ESF #3 Pocket Guide

US Army Corps
of Engineers
BUILDING STRONG®

2012

Foreword

The “Emergency Support Function #3 (ESF #3) Pocket Guide” provides the U.S. Army Corps of Engineers’ Commanders and Managers with essential information for disaster response and recovery operations under the National Response Framework. This pocket guide will enhance the decision-making process for disaster response and recovery operations by providing a readily accessible resource with easy-to-find information and guidance that is up to date. The pocket guide contains information on policies, missions, the Recovery Field Office, fact sheets, and other materials.

The pocket guide is a condensed version of the ESF #3 Field Guide and provides only essential information required by decision makers. If more in-depth information is required, the ESF #3 Field Guide, Mission SOPs, and other specific job aids located at CEERP website can be consulted. We solicit and expect constructive feedback from the USACE personnel to improve future revised versions of the pocket guide.

The ESF #3 Team plays a critical role during disaster response and recovery operations. When a major disaster occurs, our #1 priority will be to respond to the public’s needs. It is crucial to have complete and accurate information at our fingertips to ensure our success.

When the next major disaster occurs, the President, as well as the American people will expect and deserve a rapid and successful response from the U.S. Army Corps of Engineers. The ESF #3 Team will be instrumental in making the USACE response a success. You are encouraged to use the ESF #3 Pocket Guide as a source for information to assist you in your response and recovery efforts.

Index

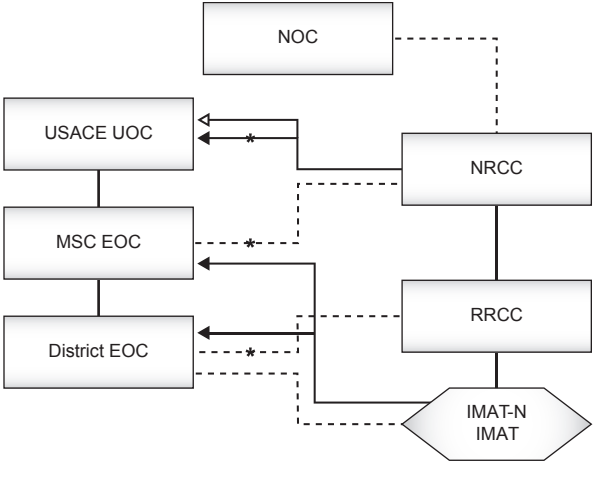
Index

Index

Index

Index

National Response Framework Structure



National Operations Center (NOC)

National Response Coordination Center (NRCC)

Regional Response Coordination Center (RRCC)

Incident Management Assistance Team National (IMAT-N)

Incident Management Assistance Team Regional (IMAT)

ESF #3 Concept of Operations Summary

The disaster response and recovery process is complex and dynamic. The Incident Command System (ICS) assists mission execution as a standard operating procedure under the National Response Framework (NRF). Several separate activities are simultaneously initiated and executed.

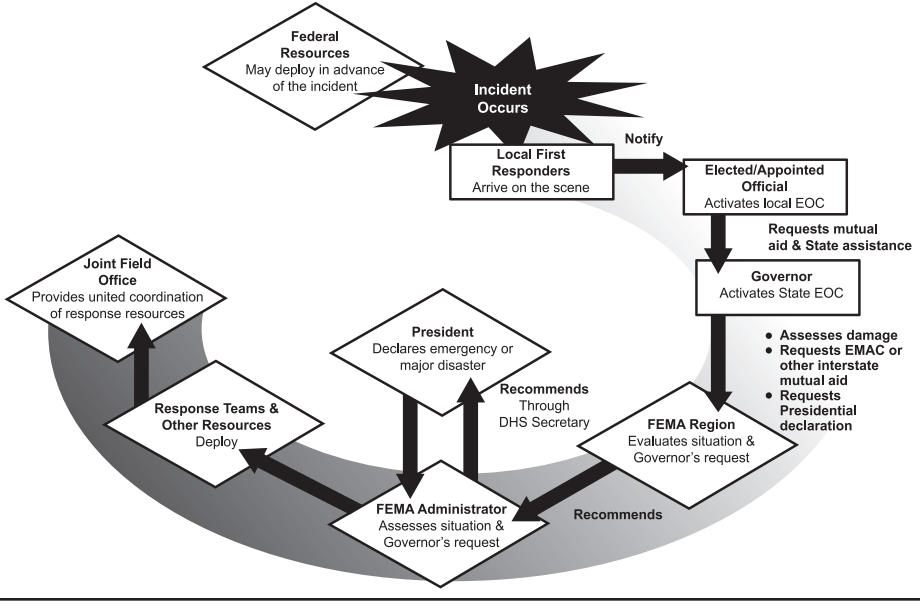
The following summary addresses the functions and activities during response within the Emergency Support Function #3 (ESF #3) structure. The summary incorporates established policies and principles, as well as operational experience from prior USACE emergency operation activities.

This Concept of Operations addresses operational teams, staffing, functions, reporting, and other organizational procedures associated with the response teams, mission assignments, and liaison requirements. In addition, MSC and District Emergency Operations Centers (EOC) are operating.

ESF #3 components may be present in the following response elements:

- National Response Coordination Center (NRCC)
- Regional Response Coordination Center (RRCC)
- Incident Management Assistance Team - National (IMAT-N)
- Incident Management Assistance Team - Regional (IMAT)

Overview of Initial Federal Involvement Under the Stafford Act



Homeland Security Act of 2002: The Homeland Security Act, PL 107-296, 6 U.S.C. §101(14) established the Department of Homeland Security to prevent terrorist attacks within the United States and reduce the vulnerability of the United States to terrorism, natural disasters, and other emergencies.

Homeland Security Presidential Directive-5: Enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive National Incident Management System (NIMS).

The Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.) (88 Stat.143) (The Stafford Act), authorizes the President to provide financial and other assistance to State and Local governments, certain private nonprofit organizations, and individuals to support response, recovery, and mitigation efforts following presidentially declared major disasters and emergencies.

ESF #1: Transportation: Primary Agency: Dept. of Transportation. Provide Federal and Civil transportation support and transportation safety.

ESF #2: Communications: Primary Agencies: DHS/National Protection and Programs/Cybersecurity and Communications/National Communications System. Provide telecommunications support.

ESF #3: Public Works and Engineering: Primary Agency: Department of Defense/U.S. Corps of Engineers. Restore essential public services and facilities.

ESF #4: Firefighting: Primary Agency: Dept of Agriculture, U.S. Forest Service. Detect and suppress fires, provide resource support to rural and urban firefighting operations.

ESF #5: Emergency Management: Primary Agency: DHS/FEMA. Collect, analyze, and disseminate information to facilitate overall Federal response and recovery operations.

ESF #6: Mass Care, Emergency Assistance, Housing, and Human Services. Primary Agency: DHS/FEMA. Manage and coordinate provision of care and assistance.

ESF #7: Logistics Management and Resources Support: Primary Agencies GSA/FEMA. Provide equipment, materials, supplies, and personnel to Federal entities during response operations. Coordinate Federal law enforcement at the State's request.

ESF #8: Public Health and Medical Services: Primary Agency: Dept. of Health and Human Services. Provide assistance with public health and medical care needs.

ESF #9: Urban Search and Rescue: Primary Agency: DHS/FEMA. Locate and extract individuals trapped in collapsed structures and provide initial medical treatments.

ESF #10: Oil and Hazardous Materials Response: Primary Agencies: Environmental Protection Agency, DHS/U.S. Coast Guard. Support Federal response to actual or potential release of oil or other hazardous materials.

ESF #11: Agriculture and Natural Resources: Primary Agencies: Dept. of Agriculture/Dept of Interior. Identify needs, ensure nutritional services and agricultural and natural resource protection and restoration.

ESF #12: Energy: Primary Agency: Dept. of Energy. Restore power systems, fuel supplies.

ESF #13: Public Safety & Security: Primary Agency: Dept. of Justice. Assist with law enforcement, criminal investigation, and response/recovery operations.

ESF #14: Long-Term Community Recovery: Primary Agency: DHS/FEMA, Dept. of Agriculture, Dept. of Housing and Urban Development, Dept. of Treasury, Small Business Administration. Assess economic impact. Provide recovery assistance to State and Local government.

ESF #15: External Affairs: Primary Agency: DHS/FEMA. Integrate structure, resources, and coordination mechanisms for delivering timely, accurate, and consistent information to the public.

ESF #3 Public Works and Engineering

ESF #3 - Public Works and Engineering assists the DHS/FEMA by coordinating the capabilities and resources of the Federal government to facilitate the delivery of services, technical assistance, engineering expertise, construction management, and other support to prevent, prepare for, respond to, and/or recover from domestic incidents. ESF #3 is structured to provide public works and engineering-related support for the changing requirements of domestic incident management, including preparedness, prevention, response, recovery, and mitigation actions.

Functional Scope:

- Conduct pre- and post-incident assessments of public works and infrastructure.
- Execute emergency contract support for life-saving and life-sustaining services.
- Provide technical assistance to include engineering expertise.
- Manage construction.
- Oversee contracting services.
- Oversee real estate services.
- Provide emergency repair of damaged infrastructure and critical facilities.
- Implement and manage the DHS/FEMA Public Assistance Program and other recovery programs.
- Support all other ESFs.

Coordinating Agency Responsibilities

The U.S. Army Corps of Engineers is designated as the ESF #3 Coordinating Agency in the National Response Framework and is responsible for:

- Pre-incident planning and coordination
- Maintaining contact with ESF primary and support agencies
- Conducting periodic ESF meetings and conference calls
- Coordinating efforts with the private sector
- Coordinating ESF activities related to catastrophic incident planning and critical infrastructure preparedness

Primary Agency Responsibilities

Primary Agency – Response: The U.S. Army Corps of Engineers is designated as the primary agency for ESF #3 response under the NRF.

Primary Agency – Recovery: FEMA is designated as the primary agency for ESF #3 recovery under the NRF. FEMA manages interagency infrastructure recovery programs under the Public Assistance program, Title 44 Code of Federal Regulations, Part 206 and the FEMA Public Assistance Guide (FEMA 322), which contains information regarding program eligibility, application processes, and project requirements.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Dept. of Agriculture (USDA)	Dept. of Agriculture (USDA) Provide engineering and contracting/procurement personnel and equipment to assist in emergency demolition, removal of debris, water supply, repair of roads and bridges, and temporary repair of essential public facilities. ESF #4 Fire Fighting or the USDA/Forest Service Disaster and Emergency Operations Branch is the contact for this support. Provide technical personnel to evaluate damage to water control facilities. The Natural Resources Conservation Service (NRCS) is the regional contact for this support.
Dept. of Commerce	Provide direct technical support and advice on procurement of external consulting services for assessing the structural and fire safety of damaged buildings and lifelines (public works and utilities). The Interagency Committee on Seismic Safety in Construction, Building and Fire Research Laboratory, National Institute of Standards and Technology, is the point of contact.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Dept. of Energy	Gather, assess, and share information on energy system damage and estimations on the impact of energy system outages within affected areas. Provide information concerning the energy restoration process, such as projected restoration schedules, percent completion of restoration, and geographic information on the restoration, and other information as appropriate. Enable potentially radioactive debris management activities by coordinating and/or providing data, resources, assessments, expertise, monitoring, technical assistance, and other appropriate support.
Dept. of Health and Human Services (HHS)	Supply engineering and environmental health personnel to help assess the status of local potable water, wastewater, and solid-waste facilities. Provide guidance related to health problems associated with hazardous materials. Coordinate and/or provide data, resources, assessments, expertise, monitoring, technical assistance, and other appropriate support for the management of contaminated debris.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Dept. of Homeland Security (DHS)	**Information Analysis and Infrastructure Protection Directorate** Protective Security Division (PSD): Provide infrastructure risk and vulnerability assessments in response to actionable intelligence and other information to support ESF #3 protection and mitigation missions. Infrastructure Coordination Division (ICD): Work with the Infrastructure Liaison on recovery and restoration of this ESF's critical infrastructure sector, including the allocation and prioritization of resources. **U.S. Coast Guard** Coordinate the marking and removal of obstacles declared to be hazards to navigation. Assist in debris and contaminated debris management that impacts navigable waters by coordinating and/or providing resources, assessments, expertise, monitoring, technical assistance, and other appropriate support.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Dept. of the Interior	Provide engineering support in evaluating damage to water control systems, such as dams, levees, and water delivery facilities. Provide personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general. Provide technical assistance in contract management, contracting, procurement, construction inspection, and environmental and archeological assessments. Provide any required tribal nation liaisons, as described in the Tribal Relations Support Annex.
Dept. of Labor (DOL)	**Occupational Safety and Health Administration (DOL/OSHA)** Provide worker safety advice, assistance, and policy support for debris removal, building demolition, and other ESF #3 activities.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Dept. of Transportation	Provide technical expertise and assistance for repair and the restoration of transportation infrastructure (e.g., highways, bridges, tunnels, transit systems, port facilities, and railways). Advise and assist transportation of contaminated materials. Provide engineering personnel and support to assist in damage assessment, structural inspections, debris clearing, and restoration of U.S. transportation infrastructure. Administer special funding for repair or reconstruction of major highway facilities and grant programs for transit systems and railroads that could be used for repair and rehabilitation of damaged infrastructures.
Dept. of Veteran Affairs	Provide engineering personnel and support, including design estimating and construction supervision, for repair, reconstruction, and restoration of eligible facilities.

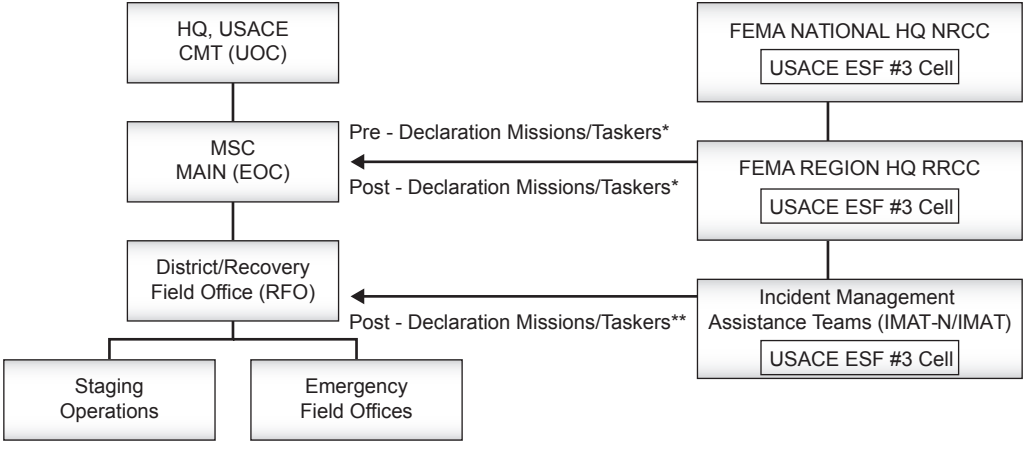
Other ESF Support to ESF #3 Under the NRF

Agency	Functions
Environmental Protection Agency	Conduct infrastructure protection activities for drinking water and water treatment agencies in accordance with responsibilities as the designated Sector-Specific Agency as described in Homeland Security Presidential Directive-7. In conjunction with HHS, assist in determining potable local water and materials that may affect drinking water supplies. Assist in identifying water and wastewater needs. Supply sanitary engineers to assess wastewater and solid-waste facilities. Provide bio-surveillance, warning, and detection capabilities. Assist in locating disposal sites for debris clearance. Identify locations and provide safety guidance for areas affected by hazardous materials. Ensure the protection and cleanup of these areas. Assist contaminated debris management activities by coordinating and/or providing data, resources, assessments, expertise, monitoring, technical assistance, and other appropriate support. Assist investigation and intelligence analysis for hazardous materials incidents involving contaminated wastewater or drinking water systems.

Other ESF Support to ESF #3 Under the NRF

Agency	Functions
General Services Administration	Provide personnel and contractors to assist in damage assessment, structural inspections, debris clearance monitoring, and the restoration of facilities in general.
Nuclear Regulatory Commission	Assist potentially radioactive debris management by coordinating and/or providing data, resources, assessments, expertise, monitoring, technical assistance, and other appropriate support.
Tennessee Valley Authority	Provide personnel to assist in damage assessment, structural inspections, debris clearance monitoring, and restoration of facilities in general.
American Red Cross	Work with DOD/USACE, DHS/EPR/FEMA, other Federal, State, Local, and Tribal government entities, as well as other NGOs to ensure integration of ice and water requirements and distribution processes into mass care operations.

Mission Assignment and Tasking



← Tasking

* National Commodities, US&R Support, and generator leasing issued by NRCC

** Issued from JFO when RRCC stands down

Foundation for USACE Responsibilities

USACE Task Force Commander (UTFC)

- Issue operations orders
- Designate Supported and Supporting MSC Commands
- Provide USACE resources and attach them to the Supported Division Commander, upon request

ESF #3 Team Leader

- Provide supervision to all the USACE elements directly supporting the FCO and internal FEMA operations
- Serve as the USACE representative in the negotiation, coordination, and acceptance of missions and taskings
- Provide Senior Program Manager oversight of ESF #3 assigned missions
- Forward FCO's taskings to the USACE response unit (usually the Recovery Field Office [RFO]) for mission execution

Foundation for USACE Responsibilities

Supported Division Commander

- Responsible to the USACE Commander for emergency preparedness and response
- Respond quickly
- For major disasters, deploy to the disaster site and provide initial disaster assessment
- Designate the USACE responding organization (usually an RFO) commander
- Provide MSC resources to RFO commander to support mission(s)
- Request additional resources through HQUSACE UOC
- Act as point of contact (POC) for all HQ mission execution and mission status reporting
- Attached unit, the ESF #3 Team Leader (Management Team), and other USACE assets assigned to the Joint Field Office*

USACE Responding Organization Commander

- Support the Recovery Field Office
- Designated by the Supported Division Commander, accountable to the Supported Division Commander
- Attached USACE assets deploy into the region for event response (Does not include personnel DS to FCO*)

* Supported Division Commander may further attach elements to the USACE response unit (usually an RFO) Commander.

Foundation for USACE Responsibilities

Recovery Field Office (RFO)

- Provide mission execution, planning, contract administration, design, tecnical assistance, and real estate acquisition/disposal
- Function is similar to a District Office

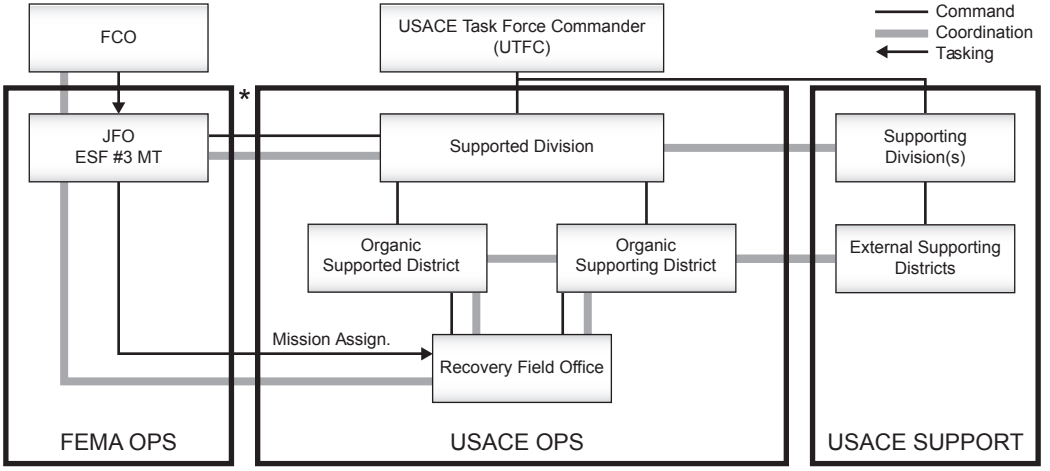
Emergency Field Office

- Function is similar to a Resident Engineer Office
- Established by a district EOC for small to medium recovery missions (e.g., debris, temporary housing and roofing)
- Established by the RFO to support large, long duration recovery missions

USACE Responding Organization (usually a Supported District) Commander

- Provide cadre, administration, and logistics support for the RFO

Command and Control of USACE Disaster Recovery Operations



** Supported Division Commander may further attach ESF #3 MT to Recovery Field Office Commander.*

Sourcing of ESF #3 Team Leaders & Assistant Team Leaders

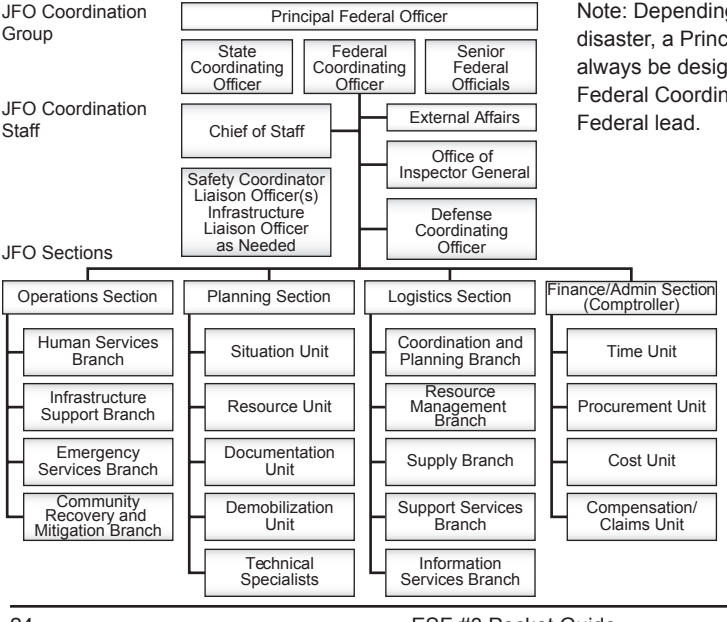
USACE Task Force Commander (UTFC) provides:

- Representative to the NRCC
- Staffing for NRCC
- Staffing for IMAT – National

Division Commander (MSC) (in consultation with the UTFC) provides:

- Staffing for RRCC
- Staffing for IMAT - Regional

Sample JFO for Natural Disasters



Note: Depending on the magnitude of the disaster, a Principal Federal Official may not always be designated, in which case the Federal Coordinating Officer will provide the Federal lead.

The State Coordinating Officer represents the State, and, in some instances, the JFO Coordination Group may include local and/or tribal representatives, as well as NGO and private-sector representatives, as appropriate.

National Response Coordination Center (NRCC)

- The National Response Coordination Center (NRCC) is a multiagency center that provides overall Federal support coordination for major disasters and emergencies, including catastrophic incidents and emergency management program implementation.

- Staffed by the National Response Coordination Staff (NRCS), the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) maintains the NRCC as a functional component of the National Operations Center (NOC) in support of incident support operations at the regional-level.

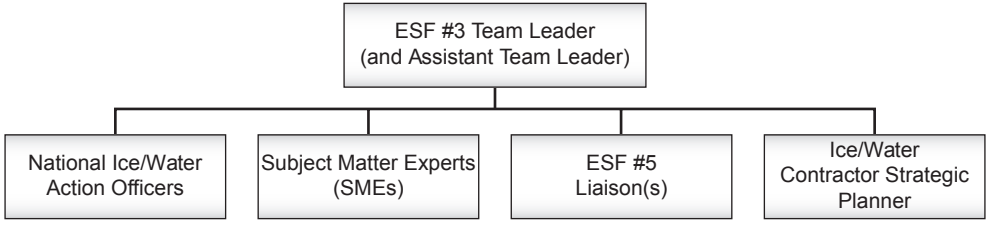
- Upon activation, the NRCS provides national-level emergency management by coordinating and integrating resources, policy guidance, situational awareness, and planning in order to support the affected region(s).

National Response Coordination Center (NRCC)

- The NRCS does the following:

  - Maintains situational awareness of specific potential threats, events, or incidents.
  - Collects, validates, analyzes, and distributes incident information.
  - Coordinates the use of other Federal agencies resources through mission assignments and interagency agreements.
  - Develops the National Support Plan, National Advanced Operational Plan, and Functional Plans to source and address identified resource shortfalls.
  - Coordinates with the affected region(s) to determine initial requirements for federal assistance.
  - Coordinates support and situational reporting with the Regional Response Coordination Center(s).
  - Activates and deploys national teams.
  - Deploys initial response resources and other disaster commodities when required.
  - When directed, assume responsibility for Regional incident support if a Regional Office is not operational.

USACE Support to the NRCC



USACE ESF #3 Responsibilities at the NRCC

- Establish and maintain coordination with ESF #3 at the RRCC/JFO and UOC.
- Act as ESF #3 POC for NRCC Director, other ESFs, Logistics, Joint Director of Military Support (JDOMS), and others.
- Assist in resolving issues that impede USACE response efforts.
- Represent USACE in the overall management of ESF #3 activities.
- Manage Single Source Ordering of National Commodities.
- Support activities of the ESF #5 (FEMA), including remote sensing/geographic information system (RS/GIS) modeling efforts and reporting.
- Support Logistics and transportation activities.
- Advise FEMA and other ESFs on USACE authorities and capabilities.
- Provide active interface with other ESFs and the DoD Liaison.
- Provide the USACE input regarding resource allocation.
- Pro-actively participate in the NRCC Director's daily coordination meetings and the action planning process.
- Provide FEMA leadership with status of USACE missions.
- Report daily status to HQUSACE.
- Provide input to White House updates and other FEMA reports.

Regional Response Coordination Center

The Regional Response Coordination Center (RRCC) staff Response Support Team (RST) coordinates Federal response efforts until an IMAT is established in the field and the FCO assumes coordination responsibilities. Generally operating from the FEMA Regional Office, the RRCC establishes communications with the affected state emergency management agency and the NRCC, coordinates deployment of the Incident Management Assistance Team (IMAT) to field locations, assesses damage, develops situation reports (under ESF #5 - Emergency Management), and issues initial mission assignments.

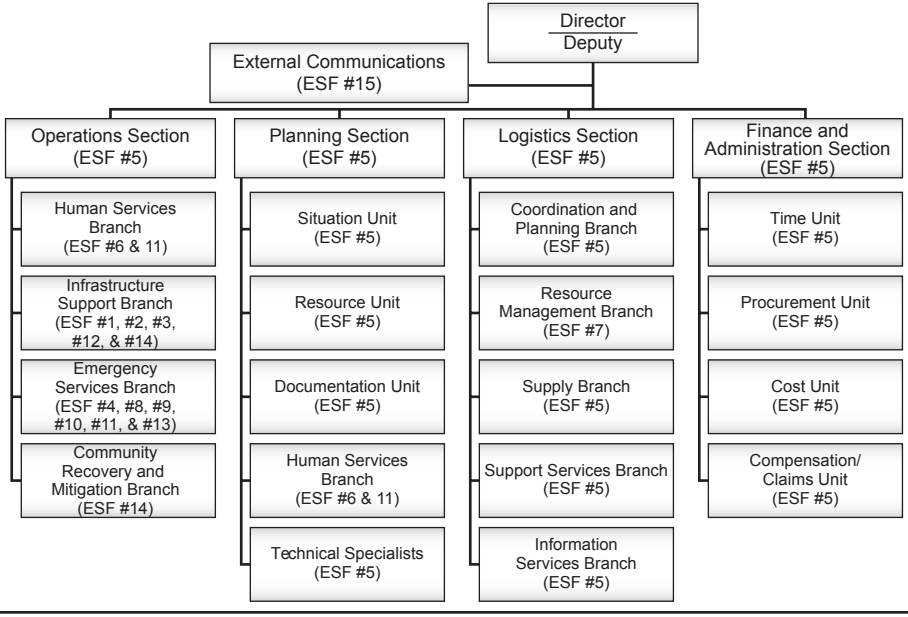
The RRCC is activated by the FEMA Regional Director based on the level of response required. It is led by an RRCC Director and consists of FEMA staff, ESF representatives, and a Regional Emergency Preparedness Liaison Officer (REPLO), who help coordinate requests for military support. The RRCC will be deactivated once the JFO becomes operational, or at the discretion of the FEMA Regional Director.

Regional Response Coordination Center

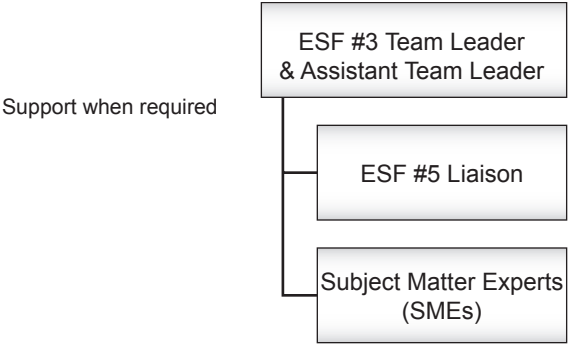
Until the JFO is fully operational, the RRCC will perform the following functions:

- Establish the foundation for response and recovery efforts.
- Coordinate IMAT activities for deployment to the field and/or State EOC.
- Collect field assessment data provided from IMAT, and collect and distribute RNA data.
- Issue pre-disaster and other initial mission assignments to the respective ESFs.
- Accept formal Mission Assignments (MAs) via its USACE representative.
- Establish communications with the affected state through the IMAT and initiate planning and coordination for response.
- Serve as a temporary coordination office for Federal activity.
- Collect information and provide situation status updates and assessment reports to the NRCC, IMAT, and MSC EOC.
- Coordinate the gathering and dissemination of damage assessment information with ESF #5 - Emergency Management through the FEMA
- RRCC Situation Report (SITREP).

RRCC Organization



USACE Support to the RRCC



USACE Support to the RRCC

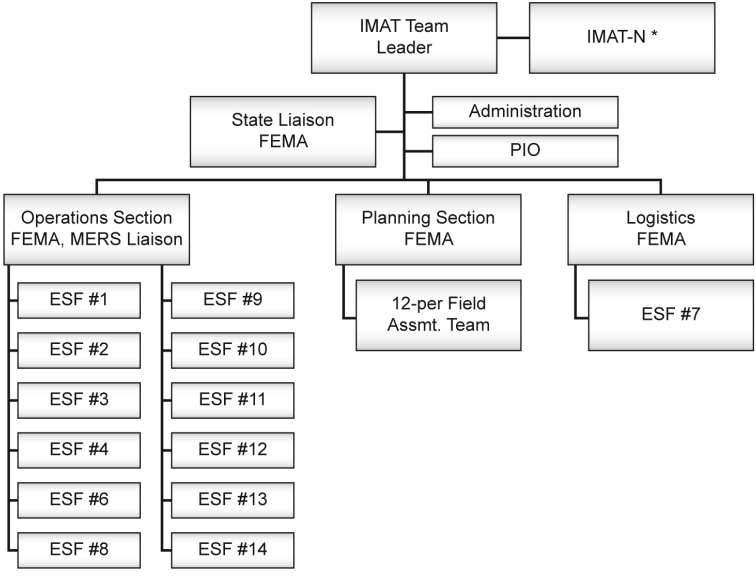
ESF #3 RRCC Staffing: The MSC, in coordination with HQUSACE, will be responsible for providing credentialed ESF #3 representatives to the RRCC for 24-hour operations. MSC Commanders will provide support personnel to round out the ESF #3 cell at the RRCC. Upon deactivation of the RRCC, the credentialed ESF #3 personnel may be required to redeploy to the JFO or elsewhere, as determined by the UOC.

USACE Support to the RRCC

The RRCC ESF #3's responsibilities are to:

- Provide ESF #3 input to the pre-event contingency planning process.
- Represent the USACE in overall management of ESF #3 activities.
- Act as the ESF #3 POC for the RRCC Director, DCO, and other ESF team leaders.
- Coordinate the formulation, acceptance, and funding of initial mission assignments from FEMA and/or other ESFs.
- Provide the RRCC Director status of USACE activities and input for FEMA RRCC SITREP.
- Coordinate and participate in strategic planning on projected ESF #3 missions.
- Support activities of the ESF #5, including RS/GIS modeling efforts and reporting.
- Participate proactively in the RRCC Director's daily coordination meetings and action-planning process.
- Forward MAs to the impacted MSC for execution and information copies to NRCC and UOC.
- Coordinate with ESF #1 (DOT) on the transportation concept of operations for support to USACE mission execution.
- Coordinate with ESF #12 (DOE) on the concept of operations for restoration of the power grids in concert with the USACE emergency
- power mission.
- Report daily USACE status to the MSC EOC and NRCC.
- Coordinate with NRCC and IMAT deployed to the State EOC, and with MSC and District EOCs as necessary.
- Advise FEMA and other ESFs on USACE authorities and capabilities

IMAT Structure



USACE Support to the IMAT

The IMAT is the initial Federal group responding to an incident in the field. Headed by a team leader from FEMA, it is composed of FEMA program and support staff, as well as representatives from selected ESF primary agencies. The IMATdeploys to the State Emergency Operations Center (SEOC) or other locations to work directly with the State to obtain information on the event's impact and to identify specific State requests for Federal response called back to the RRCC for processing. Other IMAT elements (including MERS personnel and equipment) deploy directly to or near the affected area to set up operations, locate and establish field facilities, and establish field communications. The IMAT advises as to the need to deploy additional Federal resources and identifies or validates the suitability of candidate sites for the location of Incident Support Bases (ISBs), other mobilization center(s), and the JFO. The IMAT provides the RNA assessment data to the RRCC.

Activation: The IMAT may be activated at the same time as the RRCC or at the discretion of the FEMA Regional Director. USACE planning to support the IMAT should provide for activation as early as three days before an actual event with warning (e.g., hurricanes, floods). An event without warning (e.g., earthquake) will require the USACE to have designated personnel postured for activation at all times for each MSC.

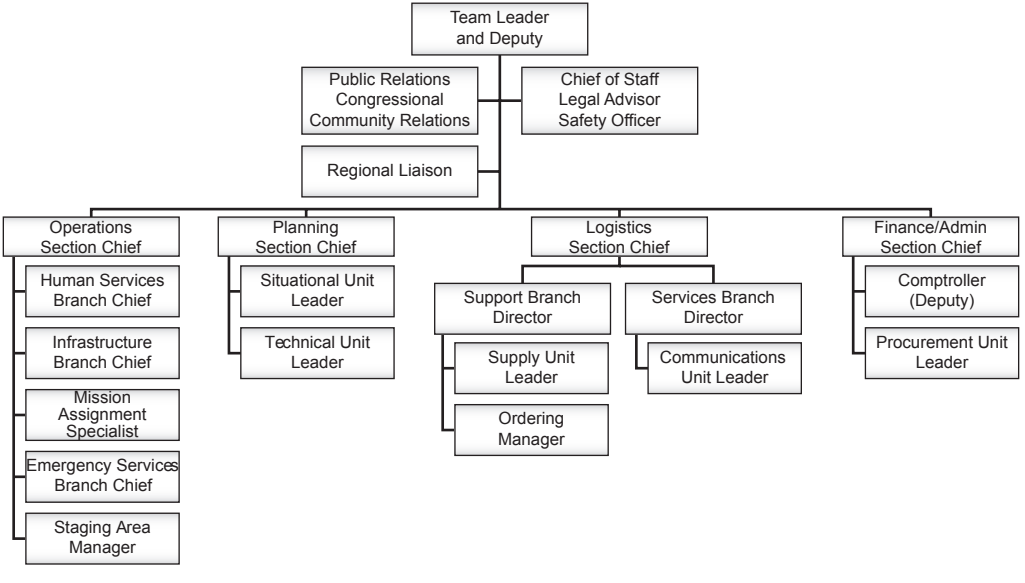
USACE Support to the IMAT

ESF #3 IMAT Staffing: HQUSACE will be responsible for providing representatives for the IMAT. IMAT representatives should include, but not be limited to, an ESF #3 Team Leader, ESF #3 Assistant Team Leader, Action Officers (Commodities and Emergency Power), 249th Action Officer, and an administrative assistant. In addition, when activated, the USACE member of IMAT-N works closely with the Regional IMAT. Prime Power will normally have two personnel on the IMAT. As USACE representatives complete their missions on the IMAT they are either released or are redeployed to the JFO as part of the ESF #3 Management Team.

ESF #3 IMAT Staff Responsibilities:

- Provide information to MSC EOC for both assessment of scope and magnitude of the disaster.
- Inform State officials regarding types of assistance the USACE can provide under ESF #3 and USACE authority.
- Identify JFO space requirements to FEMA for the ESF #3 Management Team.
- Identify, where practical, the inclusion of space for the RFO in the JFO.
- Provide requirements for lodging of the ESF #3 Management Team to FEMA.

IMAT-N Organization Chart



IMAT-N

In a catastrophic disaster or high-visibility incident demanding the full capabilities of FEMA, an IMAT-N may deploy to the affected area. The Director of FEMA determines the need for an IMAT-N deployment, coordinating the plans with the affected region and other Federal agencies. The IMAT-N comprises staff from FEMA Headquarters and regional offices and may include other Federal agencies, depending on the circumstances. Three (3) IMAT-N teams are currently on the FEMA roster (Red, White, and Blue Teams).

USACE Support to the IMAT-N

There are no standing ESFs on the IMAT-N. However, HQUSACE is responsible for maintaining a list of qualified individuals and providing a USACE representative to the IMAT-N as required. The ESF #3 Team Leader on the IMAT-N is responsible for strategic and political activities and works closely with the ESF #3 Management Team on mission execution once the JFO is established.

IMAT (Regional)

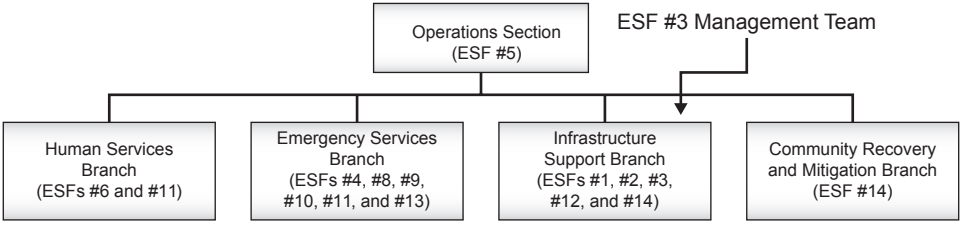
The IMAT is the principal DHS/FEMA led interagency group that supports the FCO in coordinating the overall Federal disaster operation. The IMAT ensures that federal resources are made available to meet state requirements identified by the State Coordinating Officer (SCO). The size and composition of the IMAT can range from soley FEMA staff who are primarily conducting recovery operations to a full interagency team having representation from all ESF primary and support agencies undertaking full response and recovery activities.

The ESF #3 Management Team will be fully operational once the JFO is established. This ESF #3 Management Team is an integral part of the IMAT and provides the linkage between the USACE and FEMA at the JFO. In addition, the team serves as the point of contact for other ESFs regarding the execution of missions within the scope of ESF #3.

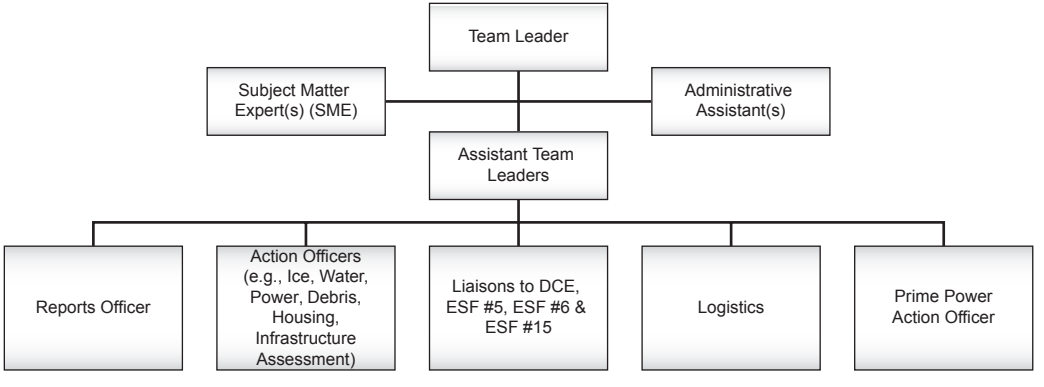
For USACE, the ESF #3 Management Team accomplishes mission coordination with FEMA, and other Federal, State, and Local agencies. The Recovery Field Office accomplishes recovery mission execution. This includes design, contracting, logistics, real estate, contract administration, resource management, and other functional supports.

In all cases, the Team Leader for the ESF #3 Management Team is the USACE authorized representative and staff element. Missions are completed through a series of taskings to the RFO/supported district.

IMAT Operations Section



ESF #3 Management Team



ESF #3 Management Team

1. Purpose: The ESF #3 Management Team is an integral part of the IMAT and links USACE and FEMA at the JFO. In addition, the team serves as the point of contact for other ESFs relating to the execution of missions within the scope of ESF #3. The mission coordination with FEMA and other Federal, State, and Local agencies occurs at the ESF #3 Management Team level. In all cases, the ESF #3 Management Team is the USACE authorized representative and staff element. The ESF #3 Team OPCONs to the FCO and provides total mission execution oversight for all FEMA-assigned missions. The missions are completed through a series of taskings to the MSC, district, or RFO from the ESF #3 Management Team.

2. Activation/Deactivation:

Activation: When the NRF is implemented and the ESF #3 is activated by FEMA, the IMAT/ESF #3 Management Team will be staffed by the Supported Division Commander in coordination with HQUSACE from a national team roster of experienced/qualified/credentialed personnel. Team members will immediately deploy to the JFO site once it has been established. The MSC may request HQUSACE to deploy the 249th Engineer Battalion (Prime Power).

Deactivation: Deactivation of the ESF #3 will be in consultation with the FCO and in coordination with the UOC and RFO Commander.

3. Staffing: A recommended initial staffing level for response to a major disaster is shown on page 41. Certain positions are filled by activated PRTs. The number of personnel required is determined by the magnitude of the disaster and the number of assigned missions. Initial commitments are typically for a minimum of 30 days. The 249th Engineer Battalion (Prime Power) provides a Mission Control element to the ESF #3 Management Team when activated.

Commodities Mission Overview

- PSMAs are NIMS typed:
  - Type 1 - $800K - pre-dec, $6M - post-dec
  - Report and track 50 Points of Distribution
  - Assist FEMA with manning for commodities at three Staging Areas
  - 24 hour operations
  - Type 2 - $500K - pre-dec, $3.5M - post-dec
    - Report and track 25 Points of Distribution
    - Assist FEMA with manning for commodities at two Staging Areas
    - 24 hour operations
  - Type 3 - $200K - pre-dec, $750K - post-dec
    - Report and track 10 Points of Distribution
    - Assist FEMA with manning for commodities at one Staging Area
    - 12 hour operations

Commodities Mission Overview

- Mission Execution Team deploys to ISB.
- Mission Liaison deploys to Impacted District Office or Impacted District COOP location.
- Personnel need to be in place at ISB prior to any Commodities trucks arriving at ISB.
- If the State establishes a state staging area, the Commodities team will man that area with a Commodities Site Manager and QAs for monitoring and tracking commodity trucks who acts as a liaison to the site manager if acceptable to the state.
- State and/or local governments will establish POD locations. Commodities Team QAs will serve as liaisons at the PODs.
- Commodities PRT may also be used to provide assistance to FEMA Log at various locations.
- The ATL overseeing the Commodities AO shall ensure that the daily strategic plan is accomplished (ATL to review document daily).

Commodities Planning - Key Lessons Learned

- Commodities will be pushed forward before the logistical structures are in place.
- The critical planning factor for ordering commodities is “distribution” capability, not people without power.
- Distribution planning must be a priority with Local governments for the Commodities Mission to succeed.
- All levels of government must understand the distribution point concept.

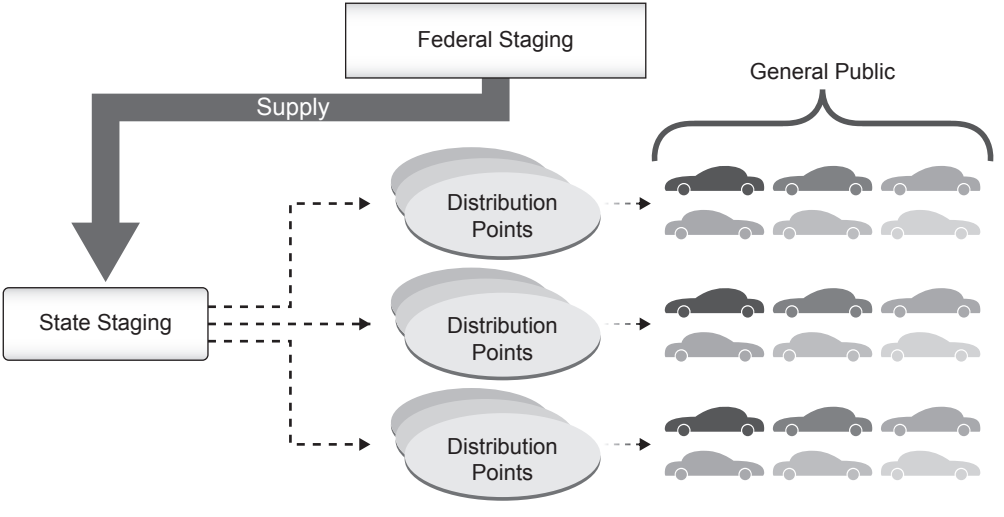
Key Planning Factors

- Ice: One truckload (40,000 lbs. 8 lbs./per) serves 5,000 people.
- Water: One truckload (18,000 liters, 3+liters/per) serves 5,000 people.
- Meals: One truckload (21,744 ea., 2 each/per) serves 10,000 people.
- Tarps: One truckload (4,400 ea.) serves 4,400 families with roof damage.
- One car represents one family or three people.
- Each car is provided the following:
    - Two or three bags of ice
    - One case of water (9-12 liters)
    - Six meals
    - One tarp, if car occupants state they have roof damage

Key Planning Factors

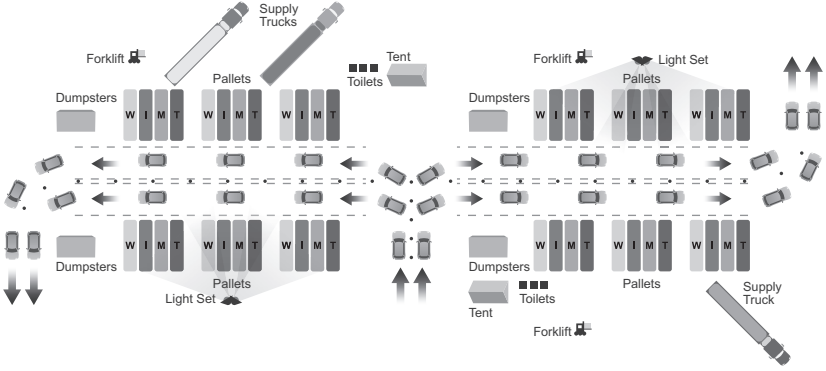
- A Distribution Point (DP) with one supply lane can serve 1,660 cars or 5,000 people in one day (Type III Distribution Point).
- A Type II DP has two lanes.
- A Type I DP has four lanes.
- One Type III Distribution Point serves 5,000 people and requires the following per day:
  - One truckload ice
  - One truckload water
  - One-half truckload meals
  - One truckload tarps (Only if necessary, tarps should be distributed elsewhere)

Key Planning Factors



Key Planning Factors

Type 1 - Distribution Point
Serves 20,000 people per day
12 Loading Points - 560 vehicles per hour



Note: Individual vehicles drive through, and ice and water are loaded into their trunks. Recommend one case water, two or three bags of ice, and six MREs per vehicle.

Supply trucks for ice, water, MREs, and tarps are to be off-loaded promptly and returned for re-supply.

Maximum Loads per Day - Type 1

Water	4
Ice	4
MRE	2
Tarp	2

Key Planning Factors

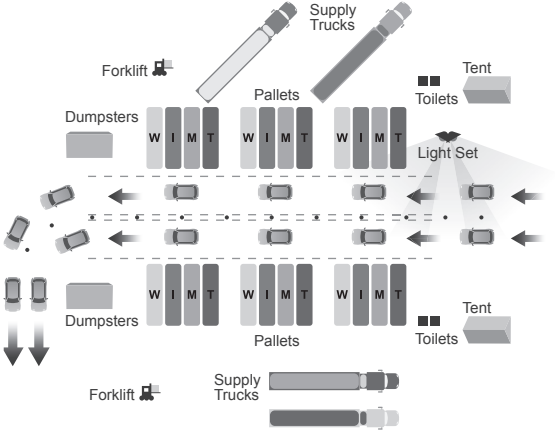
Type 2 - Distribution Point
Serves 10,000 people per day
6 Loading Points - 280 vehicles per hour

Note: Individual vehicles drive through, and ice and water are loaded into their trunks. Recommend one case water, two or three bags of ice, and six MREs per vehicle.

Supply trucks for ice, water, MREs, and tarps are to be off-loaded promptly and returned for re-supply.

Maximum Loads per Day - Type 2

Water	2
Ice	2
MRE	1
Tarp	1



Key Planning Factors

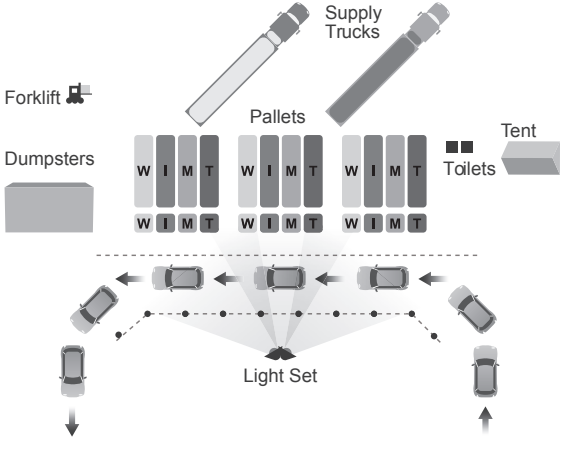
Type 3 - Distribution Point
Serves 5,000 people per day
3 Loading Points - 140 vehicles per hour

Note: Individual vehicles drive through, and ice and water are loaded into their trunks. Recommend one case water, two or three bags of ice, and six MREs per vehicle.

Supply trucks for ice, water, MREs, and tarps are to be off-loaded promptly and returned for re-supply

Maximum Loads per Day - Type 3

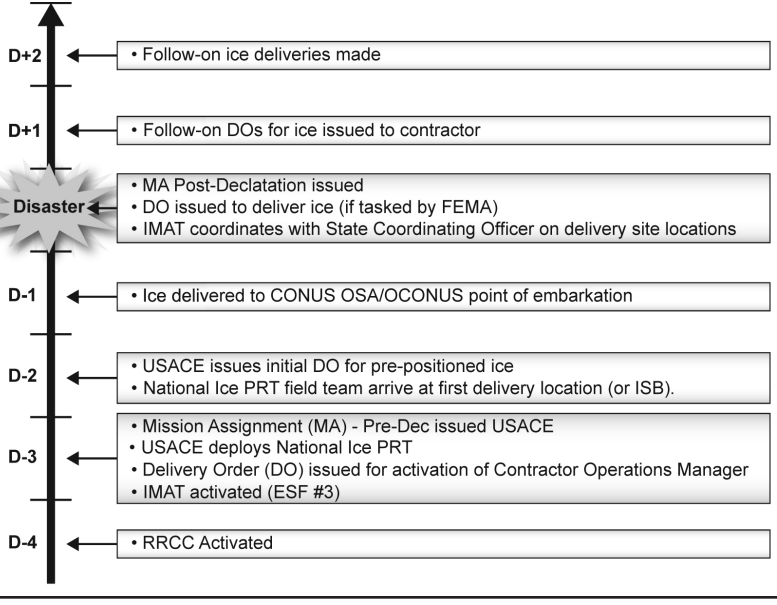
Water	1
Ice	1
MRE	1/2
Tarp	1/2



National Ice Mission Overview

- Standard reefer (refrigerated truck) holds 40,000 pounds ice
  - 5- to 20-lb. bags, 2,000 lbs./pallet, 40,000 lbs./truck
- Personnel are on 24-hour mission the first seven to 10 days
- Pre-Scripted Mission Assignment: $200,000, depending on location
- Estimate one bag/person
  - Bags 5 lbs. to 20 lbs
- Advance Contracting Initiative Quantity Limitations:
  - Single Orders (min) - 200,000 lbs. (5 Truckloads)
  - Single Orders (max) - 20,000,000 lbs. (500 Truckloads)
  - Total capacity of the existing contracts - $350M
- Reefers are a limiting factor, as reefers sitting longer than three days require maintenance
- Storage Capability: No minimum days. Daily rate only
- Contract schedule:
  - 3,000,000 lbs. (75 trucks) within 24 hours of receiving a Task Order (CONUS)
  - 1,000,000 lbs. within 48 hours PR & VI
- See National Ice ACI contract Section F.3 for required delivery scheduled and quantities.
- Beware of demobilization, pipeline effect

National Ice Mission Execution Timeline



National Ice Mission Execution Timeline

Note:

- For Outside the Continental United States (OCONUS) operations, add two days to start of ice deliveries. Also, little activity will occur at D-1, D+0, and D+1, due to weather and damage conditions.

Assumptions:

- Roads and airfields are accessible for contractors. FEMA issues Pre-Scripted Mission Assignments.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Contract schedule:

- 3 M lbs. or 25% of order within 24 hours in Continental United States (CONUS) area
- 1 M lbs. within 48 hours PR and VI

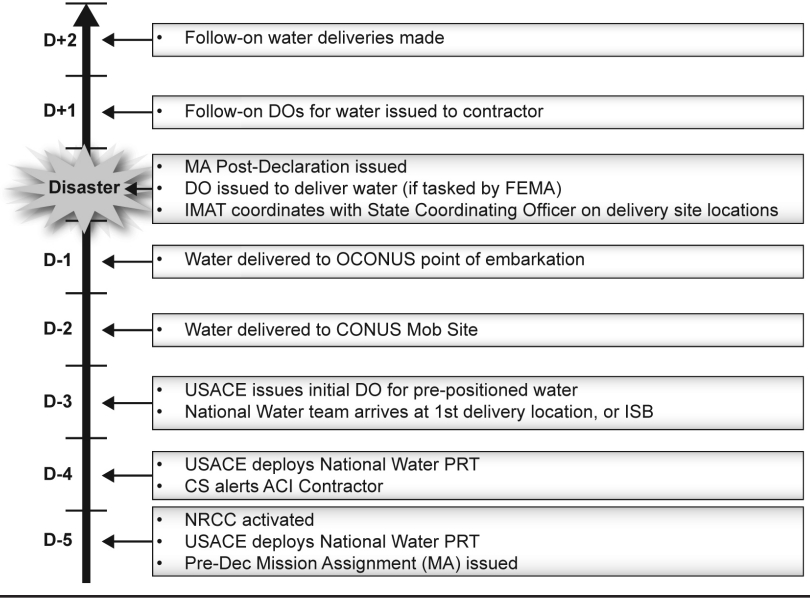
National Water Mission Overview

- Plan to support one million people per day for seven days (200 truck loads/day)
- The critical planning factor for ordering commodities is “distribution” capability, not people without power.
- The new contract requires the contractor to use an automated tracking system, such as mobile GPS transceivers reporting to a data collection computer for vehicles in transit.
- Pre-Declaration ordering and/or repositioning will be based on landfall minus three days, according to the USACE model.
- Post-Declaration ordering will be based on post-landfall modeling for the first 72 hours (L+3 days), and then on the state’s capability to distribute commodities.
- OCONUS: Schedule of bottled water deliveries will be confirmed by the contractor before the issuance of a delivery order. Contractor must deliver a minimum of 75% of the daily amount ordered to meet the requirements of substantial performance.
- Pre-scripted Mission Assignment: $200K for team deployment (does not include commodity purchase).
    - Standard CONUS truckload is approximately 18,000 liters, or 5,000 gallons (1 gallon = 3.79 liters).
    - For OCONUS delivery, truckload is approximately 16,200 liters, due to barge container capability.
- Haulers are a limiting factor, especially on weekends.
- Cases are individually shrink-wrapped and stacked on pallets. Pallets are stretch-wrapped on all four sides with a minimum of four inches overlap on top.

National Water Mission Overview

- Water ACI contract calls for bottles to range from 12 ounces to 1.5 liters (24 ounces preferred).
- Personnel are on 24-hour mission, first seven to 10 days.
- Estimate three (3) liters/person/day for drinking water only.
- Beware of demobilization, pipeline effect.
- ACI Quantity Limitations:
  - Single Orders (min): $25,000
  - Single Orders (max): 24 million liters
  - Combination Orders (max): 28 million liters
  - Multiples of 18,000 liters (1 truckload) ordered
  - Minimum OCONUS single order: 36,000 liters

National Water Mission Execution Timeline



National Water Mission Execution Timeline

- For OCONUS operations, add two days to start of water deliveries from point of embarkation. Little activity will occur at D-1, D+0, and D+1, due to weather and damage conditions. However, some aerial assessments may be accomplished to determine the impacts and magnitude.

- Assumptions: Roads and airfields are accessible for contractors. FEMA issues Pre-Scripted Mission Assignments.

- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

- Contract schedule CONUS: 100% of quantity ordered, up to 720,000 liters within 24 hours. For orders of 720,000 plus:
  - Within 24 hours: 720,000 liters (40 truckloads)
  - 24-48 hours: 1,800,000 liters (100 truckloads)
  - After 48 hours: 3,600,000 liters (200 truckloads) daily

Emergency Power Information Paper

Emergency Power Mission Capabilities:

USACE has the capability to provide local and state officials broad support for their unmet temporary emergency power needs. This support ranges from technical expertise/assistance through complete management of an emergency power mission including the procurement, installation and operation of generators. USACE assets include elements of the U.S. Army 249th Engineer Battalion "Prime Power," Emergency Power Planning and Response Teams (PRTs) from across USACE, USACE-contracted forces, and USACE Deployable Tactical Operations System (DTOS) for communications. USACE also coordinates with other Federal partners such as the Federal Emergency Management Agency (FEMA) and the Department of Energy (DOE). These assets can provide Technical Assistance before, during or after an event which includes, but is not limited to:

- Assessing emergency power requirements needed at a facility
- Assessing conditions and capabilities of existing emergency generation equipment
- Troubleshooting, repair, and operation of emergency generation/distribution equipment
- Installation, operations, fueling and maintaining emergency power generation equipment
- Safety inspections of electrical distribution systems and equipment
- Assessing damaged electrical distribution systems and equipment
- All hazards emergency power planning

Emergency Power Information Paper

The execution of a power mission in an emergency involves the combined efforts of the 249th, the Power PRT, DTOS, the Advance Contracting Initiative (ACI) contractor, and our State and Federal partners. During these missions, the Technical Assistance items discussed above are brought to bear along with the following:

- Provide assistance to State and Local officials in determining priorities for assessing and installing generators at critical public facilities
- Assessing facilities to determine suitability for a generator, location for its placement and matching with the correct generator configuration
- Preparation, hauling, and installation of generators
- Operation, fueling, service, and maintenance of installed generators
- De-installation and return of generators; this can also include remediation of the generator installation site to its pre-installation site condition.
- Service, maintenance, and repair of generators prior to their return to long-term storage to ensure they are Fully Mission Capable (FMC); This may also include load testing.
- Replenishing any Bill of Materials (BOM) used during execution of the mission

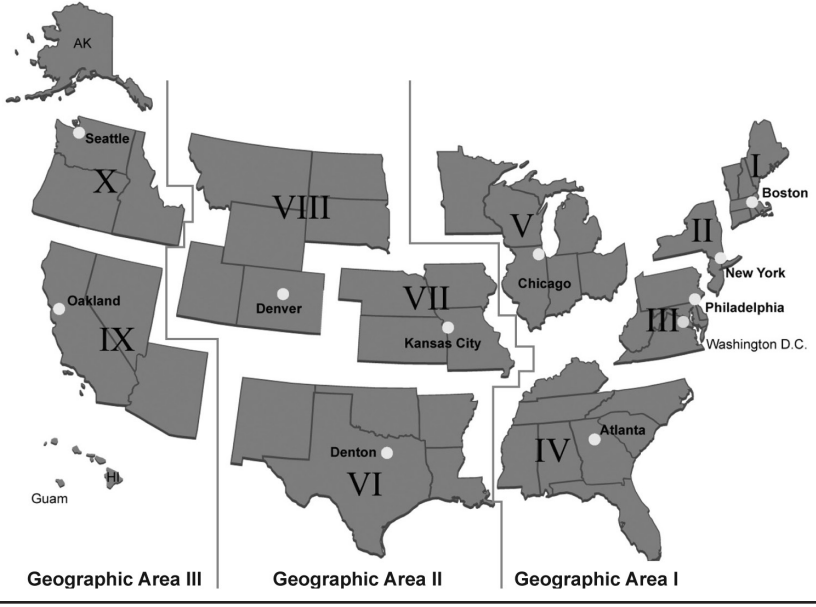
Emergency Power Information Paper

Operational maintenance of FEMA generators is performed by a combination of 249th, PRT, and contractual support. Generator procurement and/or leasing can be performed by USACE through a contracting team which has pre-established contracting tools.

During Emergency Power response activities, facilities requiring generators are typically prioritized in the following order:

1. Life-Saving Facilities (911 centers, police, fire stations, and medical facilities)
2. Life-Sustaining Facilities (water and wastewater treatment and pumping facilities)
3. Other municipal facilities to reinstitute local command and control and post-event recovery

A video highlighting the USACE Temporary Emergency Power mission has been developed to assist emergency planners in understanding the capabilities and implementation of temporary emergency power missions in a disaster: www.youtube.com/watch?v=cOGaPwlxu0w


AK
Seattle
X
VIII
V
I
Boston
II
New York
Chicago
Oakland
Denver
VII
IX
Philadelphia
III
Kansas City
Washington D.C.
Atlanta
Denton
IV
VI
HI
Guam
Geographic Area III
Geographic Area II
Geographic Area I

Emergency Power Information Paper

Power Contracting:
The ACI Contracts serve specific FEMA regions as shown below.

Area I
IAP Worldwide Services

Area II
IAP Worldwide Services

Area III
Kellogg, Brown and Root Services, Inc

Contract Area	Serving FEMA Regions/Territories
I	I, II, III, IV, V, Puerto Rico, and the Virgin Islands
II	VI, VII and VIII
III	IX, X, Alaska, Hawaii, and Guam

Emergency Power Information Paper

In addition to the three ACI contracts which are area-specific, USACE also provides additional capabilities through the Worldwide Power (WWP) Contingency Response Contracts. Three firms hold the WWP contracts: Berger Cummings JV, Fluor Corp., and IAP Worldwide Services. The WWP contracts provide for a wide array of electrical services, which include the following:

- Performance of world-wide emergency power services in locations not covered by the ACI Contracts
- Procurement and transportation of generators not in the FEMA inventory
- Procurement and shipment of BOM or other necessary supplies and equipment
- Procurement of specialized personnel including translators
- Maintenance and repair of generators

USACE Emergency Power Planning and Response Team (PRT) Locations:

CELRD - Great Lakes and Ohio River Division (Emergency Power Proponent Division)

CELRP - Pittsburgh District
CENAP - Philadelphia District
CESAS - Savannah District
CEMVM - Memphis District
CESWT - Tulsa District
CENWW - Walla Walla District
CEPOH - Honolulu District

Emergency Power Information Paper

Emergency Power Points of Contact

HQUSACE
Pete Navesky
Permanent Cadre Member
Peter.Navesky@usace.army.mil
202-341-0537 (cell)

USACE Proponent
Dave Bishop
Emergency Power SME
David.a.bishop@usace.army.mil
412-215-9200 (cell)

Contract Information
T.J. Fichera
District Chief, EM/Emergency Power SME
Thomas.j.fichera@usace.army.mil
412-292-2538 (cell)

Power Interagency Task Force (PITF)

1. Purpose. The Power Interagency Task Force (PITF) will be activated at the onset of any Power Mission Assignment (MA) issued by the Federal Emergency Management Agency (FEMA) to the United States Army Corps of Engineers (USACE). The PITF will serve as the lead to identify, communicate and coordinate the logistics of providing temporary emergency power resources to ensure successful execution of an Emergency Power Mission.

2. Membership. PITF membership will include representatives from various levels within FEMA, USACE, and when necessary, other agencies such as DOE and State(s) Emergency Management. At a minimum, recommended PITF membership shall initially include the following, with overall participation determined by the specific event(s) and ultimate requirements of the Emergency Power Mission(s):

a. USACE

- Great Lakes and Ohio River Division (CELRD) Emergency Manager and/or Emergency Power SME: Proponent for USACE power mission activities
- Pittsburgh District (CELRP) Emergency Manager: Responsible for Emergency Power ACI activities and initial mobilization/deployment of USACE power assets
- 249th Engineer Battalion (S-3 or staff NCO): Prime Power mission coordination and execution
- USACE Logistics Agency (ULA) at LRD: Assist LRP in resources movement coordination, both internally and externally with FEMA LMD, Philadelphia District contracting office (WWPCs), DOT and others

Power Interagency Task Force (PITF)

- ESF #3 TL or ATL at the NRCC, IOF/JFO
- Emergency Power PRT Mission Manager: Manages the power mission at Staging Area
- Emergency Power PRT Action Officer and 249th EN BN Mission Controller: Coordinates with FEMA, the State and other ESFs at the IOF/JFO, and the Mission Liaison at the District/RFO and the PIT Boss at the Staging Area
- Emergency Power SME assigned to the mission
- Supported District's Emergency Manager
- Philadelphia District Contracting: generators contract/leasing lead
- Great Lakes and Ohio River Division, Common Operating Picture and Mission Modeling (GIS) staff
- USACE Operations Center (UOC): deployment and movement of PRTs, 249th EN BN, and DTOS resources
- NRCC USACE Liaison

b. FEMA

- Fleet Manager: Primary FEMA POC for FEMA NRCC Logistics organization. For Regional Activations the FEMA Logistics Chief at the IOF/RRCC will be the primary POC.
- Logistics Fly-Away-Team Leader or staging area Manager: Primary FEMA Logistics POC and interface between USACE Power PRT Mission Manager and FEMA Logistics at Staging Area.

3. Teleconference Phone Numbers. PITF conference call numbers will be established and distributed by LRD at the time of the event.

4. Topics of Discussion. Anticipated PITF topics of discussion may include, but should not be limited to the following:

- Location of Staging Area or Incident Support Base (ISB), and Initial Operating Facility (IOF) or JFO
- Designation and identification of generator operations area within the staging area
- Generator and BOM requirements from FEMA and inventory management
- Identify generators that need to be leased to complete a “Power Pack” and potential larger size generator requirements
- District PRT, 249th EN BN, ACI Contractor: Report any problems meeting the Type I, II, III, or IV configuration requirements
- SME requirements/availability

Power Interagency Task Force (PITF)

- GIS services (LRD): Mission modeling (storm tracking, commercial power outages, critical facilities), and mission tracking
- DTOS: type, arrival schedule, ACE-IT support, SATCOM status, BGAN activation
- RSOI: Lodging and life support for Power responders (USACE, FEMA and Contractors)
- Establish PITF battle rhythm

249th Engineer Battalion Information Paper

Purpose: To provide information about the 249th Engineer Battalion's (Prime Power) organization, emergency power resources, support requirements, and coordination information.

Responsibilities:

a. Corps of Engineers. The USACE Operations Center (UOC) will task the Battalion to provide personnel and equipment in support of the disaster operation. This support will often include the staffing of the Initial Operating Facility (IOF)/ESF #3 Cell(s), the RFO(s), support to the FEMA Territory Logistics Centers, and the Disaster Staging Areas.

b. 249th Engineer Battalion. During actual operations under the National Response Framework, the 249th Engineer Battalion is an ESF #3 (USACE) asset tasked through the ESF #3 Cell in the EOC/IOF.

(1) If required, be prepared to assign an officer and an experienced 12P (Prime Power Technician) to the Initial Operating Facility (IOF) or the Joint Field Office (JFO) within 12 hours of notification.

(2) Operate a Battalion Emergency Operations Center (EOC) when required on a 24-hour basis. The EOC will enable the Battalion to rapidly respond to requests for further support. If the Battalion EOC is not conducting 24-hour operations, the UOC will have emergency points of contact for the key personnel within the battalion.

(3) Provide soldiers in the required deployment configurations to support relief missions based on ESF #3 requirements. Deployment time for the Battalion's soldiers and equipment is dependent on the availability of transportation. It is a Battalion requirement that all equipment and soldiers be deployable within 72 hours. In many cases, equipment and soldiers are ready to move well before transportation becomes available.

Resources And Support Requirements:

a. Organization. The 249th Engineer Battalion (Prime Power) is a USACE asset with headquarters at Fort Belvoir, VA. It consists of three line companies, and a Headquarters and Headquarters Company (HHC).

(1) HHC: BN Command Group, Battalion Staff and Heavy Maintenance Section: Fort Belvoir, VA
(2) A Company: Schofield Barracks, HI (4 Platoons)
(3) B Company: Fort Bragg, NC (4 Platoons)
(4) C Company: Fort Belvoir, VA (4 Platoons)

(a) The company HQs are command and control cells for the companies' platoons. Each company HQ consists of seven personnel to perform operations and supply functions. Each platoon is authorized one warrant officer, one 12X (Non-commissioned Officer in Charge) and 16 12P/R soldiers.

(b) There is one Prime Power platoon and three Power Line platoons in the Reserve Component which can be activated if required. Activation of these Reserve Component platoons requires a Presidential Call-up, however, an individual Reservist may volunteer for active duty. At present, these Reserve Component platoons have no generation or transformation capability, but are fully trained and qualified to perform the same missions as their active duty counterparts.

b. Assets. During disaster relief operations, a vast majority of the power generation equipment will come from the FEMA Territory Logistics Centers or additional USACE contractors. However, there have been several cases when the Battalion's larger generators were required and employed in support of these operations.

(1) Each platoon is equipped with a power plant consisting of four MEP-810B power units. Each power unit is 840KW, consisting of two 420kW generators that can be operated separately or in parallel. The power plant produces 3.36 MW at peak load with an output voltage of 4,160.

(2) The MEP-810B power units produce 4160 volts and require transformers to convert the voltage to a user level (120/208/277/480 volts). The 249th EN BN has seven Ruggedized Army Transformers (RAT) rated at 1 MVA that will transform 4160 volts to 480/277 volts. The transformers are a Battalion asset to be used when needed.

(3) The Battalion also maintains a limited amount of 5 to 15 kV cables to set up medium voltage distribution systems using the Battalion's transformers.

c. Additional Capabilities. Advice and Assistance to the Mission Manager on the Emergency Power PRT and Contracting Officer's Representative (COR). Battalion soldiers possess the expertise to provide assistance and advice in the following areas:

(1) Preparation of detailed Statements of Work (SOW). This includes assessing the requirements for power generation at each job site.

(2) Recommend priorities for generator placement.

(3) Install generators as assigned by the PRT Mission Manager.

(4) Preparation of Damage Survey Reports (DSRs) on electrical generation and distribution systems.

(5) Verification/Quality Assurance of work performed on electrical generation and distribution systems.

(6) Limited troubleshooting and repair of power generation and distribution systems via CEFMS.

d. Accounting. Deployment of Battalion soldiers requires no special accounting procedures. Man-hours worked by these soldiers do not have to be accounted for by specific project, nor do these soldiers count against the Full Time Equivalent (FTE) of a supported District or Division. The Battalion must be reimbursed for all expenses incurred in the disaster recovery effort to include TDY costs, generator operating cost, generator deployment and recovery, materials and supplies, etc. Once activated, the Battalion will need contact information for the USACE district finance POC to execute the transfer of funds via CEFMS.

e. Support.

(1) The Battalion requires transportation support to move equipment from home station to the area of the operation. The Battalion will coordinate for transportation; however a formal request for transportation must be submitted either to the Department of Defense Directorate of Military Assistance (DOMS) or the Defense Coordination Office (DCO) in the DFO. Once the request for transport has been forwarded to DOMS or the DCO, the Battalion will prepare an Deployment Equipment List (DEL) which contains all pertinent information needed to transport the equipment (physical dimensions, height, etc.). This list will be forwarded through the 249th Engineer Battalion command channels to USTRANSCOM for scheduling of transportation assets. All equipment is transportable using a combination of Air Force cargo aircraft (C-17 or C-5).

(2) The power units are transportable using a 5th wheel tractor. All transformation and switching equipment organic to the Battalion will require a forklift (10,000 lbs) to handle the equipment and a flatbed trailer for transportation. A cable reel trailer is normally required to recover the cable. Most platoons have a cable reel trailer.

(3) The Battalion has no refueling assets and limited fuel storage capabilities. Refueling support is required during a deployment. Each platoon is equipped with five (5) 600 gallon fuel pods. Storage capacity of at least 5,000 gallons is required at sites where power units are operating continuously. Each power unit consumes approximately 60 gallons of diesel fuel per hour, operating at full load.

(4) Life support is required for soldiers in the area of operations. Soldiers are normally placed in a TDY status. Soldiers will deploy with the capability to be self-sustaining for up to 72 hours.

(5) Communication is a key to success in providing and restoring power to critical facilities.

(a) The 249th Engineer Battalion uses the BERC/BGANS Satellite communication system but at times will require additional communication support. The supported MSC and/or ESF #2 will normally provide additional cellular phones as required. The Philadelphia District Contracting Office is responsible for activating the BERC/BGANS contract once the decision has been made to deploy 249th personnel for inspections and installations.

f. Coordination.

(1) Procedure for requesting support.

(a) During actual operations under the National Response Framework, the ESF #3 TL will send a verbal support request to the UOC requesting support from 249th Engineer Battalion.

(b) 249th EN BN support will be requested using the following deployment configurations.

(1) Type I: When required, the 249th EN BN Prime Power will deploy 25+ soldiers and equipment for remote (not at staging area) satellite communications capabilities. Two (2) soldiers are at the EOC/IOF for command and control and 18+ are at the staging area providing technical expertise on generator operations, performing pre-installation inspections and quality assurance of ACI activities. This type is capable of completing 40+ Pre-Installation Inspections (assessments) per day.

(2) Type II: When required, the 249th Prime Power will deploy 18 soldiers and equipment for remote (not at staging area) satellite communications capabilities. Two (2) soldiers are at the EOC/IOF for command and control and 16 are at the staging area providing technical expertise on generator operations, performing pre-installation inspections and quality assurance of ACI activities. Capable of completing 25-40 Pre-Installation Inspections (assessments) per day.

(3) Type III: When required, the 249th Prime Power will deploy nine (9) soldiers, equipment and operating system for remote (not at staging area) satellite communications capabilities. One (1) soldier is at the EOC/IOF for command and control and eight (8) are at the staging area providing technical expertise on generator operations, performing pre-installation inspections and quality assurance of ACI activities. Capable of completing 15-25 Pre-Installation Inspections (assessments) per day

(4) Type VI: When required, the 249th EN BN will deploy seven (7) soldiers to provide limited technical support for localized events within a state or US Territory. Coordinate with local government representatives to establish relationships and assist in developing their emergency power requirements/needs and power mission strategy. This configuration is capable of providing 8-14 Pre-Installation Inspections per day.

249th Engineer Battalion Information Paper

(2) The 249th Engineer Battalion's point of contact for planning is the S -3 (Operations) Section at Fort Belvoir, VA.

(a) Phone: (703) 805-2469/9981
(b) Fax: (703) 805-2608
(c) Email: 249eoc@usace.army.mil
(d) Mail: 249th Engineer Battalion (Prime Power)
1418 Jackson Loop
Ft. Belvoir, VA 22060-5837

(3) Any request for support from the 249th Engineer Battalion must come through the USACE UOC, Telephone: (202) 761-1001.

Emergency Power PRT Deployment Configurations

	Type I	Type II
Positions	Multiple deployments of Type I and/or Type II configurations to one event **(Total Pax: Varies)**	JFO – 2 AO, 1 MS (3 Pax) RFO – 2 ML, (2 Pax) ISB – 2 MM, 2 MS, 2 LS, 2 CS, 6 QA (13 Pax) 1 SME **(Total Pax: 20)**
Event Type	• Catastrophic event covering one or more states • Multiple missions within one state • 24/7 operations • High demand on generators and BOM	• Catastrophic event with the deployment of FEMA generators (i.e., CAT III + Hurricane, major earthquake, etc.) • 24/7 operations • Greater than 100 generators • High demand on generators
Cost	**COST WILL VARY**	Pre-Dec: $90,000 (5 Days) Daily: $20,000 Weekly: $150,000 Monthly: $600,000
Remarks	• Extensive Power Interagency Task Force coordination • Anticipate high demand/ shortfall of generators/ BOM. • Both NAP and LRL are available to assist in procuring and/or lease generators and/or BOM.	• C2 of the larger power staging area (> 5 acres) • Anticipates having to install up to 200 generators from 10kw to 2MW • Additional CS supports KO at RFO • All costs assume minimum 12 hour days for Pre-Dec labor.

Emergency Power PRT Deployment Configurations

	Type III	Type IV
Positions	JFO – 1 AO, 1 MS (2 Pax) RFO – 1 ML (1 Pax) ISB – 2 MM, 2 MS, 2 LS, 1 CS, 2 QA (9 Pax) 1 SME **(Total Pax: 13)**	1 SME **(Total Pax: 1)**
Event Type	• CAT II or less tropical event • Any tropical event in the Islands (known trans issues) • Any event in which FEMA generators are deployed (1 Power Pack) • Extended hours of operations • Up to 100 generators	• Ice storm • Severe weather • Flooding • Tropical storm
Cost	Pre-Dec: $65,000 (5 Days) Daily: $15,000 Weekly: $95,000 Monthly: $365,000	$1,500 per day
Remarks	• C2 of the standard power staging area (5 acres) • Anticipates having to install 50-75 generators of less than 500 KW. • All costs assume minimum 12 hour days for Pre-Dec labor.	• To assist states that want to install the FEMA generators themselves • Technical support similar to American Samoa, PR/VI

249th Engineer Battalion NRF Deployment Team Configurations

	Type I	Type II
Positions	(CO) MC Node (1-2 Pax) 2 + PP C2 Nodes 2 + Yard Dog / PIIT Boss (2-4 Pax) 7 + PIITs (14 PAX) **(Total Pax: 20+ = Platoon +)**	MC Node (2 Pax) Yard Dog (I Pax) PIIT Boss (1 Pax) 6 ea. PIITs (12 Pax) **(Total Pax: 16 = 1 X Platoon)**
Event Type	• Confirmed catastrophic event covering multiple locations • Expect to perform 24 hours OPS at the JFO	• Catastrophic event with the deployment of FEMA generators (i.e. CAT IV + Hurricane, major earthquake, etc.) • Expect to perform 24 hours OPS at the JFO
Cost	**COST WILL VARY**	Pre-Dec: $40,000 Daily: $8,000 Weekly: $56,000 Monthly: $220,00
Remarks	• This package will require a higher level C2 and will be used during multiple location events. This package will grow depending on the event requirements.	• This package will increase the number of daily inspections to 30-50. • Ability to perform inspection and assess need for follow on forces

249th Engineer Battalion NRF Deployment Team Configurations

	Type III	Type IV
Positions	MC Node (2 Pax) Yard Dog/PITT Boss (1 Pax) (DUAL HAT) 3 PIITs (6 Pax) **(Total Pax: 9 = 1 X Section)**	MC Node (1 Pax) Yard Dog/PITT Boss (1 Pax) (DUAL HAT) 2 PIITs (4 Pax) **(Total Pax: = 6)**
Event Type	• Tropical event of CAT I or II • Any tropical event in the islands (known trans issues) • Any event in which FEMA generators are deployed (1 Power Pack) • Expect to perform 24 hour operations at the JFO	• Ice storm • Severe weather • Flooding • Tropical storm
Cost	Pre-Dec: $27,000 (5 days) Daily: $5,400 Weekly: $38,000 Monthly: $140,000	Pre-Dec: $18,000 (5 days) Daily: $3,600 Weekly: $25,000 (7 days) Monthly: $100,000 (4 weeks)
Remarks	• This package will add the ability to perform yard duties as well as conducting 15-25 inspections daily. • Ability to perform inspection and assess need for follow on forces	• To assist states that want to install the FEMA generators themselves • Technical support similar to American Samoa, PR/VI

Emergency Power ACI Deployment Configurations

	Type I	Type II
Assets	**Total Staff: 147** Management/Admin: 20 Install/Assessment: 62 Mechanics: 15 Truck Drivers: 40 MHE/Laborers: 10 **Total Equipment: 125** Hauling Equipment: 30 Fuel Trucks: 8	**Total Staff: 101** Management/Admin: 18 Install/Assessment: 42 Mechanics: 10 Truck Drivers: 23 MHE/Laborers: 8 **Total Equipment: 100** Hauling Equipment: 18 Fuel Trucks: 6
Event Type	• Catastrophic event covering one or more states • Multiple missions within one state • 24/7 operations • High demand on generators and BOM	• Catastrophic event • Significant FEMA generators (i.e., CAT II, major quake, etc.) • 24/7 operations • Greater than 100 generators Installs for the Mission • High demand on generators
Cost	Pre-Dec: $900,000* (4 Days) Daily: $190,000 Weekly: $1,330,000 Monthly: $5,320,000 * Includes Mob/De-Mob costs	Pre-Dec: $720,000* (4 Days) Daily: $150,000 Weekly: $1,050,000 Monthly: $4,200,000 * Includes Mob/De-Mob costs
Remarks	• Capable of installing 30-35 generators per day • Anticipates having to install > 200 generators with many “high end” generators • 24/7 operations with 60% of installs occurring during the day, 40% installs and prep-work on staging area at night	• Capable of installing 20-25 generators per day • Anticipates having to install 100-175 generators up to 2 MW • 24/7 operations with 60% of installs occurring during the day and 40% installs and prep-work on staging area at night

Emergency Power ACI Deployment Configurations

	Type III
Assets	**Total Staff: 68** Management/Admin: 13 Install/Assessment: 22 Mechanics: 7 Truck Drivers: 20 MHE/Laborers: 5 **Total Equipment: 69** Hauling Equipment: 12 Fuel Trucks: 2
Event Type	• CAT I or less tropical event • Any tropical event in the islands (known trans issues) • FEMA generators are deployed (1 Power Pack) • Extended hours operations • Up to 75 Installs for Mission
Cost	Pre-Dec: $530,000* (4 Days) Daily: $105,000 labor/equip Weekly: $735,000 Monthly: $2,900,000 * Includes Mob/De-Mob costs
Remarks	• Capable of installing 10-15 generators per day • Anticipates having to install 50-75 generators of less than 500 KW • 24/7 operations with majority of installs occurring during the day and prep-work on staging area at night

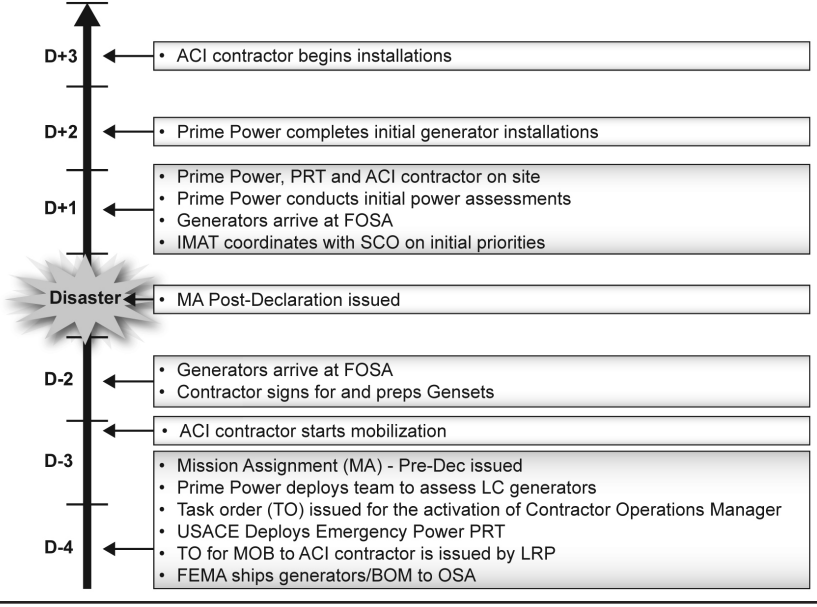
DTOS Emergency Power Deployment Configurations

	Type I	Type II
Assets	**Total Staff: 4** **Total Equipment: 1** • ECCV	**Total Staff: 2** **Total Equipment: 1** • ECCV
Event Type	• Catastrophic event covering one or more states • Multiple missions within one state • **24/7 operations** • **Supporting 25+ USACE team members** • **Additional bandwidth**	• Catastrophic event • Significant FEMA generators (i.e., CAT II, major quake, etc.) • **24/7 operations** • **Supporting 15+ USACE team members** • **Additional bandwidth**
Cost	Pre-Dec: $20,000* (4 Days) Daily: $5,000 labor/per diem Weekly: $40,000 (includes fuel) Monthly: $160,000	Pre-Dec: $10,000(4 Days) Daily: $2,500 labor/per diem Weekly: $20,000 (includes fuel) Monthly: $80,000
Remarks	• Two person team works 12-hour shift with overlap with second two person team	• Each person works 12-hour shift with overlap

DTOS Emergency Power Deployment Configurations

	Type III	Type IV
Assets	**Total Staff: 2** **Total Equipment: 1** • ECCV	**Total Staff: 2** **Total Equipment: 1*** • *Possible Mobile Communications Vehicle (MCV)
Event Type	• CAT I or less tropical event • Any tropical event in the islands (known trans issues) • **Extended hours operations** • **Supporting 10 USACE team members**	• Ice storm • Severe weather • Flooding • Tropical storm
Cost	Pre-Dec: $10,000 (4 Days) Daily: $2,500 labor/per diem Weekly: $20,000 (includes fuel) Monthly: $80,000	**COST WILL VARY**
Remarks	• Team works extended day together, possibly staggering start/end of shifts	• To assist states that want to install the FEMA generators themselves • Accompanies 249th EN BN in Technical support similar to American Samoa, PR/VI

Temporary Power Mission Execution Timeline



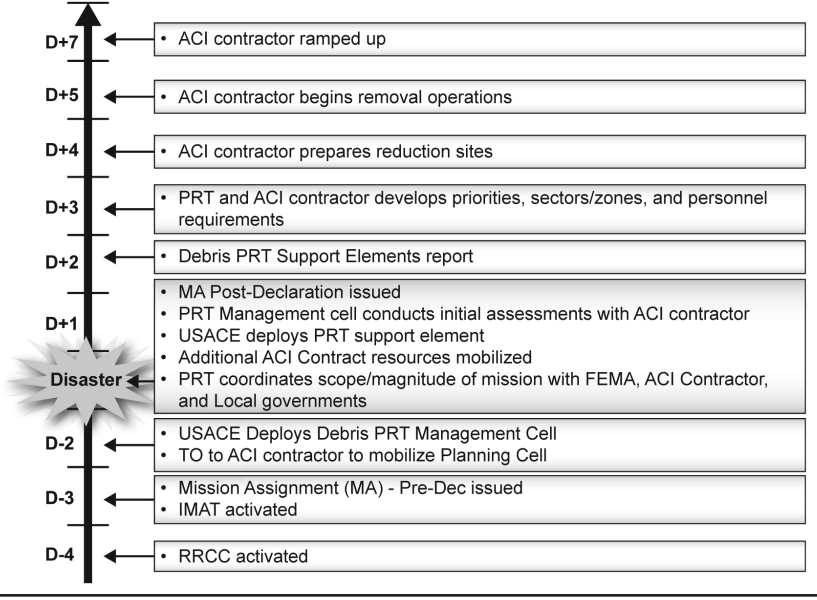
Temporary Power Mission Execution Timeline

- Note for D-1: Timeline is keyed to the mobilization of the ACI contractor.
- Note for D+1: Arrival of all three players (Prime Power, PRT, and Haul and Install Contractor) is critical for the rest of the timeline. Should PP or PRT be unable to reach disaster site, timeline will slide accordingly.
- Actual assessments would be D+1, but the reporting may not be until D+2, based on when the reporting time ends (e.g., 500 hrs on D+1). Assessments could be done after 1500 hrs, but not reported until D+2.
- Little activity will occur during D-1, D+0, and D+1, due to weather and damage conditions. However, some aerial visual assessments may be accomplished to determine the impacts and magnitude.
- Assumptions: Roads and airfields are accessible for contractor crews. FEMA issues Pre-Scripted Mission Assignments. FEMA has generators and BOM available at Federal operational staging areas.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Debris Removal Mission Overview

- Usually the largest Corps mission, funding, and personnel.
- Requires experienced/knowledgeable personnel to guide initial planning.
- Requires team effort: FEMA, USACE, ACI Contractor, other ESFs, and State/Local governments.
- Debris Clearance: Moving debris off roadway.
- Debris Removal: Load, haul, reduce, and dispose of debris.
- Disposal sites are key to scoping the mission.
- Units reported in cubic yard or tons. It is important to maintain debris volume records even if units are not contracted per cubic yard or ton (e.g, time and material, lump sum).
- FEMA debris eligibility requirements can vary with each disaster.

Debris *Removal and Disposal* Mission Execution Timeline

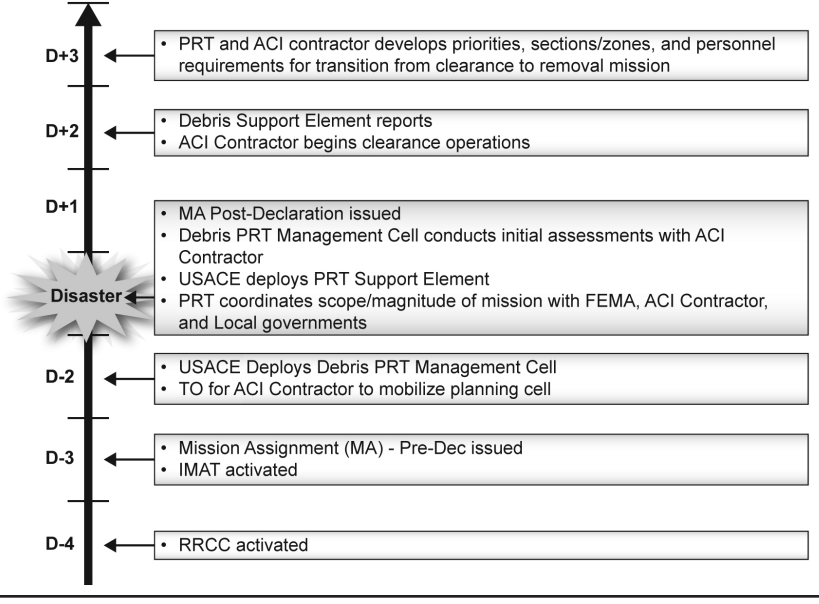


Debris *Removal and Disposal* Mission Execution Timeline

Notes:

- For OCONUS operations, add four days to start of removal operations.
- Note for D+5: A limited workforce (two-to-three contractor crews) can begin initial debris removal operations at approximately D+3 if existing local landfills can be utilized until the reduction sites are located and operational.
- Assumptions: FEMA issues Pre- Scripted Mission Assignments. ACI contracts will be utilized. If no ACI contract is in place or a combination of ACI and additional local contracts are required by FEMA, then ACI standard acquisition or technical assistance procedures will be used.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Debris *Clearance* Mission Execution Timeline

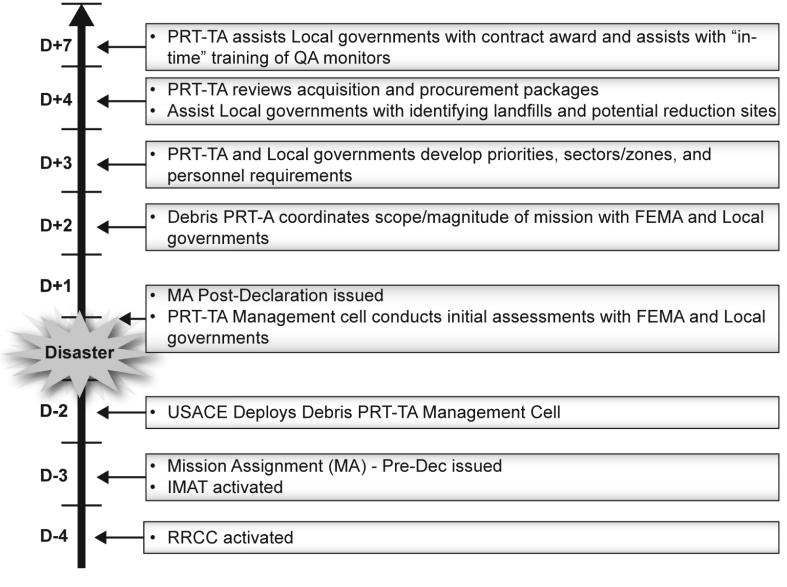


Debris *Clearance* Mission Execution Timeline

Notes:

- For OCONUS operations, add four days to start of removal operations.
- Assumptions: FEMA issues Pre-Scripted Mission Assignments. ACI contracts will be utilized. If no ACI contract is in place or a combination of ACI and additional local contracts are required by FEMA, then ACI standard solicitation and acquisition procedures will be used.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Debris *Technical Assistance* Mission Execution Timeline



Debris *Technical Assistance* Mission Execution Timeline

Notes:

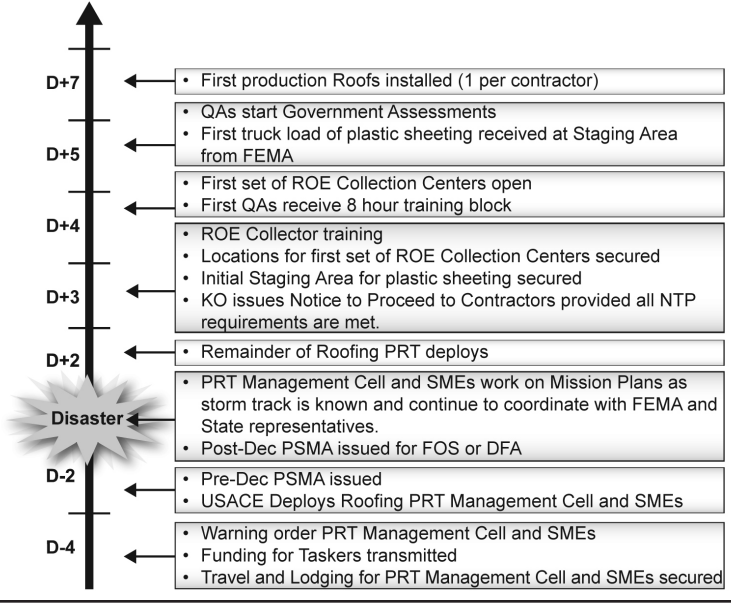
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Temporary Roofing Mission Overview

The main intent of the Temporary Roofing Mission is to shelter in place. It is considered an ESF #6 mission.

- ACI Contracts are in place for coastal states from Texas to Maine (8), Puerto Rico (1), U.S. Virgin Islands (1), Hawaii (1) and Guam and the Commonwealth of Northern Marianas Islands (CNMI) (1). If no ACI Contract is in place for the disaster area then emergency contracting procedures will be used.
- Plastic Sheeting is furnished by FEMA. Contractors provide all other materials.
- A database is used to track Rights of Entry (ROEs), Assessments and contractor activities.
- A National or Event Policy will clearly define which buildings are eligible by building use (occupancy) and roof type and will specify the amount of coverage for the structure.
- The minimum threshold for a Temporary Roofing mission is 5,000 roofs.
- The ROE Collection Centers require a large number of ROE Collectors.
- To perform Assessments and final spot checks of contractor installs, large numbers of Quality Assurance Inspectors (QAs) are required. Only Federal QAs can perform spot checks on contractors.
- The speed at which a Temporary Roofing Mission “ramps up” is largely dependent on the number of QAs performing Assessments.

Roofing Mission Execution Timeline



Temporary Roofing Process

ROE Collection
Home owners sign a Right of Entry request allowing USACE access to their property to perform an Assessment and if warranted install a Temporary Roof.

Assessments
Quality Assurance Inspectors (QAs) perform conduct an Assessment of the damage and if warranted prepare a contractor Work Order.

Installations
Contractors are given a Work Order for each individual structure. To allow scheduling flexibility, contractors have up to 10 days to complete the work. Once a Contractor has installed the temporary roof and performed the quality control, the roof is reported as being complete to USACE.

Spot Checks
Spot checks of the contractors work and quality control program are then conducted, the minimum being 10% and the max being 20%. Increasing Quality Assurance spot checks (finals) above 20% for any single contractor requires FEMA concurrence. State concurrence is also required if cost sharing is in effect.

ACI Roofing Contractor Production

Refer to existing contracts for terms and conditions.

Days after Notice to Proceed	Single Contractor Production Rate	Multiple Contractors Simultaneous Start*
Day 4	1 roofs / day	5 roofs / day
Day 5	5 roofs / day	15 roofs /day
Day 6	20 roofs / day	55 roofs / day
Day 7	40 roofs / day	125 roofs / day
Day 8	60 roofs / day	200 roofs / day
Day 9	120 roofs / day	400 roofs / day
Day 10	300 roofs / day	600 roofs / day

*Note: Multiple Contractors production ramp up is based on availability of crews not contractors. Not every contractor will be able to ramp up to a full contract production rate of 300 roofs per day by Day 10.

Types of Roofs Covered

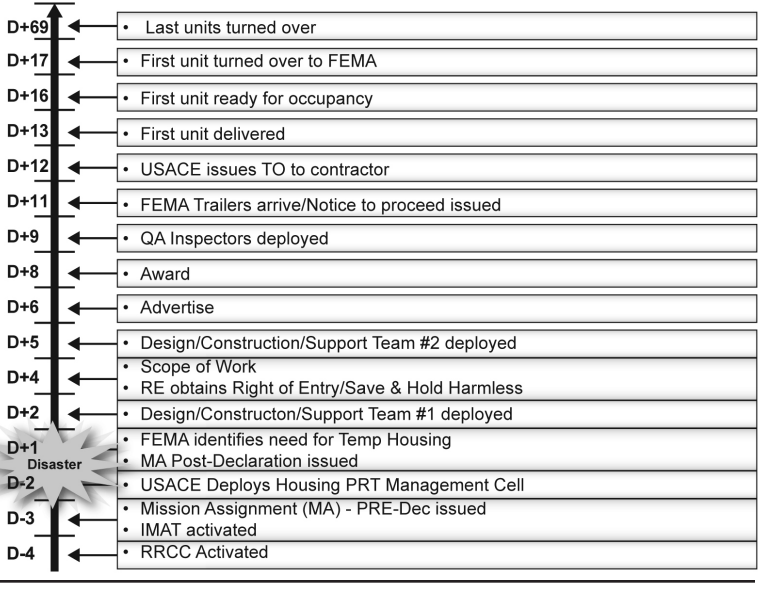
The roof to be repaired is composed of standard roof shingles, or a similar material which lends itself towards temporary repair with plastic sheeting or similar method. Metal roofs will be repaired as practical on a case by case basis. Roofs composed of materials such as slate, asbestos or clay tile, or other material which would be exceptionally difficult to repair, or likely to be damaged, shall not be roofed. Mobile homes will be assessed on a case-by-case basis and will be covered if practicable.

Temporary Housing Mission Overview

- Temporary Housing is a highly visible mission.
- Success requires teamwork (FEMA/COE/State/Local) and advanced planning.
- FEMA's steps to providing housing relief:
  1. Provide rental and home repair assistance.
  2. FEMA may consider increasing limits on individual assistance (home repair limits, rental limits, self-help Temporary Housing Unit [THU] assistance).
  3. As a last resort, temporary housing Temporary Housing Units (THUs) may be considered:
     a. Depending on capabilities, the State may procure, transport, and set up units.
     b. In some cases, the Federal Government may take the lead (with State/Local cooperation).
- Options for Temporary Housing:
- Temporary Community Group Sites
- Replacement/rehabilitation of existing parks
- Development of new Community Group Sites
- Installation of THUs at private home sites
- Minimum state requirements:
  - Site identification
  - Leasing and right-of-ways
  - Assistance with codes/permits
  - Community Group Site management
  - Deactivation/site restoration

Temporary Housing Mission Execution Timeline *Existing & Private*

(250 Mobile Homes and Travel Trailers)



Temporary Housing Mission Execution Timeline *Existing & Private*

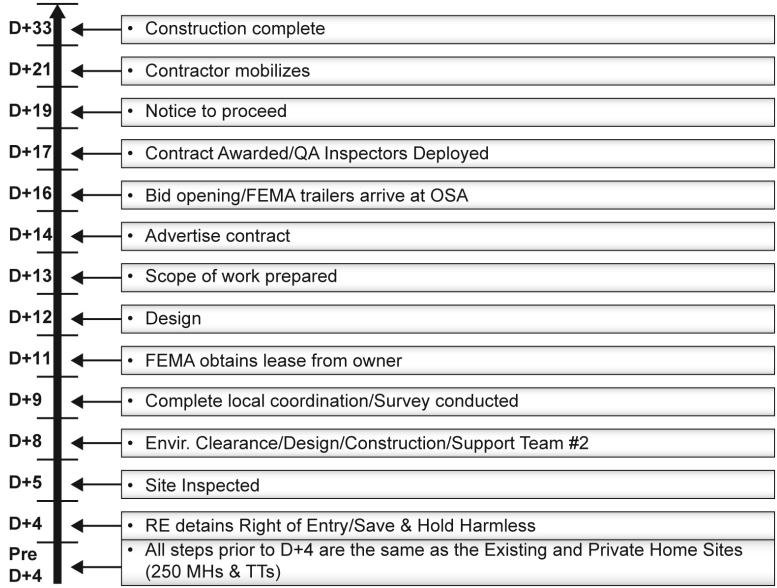
(250 Mobile Homes and Travel Trailers)

Assumptions:

- These timeframes are contingent on the weather, availability of sites, and FEMA having the necessary THUs readily available.
- Roads are accessible for contractor crews.
- FEMA issues Pre-Scripted Mission Assignments.
- No ACI is in place.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Temporary Housing Mission Execution Timeline *Park Expansion*

(40 Units)



Temporary Housing Mission Execution Timeline *Park Expansion*

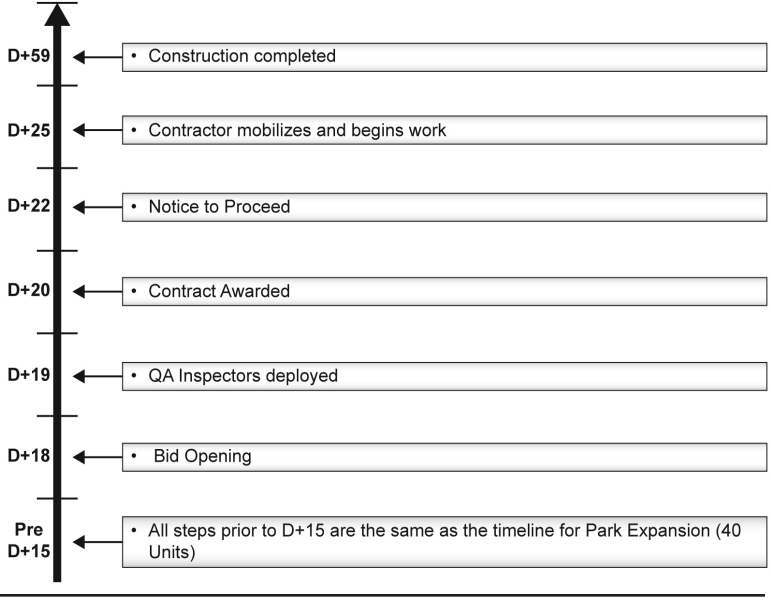
(40 Units)

Assumptions:

- These timeframes are contingent on the weather, availability of sites, and FEMA having the necessary THUs readily available.
- Roads are accessible for contractor crews.
- FEMA issues Pre-Scripted Mission Assignments.
- No ACI is in place.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Temporary Housing Mission Execution Timeline *New Site*

(100 Units)



Temporary Housing Mission Execution Timeline *New Site*

(100 Units)

Assumptions:

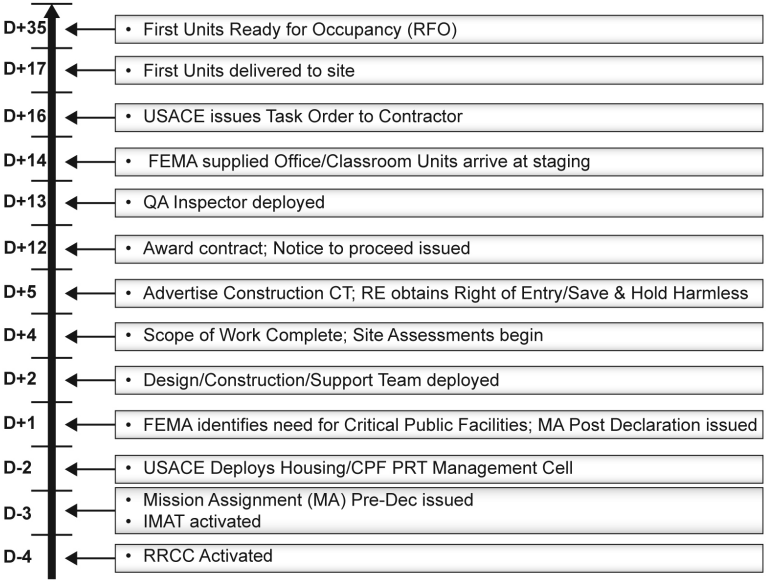
- These timeframes are contingent on the weather, availability of sites, and FEMA having the necessary THUs readily available.
- Roads are accessible for contractor crews.
- FEMA issues Pre-Scripted Mission Assignments.
- No ACI is in place.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Critical Public Facilities

- Critical Public Facilities (CPF) is a highly visible mission.
- Success requires teamwork (FEMA/COE/State/Local) and advanced planning.
- FEMA's steps to providing Critical Public Facilities:
  - Provide office space for affected State and Local governments.
  - Provide classroom space for affected public school districts.
- FEMA funds CPF mission with Public Assistance (PA) funds.
- Options for CPF:
  - Temporary office/classroom complex
  - Rehabilitation of existing office/classroom space
- Minimum state requirements:
  - Site identification
  - Leasing and right-of-ways
  - Assistance with codes/permits
  - Site management
  - Deactivation/site restoration

Critical Public Facilities Execution Timeline

(25 Office/Classroom Buildings)



Critical Public Facilities Execution Timeline

Assumptions:

- Timeframes are contingent on the weather, availability of sites, and FEMA having the necessary office units readily available.
- With USACE supply contract, add ten days.
- Roads are accessible for contractor crews, and power is available.
- FEMA issues pre-scripted mission assignments.
- No ACI is in place.
- Categorical exclusion for NEPA compliance; if EA is required, add seven days.
- No-notice disaster events (e.g., tornado, earthquake) require a modified timeline starting at D+0.

Infrastructure Assessment Mission Overview

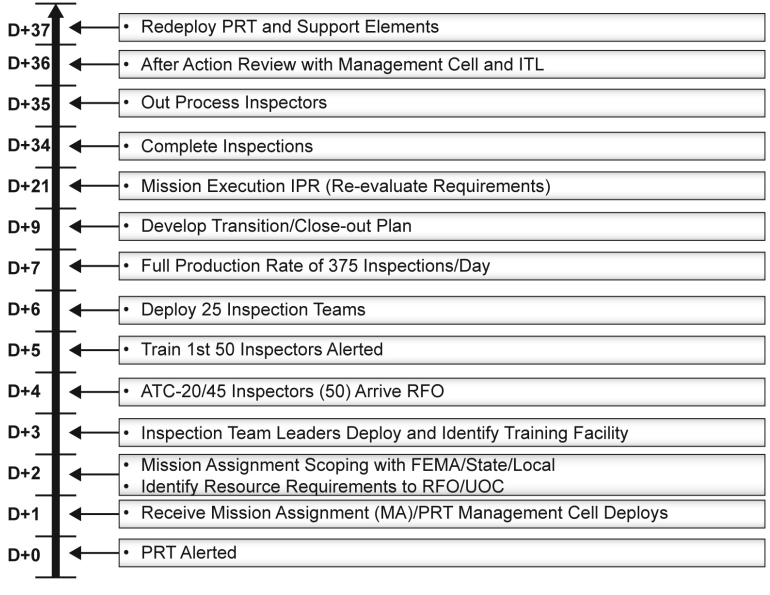
- Infrastructure Assessment (IA) is a highly scalable and visible PRT with two main functions:
  - Augments local public works' post-earthquake/flood structural safety assessment efforts
  - Provides an overarching management cell for a broad range of special inspections (e.g. electrical, mechanical, geotechnical, water/wastewater infrastructure, heavy structural) and other ad hoc technical assistance missions that are not otherwise covered by a PRT
- IA PRT capabilities include Applied Technology Council-20 (ATC-20) Post-Earthquake (or ATC-45 Post-Flood) Training Officers who provide just-in-time training to Structural Safety inspectors. Sources of these inspectors include: local hire/public works, State assets, USACE Engineering and Construction community of practice, Forward Engineer Support Teams (FESTs), contractors, retired annuitants, and other Federal agencies (e.g. Bureau of Reclamation).
- IA PRT also coordinates Water/Wastewater Infrastructure Assessment/Repair missions.
- Mission success requires interagency collaboration (FEMA/USACE/EPA/State/local) during all phases of emergency management (planning, response, recovery, long-term recovery).
  - Logistical support requirements for IA assistance:
    - Lodging
    - Transportation (e.g., car rentals, buses, vans, taxis, local hire, ATVs)
    - Office space/training facilities

Infrastructure Assessment Mission Overview

- Information Management support requirements
  - Communications with field teams (e.g., radios, cell phones)
  - Computers and audio visual needs
  - Work station/smart phones for portable data collection
- Cost Estimates
  - 10,000 inspections @ $3M
  - 50,000 inspections @ $12M

Infrastructure Assessment Mission Execution Timeline

(10,000 Inspections)



Infrastructure Assessment Mission Execution Timeline

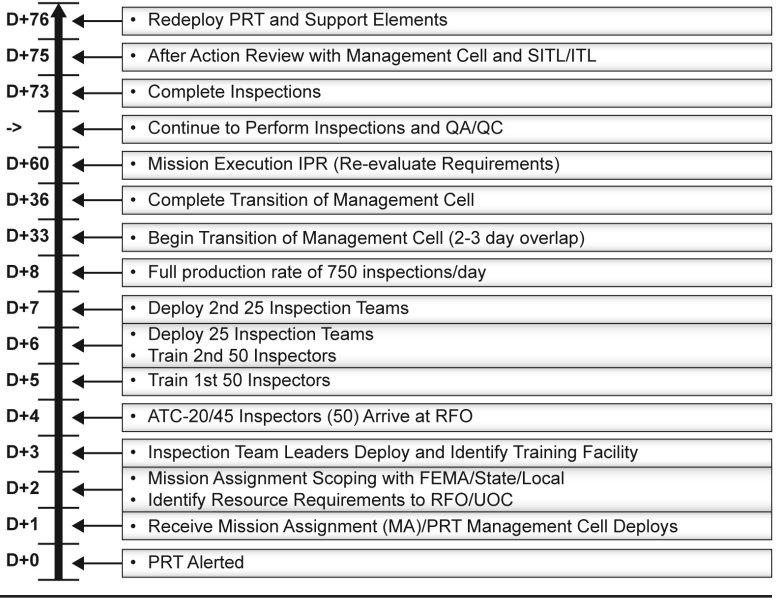
(10,000 Inspections)

Assumptions:

- No-notice event
- Rapid inspections
- 15 inspections/team/day
- 25 inspection teams
- One management cell for identified mission
- Inspection rate includes some downtime due to unforeseen circumstances

Infrastructure Assessment Mission Execution Timeline

(50,000 Inspections)



Infrastructure Assessment Mission Execution Timeline

(50,000 Inspections)

Assumptions:

- No-notice event
- Rapid inspections
- Fifteen (15) inspections/team/day
- 50 inspection teams
- Two Management Cells for identified mission
- Inspection rate includes some downtime due to unforeseen circumstances

Pre-Declaration Mission Assignments

- ESF #3 USACE, Pre-Declaration, Regional Activation
- USACE ESF #3, NRCC – Pre-Declaration
- Emergency Power – Pre-Declaration
- Emergency Power Support – Pre-Declaration
- Emergency Power Generator Procurement – Pre-Declaration
- National Water – Pre-Declaration
- National Ice – Pre-Declaration
- National Commodity Team – Pre-Declaration
- Debris – Pre-Declaration
- Critical Public Facilities – Pre-Declaration
- Infrastructure Assessment - Pre-Declaration
- Water and Wastewater Infrastructure Assessment - Pre-Declaration
- Logistics Support – Pre-Declaration
- Deployable Tactical Operations Systems (DTOS) Support – Pre-Declaration
- Local Government Liaison (LGL) – Pre-Declaration
- USACE ESF #6 Temporary Roofing – Pre-Declaration
- Temporary Housing – Pre-Declaration
- Temporary Housing – COTR and/or Technical Monitor (TM)
- Support to FEMA IA-TAC– Pre-Declaration
- Urban Search and Rescue Support to ESF# 9 – Pre-Declaration
- Mobilization Mission Assignment for Catastrophic Disasters

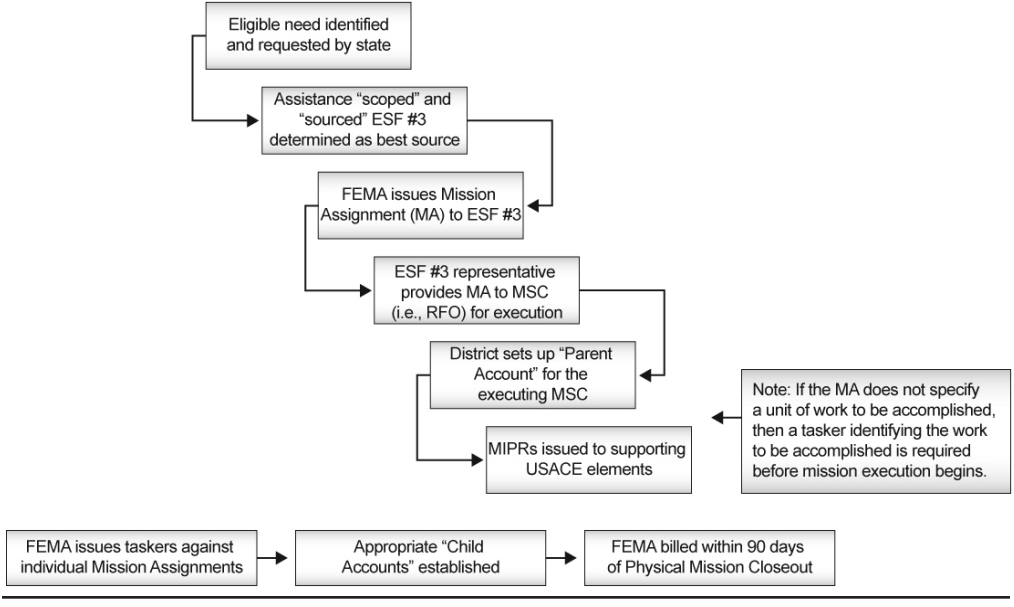
Post-Declaration Mission Assignments

- Post-Declaration, Regional Activation
- NRCC – Post-Declaration
- National Water – Post-Declaration
- National Ice – Post-Declaration
- Commodity Team – Post-Declaration
- Emergency Power – Post- Declaration
- Emergency Power Support – Post-Declaration
- Technical Assistance to State – Post-Declaration
- Debris – Post-Declaration
- Debris Oversight – Post-Declaration
- Critical Public Facilities – Post-Declaration
- Infrastructure Assessment - Post-Declaration
- Public Assistance for Drinking Water and Wastewater
- Infrastructure – Post-Declaration
- Drinking Water Safety/Water & Wastewater Infrastructure
- Assessment Technical Assistance (TA) to State – Post-Declaration
- Drinking Water Safety/Water & Wastewater Infrastructure
- Assessment and Repair (DFA) – Post-Declaration
- Logistics Support – Post-Declaration
- Deployable Tactical Operations Systems (DTOS) Support – Post-Declaration
- Local Government Liaison (LGL) – Post-Declaration

Post-Declaration Mission Assignments

- Recovery Field Office Operations – Post-Declaration
- Remote Sensing / GIS – Post-Declaration
- Temporary Roofing – Post-Declaration (FOS)
- Temporary Roofing – Post-Declaration (DFA)
- Temporary Housing – Haul Install – Post-Declaration
- Temporary Housing – Site Design – Post-Declaration
- ESF #6, COTR/TM Support to FEMA IA-TAC – Post-Declaration
- Urban Search and Rescue Support to ESF# 9 – Post- Declaration
- Long-Term Community Recovery (LTCR)

The Overall MA Process



Requests for Federal Assistance

Initial need and damage assessment information may be scarce or inaccurate. FEMA and the State will coordinate to identify actual or anticipated needs for Federal supplement of State resources. States submit formal requests to FEMA.

The FEMA Operations Section Chief makes the determination that State requests for Direct Federal Assistance and Technical Assistance are eligible and beyond the State's capability to perform or contract.

The action is assigned to a tasked organization for scoping, frequently an ESF.

Using a deliberative sourcing process, Operations, the tasked organization, and Logistics identify possible solutions to meet the identified needs. This includes determining whether the ability to receive and account for the resources exists, if internal FEMA resources are sufficient, if the private sector is the best source, and/or whether a Mission Assignment may be needed.

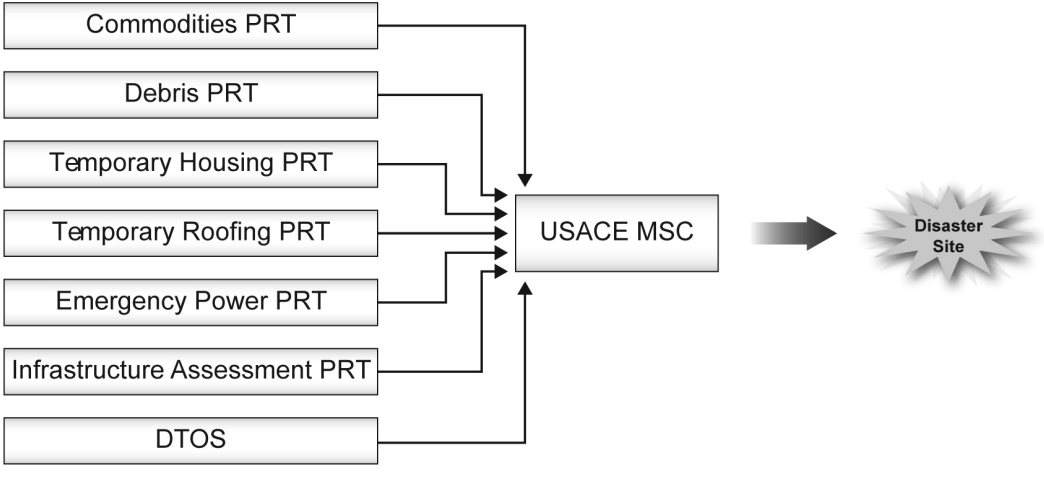
The FEMA Federal Approving Official, usually the FEMA Operations Section Chief, always decides when, whether, and to which agency a Mission Assignment is issued. No Mission Assignment is "automatic." If the determination is made that the use of ESF #3 on a reimbursable basis is appropriate, the USACE ESF #3 Team Leader/Assistant Team Leader and the FEMA Operations Section Chief will jointly agree to the scope of the Mission Assignment.

A Mission Assignment is issued to USACE (as the lead agency for ESF #3) on a Mission Assignment (MA) form.

The FEMA Project Officer and USACE Action Officer work together to direct and monitor work performance from both a financial and programmatic standpoint. The MA itself and/or the work performed (e.g., delivery quantities, schedules, and locations) must be adjusted as the environment rapidly changes and more accurate assessment data becomes available. Requirements will also change as State and Local jurisdictions regain the capability to perform the work on their own.

USACE funds all activities within its statutory authority. For example, in virtually all cases the activation and staffing of a USACE MSC or District Emergency Operations Center is funded from USACE appropriations. However, when FEMA requests the USACE to perform any activity to plan, prepare for, or execute specific missions, it is under the authority of the Stafford Act, and eligible costs will be reimbursed from FEMA's Disaster Relief Fund under a Mission Assignment (MA).

Mission Planning and Response Teams



Mission PRT Overview

- There are 41 designated Stafford Act mission Planning and Response Teams (PRTs) within USACE.
- These teams are staffed and trained to respond to the pre-scripted Stafford Act missions assigned to USACE as the primary agency for ESF #3 Pulbic Works and Engineeering response and the coordination agency for ESF #3 response and recovery under the National Response Framework.
- PRTs are sourced and managed for recruitment, training, and readiness by designated host USACE districts. MSCs have the option to deploy and use their MSC organic PRTs if they are not engaged, or they may request PRT support from HQUSACE.
- PRTs are configured to provide trained personnel at every organizational level necessary for mission execution (e.g., NRCC, RRCC, District, RFO/EFO, JFO, Staging Operations.)
- PRTs are designated as either response (National Ice, National Water, Commodities Distribution, Temporary Emergency Power, or Structural Safety Specialist to Urban Search and Rescue) or recovery (Debris Removal, Temporary Roofing, Temporary Housing and CPF, and Infrastructure Assessment).
- Each PRT is divided into two elements: management and support. The management element is that PRT initial cell typically required to scope and develop the mission requirements. Additional support elements are requested as required. On pages 126-128 the **bolded** PRT positions listed are considered to be the management element of that PRT. The non-bolded PRT positions listed are considered to be support elements of that PRT.

Mission Planning and Response Teams

Missions & Lead MSCs	PRT District(s)	Team Composition (Management Element in bold)	
National Ice SAD	• Charleston • Albuquerque	**Action Officer** **Mission Manager** **Mission Specialist** **Contract Specialist**	**National Commodities Site Manager** **National Commodities Data Manager** *Commodity QA*
National Water NAD	• New England • Kansas City	**Action Officer** **Mission Manager** **Mission Specialist** **Contract Specialist**	**National Commodities Site Manager** **National Commodities Data Manager** *QA Supervisor* *Commodity QA*
Combined Commodities SWD	• Detroit • Galveston • Rock Island • Seattle • Norfolk • San Francisco • Wilmington	**Action Officer** **Mission Manager** **Mission Specialist** **Commodity Data Specialist** **Commodity Site Manager**	**Commodity QA Supervisor** **Mission Liaison** **Commodity QA** **Administrative Specialist**
Emergency Power LRd	• Pittsburgh • Memphis • Walla Walla • Philadelphia • Honolulu • Tulsa • Savannah	**Type III Team:** **Action Officer** **Mission Manager (2)** **Mission Specialist (3)** **Mission Liaison**	**Logistics Specialist (2)** **QA (2)** **249th Section (9)** *SME*

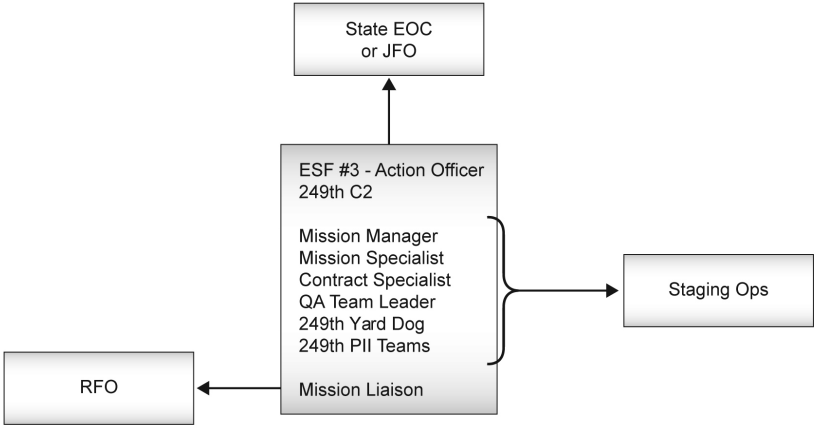
Mission Planning and Response Teams

Missions & Lead MSCs	PRT District(s)	Team Composition (Management Element in bold)
Debris MVD	• Louisville • Fort Worth • New Orleans • Sacramento • Portland • Mobile • Baltimore • Vicksburg	**Action Officer** **Mission Manager** **Resident Engineer** **Contract Specialist** *Mission Specialist* *Office Engineer (2)* *Real Estate Specialists (2)* *QA Supervisors (2)* *NEPA Compliance Manager* *Environmental Engineer* *Database Manager*
Temporary Housing & Critical Public Facilities SAD	• Huntington • New York • St. Paul • Los Angeles • Huntsville • Jacksonville	**Action Officer** **Mission Manager** **Mission Specialist** **Sanitary Engineer** **Electrical Engineer** *Contract Specialist* *QA Supervisor* *QA Inspector* *Cost Estimator* *Resident Engineer* *Database Manager* *NEPA Compliance Specialist* *Site Engineer* *Area Engineer* *Administrative Assistant* *GIS/CADD Specialist*
Temporary Roofing NWD	• Jacksonville • Nashville • St. Louis • Little Rock • Omaha	**Action Officer** **Mission Manager** **Mission Specialist - Operations** **Resident Engineer** **SME (2)** *Mission Specialist – Staffing* *Mission Specialist – Reports* *Realty Specialist* *Contract Specialist* *QA Trainer* *Administrative Assistant* *Material Control Specialist (2)* *Resident Engineer* *QA Supervisor (2)* *ROE Data Manager (2)* *ROE Collector (4)* *QA Team Leader (4)*

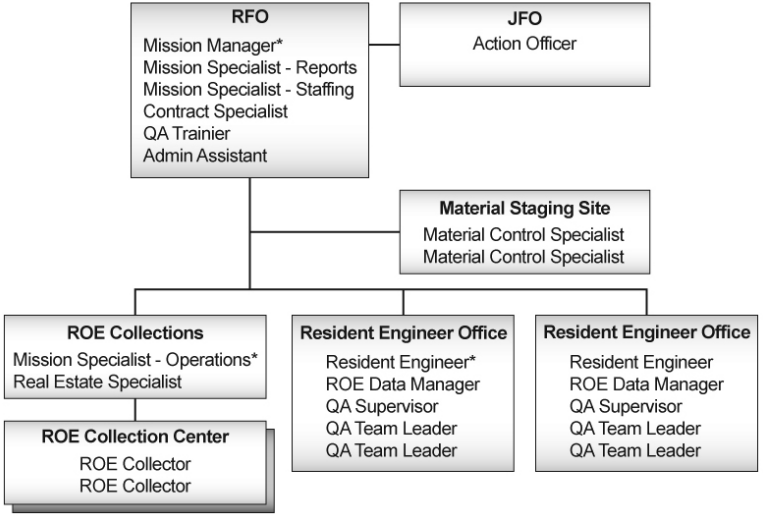
Mission Planning and Response Teams

Missions & Lead MSCs	PRT District(s)	Team Composition (Management Element in bold)
Infrastructure Assessment SPD	• Buffalo • Alaska • Sacramento • Seattle	**Action Officer** **Mission Manager** **Mission Specialist** **Mission Data Manager** *ACT – 20/45 Training Officer* *Supervisory Inspection Team Leader* *Inspection Team Leaders*

Example of Deployment Locations for Temporary Power PRT



Example of Deployment Locations for Temporary Roofing PRT



NOTE: Once a Roofing Mission is fully staffed, there may be from 10 to 45 ROE Collection Centers and up to four Resident Engineer Offices.

PRT Rotation, Activation, and Deployment

Rotational Assignments: The rotation of PRTs is maintained on ENGLink Interactive. Rotational assignments are maintained until the PRT is deployed or removed from rotation at the request of the MSC Commander due to direct involvement in response to events within their own geographic Area of Resonsibility (AOR). Current rotational assignments are maintained on ENGLINK Interactive at https://englink2.usace.army.mil, and rotation assignments are set by the UOC in coordination with the proponent MSC of the Stafford Act mission.

Alert: PRTs will be placed on alert only when there is an imminent threat or when an event has occurred that could result in FEMA Mission Assignments. The number of PRTs alerted will vary depending on the specific event. For a major event, the top three-to-four PRTs will be alerted in each potential mission area. PRTs are always on alert for events within their Major Subordinate Command AOR. Once on alert, the PRTs are required to be in transit within six hours of deployment notification.

PRT Rotation, Activation, and Deployment

Deployment: The impacted MSC has the option of using the PRTs from its own organic districts first, but should consider where they stand on the National level rotational list. External PRTs will be deployed only at the request of the supported MSC. Once deployed, PRTs are attached to the supported MSC.

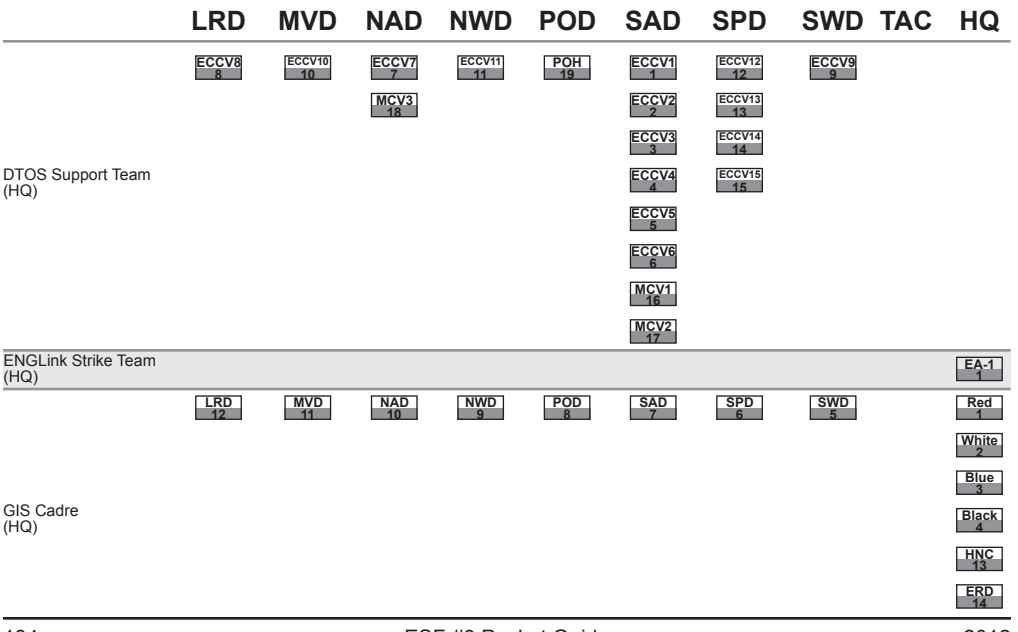
- PRTs are deployed for the duration of the mission. The supporting district is responsible for rotation of personnel in coordination with the supported district.
- **Pre-event:** PRT deployment at times includes the management element of the PRT. The support element may deploy later, as/if required. The exceptions are typically pre-event full deployments of the Temporary Emergency Power PRT, Commodity PRTs, and additional personnel for the Temporary Roofing PRT.
- **Post-event/Post-Declaration:** Includes deployment of the support elements of the PRTs.

Disengagement: The disengagement date is established by the Supported MSC.

Example of PRT Rotation Table

	LRD	MVD	NAD	NWD	POD	SAD	SPD	SWD	TAC	HQ
Combined Commodities (SWD)	LRE 7	MVR 5	NAO 4	NWS 3		SAW 2	SPN 1	SWG 6		
Contingency Support Team (NAD)	LRD 4	MVD 3	NAD 1	NWD 2	POD 6	SAD 5	SPD 8	SWD 7		
Debris Removal (MVD)	LRL 3	MVK 6 MVN 7	NAB 8	NWP 4		SAM 5	SPK 1	SWF 2		
Emergency Power (LRD)	LRP 3	MVM 5	NAP 7	NWW 4	POH 6	SAS 1		SWT 2		
Infrastructure Assessment (SPD)	LRB 4			NWS 1	POA 3		SPK 2			
National Ice (SAD)						SAC 2	SPA 1			
National Water (NAD)			NAE 1	NWK 2						
Temporary Housing (SAD)	LRH 3	MVP 6	NAN 5			SAJ 1	SPL 2			HNC 4
Temporary Roofing (NWD)	LRN 3	MVS 2		NWO 5		SAJ 1		SWL 4		

Example of Functional Cadre Rotation



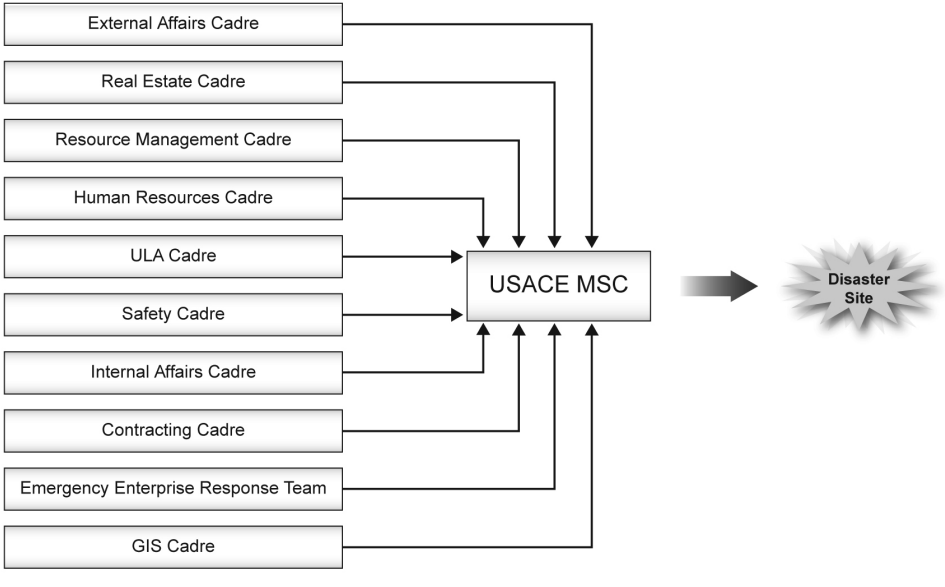
Example of Functional Cadre Rotation

	LRD	MVD	NAD	NWD	POD	SAD	SPD	SWD	TAC	HQ
Local Government Liaison (HQ)										Red 1 White 2 Blue 3
Logistics Support (HQ)										ULA-3 1 ULA-4 2 ULA-5 3 ULA-1 4 ULA-2 5
Logistics Support Alternate (HQ)										ULA-A 1 ULA-B 2 ULA-6 3 ULA-C 4
Enterprise Emergency Response Team (HQ)										Red 1 White 2 Blue 4
External Affairs (HQ)										EA-1 1

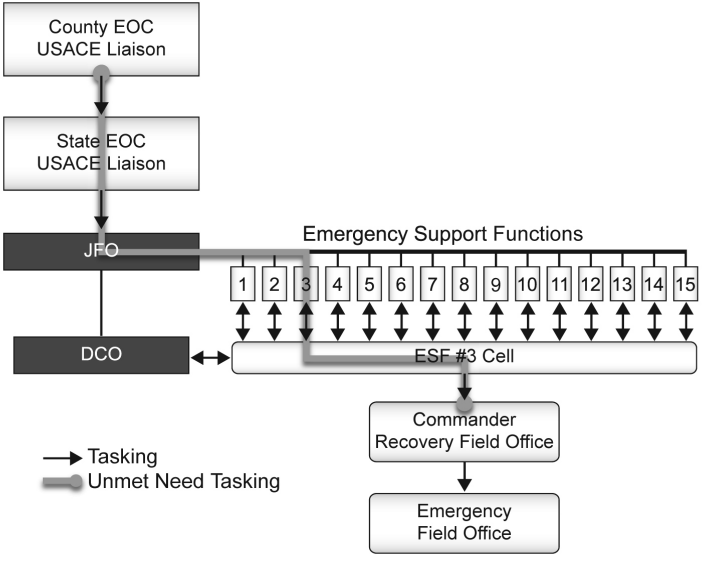
Functional Cadre/PRT Overview

- Functional cadres are maintained to provide resources to the aforementioned CST and to augment supported District or Division/MSC EOC staffing on a single resource personnel tasker request for functional support.
- These functional cadres can also provide SMEs to serve as advisors.
- They provide resource augmentation to supported commands with expertise in their separate functional areas.
- These resources are trained to complement the supported command capabilities as they accomplish the additional workload associated with responding to natural disasters and national emergencies.

Functional Cadres External



Misson Tasking to RFO



RFO Concept

The purpose of the RFO is the management and execution of FEMA recovery missions assigned to USACE under the Stafford Act. The person designated by the impacted MSC Commander as the RFO Commander is responsible for the management of all RFO operations. The RFO management structure should be provided from the supported district, if possible (to ensure continuity and unity within the impacted area). An RFO is established when missions are significant and of long duration and require continuous coordination with the FCO and State. *FEMA must issue a Mission Assignment to establish the facility and equipment costs (not including personnel costs).* Personnel working on specific missions charge to their respective mission. Non-mission specific personnel will charge to the Regional Activation Mission Assignment.

District Responsibility and Functions:

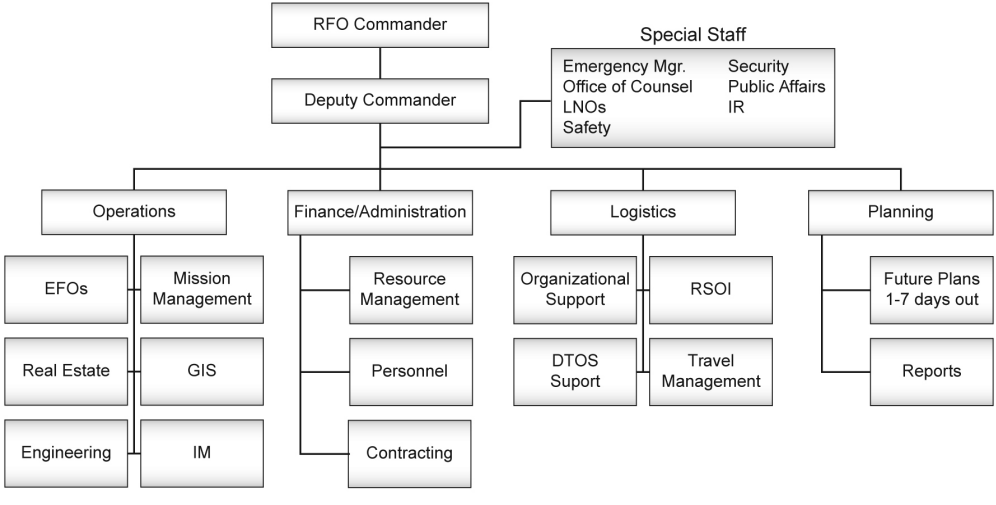
- Initially, the District EOC is the focal point of all disaster-related information flow and command and control.
- District elements do their normal jobs, but in an expedited manner.
- Initially manages total response effort:
  - Stafford Act (NRF)
  - PL 84-99 Missions (FC&CE)
  - USACE Facilities
  - Military Support
  - Normal Operations
- Provides key management and resource support to the RFO, when established.

RFO Concept

RFO Organization:

- Responsibility of RFO Commander
- Supported district provides essential elements of command and control organization
- Established early and staffed to meet the requirements of disaster
- Represents most district elements (mirror district organization)
- Focus is on all FEMA disaster missions and their execution (separates the FEMA missions from other district operations)
- RFO Commander and staff work with PRT MMs to develop the predictive information required for the Commander to anticipate issues and support mission accomplishment

RFO Organization (ICS Structure)



RFO Responsibilties

Scoping (Coordination with ESF #3)
- Geographical
- Political
- Length/rate of execution
- Execution factors (limited resources, etc.)
- Manpower requirements

Reporting
- Mission funding
- Progress of missions - EEIs
- Contract information and summary

Financial Management
- Establish accounts
- Separate account for this mission
- Manage funds
- Labor associated with mission
- General overhead costs
- Contract cost

Coordination
- ESF #3
- Emergency Field Office(s) (EFO)
- State/Local officials
- Staging operations
- Media (public affairs)

Emergency Contracting
- RFO advertises, awards, and manages
- RFO supports staging operations and EFO requirements for supplies and equipment
- Power and Commodtiy Teams function as QA/QC at staging operations

Logistics Management
- Staging operations established and typically managed by FEMA as part of JFO operations
- USACE staging operations managed by PRTs under Command and Control of RFO

RFO Responsibilties

Emergency Field Office (EFO)

- Established by a District EOC or RFO, as required
- Execution Arm of a District EOC or RFO for recovery missions
- COR responsibility for mission execution

Mission Closeout: Physical:

- Develop when mission begins
- Federal Assistance no longer required
- Requires FEMA, State and Local coordination

Mission Closeout: Fiscal:

- Long-term/final step in mission

Typical Overall Staffing Chart

	Non-Mission Specific	(Ice/Water) Commodities	Power	Debris	Housing	Roofing	
JFO	7	52	20	2	2	2	85
RFO	13						3
Support	15			5	10	4	34
Operations	8	1	1	2	4	2	18
Logistics	5				4	2	11
Field Ops	8			3	2	2	15
EFO-1				32	30	45	107
EFO-2				32	25	45	102
EFO-3				32		45	77
EFO-4				32		45	77
EFO-5				32			32
Total	46	53	21	172	77	192	561

Typical Overall Staffing Chart

The staffing chart is based on the following scenario assumptions:

- 700,000 people without power
- 10,000,000 cubic yards of debris
- 20,000 temporary roofs

Temporary Housing

- 1,000 travel trailers
- 5,000 mobile homes

Emergency Power

- 800 assessments
- 300 installations

Typically, non-mission specific personnel should not exceed 10-15% of total RFO Staffing.

Primary Address:
https://englink2.usace.army.mil
Login using your U-PASS UserID and Oracle/Database password.

***Alternate Address:**
http://www.englink2.usace.army.mil

* This is a public address and is accessible from most anywhere. Once this page is displayed, the user must select the ENGLink logo to access and login to ENGLink Interactive**.**

ENGLink Training Server:
https://englinktrn.usace.army.mil

Access and Login Procedures

The New Look

Once you enter the new ENGLink website, you will immediately notice that things look different. We have overhauled the design of the application to be more appealing and accessible using the latest design methodologies and technologies. We have also made significant efforts to streamline many of the core processes used in the original ENGLink, making for a more intuitive user experience. All of the data and options from the first application are still available to users, only now organized into more logical groupings and according to function.

Access and Login Procedures

1. Go to: https://englink2.usace.army.mil/englink/
2. The page shown here will be displayed.
3. Notice the new ENGLink logo and banner at the top of the page (this will remain throughout the application).
4. The US Government Security notification is on the left.
5. The login information is on the right (including the CAC Authentication option).
    a. An employee can enter his/her UPASS User Name and Oracle password or
    b. Login with his/her CAC by clicking the Authentication button.

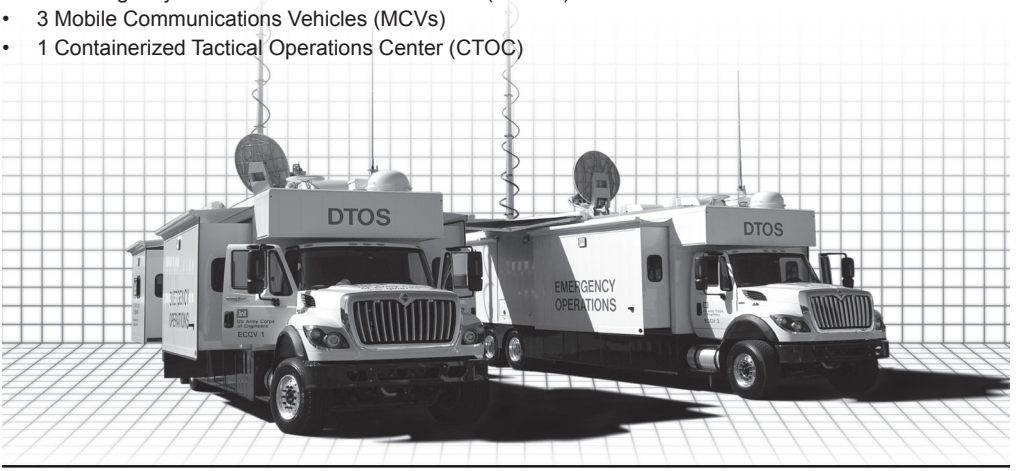
Note:

A user must manually log into ENGLink and register his/her CAC information prior to using the CAC login capability.

DTOS Overview

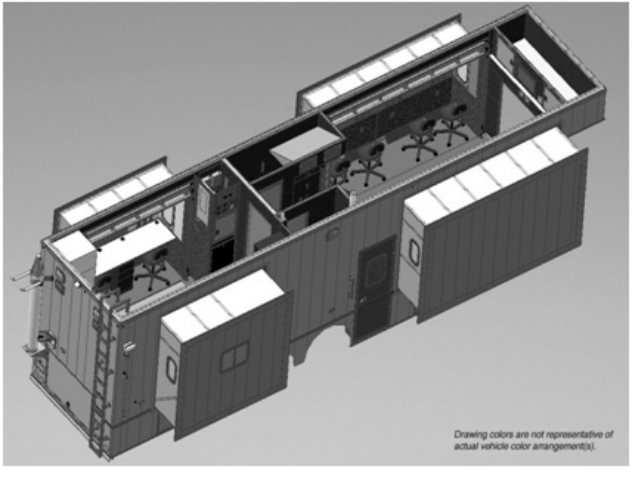
The Deployable Tactical Operations System provides mobile command and control platforms and communications in support of the quick ramp-up of initial emergency response missions for the USACE. The DTOS system responds to District, Division, national, and international events. DTOS consists of the following resources:

- 15 Emergency Command and Control Vehicles (ECCVs)
- 3 Mobile Communications Vehicles (MCVs)
- 1 Containerized Tactical Operations Center (CTOC)



ECCV Layout and Capabilities

- Network connectivity (LAN/WAN) for up to 25 computers
- Backup computers (4)
- Multi-function phones (11)
- VOIP – VSAT-based
- Cellular – provides fax
- Iridium – voice only
- Radio (ACU1000)
- VHF handheld radios (8)
- HF/UHF/VHF radios
- BGAN (voice and data)
- Multi-function printer
- Laser printer
- Wireless AP/bridge
- Onboard generator

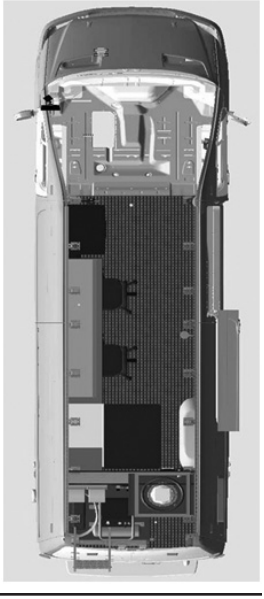


This unit has 11 full workstations with capacity also to operate with some staff outside of the unit if necessary.

MCV Layout and Capabilities

- Network connectivity (LAN/WAN) for up to 25 computers
- Backup computers (2)
- Multi-function phones (2)
- VOIP – VSAT-based
- Cellular – provides fax capability
- Iridium – voice only
- VHF handheld radios (6)
- HF radio
- BGAN (voice and data)
- Multi-function printer
- Wireless AP/bridge
- Onboard generator

This unit was not designed to have any personnel working in the van, but rather to be able to provide communications into a facility via a wired or wireless connection.

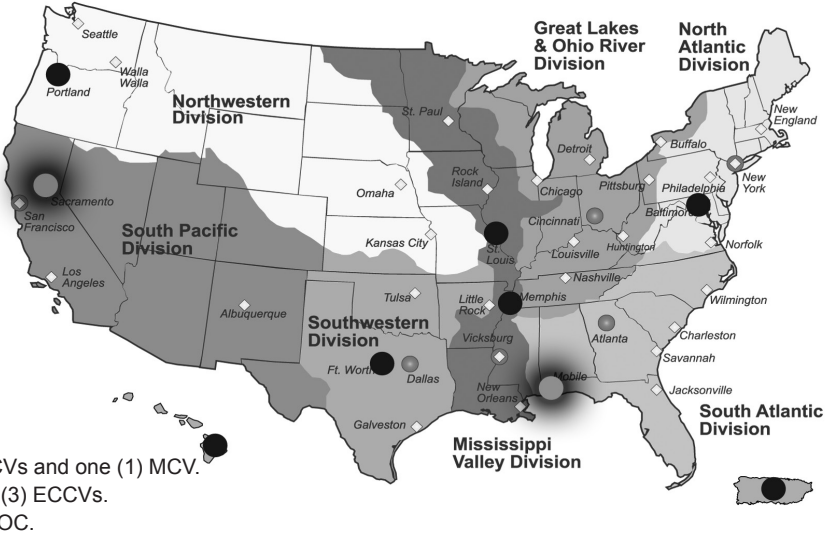


CTOC Capabilities

- Network connectivity (LAN/WAN) for up to 25 computers
- Backup computers (6)
- VOIP – VSAT-based (6)
- Iridium – voice only
- BGAN (voice and data)
- VHF handheld radios (25)
- HF/VHF radios
- Multi-function printer
- Fax
- Scanner
- Printer
- Copier
- Wireless AP
- Generator (2 - 3500W)

DTOS Locations

Mobile
Sacramento
Portland
Los Angeles
Ft. Worth
St. Louis
Nashville
Baltimore
Puerto Rico
Hawaii



Mobile has six (6) ECCVs and one (1) MCV.
Sacramento has three (3) ECCVs.
Hawaii has one (1) CTOC.
Baltimore has one (1) ECCV and one (1) MCV.
The remaining locations each have one (1) ECCV only.

Saffir-Simpson Hurricane Intensity Scale

The Saffir-Simpson Hurricane Scale rates hurricane intensity from 1-5. It provides the basis for estimates of potential flooding and property damage along the coast from hurricane landfall.

Category I Hurricane
Winds: 74-95 mph (64-82 kt or 119-153 kph). Storm surge: Generally 4-5 feet above normal. No real damage to building structures. The damage is primarily to unanchored mobile homes, shrubbery, and trees with some damage to poorly constructed signs and some coastal road flooding and minor pier damage.

Category II Hurricane
Winds: 96-110 mph (83-95 kt or 154-177 kph). Storm surge: Generally 6-8 feet above normal. There is some roofing material, door, and window damage of buildings with considerable damage to shrubbery and trees, with some trees blown down. There is also considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center. Small craft in unprotected anchorages break moorings.

Category III Hurricane
Winds: 111-130 mph (96-113 kt or 178-209 kph). Storm surge: Generally 9-12 feet above normal. There is some structural damage to small residences and utility buildings, with a minor amount of curtain wall failures. Damage to shrubbery and trees consists of foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut off by rising water 3-5 hours before the arrival of the hurricane center. Flooding near the coast destroys smaller structures with larger structures damaged by the battering of floating debris. Terrain continuously lower than five feet above mean sea level may be flooded inland eight miles (13 km) or more. Evacuation of low-lying residences with several blocks of the shoreline may be required.

Category IV Hurricane
Winds: 131-155 mph (114-135 kt or 210-249 kph). Storm surge: Generally 13-18 feet above normal. There are more extensive curtain wall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down with complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut off by rising water 3-5 hours before the arrival of the hurricane center. Major damage to lower floors of structures near the shore. Terrain lower than ten feet above sea level may be flooded, requiring massive evacuation of residential areas as far inland as six miles (10 km).

Category V Hurricane

Winds: Greater than 155 mph (135 kt or 249 kph). Storm surge: Generally greater than 18 feet above normal. There is complete roof failure on many residences and industrial buildings. Some complete building failures, with small utility buildings blown over or away. All shrubs, trees, and signs blown down with complete destruction of mobile homes, as well as severe and extensive window and door damage. Low-lying escape routes are cut off by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of all structures located less than 15 feet above sea level and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles (8-16 km) of the shoreline may be required.

Earthquake Magnitude Intensity Description

Magnitude measures the energy released at the source of the earthquake and is determined from measurements on seismographs. Intensity measures the strength of shaking produced by the earthquake at a certain location and is determined by effects on people, human structures, and the natural environment.

Magnitude	Intensity	Description
1.0-3.0	**I**	Not felt except by very few under certain conditions
3.0-3.9	**II-III**	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. Felt by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing automobiles rocked slightly. Vibrations similar to a truck passing. Duration estimated.

Earthquake Magnitude Intensity Description

Magnitude	Intensity	Description
4.0-4.9	**IV-V**	IV. Felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed. Walls made cracking sound. Sensation was like heavy truck striking building. Standing motor cars rocked noticeably.
5.0-5.9	**V-VII**	VI. Felt by all, many frightend. Some heavy furniture moved; some fallen plaster. Damage slight. VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built, ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.

Earthquake Magnitude Intensity Description

Magnitude	Intensity	Description
6.0-6.9	**VIII-IX**	VIII. Damage slight in specially designed structures; considerable damage in sustainable buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 and higher	**VIII or higher**	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level distorted. Objects thrown into air.

Fujita (Enhanced) Tornado Intensity Scale

Level	Wind Speed	Possible Damage
F0	40 - 72 mph	Light damage: Tears branches from trees; rips shallow-rooted trees from the ground; can damage sign-posts, traffic signals and chimneys
F1	73 - 112 mph	Moderate damage: Roofing materials and vinyl siding can be displaced; mobile homes are highly vulnerable and can easily be knocked from the foundation or toppled; motorists can be sent careening off road and possibly flipped over.
F2	113 - 157 mph	Considerable damage: Well-established trees are easily uprooted; mobile homes are dessimated; entire roofs can be ripped off houses; train cars and trucking hauls are knocked over; small objects become dangerous missiles.
F3	158 - 206 mph	Severe damage: Forests are destroyed as majority of trees are ripped from the ground; entire trains are derailed and knocked over; walls and roofs are torn from houses.

Fujita (Enhanced) Tornado Intensity Scale

Level	Wind Speed	Possible Damage
F4	207 - 260 mph	Devastating damage: Houses and other small structures can be razed entirely; automobiles are propelled through the air.
F5	261 - 318 mph	Incredible damage: Cars become projectiles as they are hurled through the air; entire houses are completely destroyed after being ripped from the foundation and sent tumbling into the distance; steel-reinforced concrete structures can be seriously damaged.

Public Law 84-99 Authorities

Public Law 84-99: The authority for USACE to provide emergency/disaster assistance is PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186). Under this law, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities including disaster preparedness, advance measures, emergency operations (flood response and post flood response), rehabilitation of flood control works threatened or destroyed by flood, protection or repair of Federally authorized shore protective works threatened or damaged by coastal storm, and provisions of emergency water due to drought or contaminated source.

Public Law 84-99 Categories:

- Category 100 Disaster Preparedness
- Category 200 Emergency Operations
- Category 300 Rehabilitation
- Category 400 Emergency Water
- Category 500 Advance Measures
- Category 600 Hazard Mitigation

Overview of Public Law 84-99 Response and Recovery Assistance

	Policies	Assistance	Procedures
Advance Measures	• Technical assistance • Supplies/equipment • Emergency contracting • Strengthening flood control works • Temporary levees (removal local responsibility) • Channel clearance/dredging • Dam failure	• Imminent threat of unusual flooding exists • Supplement State and Local efforts • Tribal/Governor's request/ specific locations • Economically justified/ engineering feasible • Temporary in nature • Assistance to protect life and improved property • Technical assistance GAR can request	• Project info report gets HQ approval • PCA required

Overview of Public Law 84-99 Response and Recovery Assistance

	Policies	Assistance	Procedures
Flood Fight	• Save lives/protect improved property • Supplement State and Local efforts • Public facilities/services/ residential and commercial developments • Temporary in nature - ends when flood back within banks	• Provide emergency assistance to flood control works • Furnish materials (sandbags, sheeting, pumps) • Furnish technical assistance • Assist in rescue operations • Emergency contracting • Direct flood fight operations	• District Commander issues Declaration of Emergency • PCA required for Direct Assistance
Post Flood Response	• Limited to major flood/life threatening situation • Written request from governor (concurrent with request for Presidential Disaster Declaration) • Ten-day limit (No new work after declaration)	• Debris clearance (vice removal) • Technical assistance	• PCA required

Overview of Public Law 84-99 Response and Recovery Assistance

	Policies	Assistance	Procedures
Emergency Water	• Substantial threat to public health/welfare/property • Tribal/Governor request required • Human consumption • Contaminated source limited to 30 days of assistance • Drought Assistance - Community/State buys, loads, and distributes	• Filtration/transportation/ pipeline/bottled water • Construction of wells: drought assistance only- Applicant reimbursement required	• HQUSACE designates drought areas • HQ approval required for Drought Assistance • MSC approval for Contaminated Source
FCW Rehabilitation	• Active flood control structures damaged/ destroyed by flood or coastal storm • Federally authorized/ constructed Hurricane Shore Protection Project (HSPP) • Favorable Benefit to Cost Ratio (BCR) • Deficient/deferred maintenance is sponsor's responsibility	• Repair/restoration of a flood control structure to pre-disaster level of protection • Different criteria for HSPP	• Rehab of non-Federal cost shared 80/20 • Rehab of Federal FCWs at 100% Federal Cost • PCA Required • Sponsor provides land, easements, borrow, row, etc.

Category 100: Disaster Preparedness

Feature	Class	Type of Assistance	Criteria and Comments
All Hazard Planning Activities	110	Preparation of plans and SOPs for quick and effective response to emergencies	Division and district disaster preparedness programs funded annually according to organizational requirements and funding parameters
All Hazard Planning Activities	120	Development of and participation in, exercises and training in the inter- and intra-agency arena	Training and exercises for emergency operations for which division and/or district personnel are participating
Equipment, Facilities, Supplies	130	Acquisition, rent, utilities, and purchases necessary for a fully functional EOC and alternate EOC	Costs associated with these expenses shared with O&M Gen Facilities are to be IAW USACE standards
National or Regional Centers of Expertise	140	Support by Readiness/Emergency Management National or Regional Centers of Expertise	Support determined by HQUSACE Funds RSC

Category 200: Emergency Operations

Feature	Class	Type of Assistance	Criteria and Comments

Response Operations	210	• EOC Operations, to include field representatives and LNOs in support of emergency activities (all hazard)
		• Technical assistance (all hazard)
		• Rescue operations (all hazard)
		• Flood fight Operations:
		  • Loan of flood fight materials and equipment
		  • Emergency contracting
			• Commander to declare emergency
			• USACE assistance is supplemental to state and local efforts
			• No assistance to individuals or individual businesses
			• No reimbursement to local interests
			• Reimbursement required for supplies and equipment (e.g., sandbags and pumps) loaned to State and Local sponsors. If a FEMA disaster declaration has been made, DE may waive reimbursement requirement for loaned sandbags.

After Action Report	220	Provide for the preparation and publication of After Action Reports at all levels	• Class 210 funds must be used • Summarizes disaster operations • Evaluate strengths and weaknesses; recommend corrective action
Post Flood Response	230	Response to governor request for assistance following a flood	• Limited to ten days following receipt of Governor request • Governor request must be concurrent with or subsequent to State request for Stafford Act emergency or disaster declaration

Category 200: Emergency Operations

Feature	Class	Type of Assistance	Criteria and Comments
Operational Supplies and Equipment	240	Preparation of plans and SOPs for quick and effective response to emergencies	Corps of Engineers use only; cannot be used to replace supplies or equipment for State or Local governments
Support from Others	250	Support from other Federal agencies in response to flood or coastal storm emergency	Can only be used during a flood-related emergency for reimbursement under PL 84-99
Operational Support	260	Support from USACE labs and non-Corps organizations	Applicable for use by HQUSACE only; Support determined by HQUSACE

Category 300: Rehabilitation/Inspection Program

Feature	Class	Type of Assistance	Criteria and Comments
Rehabilitation Project - Federal FCW	310	Rehabilitation of active Federal flood control works	• Written request from public sponsor responsible for operation and maintenance of project • Damage from flood or coastal storm • Restoration to pre-disaster level of protection (physical height) • Rehab economically justified • Repair of maintenance deficiencies is local responsibility/cost • Cost share: 100% Federal
Rehabilitation Project - Non-Federal FCW	320	Rehabilitation of active non-Federal flood control works	• See criteria and comments for Federal rehab, Class 310 • 80% Federal/20% non-Federal cost share
Rehabilitation Project - Hurricane/ Shore Protection Project	330	Rehabilitation of eligible Federally authorized and constructed Hurricane/ Shore Protection Projects	• Restoration to lesser of (1) pre-storm condition, or (2) level needed for adequate functioning of the project • Normally requires CG/public sponsor cost share per PCA
Field Investigation	340	Conduct investigation and preparation of Project Information Report (PIR) for flood control works	Flood control works active in the Rehabilitation and Inspection Program (RIP) and damaged by a flood or coastal storm

Category 300: Rehabilitation/Inspection Program

Feature	Class	Type of Assistance	Criteria and Comments

Initial Eligibility Inspections (IEI)	350	• IEI conducted on inactive flood control project based on established criteria
		• Inspection determines if:
		  • Public sponsor is qualified
		  • Project meets engineering and maintenance criteria
			• Project constructed using non-Federal funds or WPA/CCC
			• Sponsor a public entity with financial authority
			• Minimum level of protection required:
			  • Ag levee: five year with one foot of freeboard
			  • Urban, Ag with infrastructure: 10 year with two feet of freeboard
			  • Active maintenance program that ensures levee viability
			  • Adequate maintenance of structures and fixtures

Continuing Eligibility Inspections (CEI)	360	Periodic inspection of active non-Federal FCWs to determine if the project is being maintained in accordance with USACE criteria	Refer to ER 500-1-1 for inspection criteria
Interagency Levee Task Force (ILTF)	370	Funding beyond what FEMA provides via a Mission Assignment to manage operations of an Interagency Levee Task Force	• Division responsibility to lead task force • ILTF formed following a major event where numerous levees need rehab

Category 400: Emergency Water Assistance

Feature	Class	Type of Assistance	Criteria and Comments
Emergency Water Supplies (Contaminated Source of Water)	410	Provide emergency water to a locality	• Contaminated source of water causing threat to public health and welfare (water for human consumption only) • Supplemental to state and local resources • Written request from governor • 30-day limitation (extendable under certain conditions)
Drought Assistance	420	• Transportation of water at Federal expense • Well drilling on a reimbursable basis	• Designation by ASACW of drought distressed area • Water for human consumption only • Applicants may include farmers, ranchers, or political subdivisions • All requests to come through the State
Field Investigations	430	• PIR preparation • Technical assistance	Preparation of report for either emergency water or drought assistance

Category 500: Advance Measures

Feature	Class	Type of Assistance	Criteria and Comments
Advance Measures Assistance	510	• Preventative work from imminent threat of unusual flooding • District may provide technical assistance upon receipt of funds from HQUSACE • HQUSACE approval required for Advance Measures projects or direct assistance	• Prediction of unusual flooding by NWS or Corps (imminent threat) • Threat to life or improved property • Complement maximum State and Local efforts • Work to be completed in time to prevent damage • Work to be technically feasible and economically justified • Removal or upgrades performed by sponsor at no cost to the USACE
Field Investigations	520	Investigate eligibility and prepare Project Information Report	Request from Governor for assistance

Category 600: Hazard Mitigation

Feature	Class	Type of Assistance	Criteria and Comments
Hazard Mitigation	600	USACE participation in FEMA-led hazard mitigation effort intended to identify post-disaster mitigation opportunities, and establish framework for recovery	• Presidentially declared major disaster • FEMA activates Hazard Mitigation Team

INSPECTION OF COMPLETED WORKS (ICW)	Inspection of Federal flood control works and certain other Corps- constructed projects	O&M Gen	• Periodic inspection of active Federal FCWs to determine if the project is being maintained in accordance with USACE criteria. • Permitting of alterations to Federal FCWs.	• Correlates to Class 360 for non-Federal FCWs. • Refer to ER 130-2-530 for specifics.
STAFFORD ACT	Emergency Response and Recovery per the Federal Response Plan	NA	• ESF #3 Public Works and Engineering (Requires FEMA Mission Assignment and FEMA funding.) • DOD/DOMS directed mission (non-ESF #3)	• Presidentially declared major disaster or emergency declaration, or activation by FEMA Regional Director. • Division Responsibility to staff ROC and DFO. • Mission Assignments through ESF #3 Team.

Authorities for Removal of Obstructions

(Anything that restricts, endangers, or interferes with navigation.)

Specific legislation for each project authorizes USACE to operate and maintain Federal navigable waterways for general (including commercial and recreational) navigation. USACE uses Operations and Maintenance (O&M) General funds to maintain Federal navigable waterways after a disaster or emergency by assessing navigation conditions using aerial reconnaissance, land, and hydrographic surveys, dredging shoals, removing wrecks and similar obstructions (usually sunken) in or adjacent to Federal waterways, and repairing dredge material placement areas.

Section 302 of Water Resources Development Act of 1990 amended PL 84-99 to authorize USACE to conduct emergency dredging for restoration of authorized project depths for Federal navigable channels and waterways made necessary as a result of shoaling from a flood, drought, earthquake, or other natural disaster. O&M General funds must not be available or reprogrammable to address the need for emergency dredging.

A Product of the Readiness Support Center