flags, for collecting information on damage to facilities, utilities, and pavements during disruptions in base communication and computer systems.

2.2.3. Emergency and Backup Utilities. Develop plans and identify resources required to re-establish utilities or provide backup systems immediately after an attack or disaster. The CE contingency response plan must include alternate sources of utility services for critical facilities.

2.2.3.1. Firefighting and contamination control operations require a great amount of water. The contingency response plan should identify all available water sources, both on and nearby off base, to support these operations during a contingency.

2.2.3.2. Electrical power should be continuous to essential base functions. CE must have emergency-essential backup power sources when primary service to these essential functions or facilities is disrupted.

2.2.3.3. CE must identify alternate or emergency waste disposal methods. See [AFMAN 10-2602](#) for wartime contamination waste and disposal consideration.

2.2.4. Environmental Hazard Reduction. Provide trained personnel or contractors and available equipment and materials to help the Base Spill Response Team with containment, cleanup, and site restoration for hazardous substance spills.

2.2.5. Utility System Isolation. The CE DCC and Fire Alarm Communications Center must contain accurate utility distribution system drawings, showing the locations of all cutoff valves and switches. Periodically have the appropriate personnel locate and operate these valves and switches to ensure they are operational and control the desired systems. When possible, implement GeoBase Mapping System to aid in identifying and locating critical equipment or resources.

2.2.6. Support for Others. Plan for the following support requirements:

2.2.6.1. Provide labor and equipment to assist the mortuary officer in preparing temporary cemeteries and mass burial sites for contaminated and non-contaminated remains.

2.2.6.2. Assist the base in developing unit casualty and damage reporting procedures.

2.2.6.3. Assist the tactical deception officer with developing plans for CCD. Provide designs and maps to help units with placement of CCD items.

2.2.6.4. Prepare a master standard grid map or maps for base command and control; disaster response forces; damage assessment teams; and CBRNE Defense Cell. Prepare airfield surface maps for minimum operating strip (MOS) selection teams. Put copies of all maps in primary and alternate EOCs and DCCs; see [AFI 10-2501](#), Para A2.3.

2.2.6.5. Assist in the base's annual assessment of the hazardous chemicals it regularly uses, stores or ships.

2.3. Post Disaster Tasks. CE must ensure the installation has a rapid response capability to continue or immediately regenerate essential air base functions after a disaster or attack by clearly identifying post disaster tasks in the CE contingency response plan. Instructions must describe the tasks in terms of what,

who, where, how, when, and in what priority. The post disaster planning must cover specific tasks to meet requirements in these areas:

2.3.1. Damage and Hazard Assessment. Quick initial reconnaissance to allow assessment of the installation following a natural or man-caused disaster or attack is a key part of recovery.

2.3.1.1. Initial Unit Assessments and Reports. Following a natural or man-caused disaster or attack, CE and all base personnel should promptly treat and report casualties, identify, report and mark facility damage, suspected contamination, location of UXO, and other problems to the IOC or EOC through their respective control centers. The IOC or EOC directs efforts of the recovery teams accordingly. See [AFMAN 10-2602](#) for Post-Attack Reconnaissance Team equipment and procedures.

2.3.1.2. Detailed Assessment. CE must dispatch pre-identified and trained damage assessment teams (DAT) following a natural or man-caused disaster or attack. The teams immediately perform assessments of airfield pavement to determine the greatest potential for rapidly restoring launch and recovery capabilities; identify and evaluate critical facility, utility, and communications repair requirements; and coordinate on-scene recovery activities with the IOC or EOC and the CE DCC. Other than the pre-identified damage assessment team, no other personnel are permitted to enter a disaster or crash site area without the explicit approval from the incident commander. The incident commander is the only person that can declare a disaster area safe. The incident commander is normally a SME from Fire, Medical, or Security Forces response element (see [AFI 10-2501](#)).

2.3.2. Fire and Emergency Services. The primary role of Fire and Emergency Services during and just after an emergency is to rescue survivors, provide emergency medical treatment, keep loss of life to a minimum and extinguish or prevent the spread of fire. After firefighters have accomplished all other required mission responsibilities, such as emergency responses and fire protection standby requirements, they may be called upon to assist in area contamination control procedures. The firefighter's role is restricted to flushing contaminated surfaces with large amounts of water and the wing or base commander will direct to what extent fire vehicles will be used for this purpose. Contingency response planning for firefighting must address worst-case scenarios and may involve the use of augmentation for certain tasks such as mass decontamination.

2.3.3. Search and Rescue. Search and rescue operations may be crucial during disasters. Firefighters and other rescue personnel must be trained in first aid and equipped with necessary first aid supplies and equipment. Accessibility to the site of a major aircraft accident occurring off base or any major structural collapse may require CE to furnish heavy equipment and personnel. Most tactical and cargo aircraft carry explosive cartridge actuated devices (CAD) or payload actuated devices (PAD) which require safing by trained EOD personnel. These devices and carried ordnance require closely coordinated efforts between EOD and firefighters.

2.3.4. Hazard Clearance. Civil Engineers must begin removing debris from aircraft operating areas, primary streets, and base areas as soon as possible after damage has occurred. Following a conventional bomb attack, CE may begin removing debris prior to the removal of all UXOs, as long as there is no threat to the operations. Certain aircraft recovery operations, like those involving carbon fibers and radioactive materials, will require special responses and will require individual response plans within one of the annexes.

2.3.4.1. UXO Safing and Clearance. CE provides EOD teams to identify, render safe, destroy, or remove hazardous explosive ordnance.

2.3.4.2. Utility Hazard Isolation. CE isolates ruptured utility distribution systems to minimize the hazards to contingency response.

2.3.4.3. Peacetime Hazard Clearance. Do not move debris until told to do so by the incident commander. When an attack occurs on an AF installation in peacetime the area is a crime scene and special care must be taken to preserve it for collection of evidence. First responders must take all precautions possible to preserve evidence after a terrorist event. This evidence will be crucial in the investigation, arrest, and conviction of the perpetrator(s).

2.3.5. Emergency Utilities. CE must reestablish or substitute essential utilities quickly after an attack or disaster.

2.3.6. Beddown. CE should provide beddown assistance for deploying forces, federal assistance teams, pre-bundled medical supplies commonly called “push-packs,” and disaster victims when required. CE must identify existing facilities or potential cantonment areas, potable water sources, electricity, latrines, showers, refuse collection, and disposal and contaminated waste collection and disposal points that can be used for expedient beddown operations.

2.3.7. Airfield Damage Repair (ADR). Following an enemy attack, CE must be capable of rapidly restoring damaged runways, taxiways, aircraft parking, and other airfield pavement. To ensure this capability, CE must have adequate equipment and supplies.

2.3.7.1. Threat. Theater MAJCOMs must evaluate the specific regional threat to determine the ADR set requirements and the appropriate levels of war reserve materiel such as crushed stone, AM-2 and folded fiberglass matting, and spall repair components for each base (See UFC 3-270-07, O&M: Airfield Damage Repair for specific guidance on ADR).

2.3.7.2. ADR Assets. ADR sets increase the crater repair capability at selected main operating bases where they are pre-positioned. These sets generally are located at bases vulnerable to attack but may be deployed to other sites, if required.

2.3.8. Contamination Monitoring and Control. After any attack or disaster that may involve CBRNE material, the detection and hazard prediction of contamination must take place. Pre-identify equipment, materials, and personnel for this function. Coordinate with the bioenvironmental engineer for assistance with water sources. Identify timing and any limitations to the base leadership. The detection and prediction will determine actions required for contamination avoidance, control, and decontamination. CE, in concert with medical bioengineering, must remove or neutralize CBRNE contaminants on a priority basis so essential operations can resume and vital facilities can reactivate; see AFI 10-2501 and AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards* for guidance on the base CBRNE program.

2.3.8.1. Limited Area Decontamination. CE must provide trained and equipped personnel to perform limited area contamination control for roads, grounds, buildings, facilities, aprons, taxiways, and runways. Pre-identify equipment, materials, and personnel for this function. Identify limitations to the base leadership.

2.3.8.2. Vehicle Decontamination. Vehicle contamination control is the transportation unit’s responsibility; however, CE must have operating procedures available for decontaminating civil

engineering critical vehicles. In coordination with transportation, pre-identify sites, equipment, materials, and personnel needed for control and collection of runoff.

2.3.9. Work Party Defense. The BCE must provide organic civil engineering work party defense and convoy security to ensure the success of contingency operations.

2.3.10. Base Denial. Base denial is an overseas theater task. It can become a CE task when the theater commander directs base evacuation and the destruction of select air base systems, military equipment, and supplies. The BCE must prepare in advance a list of candidate targets. Denial of air base infrastructure, for the large part, will be the responsibility of the civil engineers. If available, EOD will assist in carrying out some base denial operations using explosives. However, the BCE has numerous options available to effect denial operations without having to rely on the use of demolition experts.

2.3.11. Support Tasks. When a disaster is the result of a bombing or missile attack, CE will:

2.3.11.1. Provide persons trained on minimum operating strip (MOS) selection procedures to plot and evaluate all information received from damage assessment teams. Personnel will record runway and taxiway damage on airfield surface maps located within the primary and alternate EOCs and DCCs.

2.3.11.2. Furnish EOD personnel and other CE members trained in explosive ordnance recognition and bomb damage assessment to survey and identify all surfaces affecting the launch and recovery of aircraft and report findings to the EOC.

2.3.11.3. Provide EOD teams to identify, render safe, destroy, or remove hazardous explosive ordnance.

2.3.11.4. Provide labor and equipment to remove unexploded ordnance that EOD personnel have rendered safe and the EOC has designated for removal.

Chapter 3

CE CONTINGENCY RESPONSE TEAMS

3.1. Command and Control. The BCE must ensure effective contingency response command and control during an emergency.

3.1.1. The CE contingency response force consists of many specialized teams and varies in organization and size from base to base, depending on a base's mission and threat condition. BCEs must organize these teams based on the specific needs of their base.

3.1.2. Civil Engineer contingency response procedures must include assembly instructions, communication links, and sufficient guidance to allow each team to initially function on its own.

3.1.2.1. Assembly instructions must be provided in detail. These instructions must include who reports where, when, to whom, and with what equipment. Assembly procedures must also be realistic. For example, the mobile teams should be 50% manned within 2 hours, 75% manned within 3 hours, and 100% manned within 4 hours. To test the effectiveness of a unit's contingency response time, the BCE should perform an assembly (recall) at least once a quarter.

3.1.2.2. In the event power and/or communication lines are lost, an alternate means of notifying personnel, known as the Pyramid Alerting System, must be established and practiced. Test the Pyramid Alerting System occasionally to ensure its effectiveness.

3.2. CE Contingency Response Structure. The only effective response to contingencies, emergencies, and disasters is a trained military and civilian force that can draw on an adequate supply of equipment and materials. If the base is identified to maintain an Airfield Damage Repair (ADR) and a rapid utility repair (RUR) capability, formation and manning of specialized ADR and RUR teams must receive a high priority.

3.2.1. Mobility Forces. The Air Force maintains a number of standard military Prime BEEF mobility elements and teams in the United States to meet essential wartime requirements with rapid, short notice deployments to anywhere in the world (See [AFI 10-210](#)). These teams will be available for other contingency response taskings when not deployed or alerted for deployment.

3.2.2. Base Sustaining Forces. Civil engineer forces, both military and civilian, must operate and maintain essential base functions in support of wartime requirements. Base planners must ensure that mission-essential base sustaining forces and equipment are available to respond to the full spectrum of threats while supporting all essential base functions during wartime and after mobility force deployment.

3.2.2.1. Although there are some base-level military positions essential to the war effort that civilians cannot logically backfill, the objective is for base-level CE sustainment forces to be primarily civilian.

3.2.2.2. The BCE must ensure that essential base-sustaining mission requirements are satisfied and that the base will continue its support of the wartime effort. When lacking sufficient civilian authorizations to fulfill base sustaining requirements, the BCE requests AFCAP, individual mobilization augmentee (IMA), Air Force Reserve or Air National Guard volunteer support. Once mobilized, Air Reserve Component (ARC) personnel augment the wartime force to accomplish essential tasks.

3.2.2.3. When requiring engineering assistance beyond that available on base, the BCE must consider using RED HORSE and mobile Prime BEEF forces, Army engineer units, host nation support forces, contractors, and staffing assistance.

3.3. Military Personnel. The BCE may assign all CE military personnel to contingency response teams. However, Prime BEEF personnel assigned mobility UTC positions or required for other operational plans that are in effect may not be available for contingency response taskings. Augmentation programs may be used; however those individuals serving as augmenters must be properly trained and exercised.

3.4. Civilian Personnel. The civilian work force is an integral and essential part of the CE contingency response force. When Prime BEEF forces deploy during contingency or natural disasters, the civilian force augments any remaining military force or assumes full responsibility for base recovery operations.

3.4.1. The BCE may obtain essential manpower support for contingency response needs in several ways. These options include designated civilians; BCE-assigned civil service personnel; temporary over hires; AFCAP; local contractors and volunteers; and other Department of Defense (DOD) civil service employees.

3.4.2. The BCE designates emergency-essential civilian positions in each CE functional area required for the contingency response force. Position descriptions for these designated functional positions must include contingency response duties and responsibilities. The BCE must fully brief and train the civilian force on wartime or peacetime disaster responsibilities that are different from those encountered in their day-to-day, peacetime job.

3.4.3. Civilian personnel should participate in training exercises. Their ability to perform contingency duties in a crisis largely depends on the experience they gain in training exercises. When they perform contingency response duties or take part in exercises during other than normal duty hours, employees may be entitled to additional pay. The BCE should program for sufficient funds to cover, at a minimum, one training event and one exercise event annually per civilian designated to fulfill a contingency response force position.

3.4.4. Additional Air Force civilian personnel may be made available from other bases within the command to fill critical contingency manpower shortfalls where position descriptions possess the necessary contingency skills and mobility stipulation.

3.4.5. Local contractors may be hired to support the contingency response operation when CE lacks personnel possessing certain skills or specialized equipment. Even though the appropriate contracting office must execute any formal agreements with local contractors, the BCE must identify these potential contract sources in the CE contingency response plan.

Chapter 4

TRAINING AND EXERCISES

4.1. Training Philosophy. Mission success in the CONUS and all theaters of operation during any type of contingency depends upon the effectiveness of individual and unit training. CE personnel and augmentees must train as nearly as possible the way they expect to function during contingency or wartime. Their training must be comprehensive and realistic. CE must train for all conceivable missions in all kinds of weather and climate; they must train for the full spectrum of contingencies from major disasters to military operations other than war to theater regional war to chemical, biological, or nuclear war.

4.2. Personnel Training. Trained personnel are essential for the success of the CE contingency response plan.

4.2.1. Contingency Response Training. Overseas and CONUS civil engineer personnel and augmentees will be trained and equipped in the duties they will perform during alerts and contingency operations.

4.2.2. Prime BEEF Mobility Training. Prime BEEF mobility training requirements are specified in AFI 10-210, Chapter 4.

4.2.3. Emergency Management (EM) Training. EM training requirements are identified in AFI 10-2501.

4.3. Exercises. The BCE must conduct exercises to measure the effectiveness of the unit's command and control structure, contingency support vehicles and equipment, and the different CE contingency response training programs. Scenarios should be practiced that respond to peacetime crises, as well as, likely wartime situations. War-gaming exercises must realistically reflect local threat analysis (or expected deployment location threat analysis), just as peacetime exercises must be derived from plausible natural and man-made disasters including terrorist use of CBRNE material, major accidents, or utility service disruptions. Exercises should range from simple tests of the pyramid personnel alerting system to the more complex responses required in major peacetime or wartime incidents. Conduct no-notice exercises for a valid test of the recovery force capability. Exercise the base sustaining force's capability in operating the base during different levels of conflict when some or all the BCE's mobility forces and equipment have deployed. See [AFI 90-201](#), *Inspector General Activities* and [AFI 10-2501](#), Chapter 10, for additional guidance.

4.4. Training Projects. Opportunities often exist for accomplishing special projects while conducting valuable contingency training. CE forces will ensure all construction, maintenance, and repair activities meet with appropriate project programming requirements and approval levels. These restrictions apply to active, Air National Guard, and Air Force Reserve Command Prime BEEF and RED HORSE forces.

4.4.1. AF/ILE must approve any repair or unspecified minor military construction project planned for accomplishment with Prime BEEF or RED HORSE if total funded and/or unfunded cost exceed \$750,000. AF/ILE's approval applies to projects in the United States, including Guam, Puerto Rico, and the Virgin Islands. This policy does not apply outside these geographic areas. Retain documentation for such projects totaling over \$100,000 at the installation. See AFI 32-1032, *Planning and Pro-*

gramming Appropriated Fund Maintenance, Repair, and Construction Projects, section 6.3., and AFI 10-206, *Operational Reporting*, Table 3.3.

4.4.2. Prime BEEF construction, maintenance, repair, or renovation projects in support of Morale, Welfare, and Recreation facilities are not authorized when non-appropriated funds are the designated funding source.

Chapter 5

EQUIPMENT AND SUPPLIES

5.1. Resource Requirements. The BCE must have equipment and supplies readily available to cope with emergencies. Assess the types and quantities of resources required. The needed items are a function of the nature of the potential emergency (for example, enemy air or ground attacks, sabotage, equipment accidents, storms, floods, and lightning strikes). Resource requirements also depend on the type of facilities, whether temporary or permanent, and the importance of immediate repair. CE units must:

5.1.1. Keep equipment and vehicles operable, fueled, and designated for each contingency response team. Modify vehicles used for specified functions to protect operators and critical vehicle components to the maximum extent possible from identifiable threats.

5.1.2. Identify substitute vehicles for CE contingency response teams to use in the event designated vehicles are not operable. In addition to vehicles and specialized equipment, identify available portable floodlights, taxiway or runway lights, and electric generators and ensure they are serviceable.

5.1.3. Ensure adequate hand and portable tools, shovels, brooms, wrecking bars, chainsaws, and axes are available and note their locations in the CE contingency response plan.

5.1.4. Ensure essential contingency materials and supplies are identified. After determining the types and quantities of required supplies, take action to make sure they are available, either as adjusted stock levels in base supply, special levels, normally available bench stock or in bulk storage.

5.2. Special Equipment. Although the equipment available for the day-to-day CE operation is adequate for most disasters, the base may temporarily obtain special equipment from other DOD installations in the area, from local contractors, or from other sources of supply if authorized on the table of allowance. The CE contingency response plan should list specific contacts at other DOD installations, the types and quantities of equipment they possess, and the restrictions on their availability.

5.3. Protecting Equipment and Supplies. The theater commander or installation commander specifies the need for dispersal. Dispersal may be warranted when certain potential emergencies such as enemy action, tornadoes, or hurricanes threaten the base. If used, identify dispersal locations in the appropriate CE contingency response plan annex.

Chapter 6

REPORTS

6.1. Headquarters Reports. During disaster recovery operations, the BCE must provide situation reports (SITREPs) to higher headquarters. The BCE provides the real property damage information and other civil engineering data necessary to develop the reports as specified by AFI 10-206, *Operational Reporting*. The base or wing command post sends these reports through the Air Force Operational Reporting System (AFOREP). The other information required by AFI 10-206 will be provided by representatives from other functional areas on base, such as base supply, transportation, and hospital; see AFI 10-2501.

6.1.1. RCS: HAF-XOO (AR) 7118, *Operation Event and Incident Report (OPREP-3)*. Consult AFI 10-206, Chapter 3 for reporting instructions. For events or incidents causing significant damage to Air Force installations, provide this supplementary information as a minimum:

6.1.1.1. Report the extent of damage to structures; airfield pavements; navigational aids; utility systems; war reserve materiel (WRM) vehicles, equipment, or materials, including ADR and EOD assets; Fire and Emergency Service, and crash rescue vehicles; and command, control, communications and computer facilities and equipment.

6.1.1.2. Report the status of support areas, such as housing and dining facilities, POL storage and distribution, and medical facilities.

6.1.1.3. Provide remarks on restoration actions in progress or intended, estimated repair costs, and whether the repairs will be accomplished in-house or by contract; estimated recovery date and time; assistance required (for example, Prime BEEF forces and RED HORSE squadrons); and the impact on combat readiness status of Prime BEEF mobility forces.

6.1.2. Fire Department Emergency Response Notification. Consult AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program* for reporting requirements and other notification procedures.

6.2. Project Documentation Reports. The BCE must also document and submit other reports.

6.2.1. Reconstruction Projects. Obtain information required for project documents as soon as possible after the disaster. Use digital cameras to obtain photos of the damage immediately after the disaster (or request assistance from the base photo lab, which requires pre-coordination).

6.2.2. Cost Records. Keep all work orders, (AF Form 332, **Base Civil Engineer Work Request**) and the costs associated with the work requests.

6.2.3. Off Base Expenses. Expenses that the base incurs when aiding off-base agencies in a natural disaster recovery or military support to civil authority operations may require reimbursement to the Government. To preclude difficulties in paying these expenses, maintain accurate cost records; see AFD 10-8, *Homeland Security* and AFI 10-802, *Military Support to Civil Authorities (MSCA)*.

6.3. Form Adopted. AF Form 332, Base Civil Engineer Work Request.

DONALD J. WETEKAM, Lt General, USAF
DCS/Logistics, Installations and Mission Support (A4/7)

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*

AFDD 1-2, *Air Force Glossary*

Unified Facilities Criteria 3-270-07, *O&M: Airfield Damage Repair*

Unified Facilities Criteria 3-340-01, *Design and Analysis of Hardened Structures to Conventional Weapons Effects*

Unified Facilities Criteria 4-010-01, *Design: DOD Minimum Antiterrorism Standards for Buildings*

Unified Facilities Criteria 4-021-01, *Design and O&M: Mass Notification Systems*

AFPD 10-2, *Readiness*

AFPD 10-8, *Homeland Security*

AFPD 10-25, *Emergency Management*

AFI 10-206, *Operational Reporting*

AFI 10-209, *RED HORSE Program*

AFI 10-210, *Prime Base Engineer Emergency Force (BEEF) Program*

AFPAM 10-219V1, *Contingency and Disaster Planning*

AFMAN 10-222V4, *Environmental Guide for Contingency Operations*

AFI 10-245, *Air Force Antiterrorism (AT) Standards*

AFI 10-401, *Air Force Operations Planning and Execution*

AFMAN 10-401V4, *Planning Formats and Guidance*

AFI 10-802, *Military Support to Civil Authorities*

AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*

AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional (NBCC) Defense Operations and Standards*

AFDP 32-70, *Environmental Quality*

AFI 32-1032, *Planning and Programming Appropriated Funded Maintenance, Repair, and Construction Projects*

AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*

AFI 32-3001, *Explosive Ordnance Disposal Program*

AFMAN 32-4004, *Emergency Response Operations*

AFMAN 32-4013, *Hazardous Material Emergency Planning and Response Guide*

AFI 32-7061, *The Environmental Impact Analysis Process*

AFI 90-201, *Inspector General Activities*

Abbreviations and Acronyms

ADR—airfield damage repair

AFCAP—Air Force Contract Augmentation Program

AFOREP—Air Force Operational Reporting System

AFPD—Air Force Policy Directive

ARC—Air Reserve Component

BCE—base civil engineer

CAD—cartridge actuated device

CBRNE—chemical, biological, radiological, nuclear and high-yield explosive

CRP—contingency response plan

CCD—camouflage, concealment, and deception

DCC—damage control center

EM—emergency management

EOC—emergency operations center

EOD—explosive ordnance disposal

HAF—Headquarters, Air Force

HAZMAT—hazardous material

IMA—individual mobilization augmentee

IOC—installation operations center

MOA—memorandum of agreement

MOS—minimum operating strip

OPREP—operation report

Prime BEEF—Prime Base Engineer Emergency Forces

RCS—report control symbol

RED HORSE—Rapid Engineer Deployable Heavy Operations Repair Squadron, Engineer

RUR—rapid utility repair

UXO—unexploded explosive ordnance

WRM—war reserve materiel

Terms

airfield damage repair—The process of assessing damage, clearing unexploded ordnance, and repairing

an airfield including runways, taxiways, and aprons for contingency operations using expedient methods. Expedient methods include the use of construction equipment, tools, portable equipment, expendable supplies, and temporary surfacing materials to meet pavement repair quality criteria. ADR may also include installation or repair of aircraft arresting and utility systems to enable flying operations. (UFC 3-270-07)

Air Force Civil Engineer Support Agency (AFCESA)—A field-operating agency located at Tyndall AFB, Florida. The Directorate of Contingency Support (HQ AFCESA/CEX) acts as the Air Force program manager for Civil Engineer (CE) Contingency Response Planning.

Air Reserve Components—All units, organizations, and members of the Air National Guard of the United States and the Air Force Reserve. (10 U.S.C. 261)

annex—A document appended to an operation order or other document to make it clearer or to give further details.

bare base—A base having minimum essential facilities to house, sustain, and support operations to include, if required, a stabilized runway, taxiways, and aircraft parking areas. A bare base must have a source of water that can be made potable. Other requirements to operate under bare base conditions form a necessary part of the force package deployed to the bare base. (JP 1-02)

base civil engineer readiness flight—The office of primary responsibility for all activities and measures the installation designs or takes to protect Air Force resources from the effects of attacks, natural disasters, and major accidents; to restore primary mission assets after disasters; and to fulfill the humanitarian disaster relief responsibilities of commanders.

base denial—Removal of resources from a threatened area, rendering resources unusable by removal of parts, contamination (other than by nuclear, biological or chemical means), immobilization or partial or total destruction of military equipment, supplies or infrastructure.

camouflage, concealment, and deception (CCD)—Using concealment, disguise, and decoys to minimize detection or identification of troops, material, equipment, and installations. It includes taking advantage of the natural environment, as well as applying natural and artificial materials.

chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) environment—A condition of warfare in which an adversary possesses or uses nuclear, radiological, biological or chemical weapons, by-products, infrastructure and associated delivery methods.

chemical, biological, radiological, nuclear, or high-yield explosive (CBRNE) incident—The deliberate or inadvertent release of chemical, biological, radiological, nuclear or high yield explosive devices with potential to cause significant numbers of casualties and high levels of destruction.

civil engineer contingency response plan—The plan of action the Base Civil Engineer develops to prepare for and respond to all types of contingencies, emergencies, and disasters.

Continental United States (CONUS)—United States territory, including the adjacent territorial waters, located within North America between Canada and Mexico.

contingency response plan—The plan of action to prepare for and respond to all types of contingencies, emergencies, and disasters.

CONUS sustaining forces—Personnel who maintain and operate essential facilities in support of continental United States wartime operations.

damage control center—The operations center established by the base civil engineer to control and conduct airfield damage repair and other post attack recovery operations with base civil engineer forces. The damage control center is usually headed by the base civil engineer's operations flight commander and staffed with appropriate civil engineer personnel.

emergency operations center—The command and control element that directs and monitors the installation's actions before, during, and after a contingency. The EOC recommends courses of action and executes pre-planned and installation operations center-directed action. The EOC should be collocated with or near the installation operations center to facilitate rapid exchange of information and ensure expeditious coordination of pre- and post-contingency actions. AFMAN 10-2602, *Nuclear, Biological, Chemical and Conventional (NBCC) Defense Operations and Standards*, lists the recommended composition and responsibilities for center members.

explosive ordnance disposal—The detection, identification, on-site evaluation, rendering-safe, recovery, and final disposal of unexploded explosive ordnance. It may also include explosive ordnance, which has become hazardous by damage or deterioration. (JP 1-02)

Fire and Emergency Services—Provides fire and emergency services to prevent and minimize losses to Air Force lives, property, and the environment occurring during periods of peace, war, military operations other-than-war, and humanitarian support operations. Included are both man-made and natural incidents; fire suppression or hazard mitigation; rescue; mitigation or containment of hazardous material release, such as chemical, biological, radiological, nuclear, or explosive (CBRNE) agents, resulting from industrial accidents, acts of terrorism, and emergency medical responses.

AF Emergency Management (EM) Program—A cross-functional program that integrates procedures and standards for planning, logistical requirements, emergency response actions, exercises and evaluation, training of personnel, detection, identification, warning and notification, and enemy attack actions. It establishes responsibilities, procedures, and standards for Air Force consequence management that includes mitigation and emergency response to major accidents, natural disasters, terrorist use of CBRNE, and wartime passive defense actions.

hazardous material—All hazardous substances, petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals including hazardous waste.

individual mobilization augmentee—An individual reservist attending drills who receives training and is preassigned to an Active Component organization, a Selective Service System or a Federal Emergency Management Agency billet that must be filled on, or shortly after, mobilization. Individual mobilization augmentees train on a part-time basis with these organizations to prepare for mobilization. Inactive duty training for individual mobilization augmentees is decided by component policy and can vary from 0 to 48 drills a year. (JP 1-02)

installation operations center—The top echelon of airbase defense operations and is led by the senior Air Force commander. The primary focus of the installation operations center is flight operations, airbase security, and support to other forces on the airbase. The installation operations center battle staff includes senior officers from the operations, maintenance, mission support, and medical groups. Members of the wing special staff or senior officers representing major tenant units or host-nation forces may also be present. (AFMAN 10-2602).

minimum operating strip—A runway that meets the minimum requirements for operating assigned and/or allocated aircraft types on a particular airfield at maximum or combat gross weight. (JP 1-02)

push packs—Packages of medical supplies and vaccines strategically placed to deal with emergencies.

situation report—A report giving the situation in the area of a reporting unit or formation.

unexploded explosive ordnance—Explosive ordnance which has been primed, fused, armed, or otherwise prepared for action, and which has been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material and remains unexploded either by malfunction, design, or for any other cause. (JP 1-02)

war reserve materiel—Materiel required, in addition to mobility equipment and primary operating stock, to support wartime activities reflected in the US Air Force War and Mobilization Plan until the industrial base has generated sufficient deliveries to equal planned wartime consumption.

Attachment 2

STANDARD FORMAT AND ANNEXES FOR A CIVIL ENGINEER CONTINGENCY RESPONSE PLAN

A2.1. General. The Civil Engineer (CE) Contingency Response Plan (CRP) should provide detailed guidelines, information, and direction to help CE personnel to respond to crises. Use the standard format in this attachment when preparing a new plan or revising an existing plan. Keep the plan workable by updating it periodically. When updating the plan, incorporate lessons learned from exercises, actual disasters, emergencies, crises, conflicts, contingencies, etc. As a minimum, the plan should support implementation of the installation Emergency Management Plan 10-2. AFPAM 10-219, Volume 1, *Contingency and Disaster Planning* provides additional guidance and suggestions on preparing and packaging the contingency response plan.

A2.2. Plan Components. AFMAN 10-401 Volume 2, *Planning Formats and Guidance specifies* components to a plan, but only three are generally necessary for the CRP: the table of contents, the basic plan, and the attachments (with their annexes, appendixes, and tabs).

A2.3. The Basic Plan. The basic plan contains seven sections: references, task organization, situation, mission, execution, administration and logistics, and command and control. Keep the basic plan brief—save the details for the annexes.

A2.3.1. **References.** List plans, charts, maps, publications, or other documents needed to understand the plan.

A2.3.2. **Task Organizations.** Identify which elements of the command (CE squadron) are tasked to support this plan. Usually the entire CE squadron will have taskings in one or more contingencies.

A2.3.3. **Situation.** Briefly describe the most probable conditions for implementing the plan. Separately describe the enemy attacks, major accidents or natural disasters which could threaten the base and any other contingencies that require CE support.

A2.3.3.1. **Supporting Forces.** List units or organizations outside of CE that support this plan. This includes augmenting Prime BEEF teams.

A2.3.3.2. **Assumptions.** Outline major planning assumptions. Only assumptions which make the plan unworkable if not true and which are beyond the capability of the CE unit (or installation) to control should be included.

A2.3.4. **Mission.** Outline the basic purpose of the plan. Briefly state the mission of the installation and the CE unit when the plan is implemented. Regardless of installation location, CONUS or overseas, the CE mission is always the restoration or maintenance of the installation's capability to support its prime mission. The relief of human suffering and the protection of life and property are equally important missions that require civil engineer support. Be sure to include support provided to other services, nations, and civil authorities.

A2.3.5. **Execution.** Highlight the major tasks each flight or section must perform to carry out the plan and what major equipment will be available to the unit. This should include supporting forces added by operations plans or support agreements. Include details in the annexes to the plan.

A2.3.6. **Administration and Logistics.** Tell how the civil engineers are to be supported and what support they must provide for themselves. In general terms, outline the sources for equipment and supplies and the support to be provided by others. In addition, list local support conditions that adversely affect plan implementation.

A2.3.7. **Command and Control.** Identify command relationships both external and internal to the CE unit. List CE control centers to be used and designate who commands the CE forces, control centers, and recovery teams. Outline the succession of command. The chain of command should be well defined for all people; state provisions for continuity of command. Include sufficient alternates for round-the-clock management for two manning scenarios: (1) full strength and (2) military personnel only (at overseas theater bases) or civilian personnel only (at CONUS bases). Overseas theater bases will also include provisions for command and control of augmenting forces, such as CONUS Prime BEEF teams. Such provisions should allow augmenting units to maintain unit integrity when practical, even though responsible to the host BCE. Outline methods of communications to be used.

A2.4. Annexes. Prepare annexes in sufficient detail to guide CE preparations for, and initial response to, likely natural disasters, major accidents, war, and other contingencies or crises. There is no required format or content for annexes, appendixes or tabs. If you do not need an annex, still list it in the table of contents with its corresponding letter but mark it "Not Used." Annexes T, U, V, and W are reserved for locally unique information which does not fit well into the other annexes. The letters "I" and "O" are not used as labels for annexes. To promote standardization and ease of use, the recommended annexes are:

A--Major Peacetime Accident

B--Natural Disaster

C--Enemy Attack

D--CE Support for Miscellaneous Plans/Situations

E--Fire and Emergency Services

F--Deployment Preparations

G--Contingency Environmental Considerations

H--Facility Priority Listing

J--CE Personnel Shelters

K--Personnel Augmentation

L--Equipment and Supplies

M--Support Agreements and Contracts

N--Base Utility Systems and Waste Disposal

P--Airfield Pavements

Q--Climatic and Geologic Factors

R--Damage and Reimbursable Cost Documentation

S--Maps and Charts

T--EOD Operations

U, V, W (Locally defined)

X--Classified Annex (If required, published under separate cover)

Z--Distribution

A2.5. Classified Information. Write an unclassified plan when possible. If the plan must contain classified information, try to incorporate it in a separate classified annex. Be sure to mark the plan according to the AFMAN 10-401 instructions and add the security instructions component.