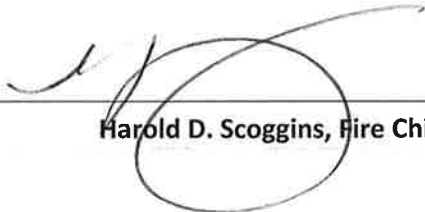


EMERGENCY SUPPORT FUNCTION #9 – SEARCH AND RESCUE

RESPONSE PLANNING FUNCTION



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2-6-2017
Date



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2/7/17
Date

Note: This ESF is part of the Response Planning Function from the Comprehensive Emergency Management Plan and this version includes the 2016 updates. Seattle Fire Department acts as the ESF Coordinator and collaborated with many partners for respective updates.

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1. STAKEHOLDERS

Table 1

PRIMARY DEPARTMENT	ESF COORDINATOR
Seattle Fire Department	Seattle Fire Department

Table 2

SUPPORT DEPARTMENT AND AGENCIES	
Seattle Police Department	Seattle-King County Public Health Department
Seattle Public Utilities	King County Office of Emergency Management
Pierce County Department of Emergency Management	Washington State Emergency Management Division
Federal Emergency Management Agency	

2. INTRODUCTION

2.1 Purpose

Emergency Support Function #9 (ESF #9) describes the policies and procedures administered by the Seattle Fire Department during disasters. It also defines the roles and responsibilities of the Seattle Fire Department Management Team during an EOC activation.

2.2 Scope

This annex applies to Fire Department personnel, uniformed and non-uniformed, on and off duty. The focus is on the policies and procedures, resources, and objectives to address issues before, during and after major citywide emergencies or disasters.

3. SITUATION

3.1 Emergency Conditions and Hazards

- Throughout the normal course of daily commerce and recreation in the City of Seattle, incidents occur where citizens are trapped, buried, stranded or otherwise unable to extricate themselves. These events are usually caused by a trauma event requiring the intervention of technically trained professionals. Examples of these types of technical rescues are:
 - Construction site cave-in events
 - Window washer trapped multiple stories above the ground
 - Catastrophic building collapse
 - Transportation/vehicle collision with trapped patients
 - Falls over steep cliffs.
- A Fire Department Technical Rescue Team will be dispatched to these high-risk incidents in order to apply special knowledge, skills and equipment to safely resolve unique and complex rescue situations.

3.2 Planning Assumptions

- The Fire Department plans and trains regularly for these types of rescues. Most of the training is locally, state and/or federally mandates.
- In addition to the specialty teams, all firefighters are trained at a level to begin the initial phases of the rescue.
- The Fire Department will be the lead in the mitigation of large-scale emergencies to include the rescue of trapped people.

4. CONCEPT OF OPERATIONS

4.1 Organization

- The Fire Department plays a vital role in City government and will be one of the most active entities during a wide area disaster. As a Department Head, the Fire Chief reports directly to the Mayor. Similarly, Assistant Chiefs report to the Fire Chief and assume various responsibilities.
- During a disaster, the Assistant Chief of Operations will have a major role in the mitigation of any significant event. Designated Fire Department members, including the Fire Chief or his designee, will respond to the EOC.
- The Operations Division of the Fire Department will be integral in the mitigation of any significant event. The foundation of any response will be Firefighters assigned to: Engines; Ladders; Medical Aid Units; Command Units; Other Specialty Units.
- In paramilitary configuration, approximately 200 Firefighters are on-duty per shift and are assigned to 33 fire stations strategically located throughout the City. There are 4 platoons. Off-duty personnel are recalled per calling plans in the event of a major emergency.

4.2 General Response

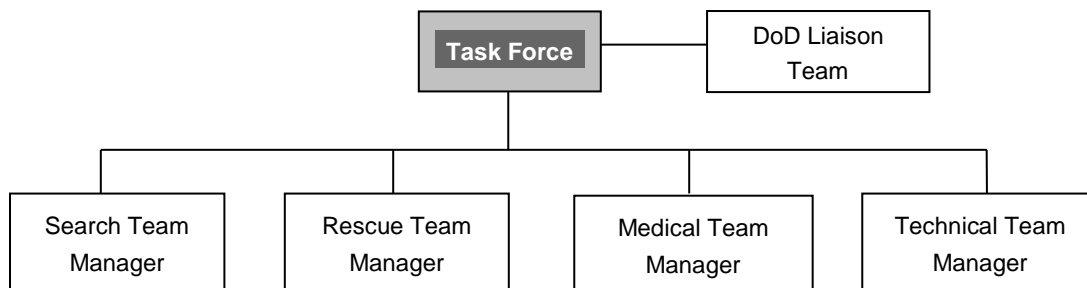
Table 3

Types of Rescue Responses					
Hazardous Materials	Water Rescue	Heavy Rescue/Collapse	High Angle Rope rescue	Confined Space	Marine
Example: Workers exposed to hazardous materials	Example: Overturned boat. Victims in the water. Dive rescue.	Example: Building Collapse.	Example: Window washer unable to get down.	Example: Construction worker trapped in sewer vault.	Example: Ship/Vessel on fire..

- Local Response
 - Engines and ladder trucks arriving first at the location will perform a size up, triage the incident and initiate appropriate incident stabilization and life safety actions.
 - Victims will be triaged into two categories: Viable patients – ones who have a chance of survival; Body recovery – ones who have already expired.
 - Priority and speed of rescue is determined by the levels of acceptable risk taken from the “risk/benefit analysis” conducted by the on-scene Incident Command and/or Safety Officer.
 - Additional units will be dispatched with the Technical Rescue Team to provide support at the scene, to include: Engines; Ladder Trucks; Fireboats; Aid Cars; Medic Units; Battalion Chiefs; Deputy Chief of Operations; Staffing Officer; Air Unit; Public Information Officer; Fire Buffs.

- Tactical Procedures
 - The first responding units and/or the Technical Rescue Team will: Identify the hazards; Size-up – Incident Command System (ICS) tasks; Conduct a resource assessment; Isolate the hazards; Evacuate non-involved patients; Conduct a risk/benefit analysis; Perform “lockout / tagout” (preventing the accidental powering up of involved machinery or equipment).
- Regional Response – Urban Search and Rescue (US&R) Team
 - The US&R Team is composed of firefighters, paramedics, physicians and other support staff from around the Seattle and Puget Sound region.
 - Numerous trained US&R Task Forces are available for service throughout the United States under the control and direction of the Federal Emergency Management Agency (FEMA).
 - The Washington State US&R Task Force may be called out first for any catastrophic event in the City of Seattle or neighboring region. They have the ability to mobilize quickly for local response.
 - At the request of the Incident Commander, the City of Seattle EOC is authorized to contact the Washington State Emergency Management Division to request the local US&R Team.

US&R Basic Organizational Chart



- Operations / Tactics
 - Phase One: Assessment of the collapse. The area is scanned for possible victims (surface and/or buried). Evaluate the structure’s stability. Shut off utilities.
 - Phase Two: Removal of all surface victims. Rescuers must be cautious as not to become victims themselves. Watch for secondary collapse.
 - Phase Three: Voids and accessible spaces searched and explored for viable victims. Only specially trained canines and trained personnel should be employed in this process.
 - Phase Four: Selected debris removal, using special tools and techniques, may be necessary after locating a victim. Gather information on the location from other possible victims.
 - Phase Five: General debris removal is conducted after all known victims have been removed.

- Rescue Site Set-up
 - When establishing the perimeter of the operational work area, the needs of the following support activities will be provided and properly identified: Operations Post; Medical Treatment Area; Personnel Staging Area; Rescue Equipment Staging Area; Cribbing/Shoring Working Area; Access/Entry Routes; Decontamination Corridor(s).
- Search Tactical Operations
 - The US&R Team will employ the following strategy and tactics in an effort to rescue trapped victims: Physical void search (visual and vocal); Audible call out / knocking method; Use of fiber optics; Use of infrared and thermal imaging; Use of electronic listening devices; Use of search canines (dogs).

4.3 Direction and Control

- Direction and control are maintained through the paramilitary chain of command. The FAC has the authority to dispatch the necessary response type base on the incident and available resources. The Fire Department utilizes the Incident Command System to manage and mitigate incidence with the following priorities: Life safety; Incident stabilization; Property conservation; Environmental protection.

4.4 Procedures

- The Seattle Fire Department Disaster Management Plan contains the detailed procedures and operational guidelines for disasters and those rare incidents of high consequence such as earthquake, pandemic, and terrorism. Those plans are maintained in the Seattle Fire Department Orange Book and the Operating Guidelines Section 5007. The purpose of the Orange Book is to provide members with ready access to critical information in a format that is easily accessed and reviewed.
- In order to plan, respond and mitigate the many potential emergencies, the Fire Department operates in five levels, each reflecting the severity of the incident or event. IMPLEMENTATION LEVELS
 - LEVEL V-This is the day to day operations level where incidents can be handled with minimal resources and the number of concurrent incidents is manageable. Command and general staff positions are typically handled by the Incident Commander, written Incident Action Plans (IAPs) are not implemented, and incidents are contained within the first few hours. The Resource Management Center would typically not be activated at this level. Note that the RMC may be activated at Level V during planned events such as Seafair. Event Action Plans (EAPs) will be generated and multiple operational periods are possible.
 - LEVEL IV-The Fire Alarm Center shall implement this level when minor impacts to citywide coverage occur due to planned events such as New Year's Eve or Fourth of July, during two or three-alarm situations, or when multiple separate incidents deplete available resources. Multiple-alarm incidents may require activating some Command or General Staff functions, but a written IAP would not generally be required and the control phase of the incident would usually be resolved in a single operational period.

- At this level, the RMC may be activated and staffed as indicated in the RMC Activation Procedures and Orange Book, Annex A (Personnel Reporting Procedures). Dispatch Level 4 reduces Automatic Fire Alarms (AFAs) to a single unit, and Aid Units are left off certain fire responses to enhance EMS coverage. Limited call-back of off-duty personnel may occur in accordance with the Calling Plans.
- Most Command and General Staff positions will be activated and mutual aid will be requested, if available. Incidents may extend into multiple operational periods requiring written IAPs. The RMC will be activated and will fill the role of Area Command for the Fire Department when needed. The City EOC may be activated. If so, it will be staffed in accordance with Orange Book, Annex A (Personnel Reporting Procedures). Call-back of off-duty personnel will occur in accordance with the Calling Plans.
- LEVEL III-This level is implemented when citywide coverage and response capacity is severely limited, such as during four or five-alarm fires, simultaneous multiple-alarm incidents, earthquakes, or other situations with citywide impacts, such as wind/snow storms and power outages. Most fire responses will be reduced in size and Code Yellow responses will be at the discretion of the FAC. Requests for additional alarms may provide less than normal resource levels.
- LEVEL II-This level is implemented when Department resources are catastrophically diminished but the FAC is still functional, such as during an earthquake or pandemic response. Most or all responses will be single units at the discretion of the FAC. Mutual aid resources will be requested if available, up to and including State and Federal assets. In a regional situation, such as an earthquake, mutual aid resources are unlikely and Seattle Fire Department personnel and resources may be on their own for 24-72 hours.
- Most or all Command and General Staff positions will be filled on incidents that are not citywide in nature, i.e. a plane crash into a building or multiple IED attacks, versus an earthquake or pandemic emergency. Multiple operational periods are likely with written IAPs necessary. The RMC will be activated and will fill the role of Area Command for the Fire Department when needed. It will be staffed as indicated in the RMC Activation Procedures. The City EOC will be activated and will be staffed in accordance with Orange Book, Annex A (Personnel Reporting Procedures). Call-back of off-duty personnel will occur in accordance with the Calling Plans.
- LEVEL I-This level is implemented when the conditions of Level II are experienced and the FAC is out-of-service due to damage or loss of communications. This will result in decentralized Battalion Dispatching with the RMC coordinating citywide priorities and coverage.
- At Levels III, II, and I, certain response assets may be unavailable, such as battalion chiefs, medic units, and specialty units. Personnel must maintain situational awareness and continuously reassess priorities. Highest priority should be given to immediate life-safety actions and defensive operations to contain growing incidents.

5. RESPONSIBILITIES

Overview

Per Seattle Municipal Ordinance, the Fire Department is established and tasked with providing fire protection within the City limits and jurisdictions of Seattle.

In order to provide service in an efficient and professional manner, the Fire Department is organized in a paramilitary rank structure. The general chain-of-command, in descending order, is:

- Fire Chief
 - Assistant Chief
 - Deputy Chief
 - Battalion Chief
 - Captain
 - Lieutenant
 - Firefighter (Paramedic, Inspector, Dispatcher, Investigator)
- a. Company Level-At the company level of operation, the Company Officer (Lieutenant or Captain) will be responsible for leadership, training, discipline, maintenance and on-scene tactics during a 24-hour work shift.
- b. Battalion Level-At the Battalion level, the Battalion Chief will be responsible for the fire companies and fire stations under his/her command. There are an average of six fire stations and seven fire companies in each battalion command.
- During a citywide disaster and/or failure of the wide area radio system Battalions have the capability of “standing alone” as their own smaller fire department. Battalion Chiefs will analyze information, triage the emergency potential, dispatch and monitor their company activity. This scenario would be implemented in the event of an earthquake where bridges and other infrastructure become unusable.
 - Battalion Chiefs may be tactically in charge at emergency incidents as the Incident Commander.
- c. Continuity of Leadership-Fire Department Officers may, when necessary, move into a higher position in the absence of a higher-ranking Officer.
- d. Fire Department Organizational Structure
- e. Leadership Team
- Fire Chief
 - Assistant Chiefs / Executive Director
 - Assistant Chief of Operations; Assistant Chief of Resource Management; Assistant Chief of Fire Prevention; and Executive Director of Staff
 - Directors
 - Finance; Human Resources; Management Information Systems; and Public Affairs
- f. Civilian Support Staff
- During a disaster, if possible, support staff will report to their normal assignment.
- g. Other Disaster Mode Duties
- Deputy Chief of Operations
 - Responds to the RMC as Resource Manager
 - Deputy Chief of Medic 1
 - Coordinates EMS issues
 - Deputy Chief of Communications
 - Responds to the FAC to assist with the workload

Table 4

Position	Primary	Back-up
Fire Chief	EOC	EOC
Assistant Chief of Fire Prevention	RMC	EOC
Assistant Chief of Operations	RMC	As assigned
Assistant Chief of Resource Management	EOC	As assigned
Executive Director of Staff	RMC	As assigned
Captain of FIU	RMC	As assigned
Deputy Chief of Operations	RMC	As assigned
Deputy Chief of Training	EOC	As assigned
Deputy Chief of Medic I	RMC	RMC
Captain of Disability	EOC	As assigned
Captain of Services	RMC	As assigned
Lieutenant of Services	RMC	As assigned
Director of MIS	RMS	As assigned
Human Resources Director	RMC	As assigned
Public Information Officer	EOC	As assigned
Deputy Chief of Communications	FAC	FAC
Finance Director	RMC	RMC

h. Fire Alarm Center-The Fire Alarm Center (FAC) is a Secondary Public Safety Answering Point (PSAP) receiving 911 calls from Seattle Police Communications and dispatching the appropriate Fire Department resource. It is located at 105 5 Ave S in the same building as Fire Station 10. It is situated above the City of Seattle EOC. The FAC is staffed by Firefighters/Dispatchers and is administered by the Fire Department. A Deputy Chief and Captain of Communications oversee the operation.

- During a significant event such as a multiple alarm fire, the workload at the FAC increases dramatically. Historically, FAC personnel function at peak capacity in the course of mitigating a citywide emergency.
- Hundreds of requests for assistance are received, processed and dispatched by the FAC daily. The FAC is also the focal point for all the Fire Department’s communication – both emergency and non-emergency. Duties of Firefighter/Dispatchers include: 911 call processing; Dispatching fire units; Monitoring fire resources in the field; Maintaining citywide coverage; Coordinating mutual aid; Interagency coordination such as requests for police, utilities and Red Cross.
- During a disaster, additional personnel are notified, and off-duty FAC personnel are recalled. When staffing permits, a Firefighter/Dispatcher is assigned to assist with fire radio communications in the EOC.
- The Computer Aided Dispatch (CAD) system is “downgraded” into disaster mode to more efficiently allocate resources as needed.

- Intergovernmental communications between the surrounding PSAPs now become more acute due to requests for fire resources, ambulance transport, emergency room coordination and other vital functions.
 - If the King County 800 MHz trunked radio system is functioning properly, specific assigned radio channels for Battalion use will be in effect.
 - In the event of a countywide radio failure, the FAC will coordinate the Battalion level communications per Level I disaster procedures.
 - Predetermined Chief Officers will be advised of the Fire Department's status immediately following a large scale event or disaster. At this point, they will make the determination at what level at which to operate. The FAC is directed to make notification of this decision throughout the Fire Department and make necessary arrangements to implement the plan.
- i. Resource Management Center-The Resource Management Center (RMC) will be placed in-service according to the RMC Operations Plan. The Resource Manager will oversee and direct the interaction with Incident Commanders in the field. With the assistance of the Staffing Officer, the following tasks will be considered:
- Managing callback procedures
 - Site relocation
 - Staffing reserve apparatus
 - Movement of off-shift firefighters
 - Procuring external resources
 - Tracking resources
 - Coordinating with the FAC
 - Coordinating with ESF-4 EOC representatives to:
 - Obtain help with warning, public information, and logistical needs that exceed department capabilities or authority.
 - Communicate department status as called for in the Direction and Control Annex to the Seattle Disaster Readiness and Response Plan, Volume II.
- j. Emergency Operations Center
- During an activation of the City of Seattle EOC, Fire Department Staff will respond and assume their assigned ESF-4 responsibilities as specified in the Seattle Disaster Readiness and Response Plan.
 - If staffing permits, an on-duty Firefighter/Dispatcher will be reassigned from the FAC to the ESF-4 desk in the EOC to monitor the fire radio and facilitate communications.
 - The Public Information Officer will have direct interaction with the media community at the EOC.
 - Due to its close proximity to the FAC, Fire Department Chief Officers may speak directly with Firefighter/Dispatchers and Communications Division managers.
 - The Fire Department will maintain its presence, 24 hours, throughout the event until the EOC is deactivated.
 - If the Fire Department is the lead agency, the senior member of the ESF-4 may be assigned by the EOC Director to serve as the EOC Operations Section Chief.

Table 5

Specific EOC Assignments		
Position	Day Shift (0530-1800 hrs)	Night Shift (1730-0600 hrs)
ESF-4 Leader	Assistant Chief of Risk Management	Deputy Chief of Training
Liaison	Emergency Preparedness Captain	In-Service Training Captain
Situation	Captain of Disability	In-Service Training Lieutenant
EMS Liaison	Lieutenant AMR Liaison	As Designated
Clerical	As Designated	As Designated

- The Fire Department EOC ESF-4 Team will consist of:
 - 1=Assistant or Deputy Chief; 2=Captains; 1=Lieutenant; 1=Clerical Support Member
- The Fire Department is charged as the EOC Lead Agency in the event of:
 - Major Fire; Hazardous Materials Release; Air Crash; Flood; Structural Collapse; Earthquake
- While at the ESF-4 desk, a Fire Department representative will receive, analyze, file and update Fire Department data for the EOC Consolidated Action Plan to include:
 - Priority-List the highest priority actions.
 - Objectives-What the Fire Department hopes to accomplish.
 - Implementing Steps-How the objectives will be met.
 - Assigned to-Who is responsible for meeting the objectives.
 - Operational Period-When are the objectives to be met.
- Other functions of the ESF-4 Team include:
 - Face to face interaction with other City departmental managers
 - Analyzing accurate information from the field through interfacing with the RMC and the FAC
 - Develop strategy and plans with other Department managers
 - Direct contact with the Mayor and Mayor’s Staff
 - Monitoring Fire Department activity through CAD and the radio system
- The ESF-4 Team is directed to consider mutual aid from Regional, State and Federal agencies through pre-existing agreements for assistance. Among them, include:
 - Surrounding fire agencies (through the King County Fire Resources Plan)
 - Washington State Urban Search and Rescue Task Force (US&R)
 - South Puget Sound Regional Fire Defense Group
 - Washington State Fire Coordinator
 - Federal Emergency Management Agency (FEMA)

5.1 Prevention and Mitigation Activities

- Nothing identified at this time.

5.2 Preparedness Activities

- The Fire Department maintains a state of readiness and pre-plans in an effort to address the many potential problems encountered during a citywide disaster.
- The priorities of Fire Department incident operations are (in order): Life safety; Incident stabilization; Property conservation; Environmental protection.

- Pre-planning for large-scale emergencies has been implemented at the fire company level so that each fire station will have standard procedures and clear directives both internally and externally. The foundation for the Fire Department disaster planning is the “Station Damage Control Plan”.
- Designated fire stations have been equipped as “stand along” and are logistically self-sufficient. These stations have additional emergency rations, water and equipment to last 72 hours and are strategically located throughout the City.
- The Fire Department delivers its life and property saving services through a complex organization of personnel, apparatus and equipment. This service is available to the citizen of Seattle 24/7. Therefore, logistically speaking, preparedness is a crucial factor in the delivery of rapid and efficient intervention and good customer service.
- Fire apparatus respond to approximately 250 responses per shift throughout the City.
- In the event of a disaster, personnel, apparatus, stations and equipment will be surveyed for fitness and readiness to respond. Additional resources will be allocated accordingly.

5.3 Response Activities

- See General Response.

5.4 Recovery Activities

Implementation of the department’s Continuity of Operations (COOP) Plan will be implemented. COOP planning is designed to develop and maintain a plan that enables the department to preserve, maintain, and/or resume its capability to function effectively in the event of the threat or occurrence of any disaster or emergency that could disrupt departmental operations and services.

6. RESOURCE REQUIREMENTS

6.1 Logistical Support

- The Seattle Fire Department maintains a US&R cache of equipment and supplies in tractor/trailers at Seattle Fire Stations.
- Among the myriad of search and rescue tools, the US&R Team will train and maintain: Shelters; Communications equipment; Respirators and SCBA; Emergency Medical Supplies; Shoring and cribbing materials; Heavy Rescue tools; Food and water for 72 hours for 62 members; and Breathing and breaking tools.

7. ADMINISTRATION

7.1 Cost Accounting and Cost Recovery

The Department finance division will track all costs and submit documentation. Reimbursement of costs will provide in coordination of declarations, EOC oversight and the City of Seattle Budget Office.

7.2 Annex Maintenance

The previous standard of updating the CEMP every five years has changed to updates being done on an ongoing basis. With information constantly changing, coupled with rapid innovations in technology and science, it only makes sense to favor a dynamic approach to planning.

The Fire Department ESF Coordinator is responsible in maintaining this annex. The annex will be reviewed and updated annually as prescribed in the Seattle CEMP or when deemed necessary by either the ESF Coordinator and/or the Seattle Office of Emergency Management.

Table 6

RECORD OF CHANGES			
DATE	TYPE	CONTACT	SUMMARY
December 2016	Update	W Barrington L Meyers	Completed annual update
May 2015	Update	K Neafcy	Completed annual update

8. TERMS AND DEFINITIONS

- Confined Space: Space large enough for a body to work with limited entry and egress. Not designed for continuous habitation.
- High (Low) Angle: Using rope and other associated rescue devices in above and below grade situations.
- Structural Collapse: Structures whose ability to remain self-supporting have been compromised.
- Technical Rescue Teams: Mass Decontamination Team; Dive/Water Rescue Team; Heavy Rescue Team; High Angle Rescue Team; Confined Space Rescue Team; Marine Response Team.
- Transport Vehicle/Machinery Rescue: Transportation equipment, vehicles, industrial machinery and other mechanical devices in which stabilization, disengagement and extrication may require special tools and techniques.
- Trench Rescue: Narrow excavation below the surface of the earth where the depth is greater than the width at the bottom.
- Water Rescue: Locating and removing persons from moving or standing bodies of water (to include ice, salt and fresh) both surface and subsurface.