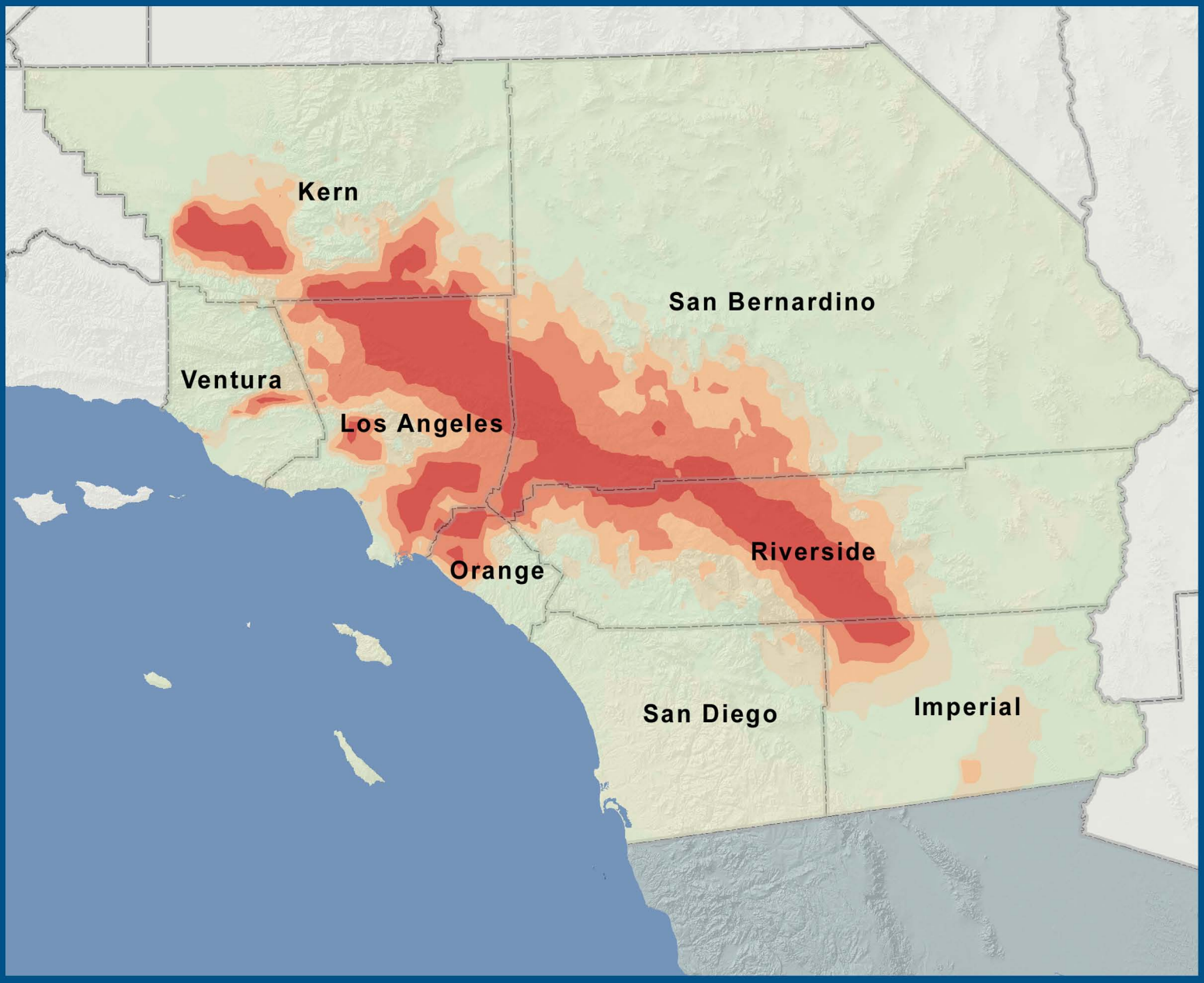


Southern California Catastrophic Earthquake Response Plan

December 14th, 2010

California Emergency Management Agency
Department of Homeland Security
Federal Emergency Management Agency Region IX

TABLE OF CONTENTS

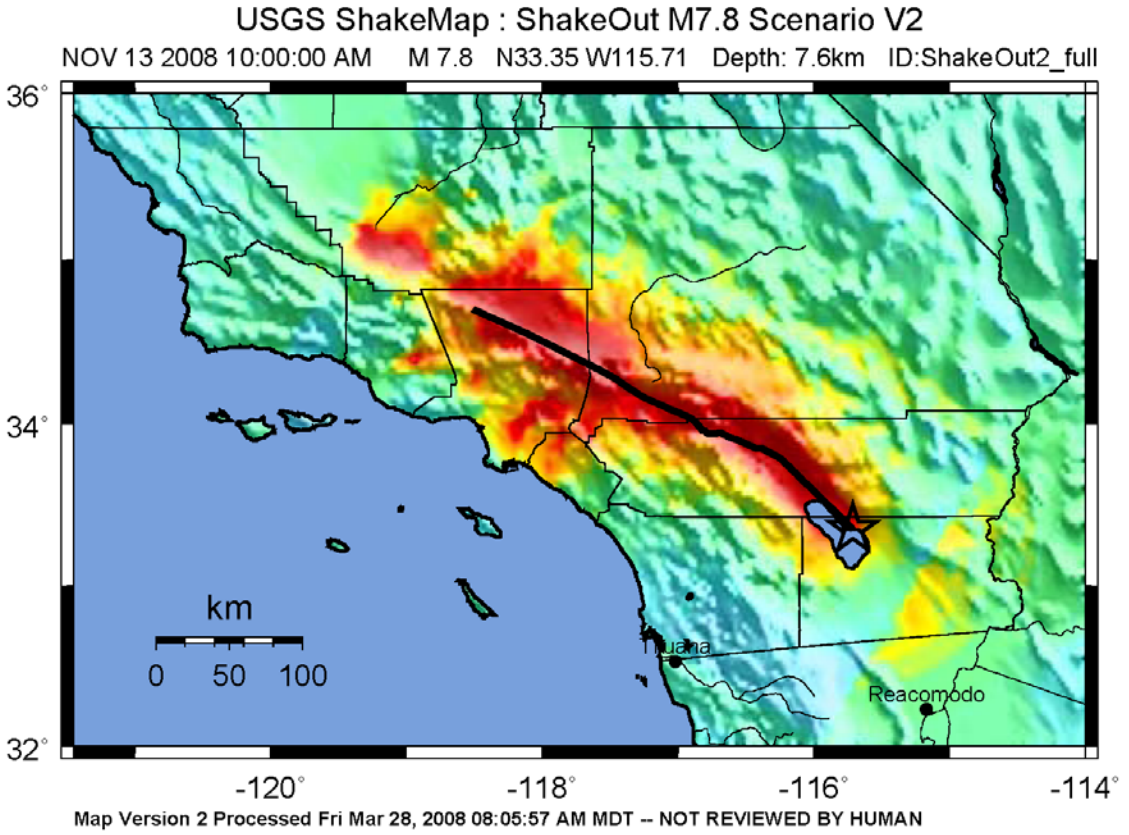
EXECUTIVE SUMMARY

PURPOSE

The Southern California Catastrophic Earthquake Response Plan (OPLAN) provides a coordinated state/federal response to a catastrophic earthquake in Southern California.

SITUATION

Planning assumptions are based on the California Geological Survey and the United States Geological Survey's ShakeOut Scenario of 2008. The southern San Andreas Fault has generated earthquakes of magnitude 7.8 on average every 150 years—and on a portion of the fault that ruptures in the ShakeOut Scenario, the last earthquake happened more than 300 years ago. The most critical damage occurs to Interstate 10 in the Coachella Valley and in the San Gorgonio Pass, Interstate 15 in the Cajon Pass, California (CA)-14, CA-111, CA-62, Box Canyon Road, and Big Pines Highway. Other disrupted lifelines include fiber optic cables (90 crossings), petroleum and natural gas pipelines (39 crossings), railroads (21 crossings), aqueducts (32 crossings), and overhead electric power transmission lines (141 crossings).



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Figure 1: USGS Shakeout Scenario ShakeMap

MISSION

The mission of the unified effort of local, state, tribal and federal emergency response is to support the needs of the impacted community by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery.

CRITICAL CONSIDERATIONS AND ASSUMPTIONS

Basic services, including transportation, healthcare, water, power, and communications, will be significantly disrupted following a catastrophic earthquake in Southern California. These considerations are described in detail in Annex B. Critical Assumptions were used to gain a better perspective on the impact and the challenges emergency responders would face. The OPLAN includes details about the critical assumptions organized by objective.

The plan describes strategies to address the effects of a magnitude 7.8 earthquake on the southernmost segment of the San Andreas Fault, between the Salton Sea and Lake Hughes, including fault offsets, landslides, liquefaction, and fires that impact eight (8) counties in Southern California: Imperial County, Kern County, Los Angeles County, Orange County, Riverside County, San Bernardino County, San Diego County and Ventura County.

This OPLAN is the result of more than 1500 emergency management professionals determining how best to use the combined capabilities of the private sector, non-governmental organizations (NGOs), local state, tribal and federal resources to respond to a magnitude 7.8 earthquake on the southern San Andreas Fault.

EXECUTION

The OPLAN reflects the Senior Leaders' intent to employ a joint State/Federal Unified Coordination Group (UCG), using Incident Command System (ICS) concepts and principles consistent with the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS), to accomplish response activities consistent with the priorities of the Governor, sovereign tribal nations, the local governments and the objectives set forth in this OPLAN.

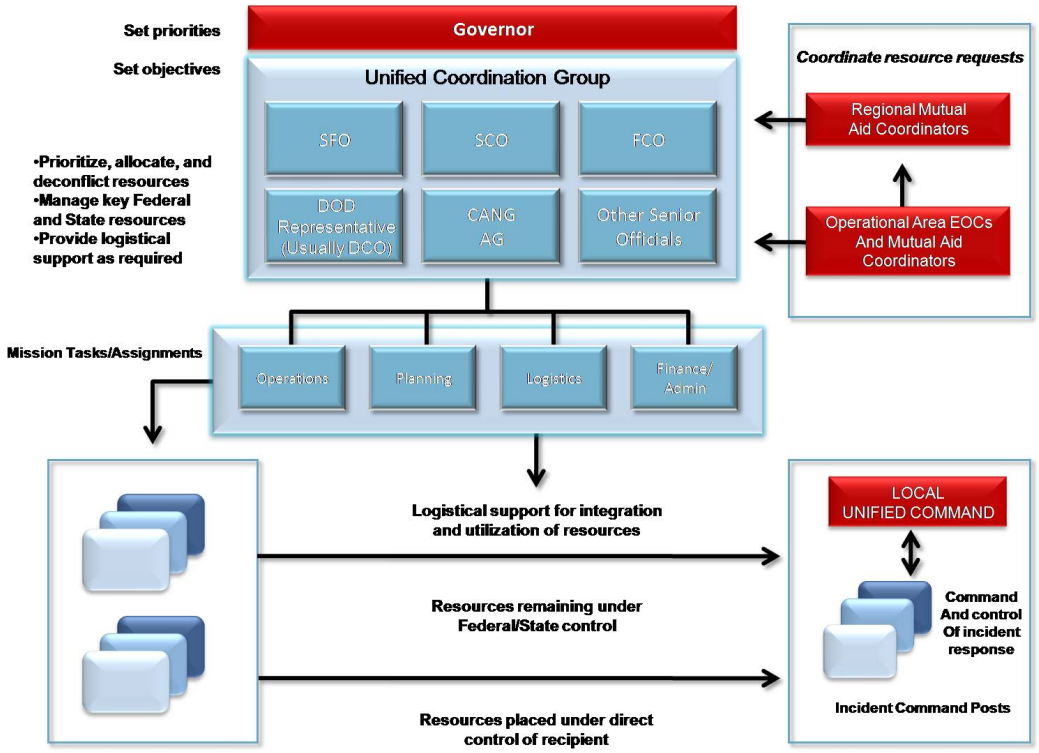


Figure 2: Basic Structure and Responsibilities of the Joint State/Federal Organization

OPLAN OBJECTIVES

Coordination and Communications:

- Establish and maintain functional and interoperable communications for responders.
- Validate and provide internal and external public messaging.
- Adopt an emergency management structure that manages resource shortages.

Emergency Services:

- Establish air operations for emergency response and damage assessment.
- Conduct search and rescue operations.
- Reduce hazards: Suppress fire, contain hazardous materials.
- Conduct safety assessments.
- Provide safety, security and support to emergency response operations.

Health and Human Services:

- Provide health and medical Services:
  a. Provide acute care - hospital/EMS.
  b. Provide chronic care – medical special needs, mental health.
  c. Execute patient evacuation/movement.
  d. Maintain public health (food, water, vector control, food and water quality inspection, surveillance).
- Provide care and shelter, including animals.
- Conduct mass fatality operations.
- Support mandatory and self-evacuations, including logistical needs.

Infrastructure:

- Stabilize and provide critical utilities for priority infrastructure: water/wastewater, power, communications and natural gas.
- Establish lines of supply: sea ports, airports, railroads, and roads.
- Supply emergency water and sanitation needs for response operations.
- Establish emergency power and fuel lines of supply.
- Conduct debris clearance and disposal.

CONCEPT OF OPERATIONS

The Concept of Operations is divided into three distinct phases: Normal Operations, Response, and Long-Term Recovery. Phase 2, Response, is further divided into Activation (Immediate Response), Deployment and Employment, and Sustained Response.

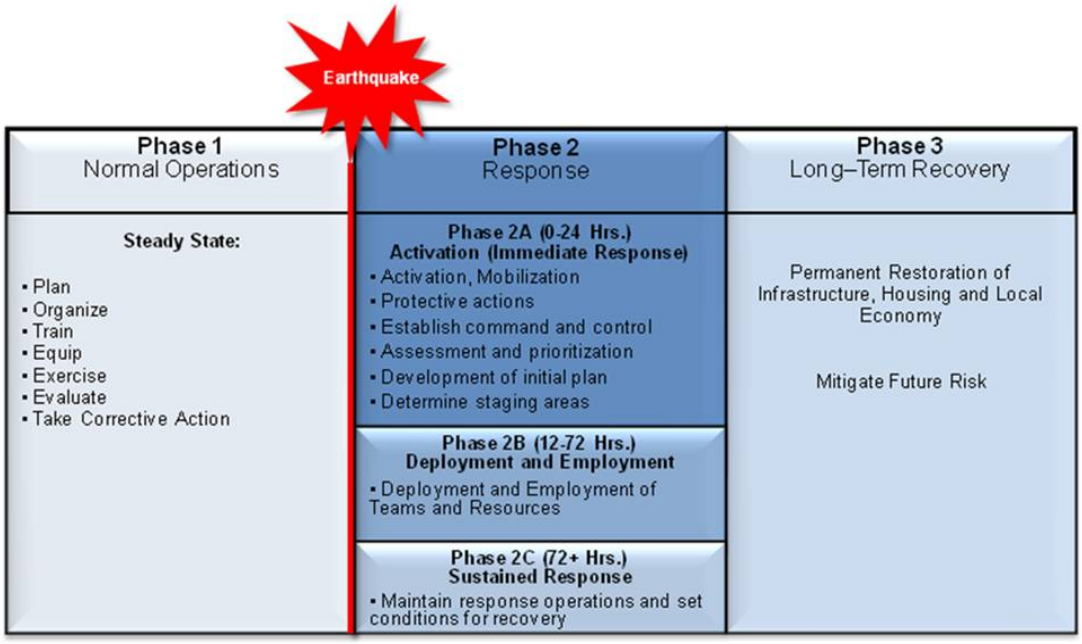


Figure 3: Phases of earthquake response

PHASE 1: Normal Operations

The purpose of Phase 1 is to coordinate with private, non-profit, local, state, tribal and federal stakeholders to prepare for a catastrophic earthquake. Actions include planning, organizing, training, equipping, exercising, evaluating and taking corrective actions.

PHASE 2: Response

The FEMA National Response Coordination Center (NRCC) coordinates a "push" of federal resources during phases 2A (Activation, 0-24 hours) and phase 2B (Deployment and Employment, 12-72 hours). A transition to a "pull" of resources occurs during phase 2C (Sustained Response, 72+ hours) as requirements are more clearly defined.

During Phase 2, avenues of approach to the incident area are determined based on infrastructure damage to transportation corridors. Available air, land, and sea avenues of approach are used to push federal teams and resources.

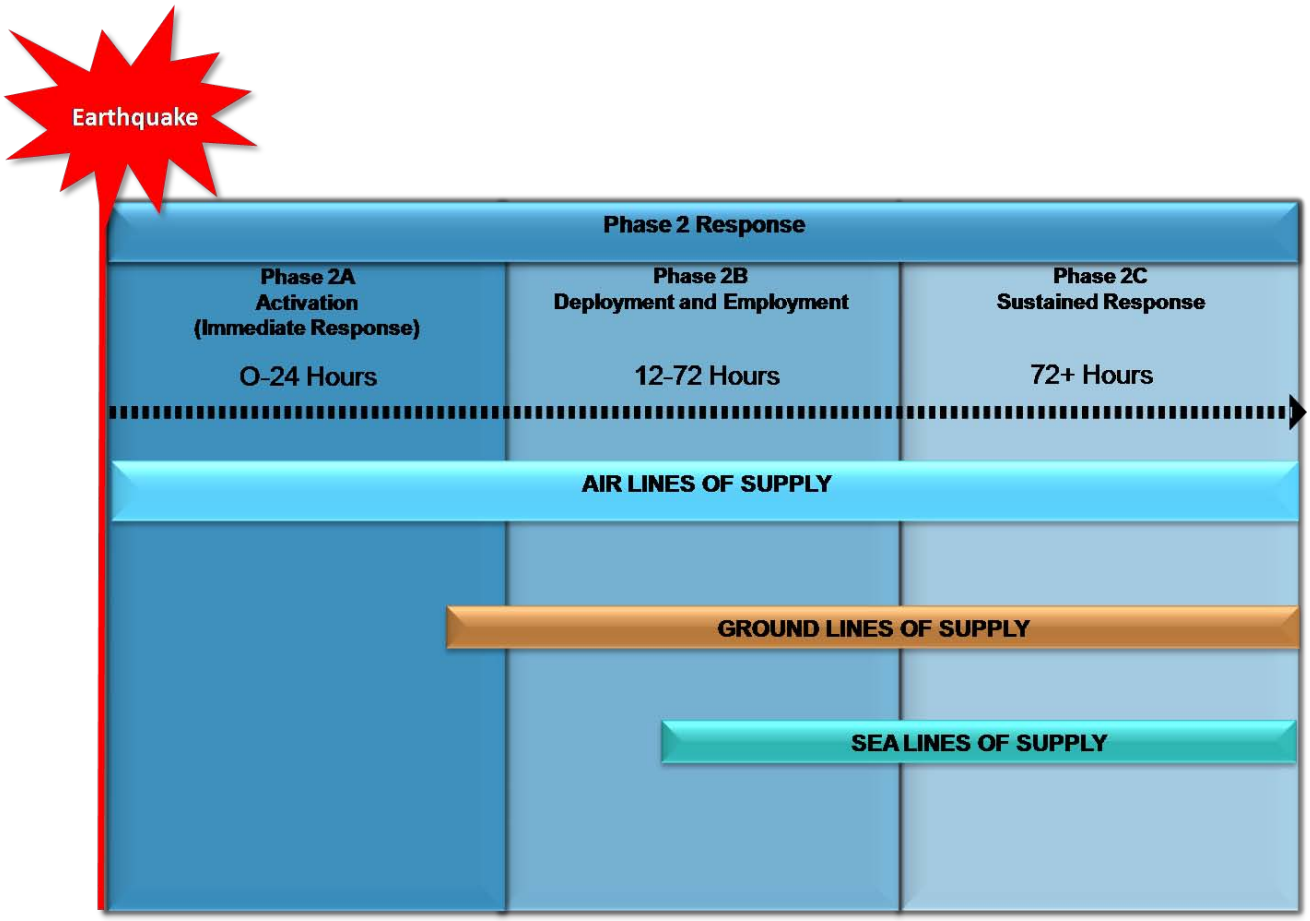


Figure 4: Avenues of Approach

Phase 2A: 0-24 Hours – Activation (Immediate Response)
Communications, Search and Rescue (SAR), firefighting, medical care and evacuation, and mass care are prioritized and carried out by local responders in each Operational Area (OA). Staging Areas (SAs) are determined at the time of the incident. These facilities are part of multi-modal concept of operations. Facilities are chosen due to their earthquake survivability, suitability for large scale air operations (including offloading and staging of teams, equipment and material) and their proximity to the incident area.

The Department of Transportation (DOT) coordinates with the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) to establish ground transportation routes. DOT works with the Federal Aviation Administration (FAA) to determine operational status of commercial airfields and reports this to the FEMA RRCC and State Operations Center (SOC). Airspace control is managed by the FAA with advisory support from the National Guard, Customs and Border Protection (CBP), and the Department of Defense (DoD). An Air Operations Branch is initially established at the SOC and supported by federal partners including, but not limited to DoD, CBP, and the United States Coast Guard (USCG).

The triage of critical infrastructure systems to enable communications, water distribution, power generation, fuel refinement, and air operations is prioritized by the UCG as temporary

sources of water, power, and fuel are acquired and consumed by local jurisdictions in the incident area. The Operations Section works closely with the State and private sector to coordinate triage of critical systems.

This OPLAN has developed joint private sector and government Task Forces for Water, Port Reconstitution (water, power, staging), and the Cajon Pass and Other Critical Infrastructure (power/fuel/communications, railroads) which are activated by the joint State/Federal Operations Section to facilitate triage of critical infrastructure systems.

Figure 5: Task Forces focus on reconstitution of critical systems to support response.

Pre-established joint State/Federal messaging, both within and outside the incident area, is delivered to media outlets by EF/ESF 15 and coordinated with local jurisdictions in accordance with Annex F.

Phase 2B: 12-72 Hours – Deployment and Employment

Phase 2b occurs as Cal EMA and FEMA resources are deployed and employed in the affected area

State and federal resources are deployed and employed based on impact and need

Transportation occurs along major interstate freeway avenues of approach. Ground deformation, fire, debris, and traffic limits ground movement in Phase 2A and 2B. The CHP and Caltrans manage ground avenues of approach and report status of road systems to EF/ESF 1 at the FEMA Region IX RRCC.

Strategic airlift resources arrive at staging areas and are offloaded to local and federalized ground and air transport, including USCG, CBP, and DoD rotary wing aircraft.

Maritime ship-based staging and operations may be established to deliver temporary fuel, water, and ship based care. The USCG leads port reconstitution efforts to re-establish port continuity.

Cal EMA and FEMA deploy Branch Directors to serve in each OA EOC.

The mission of State and Federal Branch Directors is to work with OA emergency managers to articulate response requirements and report priorities to the Operations Section Chief. Branch Directors are supported by state and FEMA support staff and EF/ESF representation. They are responsible for supervising branch operations, assigning specific work tasks to Division Supervisors, developing and implementing portions of the Incident Action Plan (IAP), and communicating and resolving logistical problems.

Division boundaries are established by the joint State and Federal Operations Section in close coordination with OA emergency managers. State and federal representation within Divisions is established to communicate needs/coordinate employment of state and federal resources in accordance with objectives established by the UCG. Division Supervisors are responsible for the management and supervision of assigned resources within their geographical areas, reporting on the progress of operations, the status of assigned resources, and their portion of the IAP.

Note: In a catastrophic incident:

The "Unified Command" concept quite often extends into the Operations organization to the Branch and Division/Group level depending on the capability of State and Local Government. As a result FEMA operations may have joint positions (FEMA, state, and/or local) throughout the organization.

Figure 6: Deployment and Employment

Survivors are supported by establishing a network of hubs and spokes (Figure 4). Staging Areas support hospitals, shelters, arenas/stadiums, open spaces, and Points of Distribution (PODs) as determined by the State and OA emergency managers.

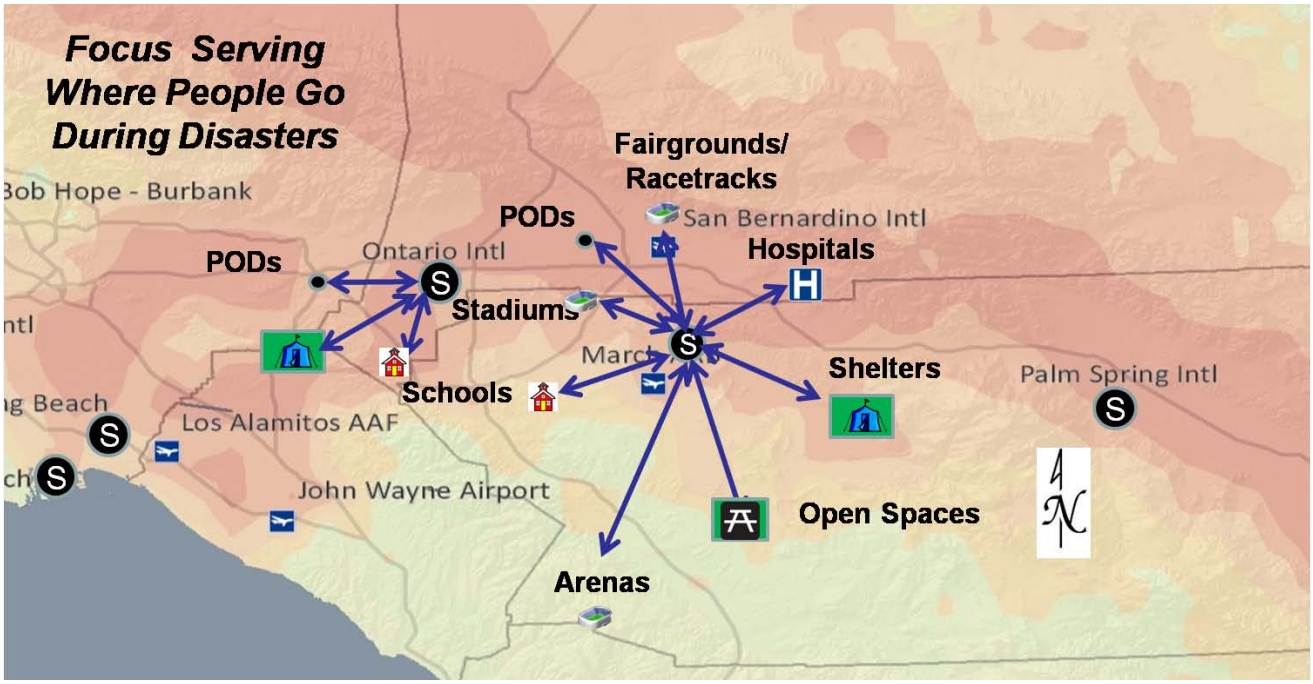


Figure 6: Hub and Spoke Concept.

PHASE 2C: 72+ Hours – Sustained Response

Phase 2c occurs as the transition from the "push" of resources and teams transitions to a more clearly defined "pull" of resources at the federal level. The State continues to administer the Emergency Management Assistance Compact (EMAC) and state-to-state mutual aid. The Joint Field Office (JFO) becomes fully operational in the affected area. Emergency debris clearance from major interstates and state routes has taken place and staging areas are established and continue pushing resources into the incident area. Task forces and the private sector are working to restore infrastructure. Mass care services, including voluntary agency (VOLAG) support are taking place and centers of gravity for care are identified. Local jurisdictions are working with state and federal counterparts to clearly define requirements.

Phase 2 End State: The end state of the Response Phase is when response activities set conditions for long-term recovery. Sheltering is transitioned to temporary housing including rebuilt or repaired homes or other temporary housing. The Ports of LA and Long Beach are operating at full commercial capability while maintaining response operations. The Cajon Pass is operational and other critical conveyance infrastructure for natural gas, power and communications is functional. Major water conveyance structures including the Arizona Aqueduct and the California Aqueduct are functional and supplying water to major water treatment facilities in the incident area. Temporary and repaired power generation infrastructure enables communications, water and fuel distribution, sanitation and increased public messaging.

KEY FEDERAL ROLES AND RESPONSIBILITIES

Per Homeland Security Presidential Directive 5 (HSPD-5), the Federal Government's response/support to disaster incidents must be in accordance with the National Response Framework (NRF) and the NIMS. As described in the NRF, the federal response is carried out by ESFs.

STATE AND LOCAL COORDINATION REQUIREMENTS

All federal resource requests and support are coordinated through the State. Cal EMA has primary responsibility for coordinating the State's response and liaison between the federal and regional/local Governments. Cal EMA divides operations into three regions and each has a regional EOC – Southern Region (Regional Emergency Operations Center (REOC)-Los Alamitos), Inland Region (REOC-Sacramento), and the Coastal Region (REOC-Oakland) – which are activated during disaster incidents and are the primary coordination points for the regional/local governments. The REOCs report to the SOC.

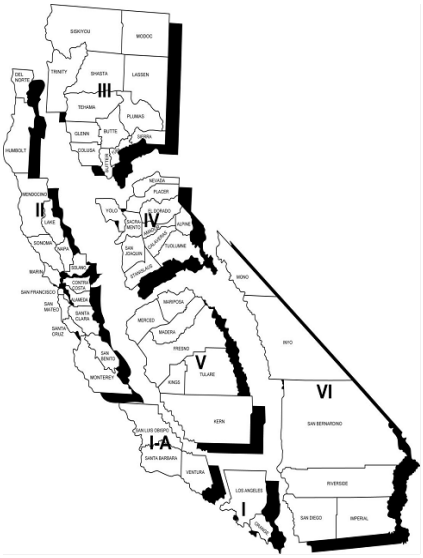


Figure 7: California Counties and Mutual Aid Regions

Each of the 58 county governments is also an OAs for emergency services purposes; each has an EOC and is the primary contact/liaison between the State and Local Government. Within each OA, incorporated cities (local government) exist. The Local Government is the primary entity responsible for first response during a disaster incident and each has a separate EOC.

Cal EMA activates the SOC and REOC; FEMA activates the NRCC at FEMA Headquarters and the RRCC in the FEMA Region IX Office in Oakland. Organizational and process descriptions are contained in Annex A.

NGO COORDINATION REQUIREMENTS

NGOs are integrated into the individual assistance branch of the joint State/Federal Operations Section; coordination is done by the UCG. The REOC coordinates when the NGO is working directly with local and regional governments.

Voluntary organizations are integrated similarly. Voluntary organizations that request to integrate into the JFO are coordinated by the joint State and Federal Individual Assistance Branch Director.

PRIVATE SECTOR COORDINATION REQUIREMENTS

The private sector owns and operates the majority of critical infrastructure in the region. The private sector is included in the OPLAN for response operations and setting conditions for long-term recovery. Task forces focusing on stabilizing critical systems exist for The Cajon Pass and other Critical Infrastructure, Water, and Port Reconstitution. Details of the response and roles are included in Annex C-10. The State/Federal Government augments and supports private sector response as requested.

KEY DECISIONS REQUIRED TO EXECUTE THE OPLAN

- Shakemap of the earthquake incident from USGS.
- The designation of Priority Response Areas and Development of Support Plan.
- Establishment of the UCG.
- Validate Staging Areas for immediate push of resources in accordance with Annex X.
- ICS organizational Structure.
- Prioritization for debris clearance at airfields, ports and supply lines.
- Prioritization of resource allocation based on impact and need.
- Subsequent decisions on facilities locations (Initial Operating Facility (IOF), JFO), establishment of facilities, staffing, program priorities, resources, and demobilization are required.

CRITICAL INFORMATION REQUIREMENTS

Senior level decision makers responsible for implementing this plan require this information when the incident occurs:

- The impacted area and earthquake magnitudes within the impacted area.
- Demographics (including individuals displaced, self-evacuees, injured, and killed) and information on special needs populations.
- Evacuation plans, timelines, and instructions (to include the evacuation of critical facilities such as hospitals and nursing homes).
- Requests and/or need for state and federal assistance.
- Status of declarations and ESF activations.
- Location, capabilities, and number of all deployed response resources including equipment, commodities, and personnel.
- Identification of Governor and national-level priorities.
- Anticipated spread of fires and hazardous material (HazMat) contamination.
- Damage to and status of critical facilities, ports, airfields, government buildings, hospitals and infrastructure.
- Potential chemical, physical, and natural hazards that may affect the safety and health of response and recovery workers.
- Status of shelters and their commodities.
- Information on damage to residential dwellings, temporary housing plans, and power restoration timeline.
- Factors that have a significant economic impact.
- Ability of government organizations to continue essential functions and services.

ADMINISTRATION, RESOURCES, AND FUNDING

ADMINISTRATION

State, local, and federal departments and agencies manage financial activities within their established processes. For FEMA, the funding is administered through the FEMA NRCC at the national level, the RRCC at the regional level, and the JFO at the field level. When other state, local and federal departments and agencies are operating programs under their own statutory authority and funding, coordination among agencies for financial responsibilities is expected to occur.

RESOURCES

Resource support is provided consistent with NIMS principles. Actions rely on private-sector vendors delivering resources. This OPLAN calls for close coordination with the private sector for security and access to damaged critical infrastructure. Equally as important to establishing Staging Areas is beginning the flow of commodities. Staging Areas must have the transportation and capabilities necessary to receive, pre-position, and deploy commodities, equipment, and personnel. This is a coordinated effort at the local, state, and federal levels. Effective integration and use of state–to-state mutual aid, the EMAC process, and federal resources to the field is critical. Initial movement of resources relies heavily upon air, land and sea routes. Ground transport is limited in the early stages of this catastrophe.

CONCEPT OF LOGISTICS SUPPORT

Logistics are the joint responsibility of Cal EMA and FEMA throughout all phases. Situational awareness of the earthquake's impact to the LA Basin's transportation infrastructure and reestablishing the State's transportation system is a priority to facilitate the effective movement of resources into and throughout the impacted area from SAs, shelter areas, and other sources. Annex D, Logistics, provides the formation and structure for the coordinated State-Federal logistics support and describes the facilities and transportation process used to accomplish the mission and the requirements for SAs, shelters and PODs necessary to support deployment of teams and commodities throughout the impacted area. Use of port facilities and air transportation are used intensively at the outset of the response until ground routes are brought back to usable conditions.

FUNDING

Federal funding must be consistent with applicable laws and authorities. The two main sources of funding are through the Stafford Act and Federal-to-Federal Support.

OVERSIGHT, COORDINATION INSTRUCTIONS, AND COMMUNICATIONS

OVERSIGHT

The UCG exercises oversight of the operation in accordance with the CA CONOPS, November, 2008.

COORDINATING INSTRUCTIONS

Cal EMA and FEMA have the authority to initiate or execute this OPLAN unilaterally, under direction of the Governor of the State of California. The UCG, when established, directs the activities of the incident and oversees establishment of the JFO. Any issues that cannot be resolved at the UCG level are forwarded to FEMA Region IX for adjudication. Issues that cannot be resolved at the Region are elevated to FEMA Headquarters. This also includes general policy guidance for managing resources in support of the incidents.

COMMUNICATIONS

State and federal resources support communications. See Annex K of the OPLAN for specific instructions and coordination requirements.

1.0 SITUATION

1.1 PURPOSE

This Operations Plan (OPLAN) provides specific and detailed strategies for conducting coordinated (private sector, local, state, tribal and federal) response operations for a catastrophic earthquake in Southern California. The planning assumptions for this OPLAN are based on the California Geological Survey and United States Geological Survey's ShakeOut Scenario of 2008.

1.2 BACKGROUND

This OPLAN is a result of a collaborative process resulting in an executable plan that represents the combined capabilities of the private sector, NGOs, local, state, tribal and federal stakeholders. During the planning process, over 1500 emergency management professionals provided subject matter expertise in writing this plan for Southern California. While the effects of this scenario will draw upon resources across the nation and test every aspect of our emergency response system, it is the survivors who will face "a period of challenge for values and norms that submerge individual self interest in favor of collective survival" (Dennis Mileti and James Goltz. 2008. *The ShakeOut Scenario* "Chapter 5: Emergency Response and Communications." Pg. 150). Usual operations for systems throughout the area impacted will be overloaded and unable to function as usual.

The following OPLAN objectives were approved by senior officials:

Coordination and Communications:

- Establish and Maintain Functional and Interoperable Communications for Responders
- Validate and Provide Internal and External Public Messaging
- Adopt an Emergency Management Structure that manages Resource Shortages

Emergency Services:

- Establish Air Operations for Emergency Response and Damage Assessment
- Conduct Search and Rescue Operations
- Reduce Hazards: Suppress Fire, Contain Hazardous Materials
- Conduct Safety Assessments
- Provide Safety, Security and Support to Emergency Response Operations

Health and Human Services:

- Provide Health and Medical Services:
  a. Provide Acute Care - Hospital/EMS
  b. Provide Chronic Care – Medical Special Needs, mental health
  c. Execute Patient Evacuation/Movement
  d. Maintain Public Health (food, water, vector control, food and water quality inspection, surveillance)

- Provide Care and Shelter, Including Animals
- Conduct Mass Fatality Operations
- Support Mandatory and Self-Evacuations, including Logistical Needs

Infrastructure:

- Stabilize and Provide Critical Utilities for Priority Infrastructure: Water/Wastewater, Power, Communications and Natural Gas
- Establish Lines of Supply: Sea Ports, Airports, Railroads, and Roads
- Supply Emergency Water and Sanitation Needs for Response Operations
- Establish Emergency Power and Fuel Lines of Supply
- Conduct Debris Clearance and Disposal

1.3 AUTHORITIES

State

- California Emergency Services Act (ESA) and the State Emergency Plan (SEP)
- California Catastrophic Incident Base Plan: Concept of Operations (CONOP)
- California Disaster Assistance Act
- SEMS, Government Code §8607
- SEMS Guidelines, dated September 2006
- California Disaster and Civil Defense Master Mutual Aid Agreement
- State of California Emergency Plan, dated September 2005

Federal

- The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)
- Homeland Security Presidential Directive 5, Domestic Incident Management, February 28, 2005
- Homeland Security Presidential Directive 8, National Preparedness, December 17, 2003
- National Incident Management System (NIMS) , December 2008
- The National Response Framework (NRF), January, 2008
- Post-Katrina Emergency Reform Act, 2006

1.4 THREAT

This OPLAN addresses the effects of a magnitude 7.8 earthquake on the southernmost segment of the San Andreas Fault, between the Salton Sea and Lake Hughes, as defined by the 2008 ShakeOut Scenario. The earthquake will impact eight (8) counties in Southern California: Imperial County, Kern County, Los Angeles County, Orange County, Riverside County, San Bernardino County, San Diego County and Ventura County.

The effects of this earthquake include, but are not limited to, fault offsets, landslides, liquefaction, and fires (including conflagrations) following the earthquake.

1.5 CRITICAL CONSIDERATIONS

Following a catastrophic earthquake in Southern California there will be significant disruption of basic services including transportation, healthcare, water, power, and communications. These considerations are described in detail in Annex B.

1.6 CRITICAL ASSUMPTIONS

In addition to the Critical Considerations, a series of Critical Assumptions are necessary to gain a better perspective on the impact of the scenario and the challenges emergency responders will face. Below is a list, by Objective Area, of the Critical Assumptions used in the OPLAN planning process:

Coordination/Communications:

Establish and Maintain Functional and Interoperable Communications for Responders

- Radio transmitter/repeater sites will be non-functional.
- Limited operational state and local microwave-based communications will be overloaded with very high volumes of emergency responder traffic.
- Many agencies and organizations – including news media and NGOs – have plans to use the same back-up communications including walkie-talkies and satellite phones.
- Amateur Radio Emergency Service (ARES)/Radio Amateur Civil Emergency Service (RACES) will be operational but may be delayed in deployment due to hazards and roadway/bridge damage.
- Limited mass battery charging capability will restrict responder communications.

Validate and Provide Internal and External Public Messaging

- Warning systems will be seriously impaired by power and phone outages.
- Not all of these systems are ADA compliant.
- Established Joint Information Centers (JIC) may not be accessible.
- No plan existing prioritizes the use of communications resources which will lead to competition among other groups causing delays during a disaster.
- No dedicated logistical support exists for external public messaging.
- Many warning systems and methods used locally are not interconnected between neighboring jurisdictions.
- Mobile or Satellite JICs may need to be established.
- The Governor's Office will need to be supplemented by State Public Information Officers (PIO) to handle the massive CA-EF 15 traffic.
- No formalized process exists to integrate Web 2.0.

Adopt an Emergency Management Structure that Manages Resource Shortages

- Need to prioritize and manage competition for limited resources region wide.
- Unified Coordination Group (UCG) will be implemented to coordinate the state and federal support to the impacted jurisdictions.
- Local jurisdictions are currently not a part of the California Catastrophic Incident Base Plan – Concept of Operations (CA CONOPS).
- Need to establish a unity of effort among all levels of the emergency response community.

Emergency Services:

Establish Air Operations for Emergency Response and Damage Assessment

- 10,000 – 100,000 landslides will cause roads to be impassable and railroads will bend.
- Because of the impacts to roads and rail, air operations will be used to procure and deliver commodities into the affected area.
- Major airports in the region sustain little structural damage.
- Damaged roads that are impassable for weeks will impede the typical ground damage assessments.

Conduct Search and Rescue Operations

- An estimated 5,000 people are in completely collapsed buildings, 10,000 are in red-tagged, non-collapsed buildings, and 20,000 are in yellow-tagged buildings.
- Urban Search and Rescue (US&R) needs after the disaster will exceed the local resources (currently include 71 resources trained in US&R).
- 94% of the current Urban Search and Rescue resources are firefighters who are also responsible for firefighting, hazardous materials, and emergency medical services (EMS).

Reduce Hazards: Suppress Fire, Contain Hazardous Materials

- 1,600 fires ignite after the disaster event; dozens of large fires merge into conflagrations destroying hundreds of blocks.
- Use of U.S. Forest Service may be limited by jurisdictional authority.
- Fires that follow this earthquake will double losses with over 3600 deaths.
- Alternate fire suppression water sources need to be identified to suppress fires burning over 4500 acres which equates to 133,000 single-family dwellings and $65 billion dollars in property loss.
- Over 140,000 hazardous material incidents occur after disaster event: three chlorine gas releases and one ammonia release are expected.

Conduct Safety Assessments

- Over 300,000 buildings are significantly damaged (1 in 16) and require inspection.
- California has 5,926 in-state, trained building inspectors certified in the Safety Assessment Program: 25 exist in bordering states and 416 in the other states.

Provide Safety, Security and Support to Emergency Response Operations

- Security (public safety and law enforcement) within the affected areas is critical to the safety of first-responders to conduct of firefighting, urban search and rescue, and other emergency response operations.
- Emergency responders will need access to resources (e.g., fuel, transportation) to perform operations.
- Supporting emergency responders includes monitoring their health and mental status and collecting injury and/or exposure information.

Health and Human Services:

Provide Health and Medical Services

Provide Acute Care – Hospital/EMS

- Hospital functionality will be decreased by an estimated 30%, as much as 75 % in specific OAs. An estimated 13,000 beds are lost.
- Demand will exceed capabilities; the system is currently taxed under normal conditions.
- Shortages will exist in hospital equipment, including beds and prescription medications affecting patient care.
- For the remaining hospitals to continue operation, they will immediately need water, fuel, pharmaceuticals and personnel.
- Approximately 2,600 public and private ambulances exist in California; about 27% are fire-based.

Provide Chronic Care – Medical Special Needs, Mental Health

- Initially, 40% of Medical Special Needs (MSN) patients will require assistance immediately with an additional 40% requiring care within 72 hours and the remaining 20% of the population requiring care within the first week.
- Local jurisdictions will require significant amount of State and Federal resources to care for the large numbers of survivors with special medical needs.

Execute Patient Evacuation/Movement

- Patient tracking systems among health care system components are currently not integrated.
- The ability to coordinate and control the flow of all patients requiring movement is limited.
- Many roads, highways, and bridges will be impassable in the first few days after the earthquake due to damage and debris on the roads, hampering patient movement.

Maintain Public Health (food, water, vector control, food and water quality inspection, surveillance)

- Local health departments, supported by mutual aid and the California Department of Public Health (CDPH), have sufficient resources to initiate evaluation and response.
- Veterinary care capacity is inadequate; vector monitoring and public health support staff will exist.

Provide Care and Shelter, Including Animals

- 2,600 current potential shelter structures will have to be inspected before they can be available.
- 255,000 displaced households, an estimated 542,000 people, will require emergency shelter.
- Although no estimate exists, a large percentage of the displaced population is expected to have pets.
- Mass care operations will also require:
  - Potable Water
  - Sanitation Disposal
  - Security
  - Mental Health
  - Functional Needs
- Over 8 million estimated cases of mental health (distress/disorders).
- Overflow veterinary facilities will have to be identified in other counties not impacted and possibly other states.
- Priority must be given to ESF 8.

Conduct Mass Fatality Operations

- An estimated 1,800 deaths are anticipated in the region.
- Shortages in equipment and material to support and identify fatalities will exist.
- No State Coroner or Medical Examiner (ME) exists, thus the counties must rely on the mutual aid system.
- Within the impacted OAs, a surge capacity exists to store a total of 1400 remains: LA County can surge up to a capacity of 600 bodies; approximately 200 mortuaries exist with varying capacity; 4 mobile morgues exist with a capacity of 40-50 each.
- Disaster Mortuary Operational Response Teams (DMORTs) and DoD Mortuary Affairs Team can help with processing and identification; however there will be a shortage in capable mortuary and other personnel.

Support Mandatory and Self-Evacuations, including Logistical Needs

- Evacuation may be limited due to non-passable roadways and vehicle-borne evacuees with vehicles containing limited gas.
- Conflagrations in downtown L.A. force the evacuation of 130,000 people within the first 72 hours.
- Attrition of the workforce is estimated to be nearly 50%, thus hampering evacuation operations.

<u>Infrastructure:</u>

Stabilize and Provide Critical Utilities for Priority Infrastructure: Water/Wastewater, Power, Natural Gas

- In many instances it will be cheaper and faster to lay new pipe rather than repair the existing infrastructure, creating widespread supply and demand problems.
- Transmission towers will need to be ordered, manufactured, and constructed prior to having full service available on major 500 kV lines.

- The two nuclear sites in San Diego and San Luis Obispo will be shut down and cooled down regardless if damages occur or not. Nuclear facilities have a limited number of certified operators.
- Los Angeles, Riverside and San Bernardino each contain 30+ inch natural gas transmission lines that cross the fault and consequently rupture.

Establish Lines of Supply (Airports, Seaports, Railroads and Roads)

- Aviation will be a critical asset during the response phase of the disaster.
- The ports will experience a logistics crisis during the first one to two weeks after the event because of lack of electricity and general chaos.
- Existing railroads cross the San Andreas Fault at 21 locations.
- Critical routes may require temporary modification of roadbed alignments onto adjacent land in order to navigate around debris and obstacles.

Establish Emergency Power and Fuel Lines of Supply

- There are not enough stockpiled emergency supplies available to restore power after the event.

Supply Emergency Water and Sanitation Needs for Response Operations

- Resources to move the water, such as water tenders, are very limited and will need coordination.
- Chemicals needed for water treatment/ decontamination may not be readily available because of hazardous materials restrictions and transportation infrastructure damage.
- Imported water supplies will be very limited following the event. Water supply will be restricted to storage at the time of the event and the capability to produce groundwater.
- Water needed for fire-fighting may be required to meet certain quality standards regarding chemical and contamination levels.
- Concern will arise over hooking up to recycled and/or contaminated supplies.
- Availability of water that meets standards will be a problem.
- Over 300 reservoirs are in the affected area.
- Distribution systems and hydrants will be inoperable.
- San Bernardino and Riverside may be releasing untreated sewage into the Santa Ana River due to damage to the system and lack of power supply, which would directly affect environmental conditions in the river as well as water supplies through contamination of groundwater spreading grounds over a long period of time.

Conduct Debris Clearance and Disposal

- The catastrophic event will create approximately 81millon tons of debris in the impacted area.
- Most of the 76 landfills are near capacity and debris removal efforts will require an additional amount of capacity that exceeds that which is available.
- No debris management plan currently exists for an event of this type; the absence of a plan will impact federal reimbursement.
- Multiple programs and personnel are available at various local, state and federal agencies, as well as from volunteer organizations, for the removal of debris from roadway facilities following earthquake event.

1.7 MISSION-ESSENTIAL TASKS

The following objective area concepts of operation have identified mission-essential priorities for response operations following a catastrophic earthquake. Each objective area listed below corresponds to an Appendix to Annex C (Operations), Annex D (Logistics), Annex F (Public Messaging), or Annex K (Communications). Further breakdown by tasks are contained in each Annex and Appendix.

Coordination and Communications:

Establish and Maintain Functional and Interoperable Communications for Responders.

The state prioritizes communication requests for support in the SOC and directs state mobile using the mutual aid system based on incoming assessments and priorities. Shortfalls that cannot be filled using the mutual aid system are forwarded to the Joint State/Federal Operations Section to be filled by federal assets. Federal assets to include MERS and DoD assets immediately deploy to designated Staging Areas to support federal emergency response operations and fill state communication shortfall requests received in the Operations Section in accordance with established priorities.

Validate and Provide Internal and External Public Messaging.

The earthquake damage to most conventional public messaging methods will require the use of a variety of innovative communications methods to convey public safety messages, evacuation instructions, sheltering and other critical information. No viable method will be ruled out, particularly during the immediate response phase. The local EOCs and PIO will deliver targeted public messages to the affected populations using all available means with assistance provided by the JIC located at the JFO. Response to media inquiries and legislative affairs for damage assessment statistics and estimates will include news conferences and briefings, news releases and statements from state and federal officials on live programming. EOCs and the PIO will publicize the status of any emergency or disaster declarations, the types of assistance available to emergency-disaster survivors and the locations of Disaster Recovery Centers (DRCs). ESF 15 components will be deployed immediately to augment and support state and local emergency public information efforts with JIC operations, community relations and international affairs. Public messaging will be disseminated from the JIC using a phased approach to ensure external messages are accurate, coordinated and consistent.

Adopt an Emergency Management Structure that manages Resource Shortages.

Task organization for a catastrophic earthquake is consistent with the NRF, NIMS, and the California/FEMA Region IX Concept of Operations as shown in Annex A. This organization is also consistent with the California State Emergency Plan of 2009.

Emergency Services:

Establish Air Operations for Emergency Response and Damage Assessment.

Air operations are established through a phased approach and coordinated by a joint state and federal Air Operations Branch. An Air Operations Branch will be established to coordinate and manage strategic aviation missions including Supply, Airlift and Air Evacuation Operations from outside the affected area to augment local response capabilities. Tactical air operations are conducted by local responders and include helicopter and fixed-wing operations inside the affected area. Initial assessments of critical air operation infrastructure, airfields, communications assets, and aids to navigation, will be conducted to better understand the scope of damage done to the area aviation capability. Airfields capable of supporting air operations and staging of resources will be identified, and emergency airfield repairs will be completed by organic airfield assets with repair effort augmented by federal support as requested.

Conduct Search and Rescue Operations.

A mixed deployment concept of Urban Search and Rescue capabilities will be used, with some assets sent directly to affected local jurisdictions and some that will be centrally controlled from mobilization sites. Those assets that are centrally controlled will remain at the federal level for surge capability needed for potential aftershocks or other simultaneous response requirements. The Fire and Rescue Mutual Aid system will activate all necessary task forces. Task forces native to California are on a "first-up, on call" system. Facilitating international aid for US&R support is the responsibility of the Department of State; however international US&R assets will be operationally coordinated through FEMA.

Reduce Hazards: Suppress Fire, Contain Hazardous Materials.

Fire service includes all public and private entities that assist the state in firefighting activities. Under order by the Governor, using the California Emergency Services Act, all of these fire protection agencies become an organizational part of Fire Rescue Division. This division acts as the primary coordination authority for mutual aid activities for the state. EF/ESF 4 combines to manage and support all firefighting activities on federal lands and urban areas. Hazardous material clean-up and disposal is coordinated by EF/ESF 10 and the formation of a Joint Hazardous Materials Task Force that includes the Environmental Protection Agency (EPA), DoD, ESF 4 and 10, as well as state, local, and USCG participants.

Conduct Safety Assessments.

Following an earthquake, the SOC activates Safety Assessment Program participants. Local jurisdictions remain responsible for conducting immediate assessments and making requests for assistance through the Operational Area Emergency Operations Center (OAEOC). All activations are accomplished utilizing the ICS structure of the SEMS. The Emergency Management Assistance Compact (EMAC)/SOC Mission Tasking Coordinator, following SOC procedures, requests and coordinates out-of-state SAP resources under direction of the Operations Section Chief.

Provide Safety, Security and Support to Emergency Response Operations.

Safety and security relies on existing systems and is used first to fill identified

security shortfalls. When security requirements cannot be met by local law enforcement, additional in-state assets including California National Guard and neighboring states provide assistance in accordance with Title 32 and EMAC agreements. Local law enforcement officials handle complex incidents including crowd control and looting. The California Highway Patrol manages evacuations and traffic flow. The California National Guard augments civil law enforcement agencies by providing security forces for staging areas, shelters, Points of Distribution (PODs) and critical infrastructure as requested. Additional federal support for law enforcement to handle less complex incidents, including traffic control and commercial airport security, is provided by ESF 13.

Health and Human Services:

Provide Health and Medical Services

Life-saving is the number one priority.

- **Provide Acute Care.**

The overall strategy to meet the medical needs of the impacted populations requires integrated plans for acute care, patient movement and chronic care. EF/ESF 8 will coordinate protection, recovery, and sustainment of the acute care infrastructure, to include critical supply lines (i.e. fuel, water, pharmaceuticals, and medical supplies). Due to the magnitude of this event, acute care resources will be coordinated from within California, other states, non-governmental organizations, international assistance and the Federal Government. Immediately following the event, California Health and Human Services Agency (CHHSA) - EF 8, including California National Guard, and ESF 8, led by the US Department of Health and Human Services (HHS) and including DoD, will implement and direct the acute care response in support of OAs. EF/ESF 8 will deploy available acute care resources into the impacted areas and begin coordinating additional resources to meet the acute medical need of the impacted populations.

- **Provide Chronic Care.**

The EF 8 is responsible for determining chronic care needs and requesting federal support through ESF 8. The State will provide the necessary information needed for federal support of the impacted OAs chronic care needs. The OAs and EF/ESF 8 will conduct self-evacuation and shelter-in-place activities through the long-term care facilities and immediately deploy Federal Medical Stations (FMS) to OAs and other resources to Staging Areas (SAs). The Emergency Prescription Assistance Program (EPAP), Substance Abuse and Mental Health Services Administration (SAMHSA) Crisis Counseling Assistance Program and the Disaster Case Management Contract will be implemented.

- **Execute Patient Evacuation/Movement.**

To support patient movement and evacuation for the impacted OAs, EF/ESF 8 will assign the highest priority to life saving activities; patient movement and evacuation is a life saving activity. State and federal resources will be activated to support patient movement and evacuation. Patients will remain

within California if possible, and EF/ESF 8 will deploy resources necessary for patient evaluation and stabilization at identified airports.

- **Maintain Public Health.**

CDPH is the lead department within California and is responsible for all environmental and public health activities during response and recovery. All public health missions will be coordinated within the EF 8 construct by the EF 8 lead. While most often not a life-saving activity, public health operations provide a wide range of life sustaining activities that begin during response and continue well into recovery. By preventing disease, public health interventions reduce the total number of patients that will seek care in the impacted OAs. To support patient public health within the impacted OAs, EF/ESF 8 will assign the second highest priority to life sustaining activities; public health activities are life sustaining. Food facilities without power and water will be closed until inspections can be completed after power and water are restored. ES/ESF 8 will conduct initial assessments within the impacted area using local resources and evaluate water quality, deploy mobile laboratories and conduct community assessments only after the situation has stabilized.

Provide Care and Shelter, Including Animals.

State and federal EF/ESF 6, 7, 8, and 11 will support local operations with resources and services at shelters, PODs, and areas where people will congregate, as well as provide support to evacuees. Pre-designated sheltering facilities, such as those operated by the American Red Cross (ARC), will be augmented by the use of non-traditional shelter locations. Response operations will be committed to ensuring the needs of all populations, to include individuals with access, functional and other special support needs, are met to the degree possible within general population shelters.

Conduct Mass Fatality Operations.

The County Medical Examiners and Sheriff/Coroners are the single authority for fatality management within their OAs. Fatalities will require processing over time and will not occur all at once. All fatality management activities support the local Medical Examiner/Coroners and remain within the county, not crossing county lines. The Coroners will request federal assistance and/or mutual aid. Search and Rescue operations will extract fatalities from damaged buildings and other structures then arrange transport to locations identified by each of the eight County Coroners. County Coroners and ESF 8 will use existing and surge fatality management infrastructure within the OAs and activate the Coroners' mutual aid system.

Support Mandatory and Self-Evacuations, including Logistical Needs.

Evacuation operations will be coordinated at the lowest level possible and every effort will be made to keep evacuees within the shelter system of the affected OA. However, if and when evacuation operations become so large that evacuees must cross county and state boundaries to find shelter or temporary housing or when the Operational Area EOC does not have sufficient resources to support evacuation planning and execution, California's Business, Transportation and Housing Agency (BTHA) as the

lead agency for EF 16, will coordinate all state efforts to support planning and execution for the evacuation. FEMA will assume the role of the Primary and Coordinating Agency for all Federal support for evacuation operations. Local jurisdictions are responsible for developing evacuation plans in advance of a catastrophe; only the President or a local or state official with the proper authority can order a mandatory evacuation. It can be assumed, however, that many residents will voluntarily self-evacuate before the order is given. Not all local jurisdictions will have established evacuation plans in place and those that do may still require support from the state and federal government during mandatory or voluntary self evacuations. In cases where support requirements exceed the local/OA jurisdiction's resources, support will be requested in accordance with the SEMS. The California's BTHA will coordinate state level support and request federal support through the SOC who will in turn request federal support from FEMA. FEMA will coordinate the efforts of the other federal ESF supporting agencies for transportation, security and logistic support for large evacuations.

Infrastructure:

Stabilize and Provide Critical Utilities for Priority Infrastructure: Water/Wastewater, Power, Communications and Natural Gas.

In coordination with the California Utilities Emergency Association, FEMA will establish partnerships with the private sector before a catastrophic earthquake occurs. These partnerships will take many forms, e.g., MOUs, and Task Forces, but each will be established to ensure that local, state and federal efforts facilitate the repair efforts of the private sector and to ensure that a coordinated effort leads to the rapid and effective restoration of utility services after the disaster. Key to the successful execution of the mission above is the activation of three important Task Forces: the Cajon Pass and other Critical Infrastructure, Water and Port Reconstitution Task Forces (TFs). After the disaster occurs, these TFs convene to conduct assessments and adjust plans based on the actual situation. Private sector utility companies immediately execute Crisis Action Plans in accordance with their operating procedures; however, the TF members help establish priorities and employ state and federal assets and resources (such as heavy lift and security) to facilitate and augment rapid triage of critical infrastructure to restore functional operability.

Establish Lines of Supply: Sea Ports, Airports, Railroads, and Roads.

Logistics support will be provided by federal, state, local and private sources, and in accordance with the defined response operations phases. Throughout all phases of the response, transportation and logistics coordination will be a joint responsibility of the State and FEMA. Medical supply lines and logistics will be led by EF/ESF8 with support from FEMA and Cal EMA. This joint operation will emphasize re-establishing all modes of transportation systems in order to facilitate the effective distribution of resources from Incident Support Bases, Staging Areas, shelters, PODs, and other sources. Emphasis will also be placed on the movement or evacuation of people with severe medical needs. This

integration will ensure unity of effort and efficient use of transportation assets to deliver required resources. FEMA will issue mission assignments to other federal agencies to provide additional resources and support. Situational awareness of the earthquake's impact on the State's transportation infrastructure will be paramount to implementing a logistical capability for the delivery of response resources and employment of response teams. Movement of resources and people in and around the affected area will be impacted by initial severe damages to ground transportation infrastructure. The overarching logistics strategy will be to focus on delivery of response resources and personnel by air, land, and sea movement through the Ports of Long Beach/Los Angeles and various operable civil and military airfields.

Supply Emergency Water and Sanitation Needs for Response Operations.
During any emergency, the local utility companies' (private or public) are responsible to procure and distribute alternate emergency drinking water and handle wastewater and sanitation needs for populations within their service areas, however this disaster will overwhelm the capabilities of local utility companies and they will have to request assistance from state and federal resources. EF/ESF 3, supported by EF/ESF 7, will supply emergency water and sanitation to shelters and critical facilities. Initially, bottled water and packaged portable sanitation capability (personal sanitation kits and portable toilets) will be provided to the hardest hit population areas, first distributing local and state emergency stocks and then national stocks which will be flown into staging areas to service mass care sites and critical infrastructure. Private sector bottling facilities are requested to assist in the production of drinking water. Direct support to hospitals, clinics and other health care facilities for sanitation and potable water will be provided within 24 hours by providing bulk water distribution using California National Guard and/or DoD air and ground bulk water delivery assets. EF/ESF 3, supported by EF/ESF 7, will provide further assistance and coordination of the efforts of commercial water providers, distributors and bottling companies to facilitate their delivery of bottled and bulk water to PODs, shelters and local stores that have power. Shipping and bulk water distribution transportation assets are available and coordinated by FEMA. Federal capabilities for production and distribution of potable water including Reverse Osmosis Water Purification Units (ROWPUs).

Establish Emergency Power and Fuel Lines of Supply.
In the event of an earthquake, Cal EMA will immediately activate EF 3 and 12 in the SOC to oversee emergency power and fuel operations to support a coordinated private sector effort to repair critical power and fuel infrastructure. FEMA will activate ESF 3 and 12 and deploy to the RRCC and SOC to support's efforts. Once the JFO is established, the EF/ESF 3 and 12 functions will move to that location. USACE as the primary and coordinator for ESF 3 will coordinate all federal efforts to support the state. USACE will provide PRTs and contracted generator support as well as coordinate DoD and other federal assets to provide alternate sources of power and distribution of fuels from the ports until ESF 12 in coordination with the private sector reroute power and fuel to the most critical facilities and operations. Coordination for this effort will occur in the Operations

Section of the JFO. EF/ESF 3 coordinators will oversee emergency power and fuel operations that include local, state, federal, NGO and private sector contracted staff and equipment.

Conduct Debris Clearance and Disposal.

The State immediately activates an inter-governmental Debris Management Task Force in the SOC to oversee debris clearance and removal operations. Once the JFO is established, the Debris Management Task Force reports to the Operations Section at the JFO, overseeing debris clearance and removal planning and execution through the coordinated use of local, state, federal, NGO and private sector contracted staff and equipment. The TF takes a phased approach to debris removal, first focusing on clearing the major Staging Areas (ports and airfields) and then working from these locations to clear primary routes to establish lines of supply. These actions occur simultaneously with local debris clearance operations to clear critical facilities and roadways for emergency response. During the immediate response phase, local, state and federal debris entities move debris by clearing and shoving (moving debris out of the way). After the immediate response, debris removal from primary and secondary transportation corridors for access to mass care sites and critical infrastructure, enabling response operations. During the sustained response phase, the TF uses existing disposal sites and establishes new temporary disposal and reduction sites (TDRS) until permanent solutions can be found. Simultaneously, the TF coordinates debris removal and disposal efforts across jurisdictional boundaries when local jurisdictions do not have sufficient landfill sites within their OA to dispose of the debris.

2.0 MISSION

Support the needs of the impacted community by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery following a catastrophic earthquake in Southern California.

3.0 EXECUTION

3.1 SENIOR LEADERS' INTENT

To employ a joint State/Federal Unified Coordination Group, using ICS concepts and principles consistent with the NIMS and the SEMS, in order to carry out response activities throughout the operational areas that are consistent with the priorities of the Governor and sovereign tribal nations and the objectives set forth in this OPLAN which support response at the local and regional level for southern California.

3.2 CONCEPT OF OPERATIONS

The Concept of Operations for a no-notice incident has three (3) distinct phases: Normal Operations, Response, and Long-term Recovery (Figure 1).

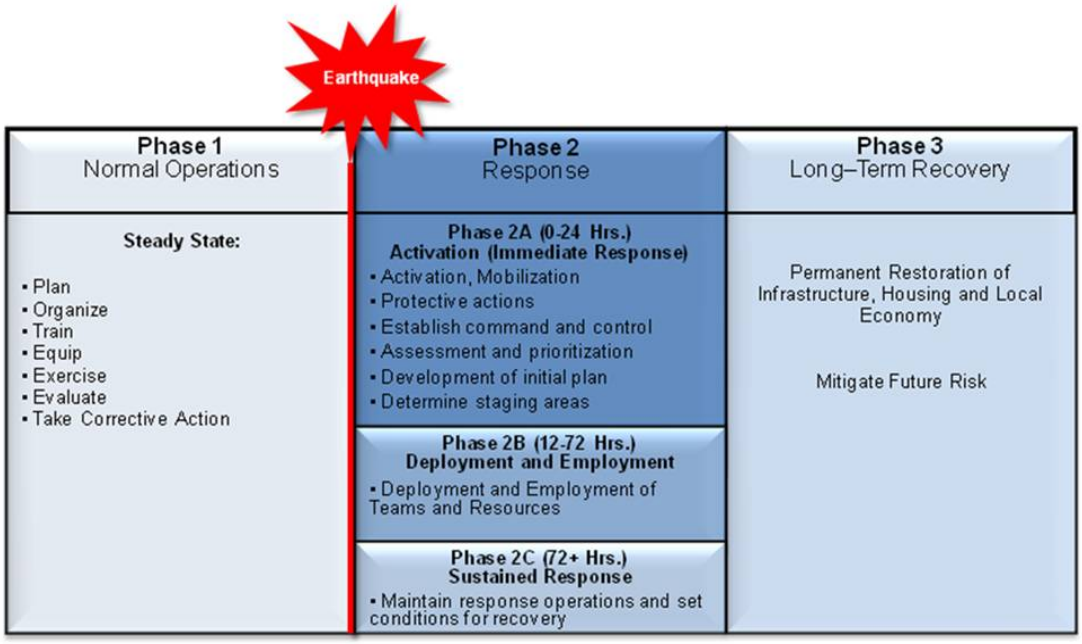


Figure 1: Phases of Earthquake Response

PHASE 1: Normal Operations

The purpose of Phase 1 is to coordinate with private, non-profit, local, state, tribal and federal stakeholders to prepare for a catastrophic earthquake.
Local jurisdictions and FEMA Region IX will conduct:

Every 5 years: A full scale Golden Guardian Exercise
Every 2 years: A tabletop exercise or training

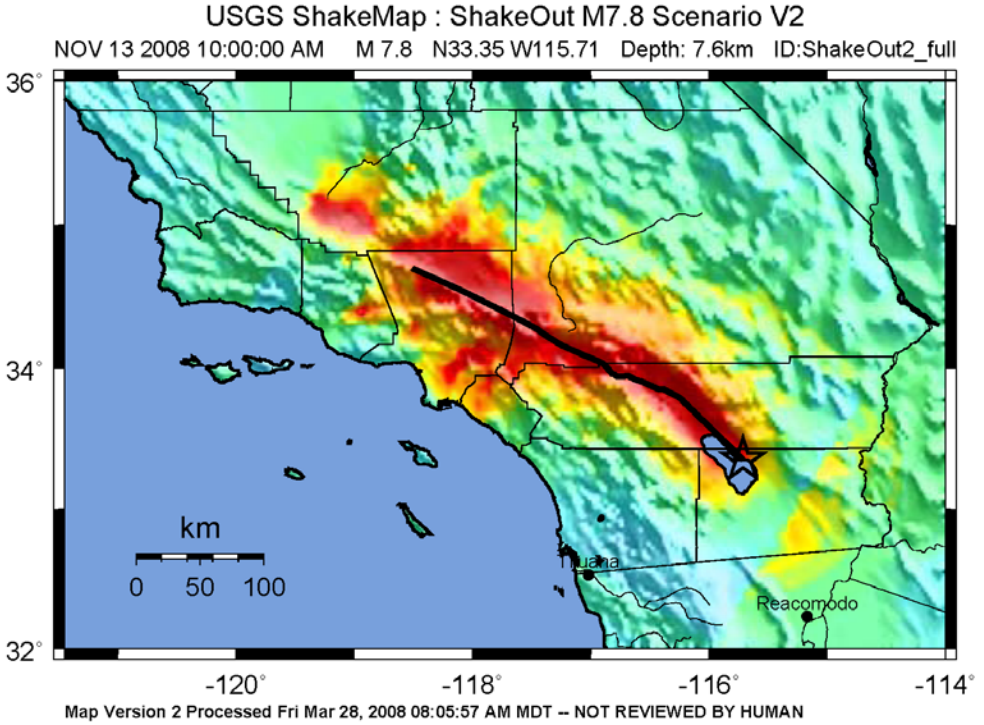
Phase 1 Actions Include-

Eight EOCs in Kern, Ventura, Los Angeles, San Bernardino, Riverside, Orange, San Diego and Imperial Operational Areas plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

SOC and Inland Region in Sacramento, Southern Region in Los Alamitos, and Coastal Region in Oakland plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

Region IX Watch is at 24/7 operations. RRCC and Regional Incident Management Assistance Teams (IMAT) plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

END STATE: Phase 1 is ongoing.



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Phase 2a: 0-24 Hours – Activation (Immediate Response)

During Phase 2a Communications, Search and Rescue (SAR), firefighting, acute medical care, patient evacuation, and mass care are prioritized and carried out by local responders in each Operational Area. Cal EMA and FEMA establish Staging Areas at commercial airports and mission-capable National Guard/DoD airfields, the Ports of Los Angeles and Long Beach, and other sites in or near the incident area. EF/ESF 8 acute patient treatment should begin within this phase.

The Department of Transportation (DOT) coordinates with CHP and Caltrans to establish ground transportation routes. DOT works with FAA to determine operational status of commercial airfields to the FEMA RRCC. Airspace is

managed by the Federal Aviation Administration with support from Customs and Border Protection (CBP), National Guard and DoD.

Triage of critical infrastructure systems to enable communications, water distribution, power generation, fuel refinement, and air operations is prioritized as temporary sources of water, power, fuel are adjudicated by local jurisdictions and consumed in the incident area.

Joint private sector and government Task Forces for Water, Port Reconstitution (water, power, staging), and the Cajon Pass and Other Associated Critical Infrastructure (power/fuel/communications) are activated by the joint state/federal Operations Section.

Pre-established joint state/federal messaging, both within and outside the incident area, is delivered to media outlets by EF/ESF 15 and coordinated with local jurisdictions.

END STATE: Phase 2a ends when communication for emergency responders is established. Local response is underway and initial damage assessments are communicated to the joint State/Federal Operations Section. The UCG is fully established. State and federal teams are activated and receive missions for life-saving deployment to identified Staging Areas to support local response.

Phase 2b: 12-72 Hours – Deployment and Employment

Phase 2b occurs as FEMA resources are deployed and employed in the affected area. State and federal resources are deployed and employed based on impact and need in accordance with affected population and Staging Area (SAs) capability. Resources are initially deployed in accordance with the Logistics Annex D to Staging Areas and are then employed by the Operations Section in accordance with UCG objectives.

The FEMA Operations Sections in coordination with the State establishes Staging Areas to support local incident response at federal installations, airports and other mission capable facilities within the incident area for onward integration of teams and resources to support local response. Patient movement and chronic medical treatment begins.

Transportation occurs along major interstate freeway avenues of approach. Ground deformation, fire, debris, and traffic limits ground movement in Phase 2a and 2b. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) manages ground avenues of approach and report status of road systems to EF/ESF-1**.**

Local, fixed and rotary-wing aircraft provide movement of resources and teams from SAs to affected population. Onward integration of resources are adjudicated and assigned by the Joint State/Federal Operations Section.

Maritime ship-based staging and operations are established at the Ports of LA and Long Beach to deliver temporary fuel, water, and ship based care. The Ports of LA/Long Beach serve as a marine-based staging area. The USCG leads port reconstitution efforts to re-establish port continuity.

Strategic airlift resources arrive at staging areas and are off-loaded to local and federalized ground and air transport, including USCG, CBP, and DoD rotary aircraft. The State and Federal Branch Directors coordinate with OA EOCs to provide additional ground transportation for resources, commodities and teams to sustain operations within Divisions.

Survivors are supported by establishing a network of hubs and spokes (Figure 3). Staging Areas support hospitals, shelters, arenas/ stadiums, open spaces, and PODs as determined by the State and OA emergency managers and facilitated by state and federal Branches.

Figure 3: Hub and Spoke Concept.

END STATE: Phase 2b ends when resources and federal teams are staged and employed in support of common objectives set by the UCG. State and federal Branch Directors and Divisions Supervisors are established and conducting operations in concert with OAs and local jurisdictions. Life-saving activities are all underway. Major fires have been put out and law and order is established. The Ports of LA/Long Beach, airports, and temporary water/fuel conveyance and interim delivery systems are established. Emergency power is established at critical facilities. Mass care services and shelters are established and life-sustaining response operations are taking place. Roadways have been inspected for safety and debris is pushed from primary roadways for emergency access and egress, including survivor self evacuations. Commercial air traffic systems are re-

established. FEMA, in coordination with GSA, locates a JFO site and begins to equip the facility for 5,000 persons.

Phase 2c: 72+ Hours – Sustained Response

During Phase 2c, local OA Emergency Operations Centers in Kern, Ventura, Los Angeles, San Bernardino, Riverside, Orange, San Diego and Imperial maintain communications infrastructure for responders and work to establish public lines of communication. The OA EOCs transition operations within the incident from SAR and firefighting, to maintaining law enforcement and mass care services.

OA emergency managers adjudicate available resources based on impact and need and articulate requirements to the Joint State and Federal Operations Section.

The SOC transitions to a support role when the UCG moves to the incident area and establishes command presence at the JFO.

The JFO is established and the UCG assumes operational control of the incident establishes and maintains a regular Operational Period and conducts Incident Action Planning. Regular operational periods are established and the Joint Incident Action Planning process begins at the JFO. FEMA Region IX RRCC maintains operational readiness and supports the UCG by filling resource requests. Federal MERS communications equipment and personnel support Federal responders and state and federal operations in Branches and Divisions. Federal Branch Directors and Division Supervisors continue to work with OA and local emergency management officials to communicate needs through the chain of command.

Lines of supply from staging areas to hospitals, schools, shelters, and other mass care sites are established and maintained by FEMA Logistics in coordination with Branches. Joint State/Federal Planning Section develops Continuity of Operations Plans (COOP) in the event of aftershocks. SAs continue to deploy resources and commodities to staging areas identified by the joint State/Federal Operations Section. Joint State/Federal Operations Section Chiefs continue to prioritize and allocate resources from Staging Areas to Branches based on impact and need.

Air Operations Branch continues strategic airlift missions and coordinates with state and local emergency managers and health officials to prioritize medical evacuations. Base camps are maintained and demobilized as infrastructure is repaired at the Ports of LA/Long Beach, Metropolitan Water District facilities, the Cajon Pass, and select staging areas. Power, water, and fuel systems and associated critical infrastructure are repaired and restored to a functional level.

PODs and shelters shutdown as able as critical systems are repaired. The Joint State/Federal Operations Section continues to issue Mission Assignments. MAs may be extended beyond 60 days should services be required.

END STATE: Phase 2c ends when response activities set conditions for long-term recovery. Sheltering is transitioned to temporary housing including rebuilt or repaired homes or other temporary housing. The Ports of LA/Long Beach are operating at full commercial capability while maintaining response operations. The Cajon Pass is operational and other critical conveyance infrastructure for natural gas, power and communications is functional. Major water conveyance structures including the Arizona Aqueduct and the California Aqueduct are functional and supplying water to major water treatment facilities in the incident area. Temporary and repaired power generation infrastructure enables communications, water and fuel distribution, sanitation, and increased public messaging**.**

Phase 3: Long Term Recovery
Private sector, local, state, tribal and federal actions are required to restore services, continue government operations, and promote economic recovery following a catastrophic earthquake. All life-saving activities have been completed.

END STATE: Phase 3 ends when recovery activities have set the conditions for long-term community recovery. Temporary housing has transitioned to rebuilt homes or other permanent housing, schools are open, tourism is re-established, and critical facilities and infrastructure are self-sustaining through normal transactions.

3.3 KEY FEDERAL ROLES AND RESPONSIBILITIES
Per Homeland Security Presidential Directive 5 (HSPD-5), the federal government's response/support to disaster incidents must be in accordance with the NRF, and the NIMS. As described in the NRF, the federal response will be carried out by ESFs.

3.4 STATE AND LOCAL COORDINATION REQUIREMENTS
In accordance with California Emergency Services Act and SEMS, all federal resources and support will be coordinated through the State. The Cal EMA is the agency with primary responsibility for coordinating the state's response and liaison between the federal and county/local governments.

As outlined in the state emergency plan, 17 Emergency Functions (EFs) exist.

EF/ESF#	Emergency Function (Emergency Support Function)
1	Transportation (Transportation)
2	Communications (Communications)
3	Construction and Engineering (Public Works and Engineering)
4	Fire and Rescue (Firefighting)
5	Management (Emergency Management)
6	Care and Shelter (Mass Care, Emergency Assistance, Housing, and Human Services)
7	Resources (Logistics Management and Resource Support)
8	Public Health and Medical (Public Health and Medical Services)
9	Search and Rescue (Search and Rescue)
10	Hazardous Materials (Oil and Hazardous Materials)
11	Food and Agriculture (Agriculture and Natural Resources)
12	Utilities (Energy)
13	Law Enforcement (Public Safety and Security)
14	Long-Term Recovery (Long-Term Community Recovery)
15	Public Information (External Affairs)
16	Evacuation (No ESF exists)
17	Volunteer and Donations Management (No ESF exists)

To assist with coordination, Cal EMA has three regions and each region has a regional emergency operations center: Southern Region (REOC location - Los Alamitos), Inland Region (REOC location - Sacramento), and the Coastal Region (REOC location - Oakland). The REOCs are activated during disaster incidents and are the primary coordination points for the county/local governments. The REOCs report to the SOC.

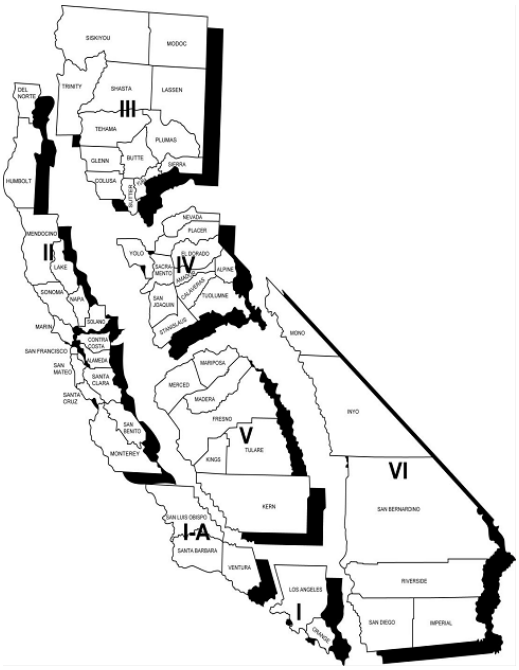


Figure 4: California Counties and Mutual Aid Regions

California is divided into 58 counties. The county government is also referred to as an Operational Area (OA) for emergency services purposes. The OAs are the primary contact/liaison between the state and local government. Each OA has an EOC. Some of the EOCs are permanent fixed facilities, while other OAs share or convert space during a disaster incident.

Within each OA, there are incorporated cities (local government). The local government, with its field personnel, is the primary entity responsible for first response during a disaster incident. Much like the OAs, each local government has an EOC; some are dedicated and some are temporary.

Following this incident, Cal EMA will activate the SOC and REOC and FEMA will activate the NRCC at FEMA Headquarters and the RRCC in the FEMA Region IX Office in Oakland. Organizational and process descriptions for this OPLAN are contained in Annex A.

3.5 NGO COORDINATION REQUIREMENTS

NGOs are integrated into the individual assistance branch of the joint state/federal Operations Section and work with EF/ESF components based on their services and target populations and/or have a liaison at the JFO, coordination is done by the UCG. Coordination of the NGOs is done by the REOC when the NGO is working directly with local and county governments.

Coordination of voluntary organizations will be handled in a similar manner, however, those voluntary organizations requested to integrate into the JFO will be coordinated by EF 17 Voluntary and Donations Management. The EF lead will be responsible for resources with needs.

(1) Southern California State Voluntary Organizations Active in Disasters (SCVOAD) – coordinates with the National VOAD, relevant government agencies such as FEMA's Voluntary Agency Liaisons and NGOs in the provision of assistance to individuals and families in recovering from a disaster.
(2) American Red Cross (ARC) - provides shelter, food, counseling and disaster planning preparedness, response and recovery activities as well as subject matter experts.

3.6 PRIVATE SECTOR COORDINATION REQUIREMENTS

Cal EMA has signed Memorandums of Understanding (MOU) with the following: California Grocers Association, Target Corporation, Lowes HIW Inc., Wal-Mart Stores, Inc., and the California Utilities Emergency Association. These relationships will continue to grow as private sector partners participate in exercises and planning.

This OPLAN has further established relationships within the private sector to carry out response operations and to set conditions for long-term recovery. The private sector owns and operates the majority of critical infrastructure in the region. Specifically, task forces focusing on stabilizing critical systems impacted as articulated in the USGS Shakeout Scenario have been established. These are: The Cajon Pass and other associated Critical Infrastructure, Water, and Port Reconstitution. The role of the state/federal government is to augment and support private sector response as requested.

3.7 KEY DECISIONS

- The designation of Priority Response Areas following initial damage assessments.
- Prioritization for debris clearance at airfields, ports and supply lines.
- Establishment of EOCs, SOC, Initial Operating Facilities and staging areas.
- Establishment of the JFO and the UCG shift from SOC to JFO.
- Prioritization of resource allocation.
- Subsequent decisions on facilities locations, establishment, staffing, program priorities, resources, and demobilization will be required.

3.8 CRITICAL INFORMATION REQUIREMENTS

Senior level decision makers responsible for implementing this plan will require information about:

- Accurate plot of the impacted area and earthquake magnitudes within the impacted area.

- Demographics (including individuals displaced, self-evacuees, injured, and killed) and information on Special Needs populations.
- Evacuation plans, timelines, and instructions (to include the evacuation of critical facilities such as hospitals and nursing homes).
- Requests and/or need for state and federal assistance.
- Status of declarations and ESF activations.
- Location, capabilities, and number of all deployed response resources including equipment, commodities, and personnel.
- Identification of national-level and Governor priorities.
- Anticipated spread of fires and hazmat contamination.
- Damage to and status of critical facilities, ports, airfields, government buildings, hospitals and infrastructure.
- Potential chemical, physical, and natural hazards that may affect the safety and health of response and recovery workers.
- Status of Special Medical Needs Shelters.
- Status of shelters and their commodities.
- Information on damage to residential dwellings, temporary housing plans, and power restoration timeline.
- Factors that have a significant economic impact.
- Ability of government organizations to continue essential functions and services.

4.0 ADMINISTRATION, RESOURCES, AND FUNDING

4.1 ADMINISTRATION

State, local, and federal departments and agencies have responsibilities to manage financial activities within their established processes. For FEMA, the availability of services shall be administered through the FEMA National Response Coordination Center (NRCC) at the national level, the RRCC at the regional level, and the JFO at the field level.

Senior Financial Advisor Responsibilities

This plan does not alter or impact the responsibilities of Senior Financial Advisors in other state, local and federal departments and agencies. When other state, local and federal departments and agencies are operating programs under their own statutory authority and funding, there is an expectation that coordination among agencies with financial responsibilities will occur.

Coordination of State Mutual Aid Agreement(s)

If the State anticipates that its resources may be exceeded, the Governor can request assistance from the Federal Government and/or from other states through mutual aid and assistance agreements such as EMAC. EMAC will be activated when the governor declares an emergency through the Governor's Emergency Declaration. Cal EMA coordinates all EMAC requests and does not need to exhaust mutual aid agreements before requesting federal assistance.

Financial Oversight
The Financial Management Support Annex to the NRF provides basic financial management guidance for all federal departments and agencies providing assistance for incidents requiring a coordinated Federal response.

Personnel Administrative Management Responsibilities
- Emergency management and incident response activities require carefully managed resources (e.g., personnel, teams, facilities, equipment, and/or supplies) to meet incident needs. Utilization of the standardized resource management concepts such as typing, inventorying, organizing, and tracking will facilitate the dispatch, deployment, and recovery of resources before, during, and after an incident.
- Resource management should be flexible and scalable in order to support any phase of the incident and be adaptable to changes. Efficient and effective deployment of resources requires that resource management concepts and principles be utilized in all phases of emergency management and incident response.

Authorities and Policies regarding Personnel Augmentation
Each state, local, and federal department and agency possesses individual policies for personnel augmentation based upon their authorities, various policies, Memorandums of Understanding (MOUs) and mutual aid agreements.

Personnel training
- State, local, and federal departments and agencies must ensure that their employees who are engaged in incident response, recovery and mitigation activities are able to perform in accordance with standard resource typing guidelines and operational requirements.
- Personnel reporting for duty at the JFO should be fully trained in the appropriate incident management doctrine and procedures and be knowledgeable in the operations of the agency they represent. Upon arriving at the JFO, state, local and federal department and agency representatives may be required to partake in training such as ethics, equal employment opportunity, etc.

Travel and Travel Reimbursement
Travel to field facilities will be required by certain State, local, and Federal employees. Departments and agencies should refer to their parent organization's travel policies and procedures.

4.2 RESOURCES

- State and local agencies will be responsible for the initial response to this incident. The primary role of the state will be to supplement local efforts before, during, and after a catastrophic earthquake.
- The State will enter into and execute, Emergency Management Assistance Compacts (EMACs) with other states to provide mutual assistance for required logistics resources.
- FEMA Logistics Management Directorate (LMD) and GSA are the co-lead agencies responsible for executing logistics management and resource support on all levels.
- Private-sector vendors will ensure timely, effective, cost efficient, agile, flexible, and proximate resourcing to implement logistics support requirements for Annex D.
- FEMA will establish Staging Areas (SAs)
- SAs will be temporary in nature and will have the transportation and Material
- Handling Equipment (MHE) capabilities necessary to receive, pre-position, and deploy commodities, equipment, and personnel as requested

4.2.1 CONCEPT OF LOGISTICS SUPPORT

Throughout all phases, transportation and logistics will be the joint responsibility of Cal EMA and FEMA. Emphasis will be on the reestablishment of the state's transportation system to facilitate the effective movement of resources into and throughout the impacted area from ISB, Staging Areas, shelter areas, and other sources. This integration will ensure unity of effort and efficient use of transportation assets to deliver required resources. Situational awareness of the earthquake's impact to the LA Basin's transportation infrastructure will be paramount to developing and implementing a logistical capability for delivering emergency disaster relief supplies and employment of emergency response teams.

As necessary, FEMA will issue mission assignments to other federal agencies to provide additional resources and support. For more detailed information, refer to Annex D.

4.2.1.1 LOGISTICS MANAGEMENT

Concurrent with the national and regional teams pushing resources, FEMA Region IX Logistics staff will deploy to the impacted area and establish a JFO and FSAs.

Once activated, ESF/EF 7, under the UCG, takes responsibility for filling resource requests, managing staging areas in or near the affected area, and coordinating logistical support for resources deployed to the affected area. Resource ordering under a UCG will be determined based on the policies of the agencies and disciplines involved and the resource requirements of the incident. EF/ESF 8 leads medical logistics activities with support from ESF 7.

Decisions about resource allocation are based impact and need by the Operations Section. Requested resources will be mobilized only with the consent of the jurisdiction that is being asked to provide the resources. Discrepancies between requested resources and those available for delivery must be communicated to the requestor.

Once FSAs are established and the JFO is functional, the distribution management will revert to a pull strategy. The pull strategy requires the UCG to identify and request resource requirements before they are deployed. The NRCC and FEMA Region IX RRCC will jointly determine when to transition from a push to a pull approach.

4.3 FUNDING

Federal funding to support these response operations will be consistent with applicable laws and authorities. This OPLAN does not discuss additional funding mechanisms. There are two main types of funding:

(1) Stafford Act.

- The Stafford Act provides the legal framework for program requirements, fiduciary and material support, and materiel acquisition and disbursement.
- Authorized federal response, recovery, and mitigation operations will be funded under the Disaster Relief Fund (DRF) once an emergency declaration has been made; the DRF is not available for activities not authorized by the Stafford Act, for activities undertaken under other authorities or agency missions, or for non-Stafford Act incidents requiring a coordinated federal response.
- The DRF, appropriated to FEMA, is available for purposes of the Stafford Act; reimbursement may be provided from the DRF for activities conducted pursuant to these sections.
- Use of disaster funds will be triggered by an emergency or major disaster declaration from the President, however, before a major disaster or emergency declaration, the Stafford Act authorizes FEMA to pre-deploy personnel who may be from various federal agencies, and equipment to reduce immediate threats to life, property, public, employee, and responder health and safety, and to improve the timeliness of its response.
- Prior to Stafford Act declarations, the FEMA Assistant Administrator for Disaster Operations (for NRCC Operations), the Office of the Chief Financial Officer (OCFO), or their designees, determine the required funding levels for the Surge Funding; FEMA is authorized to obligate funds to mobilize and deploy resources as needed.

(2) Federal-to-Federal Support.

- Initiatives that require additional resources, reallocation of existing resources beyond agency authorization, and/or an adjustment in department or interagency policies or strategic priorities will be coordinated interagency pursuant to HSPD - 1 and submitted to Office of Management and Budget for consideration.
- Generally, the requesting agency provides funding for the incident consistent with provisions of the Economy Act unless other statutory authorities exist; DHS

coordinates assistance using the multi-agency coordination structures in the NRF and in accordance with NIMS.

- The FEMA Disaster Finance Center and National Processing and Service Centers support the JFO Finance and Administration Section as appropriate.

5.0 OVERSIGHT, COORDINATION INSTRUCTIONS, AND COMMUNICATIONS

5.1 OVERSIGHT

The UCG will exercise oversight of the operation.

5.2 COORDINATING INSTRUCTIONS

FEMA has the authority to initiate or execute this plan unilaterally, and upon concurrence and coordination with FEMA Region IX, may initiate and execute the federal supporting elements within this plan. The UCG, when established, directs the activities of the JFO. Any issues that cannot be resolved at the UCG level will be forwarded to FEMA Region IX for adjudication. Issues that cannot be resolved at the Region will be elevated to FEMA Headquarters for adjudication. This also includes general policy guidance for managing resources in support of the incidents.

5.3 COMMUNICATIONS

(See Annex K)

Annex A: Task Organization

1.0 SITUATION

This annex describes the formation and structure of the joint State and Federal organization that will manage operations in response to a catastrophic earthquake in Southern California. The Unified Coordination Group (UCG) will direct state and federal support to incident operations at the local level.

a. Purpose
   - Describes the UCG coordination strategy
   - Defines phased approach for response
   - Defines roles and responsibilities
   - Defines the Planning Process, including Incident Action Planning (IAP)

2.0 MISSION

The mission of the unified effort of Local, State, Tribal, and Federal emergency response organizations is to support the needs of the impacted community by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery following a catastrophic earthquake in southern California.

3.0 EXECUTION

The mission of the unified effort of Local, State, Tribal, and Federal emergency response organizations is **Senior Leaders' Intent**

> The State of California Emergency Management Agency (Cal EMA) and the Federal Emergency Management Agency (FEMA) implements a unified regional concept of operations by employing a joint State/Federal Unified Coordination Group, using Incident Command System (ICS) concepts and principles consistent with the National Incident Management System (NIMS) and the State Emergency Management System (SEMS), to carry out response activities throughout the operational areas that are consistent with the priorities of the Governor and sovereign tribal nations, and the objectives set forth in this plan, which support response at the Local and Regional level for Southern California.

Task organization is consistent with the principles and concepts outlined in the National Response Framework (NRF), NIMS and SEMS.

There are three Phases of earthquake response operations as seen in Figure 1.

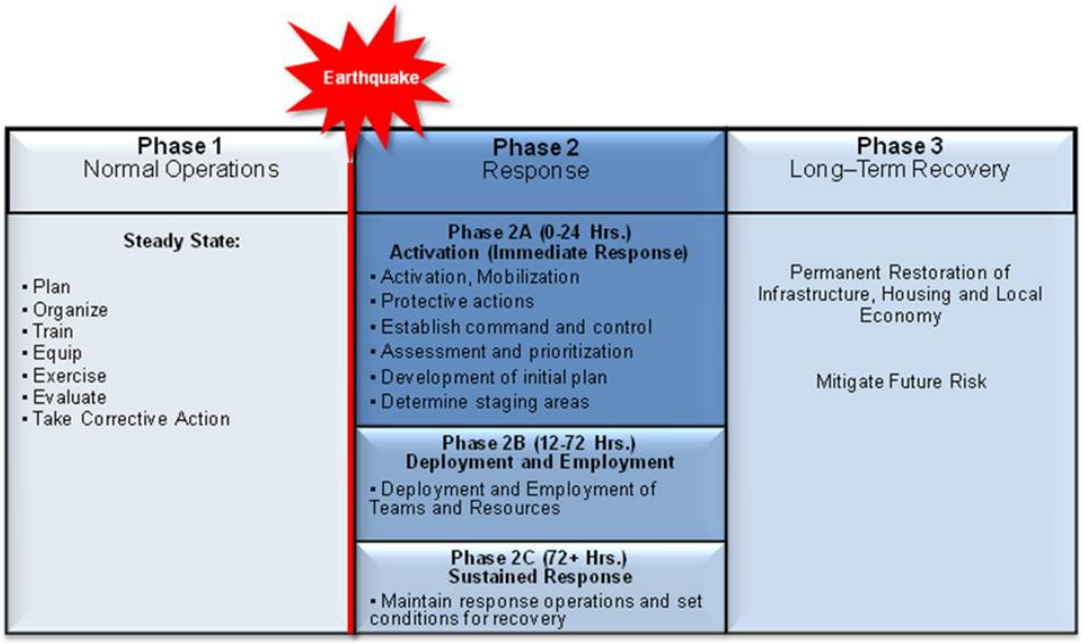


Figure1: Phases of Earthquake Response Operations

During **Phase 1–Normal Operations** Private, non-profit, local, state, tribal and federal stakeholders prepare for a catastrophic earthquake.

Phase 2a–Activation- Immediate Response (0-24 Hours) The State Operations Center (SOC) and the FEMA Region IX Regional Response Coordination Center (RRCC) activate at full activation and establish situational awareness. Local response operations are carried out. In-state mutual aid is provided through existing mutual aid systems. The State activates personnel and coordinates resource requests. The FEMA IMAT and Other Federal Agencies (OFAs) activate to form the federal elements of the Unified Coordination Group at the SOC. Additional Incident Management Assistance Team staff and personnel activate to establish an Initial Operating Facility (IOF) within the incident area with State counterparts. FEMA HQ Response Directorate activates other FEMA staff to deploy to Region IX to support regional operations. **(Figure 2)**

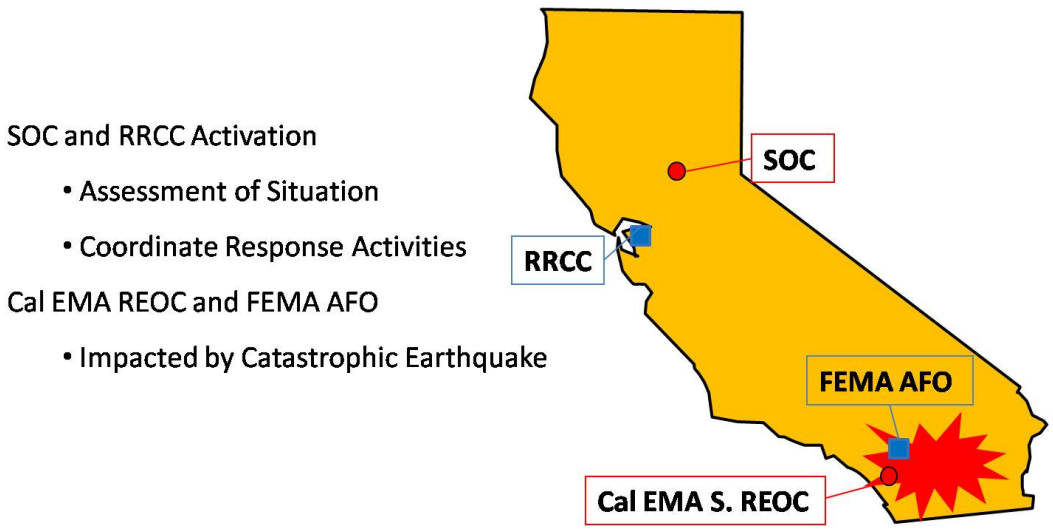


Figure 2: Locations of State and Federal Response Facilities

Phase 2b–Deployment and Employment (12-72 Hours) The FEMA IMAT, with augmentation, deploys to the SOC and forms the UCG. Cal EMA and FEMA deploy personnel and staff to Operational Area (OA) EOCs. FEMA deploys IMAT, staff and personnel to establish an IOF with state counterparts at the Regional Emergency Operations Center at Los Alamitos or the Federal Southern California Area Field Office in Pasadena depending on damage assessments. If both facilities are compromised an alternate IOF location will be determined. The State SOC and FEMA's RRCC will continue to coordinate activities in accordance with UCG objectives until the Unified Coordination Group can move to the incident area and assume operational control.

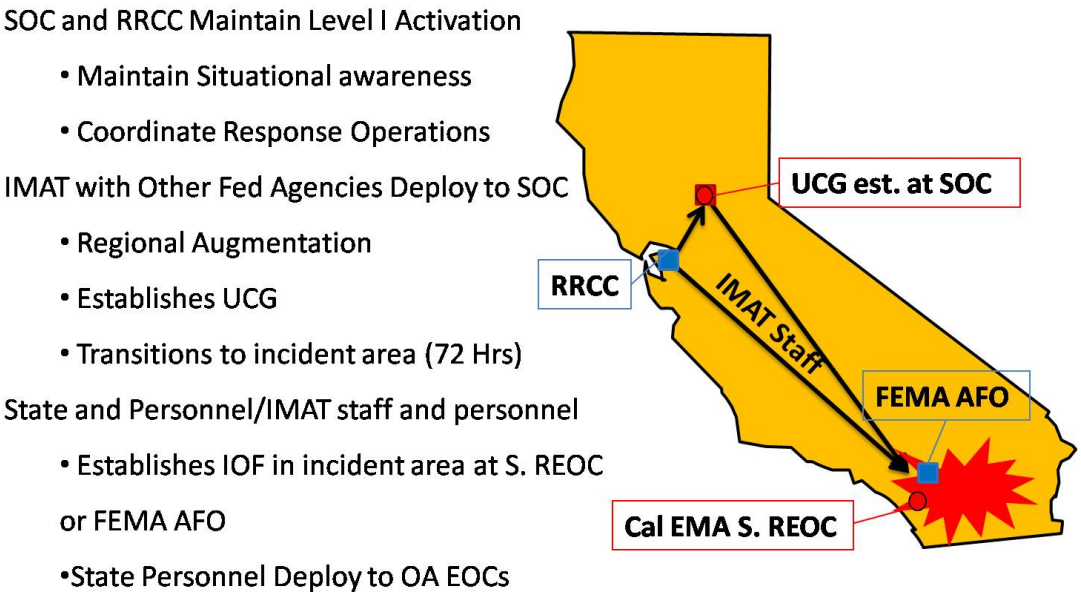


Figure 3: UCG is established at SOC/RRCC deploys emergency personnel

Phase–2c Sustained Response (72+hours) The UCG will relocate to the incident area based on communications, security and logistics support at the IOF/JFO facility. The SOC and RRCC remain at level II operations, ready to assume operational control should aftershocks disrupt the UCG in the incident area.

Figure 4: Unified Coordination Group moves to the JFO

A State/Federal Joint Information Center (JIC) will be established in the JFO. The JIC is responsible for the coordination and dissemination of incident information to the public and media.

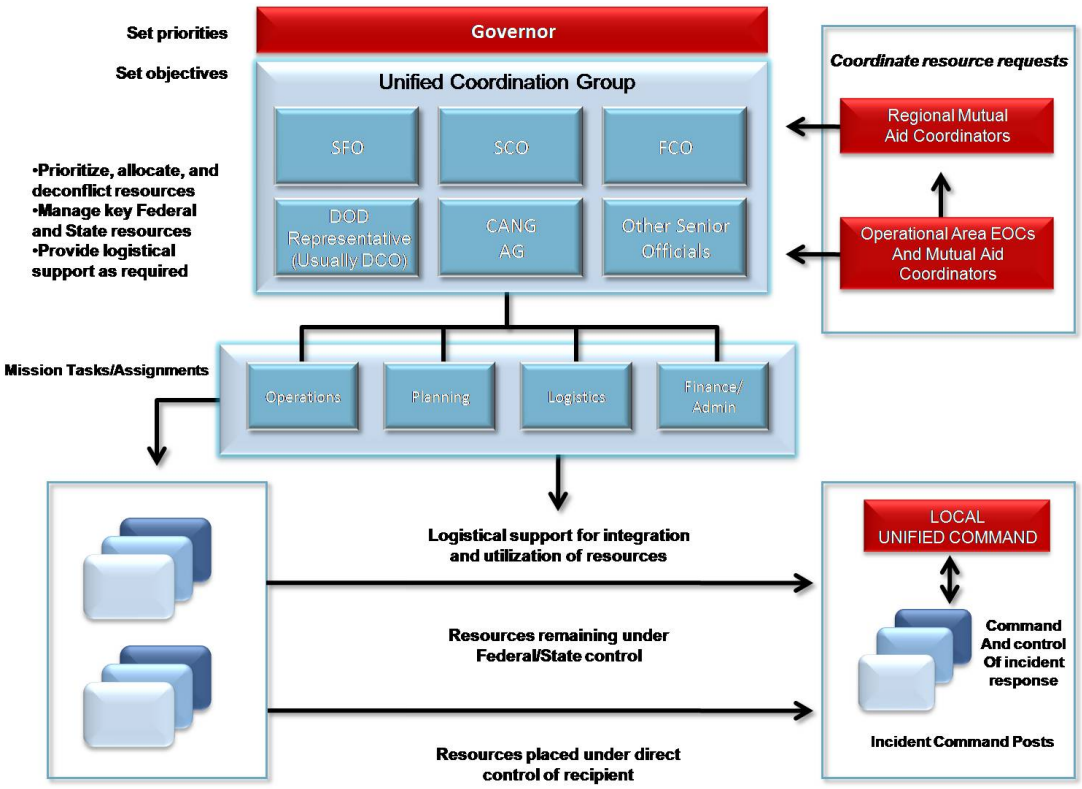


Figure 5: Basic Structure and Responsibilities of the Joint State/Federal Organization

a. Command and Control

Governor's Authorities

The Governor has expanded emergency powers during a proclaimed State of Emergency. The Governor:

- Has the right to exercise police power, as deemed necessary, vested in the State Constitution and the laws of California within the designated area.

- Is vested with the power to use and commandeer public and private property and personnel, and to ensure all resources within California are available and

dedicated to the emergency when requested. As such, significant state government intervention and control of an emergency exists by its legal authority.

- Can direct all state agencies to utilize and employ personnel, equipment and facilities for the performance of any and all activities designed to prevent or alleviate actual and threatened damage due to the emergency and can direct them to provide supplemental services and equipment to political subdivisions to restore any services in order to provide for the health and safety of the residents of the affected area.

- May make, amend, or rescind state orders and regulations during an emergency and temporarily suspend any non-safety-related statutes, ordinances, regulations, or rules that impose restrictions on the emergency response activities.

Unified Coordination Group (UCG) is responsible for operational direction of coordinated State and Federal response and recovery activities. Federal agencies provide resources under DHS/FEMA mission assignments or their own authorities.

Emergency Support Functions (ESF), in coordination with State, tribal, and/or Local agencies, assess the situation and identify requirements.

State Coordinating Officer (SCO) represents the State and is appointed to manage State resource support activities related to disaster. The SCO is the State's principal point-of-contact with the Federal Government. Additionally, the SCO is responsible for coordinating the timely delivery of State disaster assistance resources and programs to the affected Local governments, individual victims, and the private sector. The SCO works with the FCO to identify emergency response requirements for the State

Federal Coordinating Officer (FCO) is appointed to manage the Federal resources during the disaster and is responsible for coordinating the timely delivery of Federal disaster assistance resources and programs to the affected State and Local governments, individual disaster survivors, and the private sector.

Defense Coordinating Officer (DCO) serves as the U.S. Department of Defense (DoD) single point of contact for the UGC at the JFO. The DCO processes requirements for military support and mission assignments as required for activated emergency support functions.

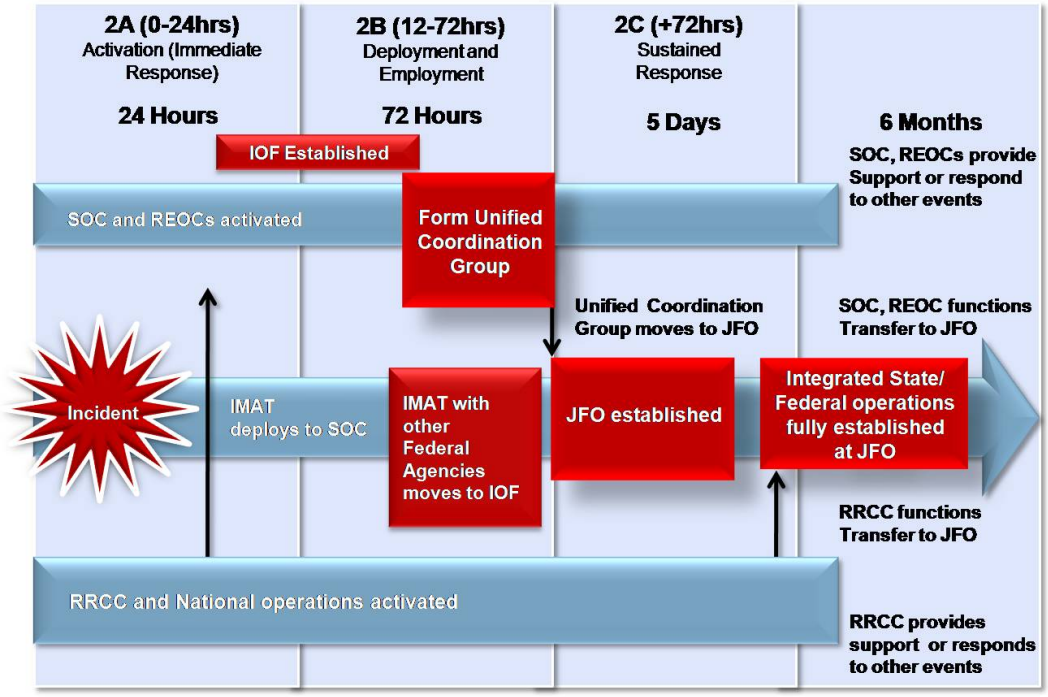


Figure 6. Timeline for establishing the Unified Coordination Group and Joint Field Office

a. JFO Organization

The organization at the JFO incorporates joint State and Federal Operations, Planning, and Logistics Section Chiefs. The Finance and Administration Section will maintain separate State and Federal Sections due to different funding sources and tracking systems. Joint State/Federal operations will be organized both functionally and geographically to include staffing for branches and divisions, depending on function, span of control, and extent of damage.

Operations Section coordinates requirements, tasks and resources to meet UCG objectives. It also issues mission tasks (State to State) and Mission Assignments (Federal to Federal) to provide support as required. The JFO Operations Section includes representatives from the activated ESFs and State and Federal disaster assistance representatives (Individual Assistance and Public Assistance), as applicable.

Branch Directors (State/Federal) deploy to Operational Area Emergency Operations Centers and work with the Operational Area Emergency Manager to identify, request, and prioritize resources to divisions based on impact and need. Branch Directors produce sections of the Incident Action Plan and report directly to the Operations Section Chief.

Branch Directors and associated support staff are assigned by the Operations Section Chief to Branches within the Incident Area.

Division Supervisors (State/Federal) deploy to the Operational Area Emergency Operations Center and coordinate with the on-site State and Federal Branch Directors. While Division Supervisors will initially work from the emergency operations center, they will transfer their operations to field offices and work with local emergency managers as soon as the field offices are established. State and Federal Division Supervisors support integration and utilization of resources at the local level. Division Supervisors are State and Federal emergency managers and operations specialists with the appropriate training for the assignment that report to Branch Directors within the Operations Section.

Planning Section is responsible for the collection, evaluation, dissemination and use of information about the incident and status of resources. Timely and focused planning in coordination with the Operations Section provides the foundation for effective incident management. The JFO Planning Section develops the Incident Action Plan using the NIMS Incident Action Planning Process and other plans (e.g., transition plans, concepts of operations plans, and demobilization plans) using a deliberate planning process.

Logistics Section is the responsible coordinator of resource support and logistics management during an incident. JFO Logistics Section activities support the objectives set by the UCG and include field level facilities (e.g., JFO, Disaster Recovery Centers, and responder support camps). In addition to the JFO and Area Field Offices, movement of support resources will be to Staging Areas (SAs) and Points of Distribution (PODs).

Finance and Administration Section is responsible for the financial management, monitoring, and tracking of all costs relating to the incident. The JFO Finance and Administration Section Chief advise the SCO/FCO on financial matters pertaining to the incident. The FEMA Disaster Finance Center and National Processing and Service Centers support the JFO Finance and Administration Section as appropriate.

b. Sovereign Tribal Nations Coordination

The tribal leader is responsible for the public safety and welfare of the people of that tribe. As authorized by tribal government, the tribal leader can request Federal assistance under the Stafford Act through the Governor of the State when it becomes clear that the tribe's capabilities will be insufficient or have been exceeded. Although a State Governor must request a Presidential declaration on behalf of a tribe under the Stafford Act, Federal departments or agencies can work directly with the tribe within existing authorities and resources.

The tribal communities in Southern California most likely to be impacted by a catastrophic earthquake along the Southern Segment of the San Andreas Fault zone

include, but are not limited to, the: Morongo Band of Mission Indians, San Manual Band of Serrano Mission Indians, Augustine Band of Cahuilla Indians, Agua Caliente Band of Cahuilla Indians, Torres Martinez Desert Cahuilla Indians, Cabazon band of Mission Indians and Pala Band of Mission Indians (Figure 7).

SEMS provides for the coordination and delivery of assistance through county level Operational Areas. In general, life-saving and life-sustaining assistance is best accessed via mutual aid agreement with city and county governments due to the proximity of such resources to tribal communities. Operational Areas and tribal jurisdictions will work to establish mutual aid and assistance agreements with tribes and Operational Areas based on anticipated threats and vulnerabilities.

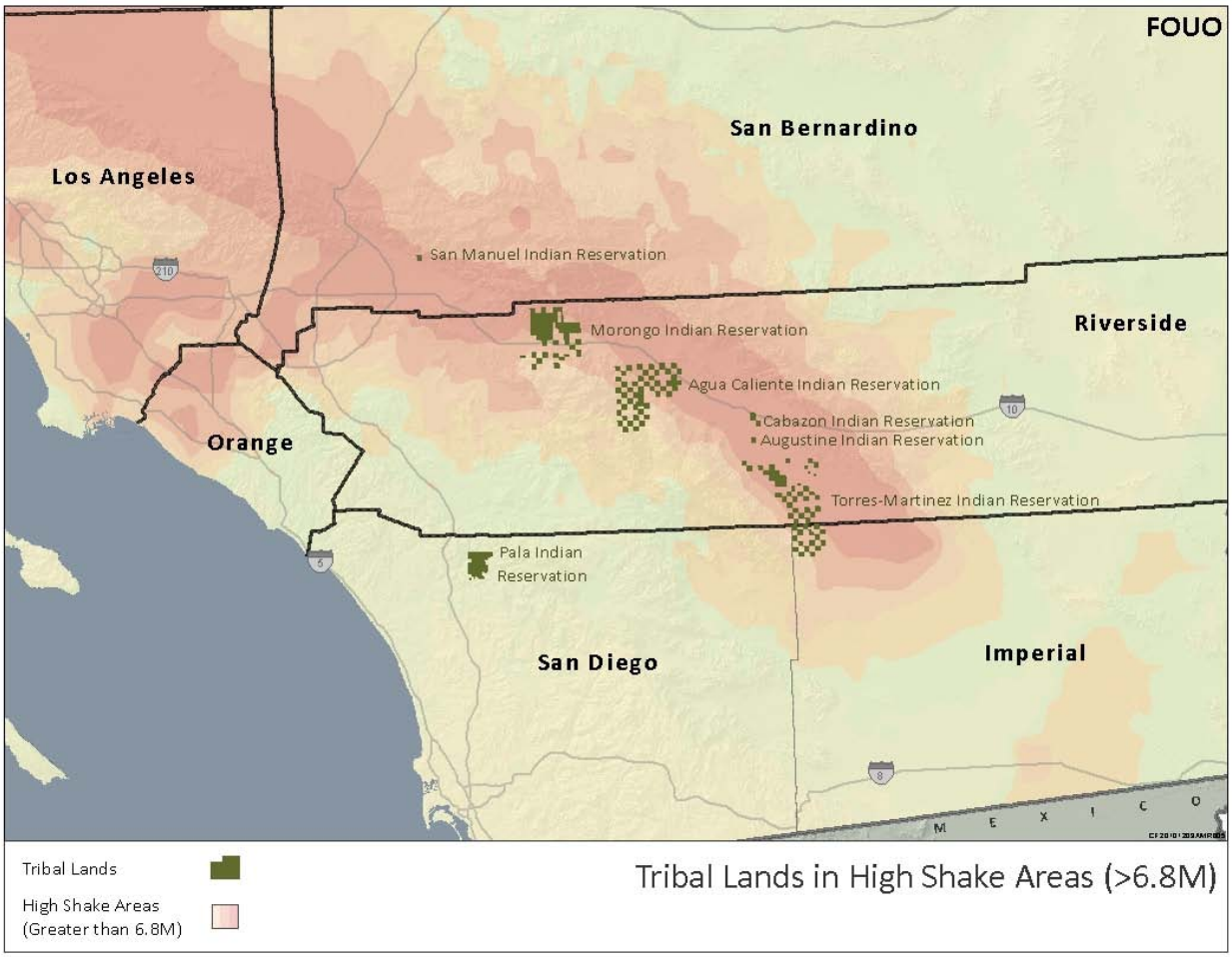


Figure 7: Most Impacted Tribal Reservations based on USGS Shakeout Scenario

c. Private Sector Coordination

The Operations Section Infrastructure Branch establishes three private sector/government Task Forces to triage critical infrastructure to sustain water, power, fuel and communications (**Figure 8**). These are:

1. The Cajon Pass and other Associated Critical Infrastructure Task Force:
   -Lead: California Utilities Association/ESF-3
   -Mission: Coordinate and facilitate the rapid and efficient repair of private sector critical infrastructure (Power, Communications, Natural Gas and other Fuels, and Railroads) that passes through the Cajon Pass and other critical locations damaged by the earthquake
   -Endstate: Restoration of basic services (Power, Communications, Natural Gas and other Fuels, and Rail service) to the affected population and surrounding areas.
2. Water Conveyance Task Force
   -Leads: Department of Water Resources and the Metropolitan Water District of Southern California
   -Mission: Coordinate and facilitate the rapid and efficient repair the critical water infrastructure that provides water resources to affected population in Southern California and surrounding areas.
   -Endstate: Restoration of uninterrupted basic waster services to the affected population and surrounding areas.
3. Port Reconstitution Task Force:
   -Lead: United States Coast Guard
   -Mission: Ensure functionality of the Ports of Los Angeles and Long Beach following a catastrophic earthquake in order to ensure short term and long term recovery for the LA Region and United States.
   -Endstate: Restoration of normal port operations for Los Angeles and Long beach ports with both ports supporting emergency response and commercial operations.

Figure 8: Task Forces focus on reconstitution of critical systems to support response.

d. <u>Planning Strategy</u>

The Planning Section is responsible for the collection, evaluation, dissemination, and use of information regarding the incident and the status of Federal resources. The Planning Section prepares and reports State and Federal support actions; and develops Crisis Plans and executes the Incident Action Planning process. **Figure 9** provides an initial organizational structure that should be modified as the complexity of the event evolves.

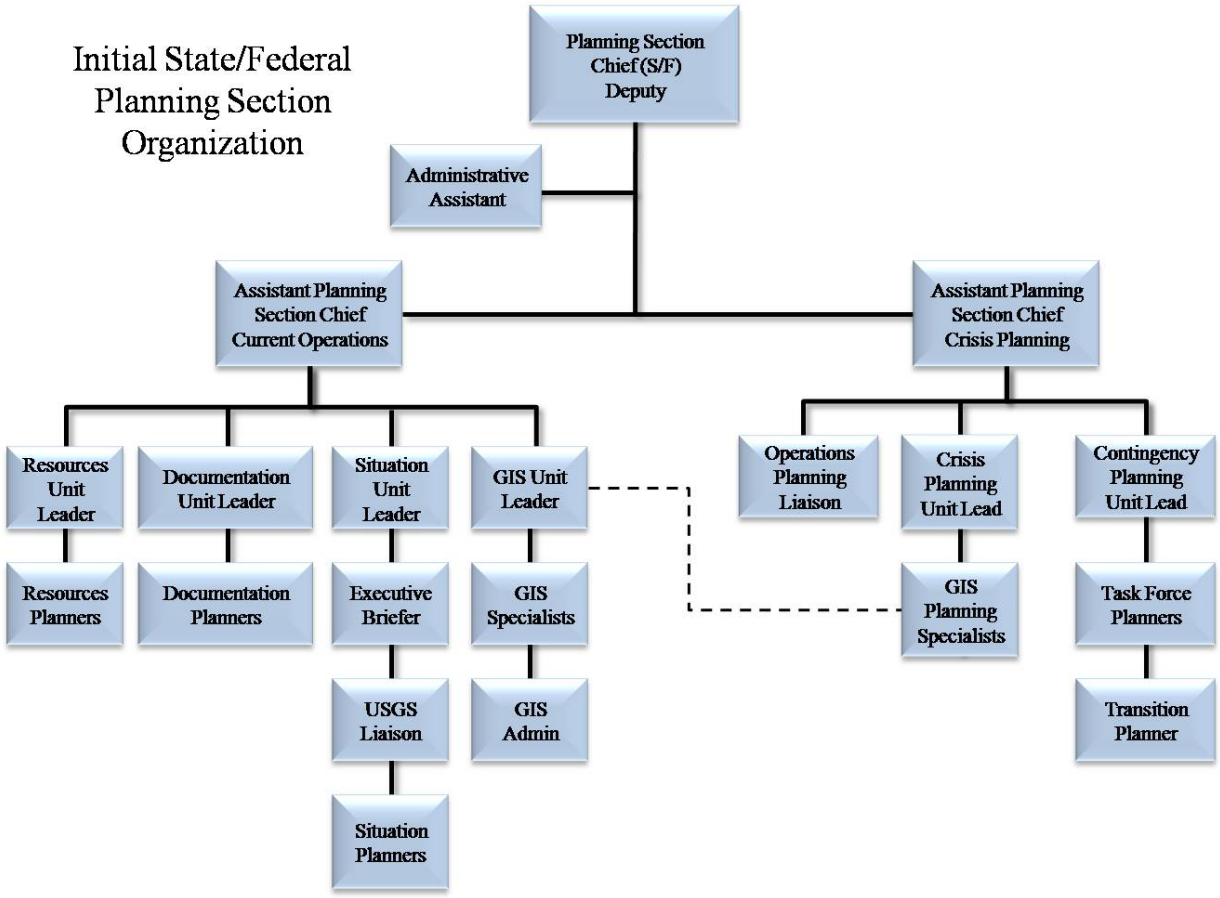


Figure 9: Initial Planning Section Organizational Structure

i. Crisis Planning

Crisis planning occurs in response to an incident. It occurs in a time-compressed environment with the objective of developing an executable plan. Crisis planning begins at the RRCC immediately after the earthquake occurs. The initial product is the Regional Support Plan (RSP) produced within 5 to 7 hours and delivered to RRCC and SOC Directors.

As the response progresses crisis planning is focused beyond 48 hours. As new plans are developed they are incorporated into the IAP. This process ensures that the Governor's and the UCG's intent, guidance, and priorities seamlessly transition from plan development to execution. **Figure 10** shows the distinction and responsibilities of Incident Action Planning and crisis planning within a UCG managed event.

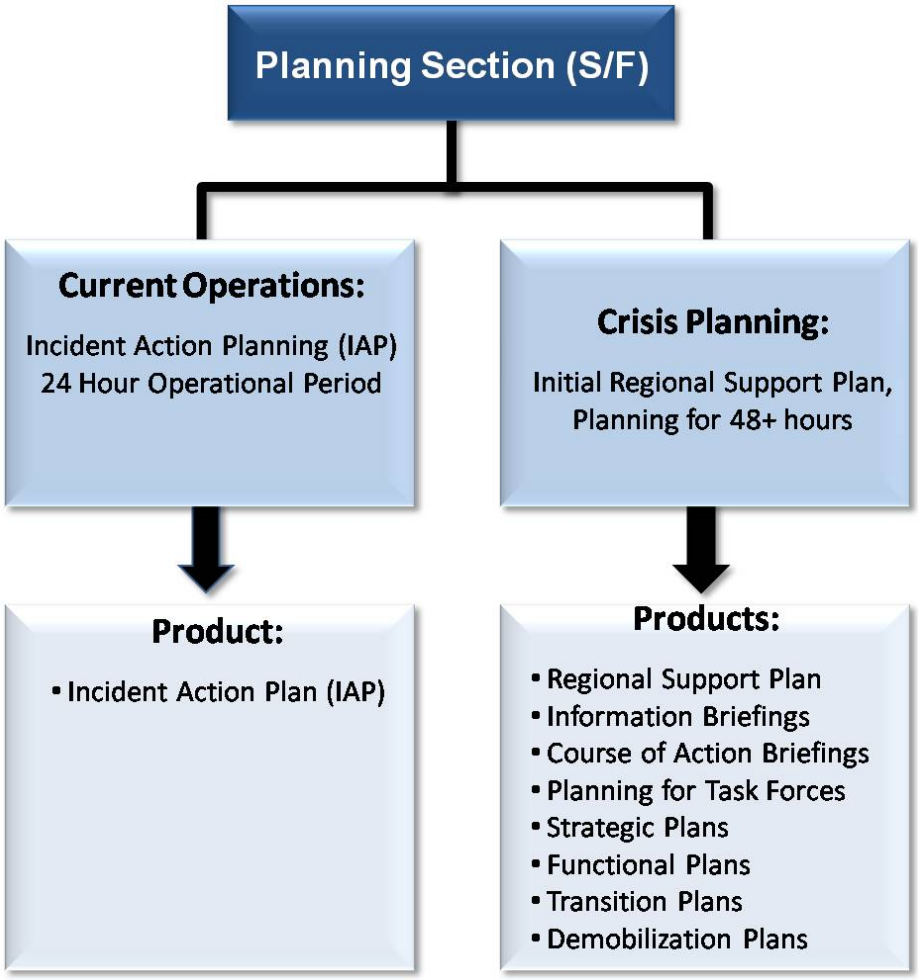


Figure 10: Incident Action Planning and Crisis Planning Roles and Responsibilities

The method for crisis planning is found in **Figure 11**. Planners follow a deliberate process to create execution-focused plans during an event. The directive to plan is initiated by UCG authorization, such as direction to develop a long term water distribution plan. In the absence of UCG guidance, planning may be initiated by the Operations or Planning Section Chief. Crisis plans are presented to the operations section and UCG, as necessary, to become part of the IAP process. **Figure 11** shows how the process produces crisis planning products.

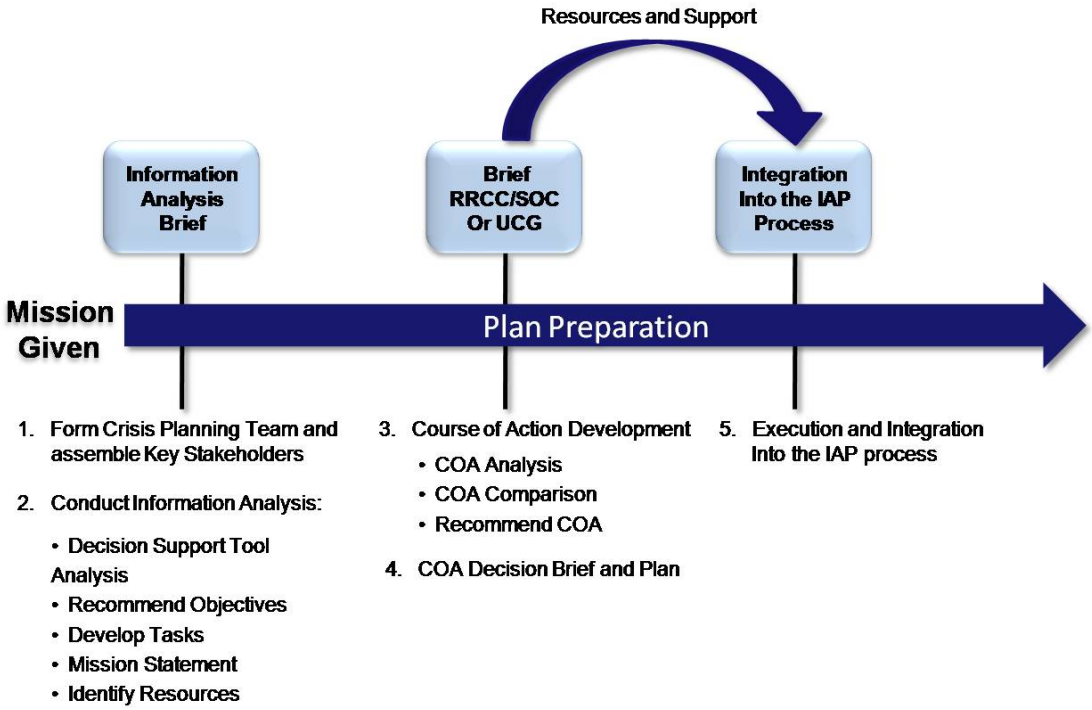


Figure 11: Crisis Planning Process

ii. Incident Action Planning

The Incident Action Planning Process is used to develop the IAP, which includes incident objectives and specific tactical actions for each O-Period. The UCG will receive an initial briefing prior to assuming command of an incident. The IAP process begins when the UCG is established and assumes control of coordinating state and federal resources. The Region IX RRCC monitors, collects, and reviews available situational information and initial reports of the earthquake. The initial briefing will occur when the UCG is established and assumes command from the SOC.

The Planning "P" is a guide to the process and steps involved in planning for an incident **(Figure 12)**. The leg of the "P" describes the initial response activities, including those that occur prior to the arrival of the Incident Management Assistance Teams (IMAT). The top of the leg of the "P" is the beginning of the first operational planning period cycle which begins again when the operational period ends. The cyclical planning process is designed to take the overall incident objectives and break them down into tactical assignments for each operational period.

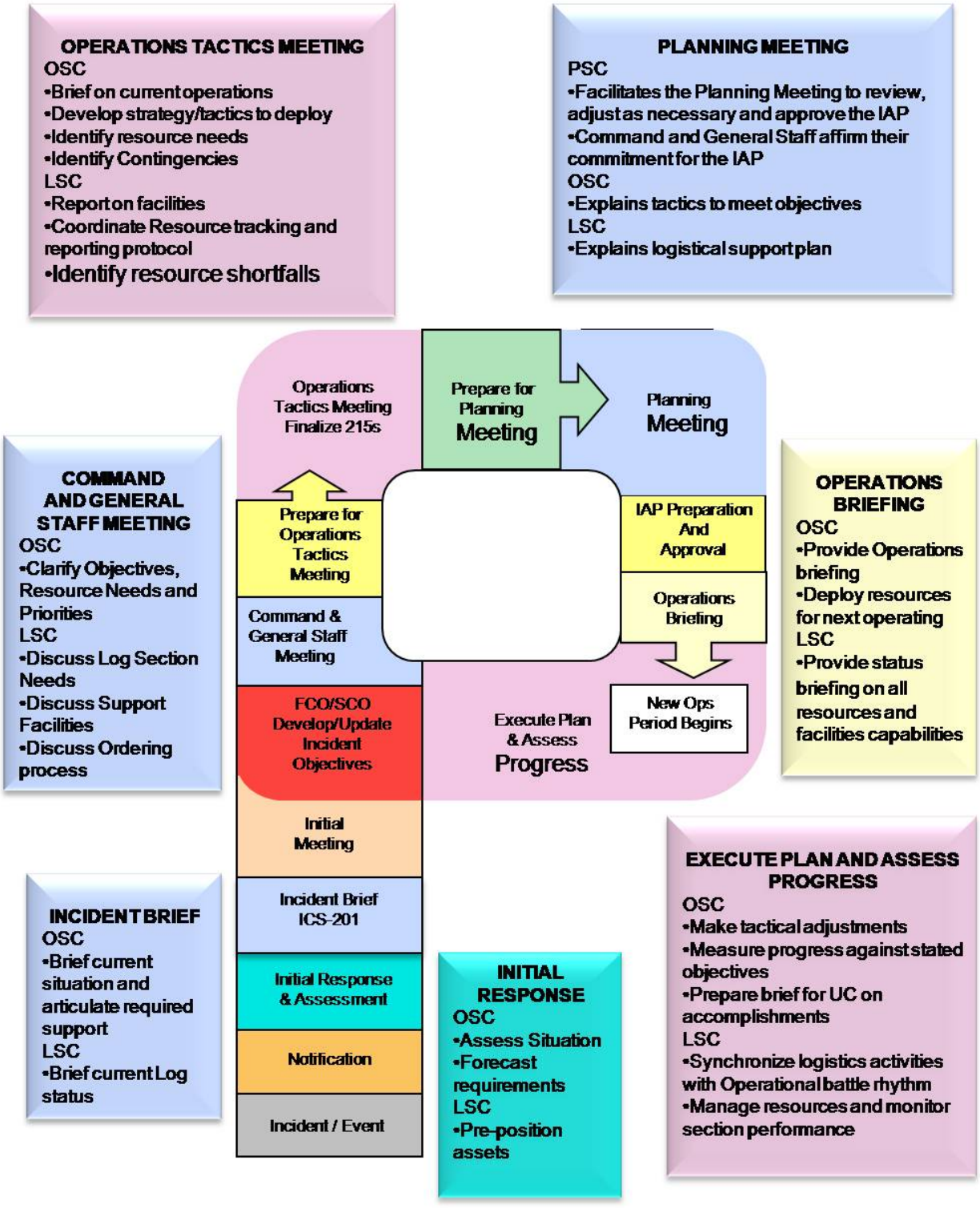


Figure 12: The Planning "P"

Initial responses or the "Leg of the P" are the initial actions and activities that occur prior to or shortly after the arrival of an IMAT to an incident. The "Leg of

the P" is a component of the planning process but not considered part of the Planning Cycle. The briefing package may take a variety of forms, but one of the tools available is the ICS Form 201 which can provide the incoming IMAT with basic information regarding the incident situation and the resources assigned. The ICS Form 201 may also serve as the initial IAP until the JFO Planning Section generates the initial joint IAP.

Operational Period (O-Period) is the period of time scheduled for execution of a given set of operation actions, as specified in the IAP. The O-Period can be various lengths but usually does not exceed 24 hours in the early stages of an incident/disaster. Incident action planning is always conducted in advance of the next O-Period. The UCG provides management direction to the Command and General Staff for the current O-Period planning cycle.

Incident objectives are established by the UCG based on input from the Command and General Staff and Annex C: Operations. Participants will discuss the strategies for accomplishing the objectives and any previously approved plans. The incident action planning cycle starts with the development of objectives that, when combined with tasks from approved advance planning process plans, form the basis of the IAP.

Specific tactical actions are critical and must include sufficient detail regarding task assignments, reporting locations and times, special equipment, and supply needs so that the JFO Planning Section can develop the ICS Form 204 Assignment Lists of the IAP. The JFO Operations Section and appropriate Command Staff identify and develop tasks and outline resource assignments on the Operational Planning Worksheet (ICS Form 215). For the Operations Section, the preparation of the ICS Form 215 is typically delegated to Branch Directors and Group Supervisors. The draft ICS Form 215(s) for each Branch and Group will support incident objectives.

Annex B: Intelligence

1.0 INTRODUCTION

The ShakeOut Scenario earthquake modeling is based on a 7.8 M_W earthquake on the southernmost 300 km (200 mi) of the San Andreas Fault, between the Salton Sea and Lake Hughes. This scenario is the basis for planning assumptions in this OPLAN. The southern San Andreas Fault was identified as the most likely source of a very large earthquake in California, and while a 7.8 $\mathbf{M_W}$ is not the largest earthquake that the southern San Andreas Fault can produce nor the San Andreas the only fault to threaten the populated areas of southern California it most likely due to its overdue recurrence interval. This annex describes the environmental effects of this catastrophic earthquake.

a. Purpose

- Describes overall catastrophic scenario.
- Describes the damages and consequences that should be expected to occur throughout the affected region.
- Describes the GIS-based methodology, data, and processes involved in performing geographical analysis and map creation for the Priority Response Areas (PRAs) for this OPLAN.

2.0 SCENARIO

According to the 2007 Working Group on California Earthquake Probabilities, California has a 99.7 percent chance of having a magnitude 6.7 or larger earthquake during the next 30 years. The probability of an earthquake of this magnitude on the southern segment of the San Andreas Fault in the next 30 years is 59 percent.[1]

The fault extends from the Sultan Sea in Imperial County in the south and continues northwest to LA County. The size and intensity of this earthquake is estimated at 50 times great than the Northridge Earthquake experienced in 1994.

[1] California Geological Survey, U.S. Geological Survey, and Southern California Earthquake Center, *Uniform California Earthquake Rupture Forecast*, 2008.

Damage to citizens and buildings is massive as summarized below:

Injuries, Deaths and Buildings Damaged

- **300,000 (1 in 16)** buildings significantly damaged
- **$213 billion** of damages
- **255,000** displaced households (~ half need extended shelter)
- **53,000** injuries
- **1,800** deaths

The damage is compounded by the fires that occur due to downed wires and ruptured gas lines. Firefighters experience nearly 1600 ignitions with 1200 of them requiring more than one engine to fight. Their task is made much more difficult because debris caused by landslides, damaged buildings, roads and power lines blocks many of the roads and access points they need to reach the fires. In other cases normal traffic causes gridlock as people try to get to their families during the work day. Finally, in addition to the obstacles mentioned above, many of the water mains are ruptured or damaged so firefighters have to rely on alternate sources of water to fight the fires.

a. Special Situation

Cities Counties/Operational Area Activation

Cities and Counties stand up their Emergency Operations Centers (EOC). The EOCs first priority is to gain situational awareness of the event. But doing so is difficult because repeaters have been damaged or power is out in many of the hardest hit areas. These areas are overwhelmed requiring significant support from out of area and state assets. Mutual aid coordination is being managed by designated mutual aid coordinators/agencies. Newer buildings fare better than older structures and state overpasses are damaged less than local and county roads, but all require structural inspections by qualified engineers. Most EOCs in the affected area require some type of support, such as additional incident management personnel, subject matter expertise and equipment. Many of the EOC personnel have been affected by this disaster and need to handle personal issues as a result of the damage. Shift workers cannot get to work because of road damage and many of the workers cannot contact their family members by phone or get to schools or their homes to check on their family's safety.

Federal and State Activation

CalEMA immediately initiates actions to stand up the State Operation Center (SOC) at the Mather Headquarters while the FEMA Region IX activates the Regional Response Coordination Center (RRCC) in Oakland. Almost simultaneously the National Operations Center (NOC) receives reports about the earthquake from several intelligence agencies and federal organizations. FEMA immediately notifies the Department of Homeland Security (DHS) Secretary and National

Response Coordination Center. The DHS Secretary alerts and notifies the Emergency Support Function (ESF) Primary and Coordinating Department/Agency leads via NRCC notification procedures.

b. Transportation Networks

Airports
Airports, working with the Federal Aviation Administration (FAA), initially divert incoming air traffic and hold planes on ground until damage to critical operational equipment can be assessed. Crews immediately attempt to assess damage. Most experience power disruptions and have to shift to emergency power generators for critical equipment and operations.

Ports
The ports are not in a heavy shake area and sustain limited damage. USCG conducts inspections of the ports and channel surveys while Caltrans, DOT-FRA and contractors conduct inspections of port bridges. The ports can resume operations once they verify shipping safety. However, port operations have a heavy reliance on the power infrastructure, roads and railroads to transport offloaded goods to their destinations. The large cranes that offload containers are damaged; normal power to the port is lost. Damage to roads and rail cause a backlog of goods and slow the offload of containerized cargo, bulk fuels and natural gas. The Ports of Los Angeles and Long Beach handle 44% of imports to the United States and 80% of the container traffic, so keeping those ports open and operational is of national importance. Many dock workers are stuck on the piers with limited supplies and others cannot get to work because of damage and congestion to roadways and buildings where they live.

Roads
The southern California road system comprises hundreds of thousands of bridges and overpasses. While some problems, like debris, can be quickly removed by Caltrans and local debris removal teams, repairs due to fault offsets or collapsed overpasses disrupt traffic flow for months. Fault offset and other ground deformations occurs in critical passes, and aftershocks cause additional ground deformation such as landslides and ground rupture, causing some locations to require multiple rounds of repairs. The Figure 1 illustrates where roads cross the fault line in over 900 places; 15% of these crossings result in severe damage to the roads.

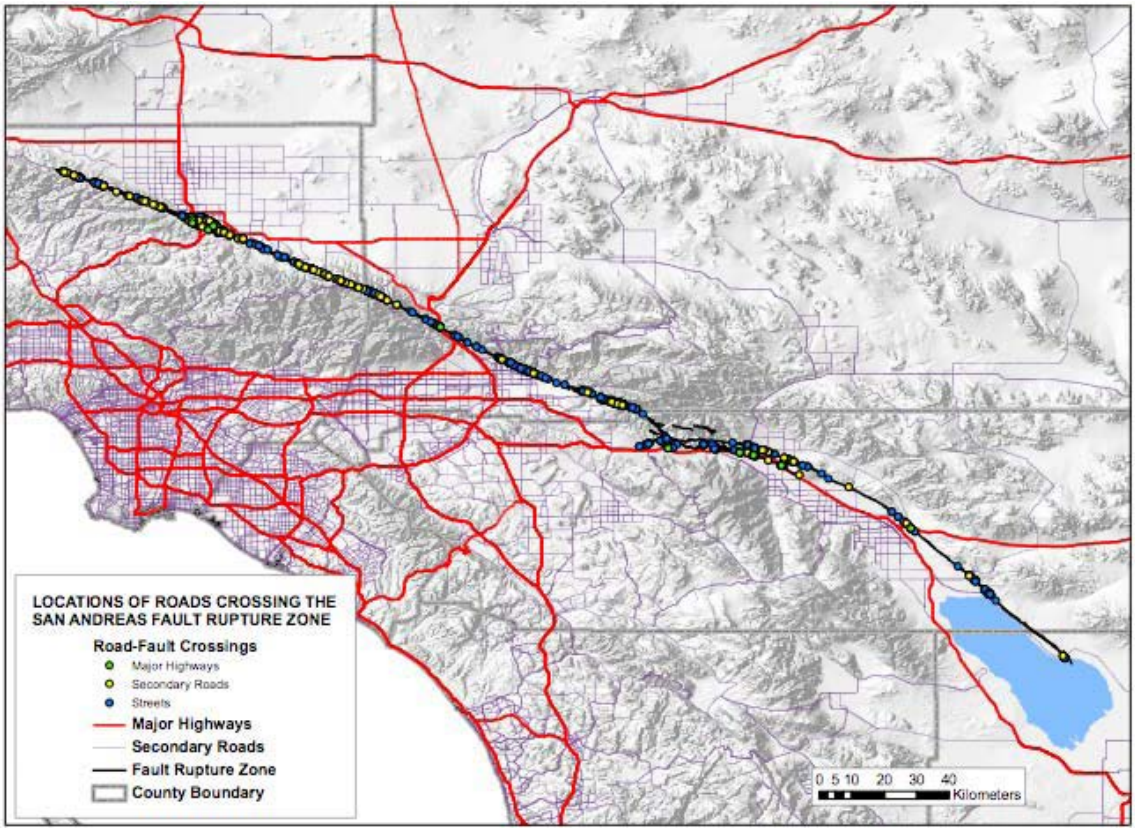


Figure 1: Locations of Roads Crossing the San Andreas Fault Ruptures

Railroads

All lines in Southern California have service interruptions of at least four to eight hours until inspections establish their safety. However, the Union Pacific (UP) line north to San Jose, because of its location, does not have any damage beyond possible signal malfunctions due to overturned relays. These do not pose a safety issue but do slow train movement through blocks governed by affected signals and across grade crossings with inoperative crossing protection. They are quickly repaired within two or three hours after inspection is completed. The dispatching center at San Bernardino becomes temporarily inoperable, affecting train movement and thus near-term resumed operations, but does not impact the immediate safety of trains. Radio communication with trains is uninterrupted.

c. Shelter and Food

Building damage is extensive. Local Urban Search & Rescue Teams are quickly overwhelmed by the number of collapsed and damaged buildings. This, combined with the numerous fires, force residents to leave their work place and homes to find safety in designated shelters or safer public buildings. Other residents migrate to open areas, parks, campsites and stadiums, but a majority of residents choose to camp out in their yards while waiting for aftershocks to cease. Many families are separated with caregivers at home, children in school and bread-winners stuck at their places of employment either downtown or in different cities and counties. Several older high-rise buildings in the city of LA partially collapse. Some pre-designated shelters are damaged, and others are quickly overwhelmed. Emergency managers and relief workers estimate that a shortage exists of over 140,000 spaces for people who need a place with food and water to sleep.

d. Water

Normal water service is interrupted to large sectors of the population because of water main damage and damage to the water treatment facilities and pumping stations. Hundreds of thousands of people have to boil water and have potable water delivered after emergency stocks run out. Due to strong ground shaking, as many as 30 dams within approximately 15 miles of the fault experience damage serious enough to cause safety concerns.

The largest ruptures in the California Aqueduct occur at two places near Palmdale. At one location, the rupture causes water to run east along the fault across the Antelope Valley Freeway near Lakeview into the Palmdale Reservoir, and then into neighborhoods to the east. At the second location, the rupture floods scrublands to the north. Additionally, the fault rupture offsets the levee at the east end of the Palmdale Reservoir by approximately 3 meters, allowing water to flow along the arroyo toward Cemetery Road and flood nearby neighborhoods. The fault also crosses the Coachella Canal in three places and rupture by offset occurs at these locations with resulting flooding of the scrublands to the south and west of the canal.

The fault also ruptures the Colorado River Aqueduct at several locations and a tunnel portion of the Los Angeles Aqueduct at one location. In the tunnel, a fault offset of 3.5 meters crosses the River Aqueduct at several locations and a tunnel portion of the Los Angeles Aqueduct at one location. This greatly reduces water flow to the City of Los Angeles. Six thousand feet of roof and sidewall block fail in the tunnel starting 11,000 feet from the North Portal. In addition, the first 5,000 feet experience failures of the roof and tunnel lining. An additional 2,000 feet of roof failure blocks the tunnel about 19,500 feet from the North Portal in an area of particularly weathered and cracked rock. As a result, water backs up into the Fairmont Reservoir at the North Portal until both barrels of the aqueduct are shut down. The small capacity of the Fairmont Reservoir overflows and floods a portion of the surrounding area.

Besides damaging potable water lines and treatment plants, the quake also damages sewer pipelines and equipment at wastewater treatment plants in several counties. Five to ten million

gallons per hour of untreated sewage spills onto streets in 50 to 100 locations. Although sanitation districts attempt to relieve flow by routing untreated sewage directly to the ocean through dedicated pipelines, most or all water treatment plants will be forced to dump untreated, raw sewage into nearby creeks which flow, by gravity, to the ocean.

e. Power

Los Angeles, San Bernardino, and Riverside Counties immediately lose all electric power. High-tension transmission towers collapse due to landslides and strong ground shaking near the fault, especially at the Cajon Pass. The map below illustrates 142 locations where power lines cross the fault rupture line. Damage occurs to the power lines in 20% of these locations. Additionally, several generation plants are taken offline for damage inspection, including the San Onofre Nuclear Generating Plant. Damage to transformers on overhead poles causes localized power loss. Gas pipeline damage reduces the ability to produce power within the affected areas of those counties. In Ventura, Orange, and Imperial counties power is also immediately lost, but 75% of service is restored within 1-2 days. In Kern and San Diego counties, 90% of power is restored within 24 hours. Los Angeles Department of Water and Power (DPW) loses the capacity to import power from across the fault. With generator support, DPW is self-sufficient at reduced load (3000-4000 MW, roughly 80% of pre-earthquake capacity) but only if natural gas (NG) supply is available. Normal NG supplies are disrupted for inspections and repairs of the pipelines.

f. Communications

Damage is concentrated in areas of high population density (where telecommunications assets tend to be concentrated) as depicted in the figure in this section and in Section 3.0: Priority Response Areas. All services (voice and Internet) are impacted in these areas. However, service impacts extend far beyond the heavy damage area as a result of saturation caused by the demand for telecommunications service overwhelming the systems immediately following the earthquake. Fourteen breaks in service occur in the impacted area. These lines are concentrated along the four principal lifeline corridors (Palmdale, Cajon Pass, San Gorgonio Pass, Coachella Valley), but a few crossings occur at Valyermo and along the eastern shore of the Salton Sea.

While structural damage causes many communications problems for fiber optic lines, landlines, cable networks, land mobile radios (LMR) and satellite communications assets can still operate. However, loss of power and equipment damage in Central Office and switching facilities limits the range and effectiveness of radio communications, and satellite communications channels are quickly overwhelmed to the point where only 25% of all connection attempts are successful. Sufficient LMR or Satellite communications assets do not exist to cover the numerous incident sites or relay information to the EOCs.

3.0 DEVELOPMENT OF CONCEPTS OF OPERATIONS AND LOGISTICS

OPLAN concepts of operations and logistics are based on the ShakeOut scenario hazards - fault offsets, secondary hazards and aftershocks.

Conditions that can lead to liquefaction are potentially widespread in parts of the eight-county area impacted by the ShakeOut Scenario earthquake, particularly the Santa Clara River/Oxnard Plain areas of Ventura County, parts of the San Fernando and San Gabriel Valleys, portions of the coastal basin or flatland areas of Los Angeles and Orange Counties, the Santa Ana River corridor, the Imperial Valley, the southern Coachella Valley, and coastal areas of San Diego County

In reality, large, damaging aftershocks may occur months or years after the initial event. Addressing these hazards guided the planning for response operations and provided logisticians with the ability to deliver critical asset to impacted locations.

Annex C: Operations – Southern California Catastrophic Earthquake OPLAN

1.0 SITUATION

This Annex describes the formation and structure of the Operations Section that implements the coordinated state-federal response to a catastrophic earthquake in Southern California. The Unified Coordination Group (UCG) directs state and federal support and resources to incident operations at the local level. The United States Geological Survey (USGS) Shakeout Scenario indicates a 7.8 magnitude catastrophic earthquake in Southern California causes:

- 1,800 deaths
- 53,000 injuries
- 300,000 buildings significantly damaged (1 in 16).
- 1,600 ignitions requiring a fire engine, 1,200 exceed capability of first engine.
- 542,000 individuals require mass care and shelter, to include those with access, functional and other special support needs. This includes 10% (50,000+) toddlers and infants.
- 2.5 million individuals shelter-in-place and need basic resource support (e.g., food and water).
- 267,000 displaced household pets.
- 4,500 rescues
- $213 billion damages

Branches and Divisions provide structure to manage the joint state/federal response consistent with Incident Command System (ICS) principles, the National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS).

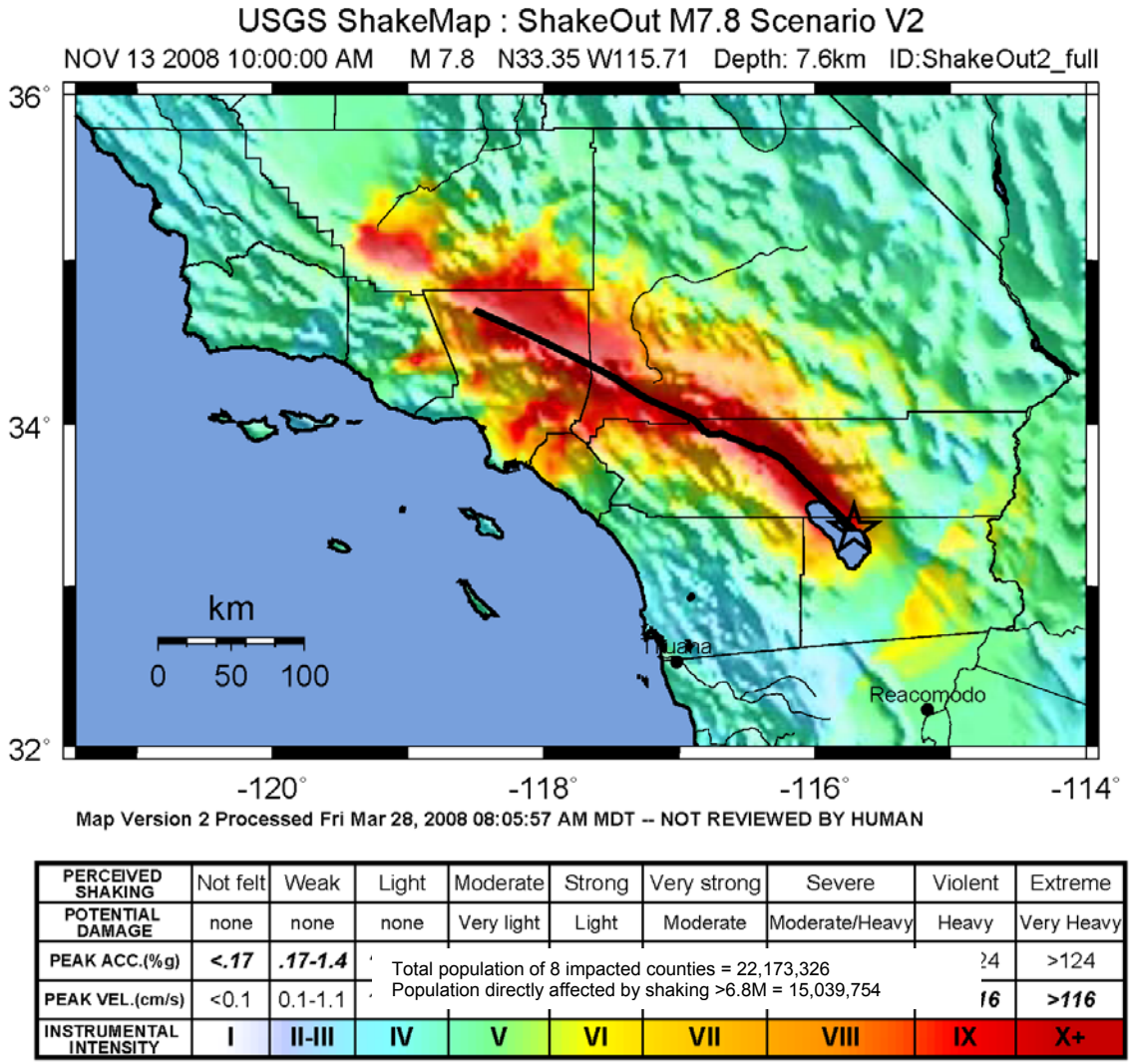


Figure1: Shakeout map.

a. Purpose

- Describes overall response strategy.
- Describes disaster operations by phase.
- Defines initial tasks and priorities for the UCG.

2.0 MISSION

The mission of the unified effort of local, state, tribal, and federal emergency response organizations is to support the needs of the impacted community by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery following a catastrophic earthquake in Southern California.

3. EXECUTION

a. Objectives

The following objectives have been approved by senior officials for execution in this Annex:

Coordination and Communications:

1. Establish and maintain functional and interoperable communications for responders
2. Validate and provide internal and external public messaging
3. Adopt an emergency management structure that manages resource shortages

Emergency Services:

1. Establish air operations for emergency response and damage assessment
2. Conduct search and rescue operations
3. Reduce hazards: suppress fire, contain hazardous materials
4. Conduct safety assessments
5. Provide safety, security and support to emergency response operations

Health and Human Services:

1. Provide health and medical services:
    a. Provide acute care - Hospital/EMS
    b. Provide chronic care – Medical special needs, mental health
    c. Execute patient evacuation/movement
    d. Maintain public health (food, water, vector control, food and water quality inspection, surveillance)
2. Provide care and shelter, including animals
3. Conduct mass fatality operations
4. Support mandatory and self-evacuations, including logistical needs

Infrastructure:

1. Stabilize and provide critical utilities for priority infrastructure: water/wastewater, power,
2. communications and natural gas
3. Establish lines of supply: seaports, airports, railroads, and roads
4. Supply emergency water and sanitation needs for response operations
5. Establish emergency power and fuel lines of supply
6. Conduct debris clearance and disposal

a. Overall Concept of Operations

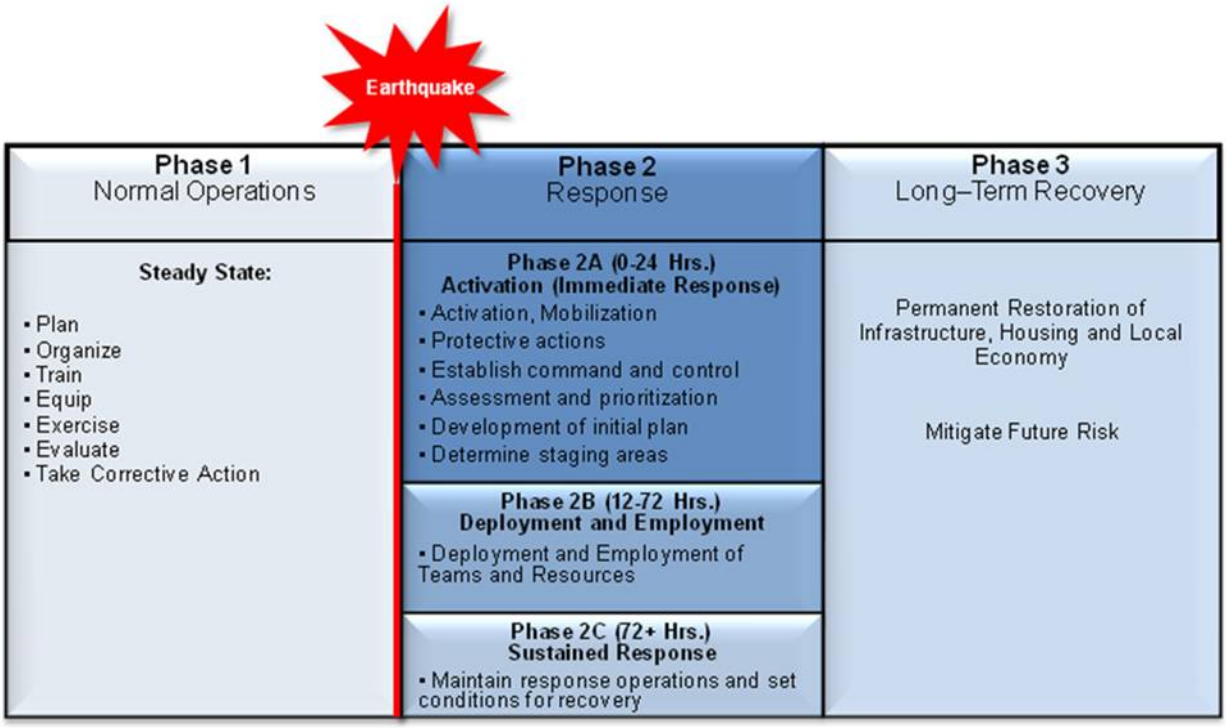


Figure 2: Phases of Earthquake Response Operations

PHASE 1 - Normal Operations

The purpose of Phase 1 is to coordinate with private, non-profit, local, state, tribal and federal stakeholders to prepare for a catastrophic earthquake.
Local jurisdictions, CalEMA, and FEMA Region IX conduct the following:

Every 5 years: A full scale Golden Guardian Exercise.
Every 2 years: A tabletop exercise or training.

Phase 1 Actions Include-

Local: Eight Emergency Operations Centers (EOCs) in Kern, Ventura, Los Angeles (LA), San Bernardino, Riverside, Orange, San Diego and Imperial Operational Areas, plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

State: Cal EMA State Operations Center (SOC) and Inland Region in Sacramento, Southern Region in Los Alamitos, and Coastal Region in Oakland, plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

Federal: Region IX watch at 24/7 operations. The Regional Response Coordination Center (RRCC) and Regional Incident Management Assistance Teams (IMATs) plan, organize/equip, train, exercise, evaluate and improve earthquake plans.

END STATE: Phase 1 is ongoing.

PHASE 2 - Response

During Phase 2, avenues of approach to the incident area are determined based on infrastructure damage to transportation corridors. Available air, land, and sea avenues of approach are used to push Federal teams and resources.

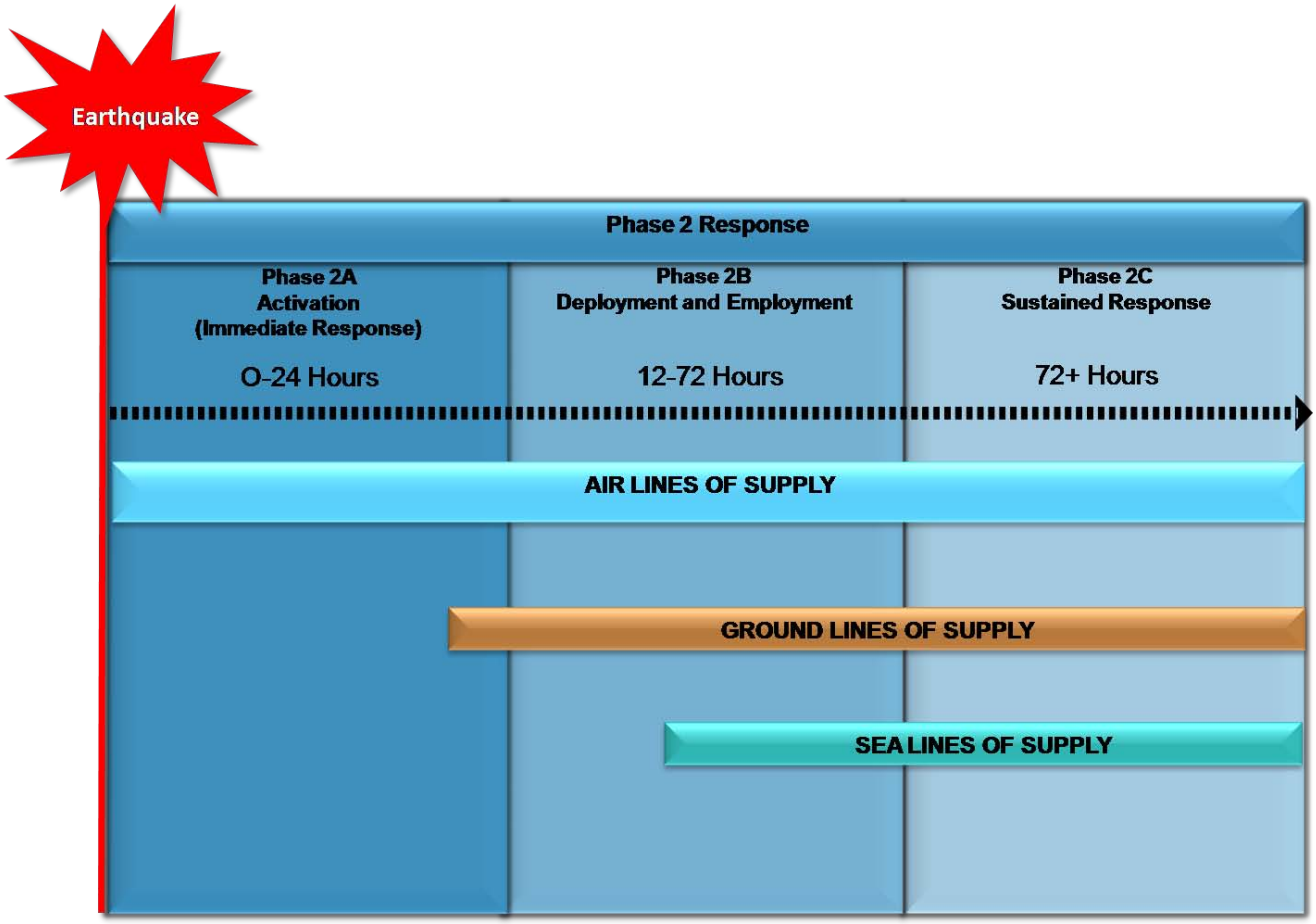


Figure 3: Avenues of Approach

Survivors are supported by establishing a network of hubs and spokes (Figure 7). Staging Areas support hospitals, shelters, arenas/stadiums, open spaces, and Points of Distribution (PODs) as determined by the State and Operational Area (OA) emergency managers.

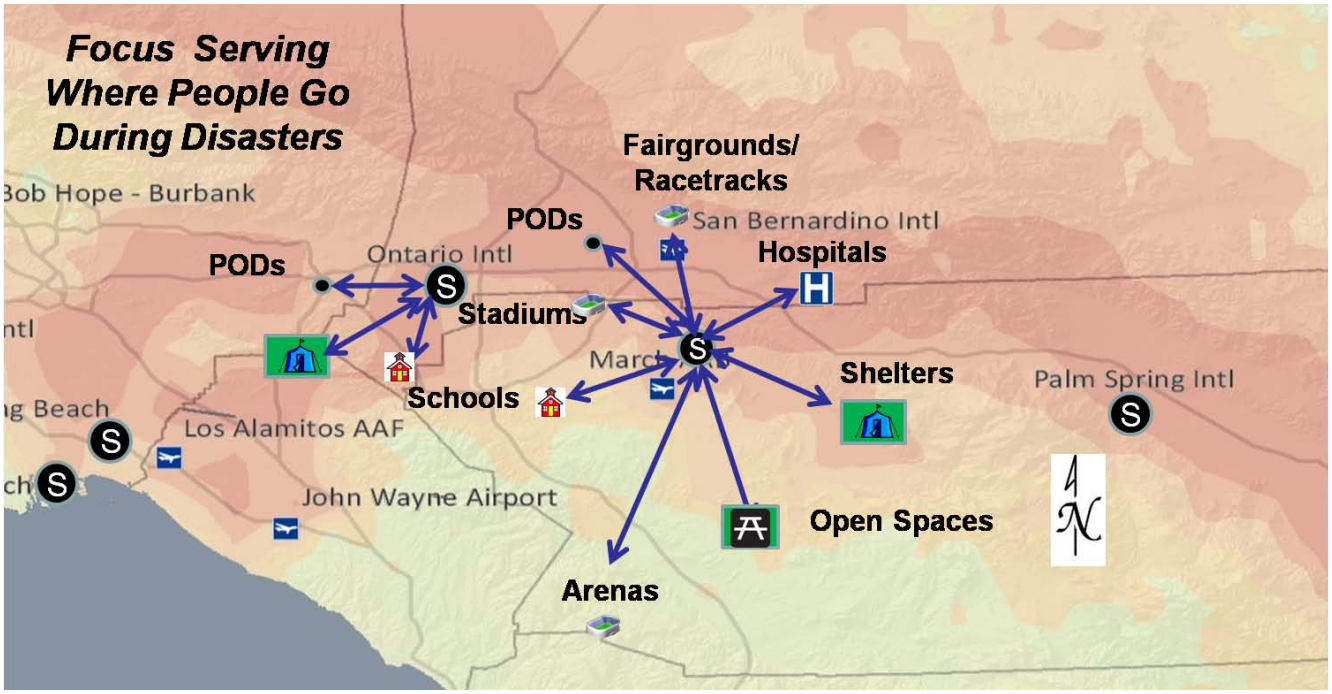


Figure 4: Hub and Spoke Concept.

Initial Operating Facility

Federal forward elements of the FEMA IMAT, including Department of Defense (DOD) and selected ESFs establish an Initial Operating Facility (IOF) in coordination with the State at the Southern Regional Emergency Operations Center (REOC) or FEMA's Southern California Area Field Office (AFO) located in Pasadena, CA. Depending on survivability either of these facilities can be used as IOFs.

Joint Field Office (JFO)

The State and FEMA establish a JFO in a forward location within 72 hours. The UCG moves to the JFO. The IMAT, DoD, ESFs and CalEMA support the UCG at the JFO and deploy additional support personnel.

Should the JFO be compromised by an aftershock, the SOC and the RRCC maintain operational readiness, including the potential to reassume the State and Federal response operational control.

PHASE 3: Long Term Recovery

Private Sector, local, state, tribal and federal actions are required to restore services, continue government operations, and promote economic recovery following a catastrophic earthquake.

4.0 OVERSIGHT, COORDINATING INSTRUCTIONS, AND COMMUNICATIONS

The Operations Section is organized into Geographic and Functional Branches. Functional Branches are established to carry out operations that are not tied to a specific location, but rather the entire affected area and beyond. Initially Seven Geographic Branches (I – VII) are established.

ANNEX D: Logistics

1.0 SITUATION

This annex describes the formation and structure of the Logistics Section that will implement the coordinated state-federal logistics support to the emergency response to a catastrophic earthquake in Southern California. The Unified Coordination Group (UCG) will direct state and federal support and resources to incident operations at the local level.

a. Purpose

- Provides information on the planning and coordination required to ensure the acquisition and delivery of resources in order to meet the response needs within the impacted area until local government and the private sector can sustain the daily requirements of the population.
- Describes coordinated logistics activities and support for response operations following a catastrophic earthquake in Southern California.
- Describes response logistics by phase.

b. Assumptions

(1) Collaboration and cooperation will occur between federal agencies, the State of California, local city and county agencies, non-governmental organizations (NGOs), and the private sector to coordinate and de-conflict the procurement of required resources during a catastrophic earthquake response.
(2) The State of California, through the FEMA Region IX, will provide information about their levels of capability regarding commodity distribution, Points of Distribution (POD) locations, shelters, and state staging areas.
(3) A Stafford Act Disaster Declaration will be issued during Phase 2a following a major catastrophic earthquake.
(4) Residents sheltering in place post-incident may have 1 to 3 days of essential, life sustaining supplies on-hand.
(5) All modes of transportation operations in the affected area will be disrupted while assessments and repairs are conducted.
(6) Non-traditional transportation networks will be established to procure and deploy resources and personnel. Primary emphasis will be placed on deployment and delivery via air and sea-based modes of transportation.

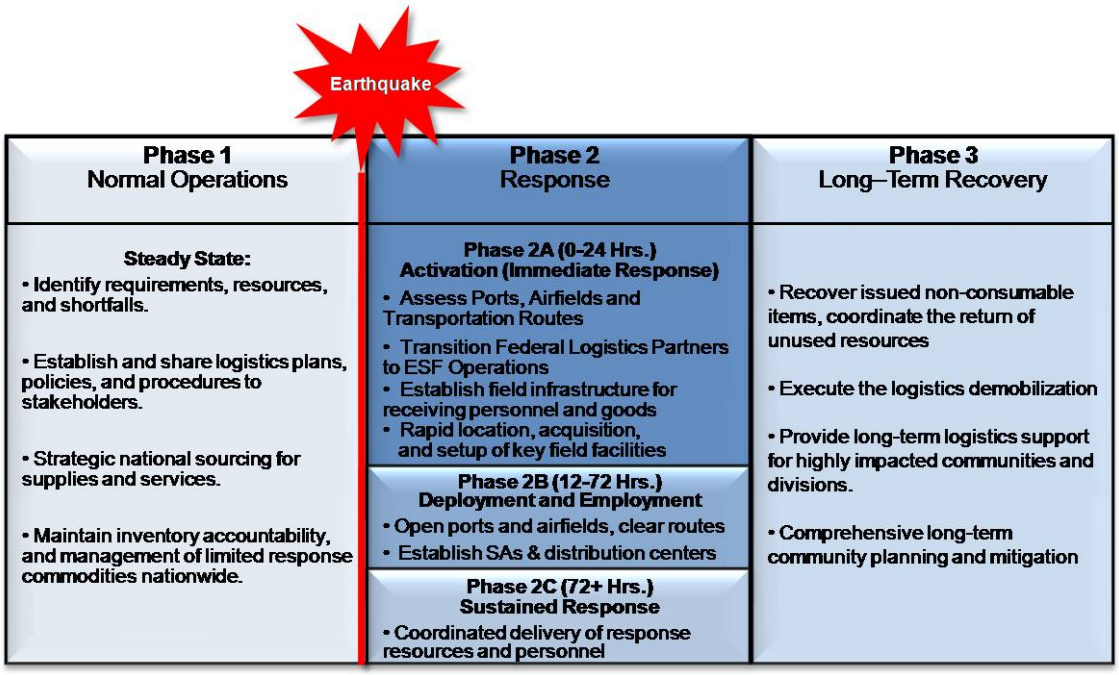
2.0 MISSION

The mission of the unified effort of local, state, tribal, and federal emergency response organizations is to support the needs of the populace within the impacted area by saving and sustaining human life, minimizing suffering, stabilizing and restoring critical infrastructure and setting conditions for recovery following a catastrophic earthquake in Southern California.

3.0 EXECUTION

a. Concept of Logistics

Logistics support is provided by federal, state, local and private sources, and in accordance with the defined response operations phases.



Transportation and Logistics Coordination. Throughout all phases, transportation and logistics coordination is a joint responsibility of the State and FEMA. This joint operation emphasizes re-establishing all modes of transportation systems in order to facilitate the effective distribution of resources, Staging Areas (SAs), shelters, PODs, and other sources. Emphasis is also placed on the movement or evacuation of people with severe medical needs. This integration ensures unity of effort and efficient use of transportation assets to deliver required resources. FEMA issues mission assignments to other Federal Agencies (OFAs) to provide additional resources and support. Medical logistics and resource ingress is led by EF/ESF 8 with support from CalEMA and FEMA. Situational awareness of the earthquake's impact on the State's transportation infrastructure is paramount to implementing a logistical capability for the delivery of response resources and employment of response teams.

Transportation and Logistics Operations. Movement of resources and people in and around the affected area are impacted by initial severe damages to ground transportation infrastructure. The overarching logistics strategy is to focus on delivery of response resources and personnel by air and sea movement. Initial response resources are moved into the impacted region based on the following priorities:

- Response teams/assets to support lifesaving actions, to include search and rescue, medical treatment, and fire-fighting capability
- Response teams/assets to support public safety and security
- Response teams to support damage assessment activities
- Response teams/equipment to support debris clearance of priority land routes

- Response supplies to support sheltering and commodities distribution

4.0 ROLES AND RESPONSIBILITIES

a. FEMA Headquarters Logistics Management Directorate (LMD)

LMD is the primary office for directing and overseeing disaster support for all logistics functions during all incident phases. LMD responsibilities for this incident include:

- Establish, maintain, and execute agency-wide logistics plans, policies, procedures, doctrines, standards, and governance.
- Develop and maintain national logistics support requirements, capabilities, and visibility of resources.
- Provide agency-wide funding, budget, and resource management for logistics.
- Provide FEMA Headquarters and Region IX logistics with functional command, coordination, and oversight of all logistics activities (including national resource management at the Joint Field Offices (JFOs) and Distribution Centers).
- Coordinate the agency logistics response through FEMA Logistics Operations Center (LOC).
- Provide agency wide logistics information management and communications capabilities.

b. FEMA Region IX

Region IX directs, oversees, and executes regional support for all logistics functions during all incident phases. Region IX responsibilities for this incident include:

- Establish, maintain, and execute supplemental regional plans, policies, and procedures that implement FEMA Headquarters plans, policies, and procedures.
- Staff JFO(s), Staging Areas and coordinate the agency logistics response among field units.
- Develop and coordinate regional requirements and capabilities with the State and local responders, and link with the State to coordinate the logistics interface.
- Provide regional funding and resource management.
- Provide accountability for FEMA property and equipment assigned to Region IX.
- Execute Interagency Agreements (IAAs) with OFAs and NGOs and procure support from local sources.

c. FEMA Field Units

Field Units (primarily JFOs and Staging Areas) are responsible for FEMA field logistics execution during all incident phases. Field Unit responsibilities for this incident include:

- Execute Field Unit logistics plans, policies, and procedures.
- Execute field logistics funding, budget, and resource management.
- Execute IAAs and Memorandums of Understanding (MOUs) with OFAs and NGOs at the field level.
- Execute field logistics contracts with the private sector.

- Coordinate agency logistics response at field units.

d. Other Federal Agencies (OFAs)
FEMA's primary logistics OFA partners for this incident include:

(1) Defense Logistics Agency (DLA). The DLA is a major supplier of consumable commodities supporting FEMA disaster response through stockpiled Distribution Center (DC) inventories and logistics field support requests following a catastrophic earthquake. DLA resources can be requested through the FEMA-LMD or through DLA representatives co-located with Logistics staff at the JFO. Basic response resources for this incident include:
- Meals (Meals Ready-to-Eat and Shelf-stable)
- Bottled Water
- Tents
- Blankets
- Cots
- Comfort Kits

(2) Department of Defense (DoD). The DoD has a broad range of capabilities which can be utilized to support logistical response requirements. Although availability of DoD resources can be subject to higher priority tasking, typically, large numbers of assets (vehicles, aircraft, ships, other support equipment, etc) can be requested through the Defense Coordinating Officer (DCO). Basic DoD capabilities for this incident include:
- Facilities: DoD facilities may be used as SAs and/or other logistics centers.
- Aircraft: DoD can provide long-range, strategic airlift and/or airdrop capability; Aeromedical evacuation capability, as well as maintenance crews and logistics support for air operations.
- Sea Capability: DoD can provide ships for resource transportation, movement of cargo to shore via cranes and ramps (i.e. Joint Logistics Over the Shore (JLOTS)), bases for helicopter operations, support for small boat/barge operations, berthing for responders, pier-side water and electrical power generation, and medical care.
- Land Capability: DoD can provide trucks, material handling equipment (MHE), and construction/debris clearance/debris removal equipment.

(3) Department of Transportation (DOT). DOT is the coordinating agency for ESF 1 (Transportation). DOT works with state and local transportation departments and industry partners to assess any damage to the transportation infrastructure and analyze the impact on transportation capability. DOT implements response and recovery functions including prioritizing or allocating civil transportation capacity, funding repair of Federal Aid highways, coordinating hazardous material (HAZMAT) operations, and completing any safety or security actions relating to movement restrictions, closures, quarantines, and evacuations.

(4) Federal Aviation Administration (FAA). The DOT FAA oversees the operation and regulation of the US National Airspace System; in this case specifically, the airspace in and around Southern California. After the incident, the FAA may delegate use of specified airspace the impacted areas for national defense, homeland security, law enforcement, search and rescue mission, or airdrop drop zone activity. The FAA may also implement air traffic and airspace control/management measures such as temporary flight restrictions, aircraft ingress/egress corridors, etc in conjunction with these missions. After the catastrophic earthquake, the FAA assesses airport conditions (i.e. damage to runways, airport communications, navigation equipment, and air traffic control capability) and may restrict movement of aircraft based on this assessment.

(5) General Services Administration (GSA). GSA is the primary coordinating agency for ESF 7 (Logistics Management and Resource Support). GSA has a large warehouse in French Camp which can provide existing stockpiled commodities (e.g., durable goods and commodities commonly used by federal agencies that are commercially available and not predominantly of a military nature).

GSA conducts the following:

- Support any requirements for obtaining facilities, facility setup, space management, building services, general facility operations, and contracting for transportation services.
- Use its Public Building Service to provide office space and other real estate space for Disaster Recovery Centers (DRCs), JFOs, etc.
- Use GSA excess fleet vehicles as well as commercial fleets to move commodities and personnel through blank service agreements with rental car companies for emergency purposes.
- Assist FEMA with emergency acquisitions and transportation through the Federal Acquisition Services (FAS). GSA's centralized contracting function in coordination with FEMA's centralized acquisition office uses emergency procurement authorities (Federal Acquisition Regulation (FAR), Stafford Act) to expedite ordering and moving of commodities.

(6) Maritime Administration (MARAD) Ships. Crane-capable DOT MARAD ships may be mission assigned to meet various roles post-incident. Depending on ship status and crew availability, it will take from 1 to 5 days to get a ship underway. MARAD ship capabilities include:

- Cargo On-load/Off-load: Depending on the MARAD ship, capabilities may include deck winches from 10- to 20-tone pull, deck cranes of various reach and capacity ratings (e.g. the reach to off-load 40-ton containers from one ship to another or to a pier), roll-on/roll-off ramps, and/or helicopter pads certified for hovering-type cargo operations.
- Potable Fresh Water: MARAD ships have the capability to produce and store fresh water (as long as the seawater source is not contaminated). Depending on ship's specifications, fresh water production can be a minimum of 17,000 gallons per day, and storage capability can range from 200 to 600 tons of fresh water.

- Subsistence Rations/Food Production: With shore-side supply and replenishment, MARAD ships can prepare an average of 4,000 meals per day.
- Electricity: Depending on ship capability, MARAD ships can produce 1,000 to 5,000 kilowatts above the needs of the ship. This additional capacity could be utilized to support an emergency facility or tent camp shore-side.
- Shelter: Depending on the size of the ship and the availability of ventilated interior cargo areas, space can be provided to shelter from 2,000 to 6,000 people. Cots and bedding would be required and toilet facilities and sewage treatment capabilities would require equipment installation and some modification to ship's piping.
- Communications: MARAD ships are equipped with satellite and radio communications and Marine Band Radios. Additional cellular or satellite communication can be placed onboard as needed.
- Refrigeration: MARAD ships are equipped with walk-in refrigeration compartments which could be used for food or medical pharmacy storage.
- Medical Facilities: MARAD ships typically have a small hospital with an isolation ward (one or two beds).

(7) U.S. Coast Guard (USCG). The USCG maintains jurisdiction over the coast lines in the State of California. In the event of a catastrophic earthquake, the USCG conducts the following:

- Maintain, monitor, and report on the safety, viability, and navigability of ports and waterways.
- Make and enforce decisions regarding the use of any specific port or waterway, including opening or closing ports and waterways to vessel traffic.

e. State and Local Agencies

Under the National Response Framework (NRF), the State and local agencies are responsible for the initial response to this incident. The primary role of the state is to supplement local efforts before, during, and after a catastrophic earthquake. Other important state and local responsibilities for this incident include:

- Standing up, manning, and operating State Staging Areas.
- Identification and operation of PODs for distribution of disaster supplies to earthquake survivors.
- Providing staffing to JFOs as required.
- Entering into and executing, Emergency Management Assistance Compacts (EMACs) with other states to provide mutual assistance for required logistics resources.
- Collaborating with federal agencies in disaster planning to ensure logistics supplies and services are delivered in a timely fashion to disaster survivors. Note: Efficient federal logistics support provided to the State for disaster response is best delivered when the State has pre-coordinated with its federal counterparts.

California's Department of General Services (DGS) provides a variety of services to state agencies through procurement and acquisition solutions, real estate management and design, state-of-the-art telecommunications, and transportation, in a non-emergency and emergency capacity. DGS also conducts the following:

- Maintains an emergency supply matrix for California, a list containing 20 of the commodities that are most needed for evacuation centers and has identified methods and resources to quickly obtain and deliver these commodities.
- Utilizes an e-procurement system that is available to all DGS customers (including counties, cities, California State University system, University of California system, junior colleges, etc).
- Maintains close working relationships with real estate owners throughout the state and can identify and obtain access to vacant properties within a matter of hours.
- Maintains a public private partnership with Emergency Partnership Advisory Workgroup (EPAW) to secure resources from the private sector during disasters, and to comprehensively coordinate on all phases of emergency management and engage the private sector as a full partner.
- Uses California's participation in the Western States Contracting Alliance (WSCA) to gain significant purchasing leverage in obtaining commodities and resource support required to respond to the incident.

The California National Guard has a Military Resource Advisory Group (MRAG) at the State Operations Center (SOC), which facilitates coordination and economy of effort within the military community, and is generally able to access DoD capabilities that do not exist within the California National Guard.

Civil Support Task List (CSTL)

- CSTL provides a concise, centralized location to define potential resources. CSTL seeks to bridge the communication gap between civilian emergency responders requesting goods, and the military emergency responders providing them, by creating a common lexicon that makes sense to both emergency response communities.
- These capabilities are arranged in a centralized catalog that integrates into other efforts, with the goal of speeding up support when it is needed from the National Guard.
- Matches California National Guard (CNG) resources and capabilities with FEMA.

f. Nongovernmental Organizations (NGOs) and the Private Sector

NGOs play enormously important roles before, during, and after an incident. For example, NGOs provide sheltering, emergency food supplies, counseling services, and

other vital support services to support response and promote the recovery of disaster victims. These groups often provide specialized services that help individuals with special needs, including those with disabilities. (NRF)

Some NGOs are officially designated as support elements to national response capabilities.

The American Red Cross. The American Red Cross (ARC) is a supporting agency to the mass care functions of Emergency Support Function (ESF) 6. While it does not direct other NGOs, the American Red Cross takes the lead in integrating the efforts of the national NGOs that provide mass care services during response operations.

(1) Numerous Disaster Field Supply Centers (DFSCs) store commodities in various locations around the country. The closest one to the affected area is Reno, and there are also DFSCs in the Midwest and south.
(2) The DFSCs are stockpiled with cots, blankets, durable medical equipment, first aid materials, comfort kits, clean up kits, and other commodities.
(3) The ARC has a ready inventory and location of all the commodities maintained by local chapters within the southern California region.
(4) Each ARC local chapter has an annex to their emergency response plan which inventories local chapter commodities and resources.
(5) ARC has their own established local distribution network and does not rely on local, state, or federal networks.
(6) ARC has agreements with many large wholesale distributors and service vendors which also support local, state, and federal government.
(7) ARC partners with other non profits and private sector industries to obtain commodities and resource support (e.g., FedEx, Salvation Army, and Southern Baptist Convention).
(8) ARC has liaisons at the SOC and JFO, Regional Emergency Operations Center (REOC), Operational Area Emergency Operations Centers (EOCs), and other locations to facilitate communication regarding actions the Red Cross is taking (e.g., types and numbers of commodities distributed, number of victims sheltered).

National Voluntary Organizations Active in Disaster (National VOAD). National VOAD[16] is the forum where organizations share knowledge and resources throughout the disaster cycle – preparation, response, and recovery – to help disaster survivors and their communities. National VOAD is a consortium of approximately 50 national organizations and 55 State and territory equivalents. During major incidents, National VOAD typically sends representatives to the DHS/Federal Emergency Management Agency (FEMA)'s National Response Coordination Center.

Private Sector organizations play a key role before, during, and after an incident. First, they must provide for the welfare and protection of their employees in the workplace. In addition, emergency managers must work seamlessly with businesses that provide water,

power, communication networks, transportation, medical care, security, and numerous other services upon which both response and recovery are particularly dependent. Participation of the private sector varies based on the nature of the organization and the nature of the incident. The five distinct roles that private-sector organizations play are summarized in Table 1.

Table 1. Private-Sector Response Role

Category	Role in This Category
Impacted Organization or Infrastructure	Private-sector organizations may be impacted by direct or indirect consequences of the incident. These include privately owned critical infrastructure, key resources, and other private-sector entities that are significant to local, regional, and national economic recovery from the incident. Examples of privately owned infrastructure include transportation, telecommunications, private utilities, financial institutions, and hospitals. Critical infrastructure and key resources (CIKR) are grouped into 17 sectors that together provide essential functions and services supporting various aspects of the American government, economy, and society.
Regulated and/or Responsible Party	Owners/operators of certain regulated facilities or hazardous operations may be legally responsible for preparing for and preventing incidents from occurring and responding to an incident once it occurs. For example, Federal regulations require owners/operators of nuclear power plants to maintain emergency plans and facilities and to perform assessments, prompt notifications, and training for a response to an incident.
Response Resource	Private-sector entities provide response resources (donated or compensated) during an incident – including specialized teams, essential service providers, equipment, and advanced technologies – through local public-private emergency plans or mutual aid and assistance agreements, or in response to requests from government and nongovernmental-volunteer initiatives.
Partner With State/Local Emergency Organizations	Private-sector entities may serve as partners in local and State emergency preparedness and response organizations and activities.
Components of the Nation's Economy	As the key element of the national economy, private-sector resilience and continuity of operations planning, as well as recovery and restoration from an actual incident, represent essential homeland security activities.

Essential private-sector responsibilities include:

- Planning for the protection of employees, infrastructure, and facilities.
- Planning for the protection of information and the continuity of business operations.
- Planning for responding to and recovering from incidents that impact their own infrastructure and facilities.

5.0 IMPLEMENTATION AND EXECUTION

Operational control and execution of logistics functions are pushed down to the lowest effective level. FEMA leads the synchronization and integration of resource support

capabilities from federal, state, local governments, NGOs, and private sector responders. State requests for support are submitted via Action Request Form (ARF) to FEMA, which facilitates acquisition through all available sources. FEMA Logistics employs a "Push/Pull" strategy for resource response. Initially, critical response assets are "pushed" in Phase 1A to Staging Areas in order to establish a supply of response assets based on estimated requirements for each geographic division. Once operational control is established in the field, the "push" concept transitions to a "pull" concept to identified and established operational Staging Areas. During the "pull" execution, in order to maintain effective resource management, the Regional Response Coordination Center (RRCC), UCG, and JFO communicate resource requirements through the LMD based on actual commodity consumption rates.

6.0 ISSUANCE OF DISASTER POLICY, DOCTRINE, AND PROCEDURES

FEMA (Headquarters (HQ) and Region IX), the State, and local agencies must collaborate in the development of disaster response and logistics doctrine, policies, and procedures. The development of all logistics policies, procedures, and doctrine related to this disaster response occur in consultation and involvement with all appropriate agencies.

Annex F: Public Messaging

1.0 SITUATION

Following a catastrophic earthquake, traditional communications systems and lines are stretched and existing systems are broken. Telephone usage is expected to be severely limited, because cell phone towers are damaged and the cell system is saturated with calls. Additionally, the catastrophic earthquake generates extensive, sustained national media attention that may overwhelm local and state efforts. As such, delivering public messaging after the event is challenging, both inside and outside the impacted area

Emergency operations must provide immediate and sustained internal messaging to the population in the impacted area (over 20 million people) and provide external messaging to the rest of the state and nation, despite impairments to communications due to earthquake damage.

a. Purpose.

The purpose of this Annex is to provide an integrated local, state, and federal approach to validating and providing internal and external public messaging for a no notice catastrophic earthquake in Southern California by:

- Pre-scripting public messages to be used during the catastrophic earthquake. (This information includes important warnings and instructions for protecting lives and property.)
- Ensuring the delivery of coordinated and consistent internal and external messaging concerning the status of ongoing operations in the affected disaster area.
- Supplementing existing state and local public messaging assets.

2.0 MISSION

Provide accurate, coordinated, timely and accessible information to audiences inside and outside the impacted area, including government, media, the private sector, and the local populace.

3.0 EXECUTION

State and federal governments work with the RRCC, SOC, and JFO to deliver coordinated and consistent internal and external messaging concerning the status of ongoing operations in the affected disaster area. All messaging and external support for messaging are coordinated in the Joint Information Center. Existing state and local public messaging assets are leveraged to the greatest extent possible and augmented with federal assets.

Emergency response operations use all means available including radio, television, Internet, ,Emergency Alert System, mass notification systems (counties and independent cities), telephone; i.e. 2-1-1, public address (P/A) systems, helicopters equipped with P/A

systems and changeable message signs to reach the public with emergency notices, messages and updates on the situation. In addition, Community Representative Services (Community Outreach) distribute public messaging following a catastrophic earthquake.

a. Concept of Operations.

The earthquake damage to most conventional public messaging methods require the use of a variety of innovative communications methods to convey public safety messages, evacuation instructions, sheltering and other critical information. No viable method should be ruled out, particularly during phase 2A.

The local Emergency Operations Centers (EOCs) and CalEMA Public Information Office (PIO):

- Deliver targeted public messages to the affected populations using all available means with assistance provided by the JIC located at the JFO.

- Respond to media inquiries and legislative affairs for damage assessment statistics and estimates, including:
    - News conferences/briefings
    - News releases
    - Available state/federal officials on live programming

- Publicize the status of any emergency or disaster declarations, the types of assistance available to emergency-disaster victims and the locations of Disaster Recovery Centers (DRC's).

ESF 15 components are deployed immediately to augment and support state and local emergency public information efforts with JIC operations, community relations and international affairs. Public messaging is disseminated from the JIC using a phased approach to ensure external messages are accurate, coordinated and consistent.

(1) Phase 1: Normal Operations.

The purpose of phase 1 is to coordinate with state and local agencies to identify their public messaging capabilities and expected shortfalls.

END STATE: In a no notice event, the end state of phase 1 occurs when the earthquake begins.

(a) Tasks to be performed.

1. CalEMA completes the following tasks
    - Develop and maintain pre-scripted public messages for a catastrophic earthquake.

- CalEMA Office of Public Affairs will determine what authoritative sites will be used to disseminate messages to affected populations (Internet, Twitter, Reverse 911, EDIS, etc.).
- Identify PIO Teams and conduct training.

2. ESF 15/FEMA coordinates with CalEMA to develop pre-scripted messages and develop innovative and multiple means of delivery during periods when normal communications channels may be degraded.

3. FEMA develops education and training campaigns for disaster preparedness to educate the population about how to prepare for emergencies and what to do during emergencies if one should occur.

(2) Phase 2a: Immediate Response

The purpose of phase 2a is to notify all agencies and organizations of the no-notice event, conduct initial assessments for situational awareness, analysis and assessment of functioning media platforms for distributing local public messaging to the impacted area.

END STATE: Phase 2a ends when federal agencies begin deployment of support assets to the state and begins to coordinate federal messages.

(a) Tasks to be performed

1. Local authorities deliver targeted messages to affected population about where to find updated disaster information and where to go for shelter, food, water and how to get assistance.

2. ESF 15/FEMA designates an External Affairs Officer and initiates an external affairs support staff to stand up a JIC in the JFO. Until the JIC is established all press and information releases are coordinated with the SOC Public Information Officer.

3. CalEMA/FEMA, in coordination with local authorities, uses Emergency Digital Information System (EDIS) & Emergency Alert System, radio, TV (broadcast & cable), Internet, Web 2.0 (twitter), Reverse 911 & 211, and Ham Radio Operators to deliver the following pre-scripted messages to affected populations in Spanish and English:

- . "**Stay Clear"**

  This is a special earthquake safety message from the California Emergency Management Agency.

There's been a strong earthquake in our area and the danger may not be over. Stronger shaking is possible.

Unless you strongly believe the building you're in is unsafe, you are advised to stay inside.

If shaking starts again, stay clear of windows and take cover under a sturdy piece of furniture or by an inside wall.

Cover your head and neck with your arms until the shaking stops.

If an aftershock begins when you are outdoors, stay in the open and away from buildings, signs and overhead wires.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Flashlights"**

  This is special safety message from the California Emergency Management Agency.

  A strong earthquake has hit the area. It is vital to your safety to check around you for damage, especially to utilities.

  If you smell smoke or hear or smell leaking gas, open your windows and get everyone out of the building right away.

  If you suspect a gas leak, don't touch or use electric light switches.... use flashlights only –never use matches, lighters or candles as a spark or open flame could start a fire or even cause an explosion.

  If the situation allows, check the Survival Guide section near the front of your telephone book.

  And stay tuned to this station for more information from the California Emergency Management Agency.

- **"First Steps At Home"**

  This is a special safety message from the California Emergency Management Agency.

A strong earthquake has hit our area. If you're at home, these are the first safety steps to take:

Check on the location and status of your family members.

Use a fire extinguisher to put out small fires. Never use water on electrical or gas fires. If the fire can't be controlled quickly, evacuate the building right away.

Check for gas leaks. If you smell or hear gas, open the windows before moving everyone outside.

Look and listen for any signs of possible collapse by inspecting your home's foundation, walls and chimney.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"No Phones"**

  This is a special safety message from the California Emergency Management Agency.

  There's been a strong earthquake and stronger shaking is possible in our area.

  The police and fire departments are aware of the situation and are busy responding to the most serious problems first.

  Please... stay off the telephone... including your cell phone... unless you need to report a life-threatening injury or fire. Do not text emergency services like 911 as they cannot receive text messaging.

  Unnecessary calls could keep life-saving calls from getting through.

  There's more emergency information in the front pages of your phone book.

  And stay tuned to this station for more information from the California Emergency Management Agency.

- **"On The Road"**

This is a special safety message from the California Emergency Management Agency.

Stronger shaking could follow the earthquake that's already hit our area.

It's safer to stay off the road right now... but if you must drive and the shaking starts again, pull over and stop at the first open, safe place you can find... Avoid all underpasses, power lines, and overhanging signs.

If stopped, stay inside your car.

If driving on a bridge or an overpass, - carefully continue moving until you're off the bridge... then look for a safe, open place to stop until the shaking passes.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Second Steps At Home"**

This is a special safety message from the California Emergency Management Agency.

If you're in a safe place right now, stay there! The earthquake danger may not be over yet... and strong aftershocks are possible.

If you're at home and there's no immediate sign of collapse, fire or gas leaks, it's time to take a closer look at your utility connections.

Turn off any appliance that was on when the earthquake hit and check it for damage.

Check your water heater. If the earthquake caused it to fall over it may have broken a gas, electric or water line.

If your utilities appear damaged, turn them off at the main meter.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Water Storage"**

This is a special safety message from the California Emergency Management Agency.

If your neighborhood has suffered earthquake damage, try to store water now for later use. Start by filling your bathtub and any other large containers.

If your water heater is undamaged, the water inside may be needed later for drinking and cooking. If the water in the storage tank of your toilet is clear, it may be usable, but don't ever use water from the bowl.

Prepare to sterilize any water that isn't already bottled. You can sterilize water by boiling it for five minutes... or by adding three or four drops of household laundry bleach per quart and letting the mixture stand for half an hour.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"More Steps At Home"**

  This is a special safety message from the California Emergency Management Agency.

  While the earthquake shaking may have stopped, strong aftershocks are still possible in our area.

  If you're safe where you are, stay put. Help the people around you... your family, neighbors and coworkers. Read the first aid and safety tips in the front of your telephone directory. Clean up flammable liquids and other hazardous materials. Be vigilant for fire.

  If you must move from your current location, leave a note on the front door to alert family and emergency workers to where you've gone.

  And stay tuned to this station for more information from the California Emergency Management Agency.

- **"People Check"**

  This is a special safety message from the California Emergency Management Agency.

Police, firefighters and medics are currently dealing with the most pressing problems... but the most available source of help for your family, friends and neighbors right now... is you!

If your area has damage, check in with the other people nearby... your family, neighbors, or co-workers.

Use the first aid information in the front of the telephone book to treat any injuries.

Small children and elders will need special attention and reassurance, even if they seem OK. People with special needs may need a little extra help, too.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Food"**

  This is a special safety message from the California Emergency Management Agency.

  Following an earthquake, a hot meal can help everyone feel better and calmer. It's not too early to start feeding people.

  But plan your meals carefully. If your power is out, eat the perishable foods in your refrigerator first... then the food from your freezer. Leave the food that's stored on your shelves for last.

  Unless you're sure your gas and electric connections are safe, cook outside on a barbecue, a charcoal grill or a camping stove. Remember that those are only for use outdoors.

  Read the helpful information in the Survival Guide section near the front of your telephone directory.

  And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Check List – Do's"**

This is a special safety message from the California Emergency Management Agency.

If the earthquake has damaged your neighborhood, here are some things you should remember to do:

Stay calm and in touch with the people around you.

Stay off the telephone.

Put on sturdy shoes.

Store water in a bathtub or large container and sterilize water that wasn't bottled before using it.

Turn off leaking gas and damaged electric utilities at the meters.

Clean up broken glass, medicines, and flammable liquids.

And remember, every hour or so, to take a few moments to rest and to think about what you're going to do next.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **"Check List – Don’ts"**

  This is a special safety message from the California Emergency Management Agency.

  If the earthquake has damaged your neighborhood, here are some things you should remember not to do:

  Don't turn off your gas at the meter unless you actually smell gas or smoke.

  But if you do turn your gas off, don't turn it back on again.

  Don't use matches, lighters, or candles until you're sure there are no gas leaks.

  Don't use the telephone.

  Don't waste water.

Don't go sightseeing.

And don't forget that strong aftershocks are possible at any time.

Remember that there's good information in the Survival Guide section near the front of your telephone directory.

And stay tuned to this station for more information from the California Emergency Management Agency.

- **Status Message -**

  Describe the Incident Site & location.

  State and local responders mobilized, federal assets notified awaiting requests for assistance.

  Assessment is underway, updates to follow

  Sustain yourself, your family and your neighbors.

  Use personal survival kits and personal emergency plans

- **Shelter Message**

  If you do not have to leave, stay where you are and remain calm.

  Unnecessary evacuations can strain resources; please do not leave unless mandatory evacuations are ordered Aftershocks are possible.

  If you must seek shelter, shelters have been setup at {insert main mega shelter locations}

  For more information, listen to radio {enter stations here} for general emergency notifications and updates.

- **Special Message to Emergency Responders**

  Report to duty if you are able to do so.

  Text your families, phone service will be interrupted for some time.

- **Pets and Livestock Message**

If you have pets, keep your pets with you. Do not release your pets or livestock.

There is limited or no medical support for pets and livestock at shelters; some vets are on site at the following locations: {Locations of medical sites with veterinary care}

4. California National Guard stands up JTF and prepares to deploy civil support teams.

5. DoD stands up JTF and prepares to deploy DCO and liaison teams.

(3) Phase 2b: Deployment & Employment

The purpose of phase 2b is to rapidly, efficiently and effectively deploy assets to the affected area to support emergency response public message validation and distribution.

END STATE: Phase 2b is considered complete when the JIC is established and manned with federal support for public messaging and coordinated messages are distributed and received both inside and outside the impacted area.

(a) Tasks to be performed

1. CalEMA establishes a JIC in the SOC, and PIO continues to coordinate with local EOCs to provide messaging support.

2. FEMA deploys EAO and JIC support staff to SOC/JFO and coordinates with CalEMA for external messages for national audience radio, TV, Print media.

3. CalEMA/ FEMA establish a JIC in the JFO and coordinate all messaging support from there.

4. California National Guard deploys Civil Support Teams and JTF units to designated Staging Areas (SAs) and prepares to provide public messaging support.

5. DoD deploys FCO and liaison teams to SOC/JFO and units to designated SAs and prepares to provide public messaging support.

6. Local authorities, in conjunction with CalEMA and FEMA, continue to deliver updated messages to affected population using all available means (emergency radio stations, Caltrans changeable message signs, public outreach etc.) Examples of additional pre-scripted messages for this phase are included below.

- **Status Message -**

  Describe the Incident Site & location.

  State and local responders mobilized, federal assets notified awaiting requests for assistance.

  Assessment is underway, updates to follow

  Sustain yourself, your family and your neighbors.
  - Use personal survival kits and personal emergency plans

- **Operations Message**

  Emergency services and rescue operations are underway. {Provide contact information and procedures to secure these services.}

  Operations to provide for basic life support (water, food, shelter, energy and waste removal) are underway. {Provide locations, contact numbers and procedures to getting assistance.}

  Operations to repair local infrastructure, roads, utilities etc. Local, state and federal repair and assistance services available and how they are being employed. {Provide estimates on when basic services will return.}

  Emergency services and rescue operations that are underway. {Focus on success and human interest stories, but provide realistic and accurate estimates of tragedy.}

  Operations to provide for basic life support (water, food, shelter, energy and waste removal) that are underway. {Focus on human interest and success stories.}

  - Volunteers should visit www.californiavolunteers.gov for volunteer agencies that might be in need of additional volunteers.

  - Send monetary donations to {Provide POCs and contact information}

  Operations to repair local infrastructure, roads, utilities etc. {Provide accurate estimates of timelines to complete repairs and

cost estimates. Provide information on how these operations might affect other regions of the country.}

Federal, state and local responders mobilized and moving to disaster sites to provide assistance

Rescue efforts have begun with Federal (USCG) State and local assets. Report success stories and addition of new capabilities as they report in.

Emergency services and rescue operations are underway. Provide contact information and procedures to secure these services.

Operations and plans to assist property owners (businesses and individual home owners). Where property owners can get assistance and support for claims and repair services.

- **Ongoing Operations Message**

  Cover what emergency services and rescue operations are ongoing. Focus on success and human interest stories

  Cover how operations to provide for basic life support (water, food, shelter, alternate energy sources and waste removal) are ongoing. Focus on success and human interest stories. Provide information on how outside organizations and people can help.

  Cover how operations to repair local infrastructure, roads, utilities etc. are ongoing. Provide information on plan to restore full service, estimates on when basic services will return and estimated costs.

  Provide anticipated affects of disaster on rest of nation and need for country to pool resources to help out the disaster area.

  Cover how operations to assist individual property owners are ongoing. Report type of assistance and amount of aid available to property owners and businesses from private, and government programs.

- **Message to Volunteers**

Do not approach affected areas unless requested.

Please send monetary donations to {provide resource for donations}.

For a list of registered volunteer organizations, visit www.californiavolunteers.org

4) Phase 2c: Sustained Response

The purpose of phase 2c is to maximize the use of available assets to support public messaging regarding response operations to the impacted area.

END STATE: Phase 2c ends when basic life support needs of the population are met (Majority of the population has access to shelter, food, water, power, fuel and medical support), and operations shift to long term recovery and restoration of services to pre-incident levels.

(a) Tasks to be performed

1. JIC (once fully established in the JFO) continues to provide expanded internal and external messaging support to the State and local authorities using all means available. Expended support includes but is not limited to the following:
    - Establish satellite JICs,
    - Provide Community Relations Specialist and JIC Field Officer support at shelters, counseling centers, Points of Distribution (PODs) and Local Assistance Centers (LACs).
    - Support Congressional Delegation and other VIP visits.
    - Deploy broadcast operations teams to the impacted area shelters to record circumstances and conditions (shelters, logistics centers/commodities movements/staging areas).
    - Improve product development capabilities including:
        - Pamphlets
        - Press releases
        - Talking points
        - Quick facts
        - Congressional Advisories
    - Other JIC services per ESF 15 Aug 2009 SOP.

2. California National Guard provides loudspeaker and community outreach support to deliver messages to isolated and hard to reach pockets of the population when and where required.

3. DoD provides loudspeaker, radio and television broadcast and pamphlet distribution (ground and air) capability to deliver messages to isolated and hard to reach pockets of the population when and where required.

4.0 OVERSIGHT, COORDINATING INSTRUCTIONS, AND COMMUNICATIONS

(a) Oversight: The JIC is initially established in the SOC and move to the JFO once the JFO is established.

(b) Coordinating Instructions:

1. See Annex D for tables outlining coordination and logistical requirements to distribute public messaging.

Annex K: Coordination, Communications & Computer System

1.0 SITUATION

Analysis conducted by communications experts and verified by the EF/ESF 2 Interagency Working Group has determined that a 7.8 magnitude earthquake used as a planning assumption for this plan will stretch and break existing communications systems.

a. Purpose

The purpose of this Annex is to establish and maintain functional and interoperable communications for responders for a no notice catastrophic earthquake in the Southern California region. Specifically the Annex addresses the following:

- Defines priorities to establish emergency communications for responders in a phased approach through coordination with the private sector.
- Identifies state and federal assets available to augment local responders.
- Describes how state and federal resources will be used to augment and restore emergency response communications systems and transition to support to the private sector to conduct priority infrastructure repairs.

2.0 MISSION

The mission of the joint State/Federal EF/ESF 2 response is to ensure reliable, redundant and uninterrupted communications for emergency responders during the initial phases of a no-notice disaster and to transition support to the private sector infrastructure and communications services as soon as possible.

3.0 EXECUTION

The State executes a No-Notice Emergency Communications Plan, consolidates requests, prioritizes shortfalls/requirements and directs state assets to fill them using the mutual aid system. Shortfalls that cannot be filled by the state are passed to FEMA, who mission assigns federal agencies or other organizations to fill them. Additionally, ESF 2 provides federal support and guidance on repair to commercial providers concerning the repair of critical communication infrastructure.

a. Concept of Operations

CalEMA executes a No-Notice Emergency Communications Plan, initially consolidates communication assessment reports and requests for communication support. The State utilizes the Operational Area Satellite Information System (OASIS) to back up critical communication networks at the Regional Emergency Operations Centers (REOCs) and Operational Areas (OAs) Emergency Operations Centers (EOCs) prioritizes other communication requests for support in the State Operations Center (SOC) and directs state mobile assets to fill them using the mutual aid system based on incoming assessments and the following priorities:

- REOC and OA EOCs
- Emergency response teams including State and Federal Division Supervisors and associated staff.

- Local EOCs
    - Fire & Rescue Stations
    - Police Stations
    - Level I Trauma Centers/Hospitals
    - Shelters and Mass Care Sites

Shortfalls that cannot be filled using the mutual aid system are forwarded to the Joint State/Federal Operations Section to be filled by federal assets.

Federal assets to include Mobile Emergency Response Systems (MERS) and the Department of Defense (DoD) assets immediately deploy to designated Staging Areas (SAs) to support federal emergency response operations and fill state communication shortfall requests received in the Operations Section in accordance with the following priorities:

- Establishment of the Initial Operating Facility (IOF) and Joint Field Office (JFO).
- National Disaster Medical System (NDMS)/ National Urban Search and Rescue (US&R) support.
- Support to the State and Federal Branch Directors and Division Supervisors and support staff at the OA EOCs.
- Support to Federal Staging Areas
- Other emergency response teams
- Support for commercial communication providers.

Phase 1 - Normal Operations

The purpose of Phase 1 is to coordinate with private sector, local, state, and federal agencies to identify their critical communications networks, current capabilities, expected communication shortfalls and requirements, and concepts of operation for establishing emergency communications for responders after a catastrophic earthquake disaster.

END STATE: In a no-notice incident, the end state of Phase 1 occurs when the earthquake begins.

Phase 2 – Response

Phase 2a- Activation (Immediate Response)

The purpose of Phase 2a is to activate EF/ESF 2 to rapidly establish communications for local, state, and federal emergency responders. ESF 2 leads efforts to conduct initial assessments, and deploy and employ communication assets to support emergency responders.

The end state of Phase 2a occurs when EF/ESF 2 alerts and prepares to deploy state and federal communications assets to staging areas, the IOF and Divisions. Initial assessments of emergency response communications are taking place and support requirements continue to be identified.

Phase 2b - Deployment and Employment

The purpose of Phase 2b is to rapidly and effectively deploy EF/ESF 2, 3, 5 assets so they can be employed to provide emergency communications for responders and facilitate the repair critical commercial communications facilities.

END STATE: Communications equipment and personnel arrive at staging areas and begin operations to establish emergency communications systems and repair essential communications infrastructure.

Phase 2c: Sustained Response

The purpose of Phase 2c is to maximize the use of all available communications assets, including the private sector assets, to re-establish and maintain normal emergency communications for responders and while repairing critical commercial communication facilities.

END STATE: Emergency communications are re-established and maintained and the private sector commercial communication backbone that supports commercial communication systems and normal emergency response communications is restored.

4.0 OVERSIGHT, COORDINATING INSTRUCTIONS AND COMMUNICATIONS

a. Oversight

1. The State OCIO in coordination with CalEMA utilizes the state mutual aid system to initially coordinate the deployment and employment of state communication assets from the SOC. Requests for federal support are consolidated by CalEMA and passed to FEMA who mission assigns federal agencies and other organizations to fill requests.

2. FEMA Region IX coordinates with FEMA Headquarters (HQ) and the NRCC to request MERS and other federal communications assets.

3. After the JFO is established, emergency communications issues are managed jointly by the DEC Branch.

4. Spectrum management is established initially by a Joint Spectrum Management Unit in the SOC. Eventually, the FCC in conjunction with FEMA appoints a permanent Joint Spectrum Manager who moves to the Wireless Communications TF in the DEC Branch.

5. See the organization chart below for DEC Branch Organization (Figure 1).

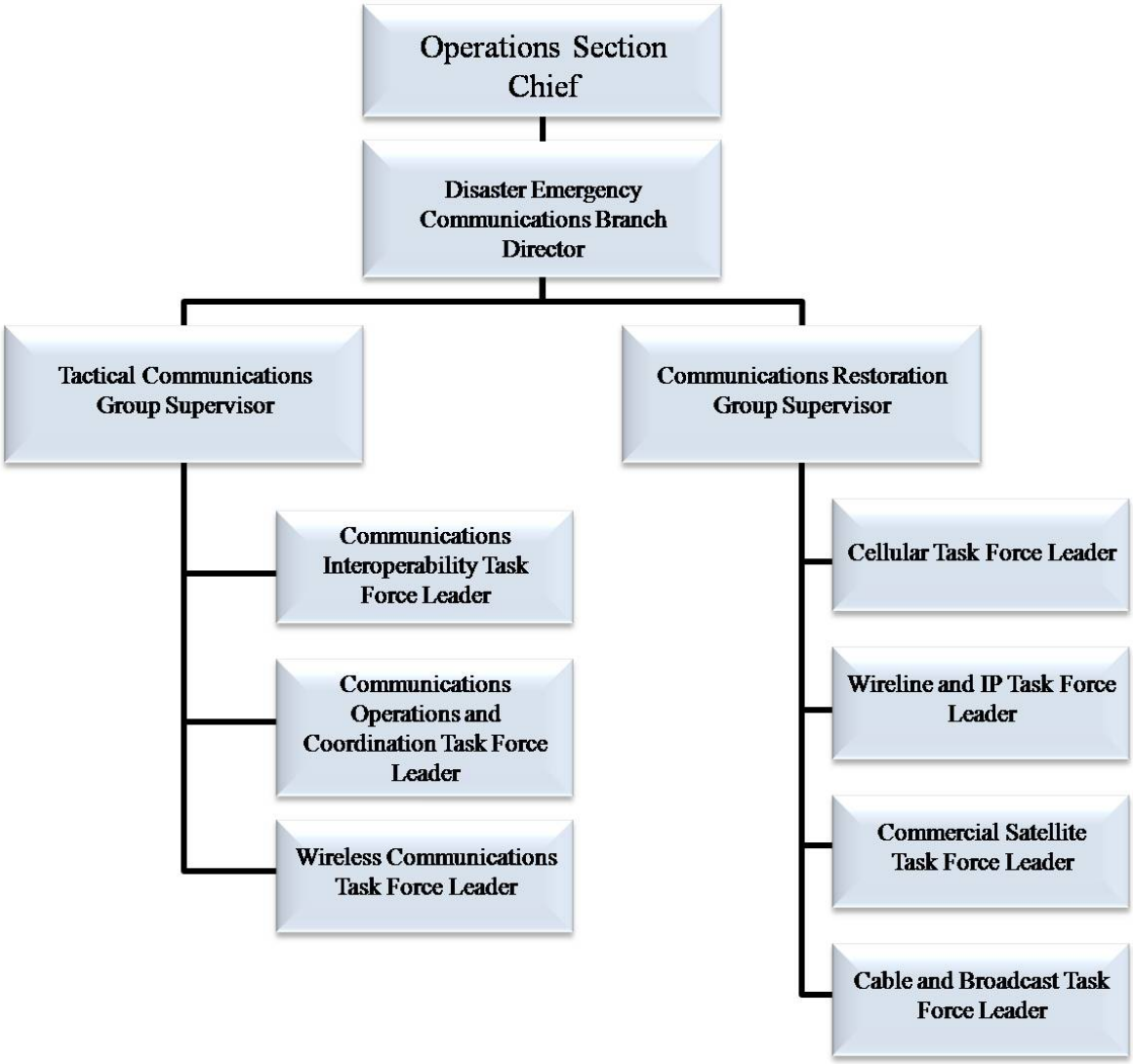


Figure 1: Disaster Emergency Communications Branch

Annex Y: Acronyms

A&P	Airframe and Powerplant
AAF	Army Airfield
ABD	Aviation Branch Director
ABO	Airborne Orders
ACA	Airspace Control Authority Association of California Airports
ACC	Airspace Control Cell
ACCE	Air Component Coordination Element
ACI	Advanced Contract Initiative
ACM	Airspace Coordinating Measure
ACO	Airspace Control Order
ACP	Airspace Coordination Plan Air Control Points
ADC	Air Defense Commander
ADD	Automated Deployment Database
ADLO	Air Defense Liaison Officer
AE	Aero-medical Evacuation
AFB	Air Force Base
AF EMEDS	Air Force Expeditionary Medical Support
AFNORTH	Air Forces Northern
AFO	Area Field Office
AFRCC	Air Force Rescue Coordination Center
AFSS	Automated Flight Service Station
AMC	Air Mobility Command

AMCM	Air Mission Coordination Manager
AMGS	Air Mission Group Supervisor
AMLO	Air Mobility Liaison Officer
AMOC	Air and Marine Operations Center
AMR	Air Mission Request
ANG	Air National Guard
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
AOB	Air Operations Branch
AOC	Army Operations Center Air Operations Center
AOCC	Air Operations Coordination Center
APHT	Applied Public Health Team
APOD	Airfield Points of Debarkation
APOE	Airfield Points of Embarkation
ARA	Aircraft Rental Agreement
ARB	Air Reserve Base
ARC	American Red Cross
ARF	Action Request Form
ARNG	Army National Guard
ARTCC	Air Route Traffic Control Center
ASCE	American Society of Civil Engineers
ASGS	Air Support Group Supervisor
ASM	Airspace Management Aerial Supervision Modules

ASPR	Office of the Assistant Secretary for Preparedness and Response Assistant Secretary for Preparedness and Response
ATA	Air Transport Association
ATC	Air Traffic Control
ATCSCC	Air Traffic Control System Command Center
ATLS	Advanced Trauma Life Support
ATM	Air Traffic Management
ATNAVICS	Air Traffic Navigation, Integration and Coordination System
ATO	Air Traffic Organization
ATS	Automatic Test System
AWAC	Airborne Warning and Control System
BLM	Bureau of Land Management
BORTAC	Border Patrol Tactical Unit
BTHA	Business, Transportation and Housing Agency
C2	Command and Control
CA	California Environmental Protection Agency
CalEMA	California Emergency Management Agency
Cal MAT	California Management Assistance Team
Cal/EPA	California Environmental Protection Agency
CALBO	California Building Officials
CALFIRE	California Department of Forestry and Fire Protection
CAL-MAT	California Medical Assistance Team
Caltrans	California Department of Transportation
CAOC	Combined Air Operations Center
CAP	Civil Air Patrol

CARES	Center for Aids Research, Education and Services
CBP	United States Customs and Border Protection
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive
CDAA	California Disaster Assistance Act
CDFA	California Department of Food and Agriculture
CDPH	California Department of Public Health
CDSS	California Department of Social Services
CERFP	CBRNE Enhanced Response Force Package
CFACC	Combined Force Air Component Commander
CFR	Code of Federal Regulations
CG	Coast Guard
CG IMAT	Coast Guard Incident Management Assistance Team
CHHSA	California Health and Human Services Agency
CHP	California Highway Patrol
CIAB	cell in a box
CIS	Catastrophic Incident Supplement
CISAR	Catastrophic Incident Search and Rescue
CISM	Critical Incident Stress Management
CIWMB	California Integrated Waste Management Board
CLEMARS	California Law Enforcement Mutual Aid Radio System
CMC	Crisis Management Center
CMS	Consumable Medical Supplies
CNG	California National Guard
COA	Course of Action
COLT	Cell on Light Trailers

CONR	Continental NORAD Region
COOP	Continuity of Operations
CORD	Crisis Operations Response Desk
COW	Cell-on-Wheels
CPT	Collaborative Planning Team
CSA	Chief of Staff, Army
CST	Civil Support Team
CSTL	Civil Support Task List
CTF	Combined Task Force
CUEA	California Utilities Emergency Association
CWN	Call When Needed
D/A	Departments and Agencies
DAE	Disaster Assistance Employee
DC	Distribution Center
DCE	Defense Coordinating Element
DCO	Defense Coordinating Officer
DDOC	Deployment Distribution Operations Center
DDOC-F	Deployment Distribution Operations Center Forward
DEC	Disaster Emergency Communications
DEN	Domestic Events Network
DFSC	Disaster Field Supply Center
DGS	Department of General Services
DHCS	California Department of Health Care Services
DHS	Department of Homeland Security
DLA	Defense Logistics Agency

DMAT	Disaster Medical Assistance Team
DME	Durable Medical Equipment
DMORT	Disaster Mortuary Operational Response Team
DoD	Department of Defense
DOE	Department of Energy
DOJ	United States Department of Justice
DOS	United States Department of State
DOT	United States Department of Transportation
DPMU	Disaster/Deployable Portable Morgue Unit
DRC	Disaster Recovery Center
DRG	Domestic Readiness Group
D-SNAP	Disaster Supplemental Nutrition Assistance Program
DTOS	Deployable Tactical Operations System
DWR	Department of Water Resources
EA	External Affairs
EADS	Eastern Air Defense Sector
EAS	Emergency Alert System
ECCWG	Emergency Communications Coordination Working Group
ECSC	Evacuation Coordination Support Cell
ECT-F	Emergency Communications Team – Forward
ED	Emergency Department
EDIS	Emergency Digital Information System
EEHE	Early Entry Hospital Element
EEI	Essential Elements of Information
EMAC	Emergency Management Assistance Compact

EMR	Electronic Medical Record
EMS	Emergency Medical Services Emergency Management System
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
EPAP	Emergency Prescription Assistance Program
EPAW	Emergency Preparedness Advisory Workgroup Emergency Partnership Advisory Workgroup
ER	Emergency Response
ERT	Emergency Response Team
ERT-A	Emergency Response Team, Advance (d)
ESF	Emergency Support Function
FAA	Federal Aviation Administration
FAMS	Federal Air Marshals Service
FAR	Federal Aviation Regulations Federal Acquisition Regulations
FAS	Federal Acquisition Services
FAST	Functional Assessment Service Team
FCC	Federal Communications Commission Federal Coordinating Center
FCO	Federal Coordinating Officer
FECC	Federal Emergency Communications Coordinator
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIREMARS	Fire Mutual Aid Radio System

FLOM	Flight Operations Manager
FMS	Federal Medical Station Federal Medical Shelter Financial Management System
FOOT	Field Onsite Observation Team
FOSC	Federal On-Scene Coordinator/Commander
FRD	Formerly Restricted Data
FSDO	Flight Standards District Office
FSS	Flight Service Station
FWBM	Fixed Wing Base Manager
GSA	General Services Administration
HAZMAT	Hazardous Material
HD	Homeland Defense
HHS	Health and Human Services
HHS CMS	Health and Human Services Centers for Medicare and Medicaid Services
HQ	Headquarters
HSA	Homeland Security Advisor
HSPD	Homeland Security Presidential Directive
HUD	United States Department of Housing and Urban Development
IA	Individual Assistance Infrastructure Assessment
IAA	Interagency Agreement Incident Awareness and Assessment
IAP	Incident Action Plan
IASC	Interagency Airspace Steering Committee
IA-TAC	Individual Assistance Technical Assistance Contracts
IC4U	Incident Commander’s Command, Control and Communications Unit

ICAC2	Integrated Combat Airspace Command and Control
ICP	Incident Command Post
ICS	Incident Command System
IFR	Instrument Flight Rules
IHP	Individuals and Households Program
IMAT	Incident Management Assistance Team
IMSuRT	International Medical Surgical Response Team
IMT	Incident Management Team
IOF	Initial Operating Facility
IRCT	Incident Response Coordination Team
ISAC	Information Sharing and Analysis Center
ISB	Incident Support Base
IST	Incident Support Team
IST-A	Incident Support Team Advance
IWG	Integrated Working Group
JDHTF	Joint Disaster Housing Task Force
JEOC	Joint Emergency Operations Center
JFC	Joint Force Commander
JFO	Joint Field Office
JIC	Joint Information Center
JLOTS	Joint Logistics Over – The – Shore
JOA	Joint Operations Area
JPRC	Joint Personnel Recovery Center
JTF	Joint Task Force
LA	Los Angeles

LAC	Local Assistance Center
LADWP	Los Angeles Department of Water and Power
LAX	Los Angeles International Airport
LB	Long Beach
LEICS	Law Enforcement Incident Command Structure
LEMSA	Local Emergency Medical Services Agency
LFA	Lead Federal Agency
LGB	Long Beach Airport
LMD	Logistics Management Directorate
LMR	Land Mobile Radio
LMRS	Logistics Management and Resource Support
LNO	Liaison Officer
LOC	Logistics Operations Center
LZ	Landing Zone
MA	Mission Assignment
MARAD	Maritime Administration
MASF	Mobile Aero-medical Staging Facilities
MC/EA	Mass Care and Emergency Assistance
MCAS	Marine Corps Air Station
MCC	Movement Coordination Center
MDRC	Mobile Disaster Recovery Center
Medevac	Medical Evacuation
MERS	Mobile Emergency Response Support Mobile Emergency Response Systems
MHE	Material Handling Equipment

MHOAC	Medical Health Operational Area Coordinator
MIGU	Mobile Interoperability Gateway Unit
MLLW	Mean Lower Low Water
MOU	Memorandums of Understanding
MPF	Military Personnel Flight
MRAG	Military Resource Advisory Group
MRU	Materials Response Unit
MSL	Mean Sea Level
MTSRU	Marine Transportation System Recovery Unit
NAF	Naval Air Facility
NALEMARS	National Law Enforcement Mutual Aid Radio System
NAS	National Airspace System
NAVAIDS	Navigational Aid System
NCC	National Coordinating Center for Telecommunications
NCS	National Communications System
NDDOC	USNORTHCOM Deployment Distribution Operations Center
NDHTF	National Disaster Housing Task Force
NDMS	National Disaster Medical System
NEADS	Northeast Air Defense Sector
NECLC	National Emergency Child Locator Center
NEFRLS	National Emergency Family Registry and Locator System
NGB	National Guard Bureau
NGO	Non-governmental Organization
NHTSA	National Highway Transportation Safety Administration
NICC	National Interagency Coordination Center

NICU	Neonatal Intensive-care Unit
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NLC	National Logistics Coordinator
NLS	National Logistics System
NM	Nautical Mile
NMETS	National Mass Evacuation Tracking System
NORAD	North American Aerospace Defense Command
NOTAM	Notice to Airmen
NPS	United States National Park Service
NRCC	National Response Coordination Center
NRF	National Response Framework
NSS	National Shelter System
NTIA	National Telecommunications and Information Administration
NVRT	National Veterinary Response Team
OA	Operational Area
OAEOC	Operational Area Emergency Operations Center
OASIS	Operational Area Satellite Information System
OCIO	Office of the Chief Information Officer
OFA	Other Federal Agency
OMD	Operations Management Division
ONT	Ontario Airport
OPCON	Operational Control
OPLAN	Operations Plan Southern California Catastrophic Earthquake Response Plan

OSHPD	Office of Statewide Health Planning and Development
PAT	Process Action Team
PIC	Pilot in Command
PICU	Pediatric Intensive-care Unit
PIO	Public Information Officer
PITF	Power Interagency Task Force
PMD	Palmdale Regional Airport
PMR	Patient Movement Request
POC	Point of Contact
POCC	Pacific Operations Control Center
POD	Points of Distribution
POLA	Port of Los Angeles
POLB	Port of Long Beach
PPE	Personal Protective Equipment
PRA	Priority Response Area Patient Reporting Activity
PRT	Planning and Response Team
PRT-TA	Planning and Response Team Technical Assistance
PSA	Public Service Announcement Protective Security Advisor
PSAP	Public Safety Answering Point
PSCD	Public Safety Communications Division
PSMA	Pre-Scripted Mission Assignment
RACES	Radio Amateur Civil Emergency Services
RAMCC	Regional Air Movement Coordination Center
RDMHC/S	Regional Disaster Medical Health Coordinator/Specialist

RECCWG	Regional Emergency Communications Coordination Working Group
REOC	Regional Emergency Operations Center
RFA	Request for Federal Assistance
R-IMAT	Regional Incident Management Assistance Team
RIMS	Response Information Management System Regional Incident Management System
RIX-IMAT	Region Nine Incident Management Assistance Team
RORO	Roll On/Roll-Off
ROWPU	Reverse Osmosis Water Purification Unit
RRCC	Regional Response Coordination Center
RRF	Regional Response Force
RSC	Responder Support Camp
RST	Regional Support Team
SA	Staging Area
SAMHSA	Substance Abuse and Mental Health Services Administration
SAN	Storage Area Network
SAP	Safety Assessment Program
SAR	Search and Rescue
SBA	Small Business Administration
SBD	San Bernardino International Airport
SC	Southern California
SEADS	Southeast Air Defense Sector
SEAOC	Structural Engineers Association of California
SEAT	Single Engine Air Tanker
SEMS	Standardized Emergency Management System

SLAP	State and Local Aviation Planning
SME	Subject Matter Expert
SNA	John Wayne Airport
SOC	State Operations Center
SoCal	Southern California
SOP	Standard Operating Procedure
SPINS	Special Instructions
SPOC	Staffing Point of Contact
SRR	Search and Rescue Region
TA	Technical Assistance
TAIS	Tactical Airspace Integration System
TC-DDOC	USTRANSCOM DDOC
TDO	Telecommunications Duty Officer
TDRS	Temporary Disposal and Reduction Site
TDSRS	Temporary Debris Storage and Reduction Site
TF	Task Force
TFR	Temporary Flight Restriction
TPM	Transportation Program Manager
TSA	Transportation Security Administration
TSOC	Transportation Security Operations Center
UAV	Unmanned Aerial Vehicle
UC	Unified Command
UCG	Unified Coordination Group
UHF	Ultra High Frequency
US&R	Urban Search and Rescue

USACE	United States Army Corps of Engineers
USAF	United States Air Force
USC	United States Code
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USDA-FNS	United States Department of Agriculture Food and Nutrition Service
USDOI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USGS	United States Geological Survey
USMS	United States Marshals Service
USMTF	United States Message Text Format
USNORTHCOM	United States Northern Command
USPHS	United States Public Health Service
VCV	Southern California Logistics Airport, Victorville
VFR	Visual Flight Rules
VHF	Very High Frequency
VIP	Very Important Person
VMAT	Veterinary Medical Assistance Team
VMC	Visual Meteorological Conditions
VNY	Van Nuys Airport
VOAD	Voluntary Organizations Active in Disaster
VOLAG	Voluntary Agency
WADS	Western Air Defense Sector
WAN	Wide Area Network

WSCA	Western States Contracting Alliance