

INTRODUCTION

The Urban Search & Rescue (US&R) organizational model is designed to provide supervision and control of essential functions at incidents where technical rescue expertise and equipment are required for safe and effective rescue operations. US&R incidents can be caused by a variety of events such as earthquakes, floods, hurricanes or terrorist activities that cause wide spread damage to a variety of structures and entrap people. US&R operations are unique in that specialized training and equipment are required to mitigate the incident in the safest and most efficient manner possible.

In Spokane County, it is recognized that a tiered response to rescue incidents should be utilized to provide a prompt initial response which can be reinforced to the level necessary using the closest available resources. The US&R Team is a reinforced interagency response resource. This resource is available to local fire agencies throughout Spokane County through mutual aid and available for mobilization throughout the region and the State of Washington, if requested.

UNIFIED COMMAND

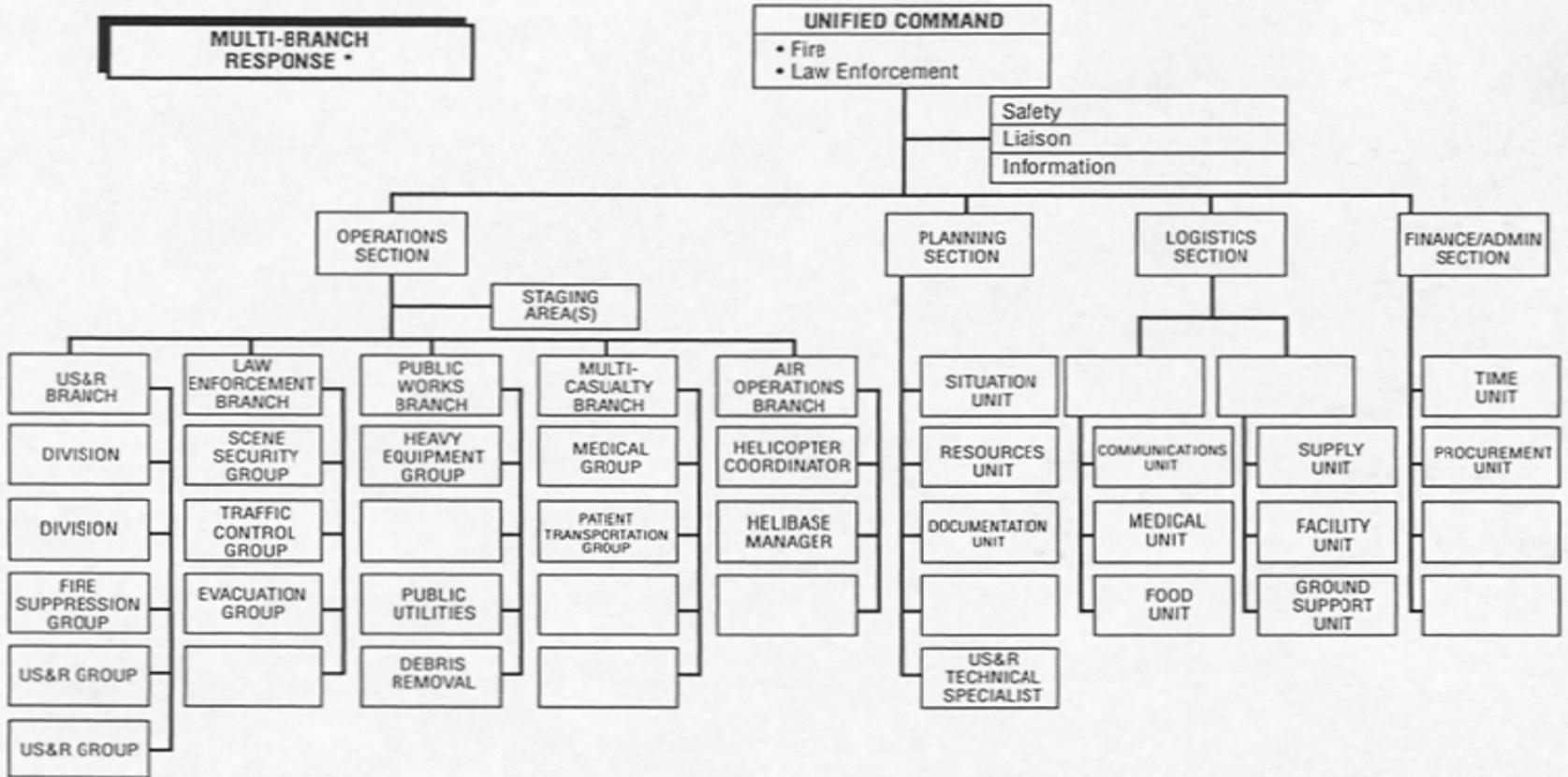
A Unified Command structure may need to be utilized at US&R incidents due to the involvement of multiple agencies and jurisdictions having statutory or political responsibility or authority. A Unified Command, located at a single Command Post, is the best method for ensuring effective information flow, coordination, safety and to ensure maximum utilization of resources which can reduce fiscal impacts.

ICS MODULAR DEVELOPMENT

The flexibility and modular expansion capabilities of the Incident Command System (ICS) provide an almost infinite number of ways US&R resources can be utilized and managed.

The ICS Modular Development example shown (Page 14-3) is not meant to be restrictive, nor imply it is the only way to build an ICS organizational structure to manage US&R resources at an incident. The ICS Modular Development example is provided only to show conceptually how one can arrange and manage resources at an urban search and rescue incident which builds from an initial response to a multi-branch organization.

ICS positions utilized for US&R shall be in conformance with the Federal Emergency Management Association National Urban Search & Rescue Response System to include search and rescue resource typing.



* Multi-Branch Organization (Example)

The Incident Commander has assigned a Logistics and Finance/Admin Section Chief. The Operations Section has established five branches with similar functions to better coordinate and manage resources. The Planning, Logistics and Finance/Admin Section have several Units operational to support the large amount of resources at the incident.

US&R Task Force Description

Urban Search and Rescue (US&R) Task Force is a multi-disciplined organization which conducts search, rescue and recovery operations utilizing technical rescue disciplines to include: structural collapse, rope rescue, vehicle extrication, machinery extrication, confined space (permit-required, non-cave, non-mine), trench, excavation and water operations.

US&R Task Force Types and Capabilities

Type 1, 2 and 3 Task Forces are capable of operations in heavy frame, reinforced concrete, high-angle rope rescue (including highline systems), confined spaced rescue (permit required), trench/excavation, stillwater/flood water operations and mass transportation (subway, rail, bus etc.) rescue. Type 1 and Type 2 Task Forces (70 personnel) are capable of continuous 24-hour operations which can split into two 12-hour operational period teams, whereas Type 3 (35 personnel) is capable of heavy operations for 12-hour operational periods and may be paired with another Type 3 team to form a Type 2 operational component. Type 4 (22 personnel) is capable of limited light to moderate operations in frame and concrete construction, rope rescue, confined space rescue and wide area search. Task Forces are not equipped as an ambulance service or to transport humans or animals to shelter or other locations.

US&R Ordering Considerations

1. Type 1 and Type 2 Task Forces can operate in two consecutive 12 hour shifts. Type 3 and Type 4 Task Forces can operate in one 12 hour shift. All types of US&R Task Forces are self-sustaining for 72 hours and deployable for up to 14 days. The Spokane County Region 9 Task Force has a Type 4 rating.
2. The Requestor / Authority Having Jurisdiction (AHJ) and resource provider must address, prior to deployment, certain incident needs and/or considerations to include:
 - a. Communications
 - b. Type of incident
 - c. Type of construction and collapse conditions
 - d. Additional specialized personnel needs
 - e. Additional transportation
 - f. Additional tools, hardware, and software required
 - g. Aviation support
 - h. Contaminated environments and related PPE
 - i. Logistics support
3. The requestor must specify if the incident necessitates a Haz-Mat and/or Chemical, Biological, Radioactive, Nuclear, and Explosive (CBRNE) specific team(s) and/or equipment to perform structural collapse operations in an environment requiring Level B PPE for at least 12 hours.
4. Task Force resources (regardless of type) will rely upon the local emergency medical infrastructure for patient treatment and transport.

5. Operations in Search and Rescue (SAR) environments which may be recognized as an Immediately Dangerous to Life and Health (IDLH) environment.

Regional 9 US&R Task Force

The Northeast Region and specifically Spokane County have established a Type 4 (US&R) Task Force. The US&R Task Force activities are coordinated through Spokane Fire Dispatch who serves as the primary point of contact. The Regional US&R Task Force is available within Spokane County through a Mutual Aid request and available statewide through the Washington State Fire Services Resource Mobilization Plan. All requests for a US&R Task Force must go through normal Mutual Aid or state mobilization procedures. The Regional US&R Task Force is able to deploy within 2 hours of notification.

The Regional US&R Task Force is comprised of approximately 24 persons specifically trained and equipped for large or complex urban search and rescue operations. Management and Incident support for the Task Force is provided by a Spokane County IMT, FEMA USAR Incident Support Team (IST) or the assigned Type 1 or Type 2 IMT.

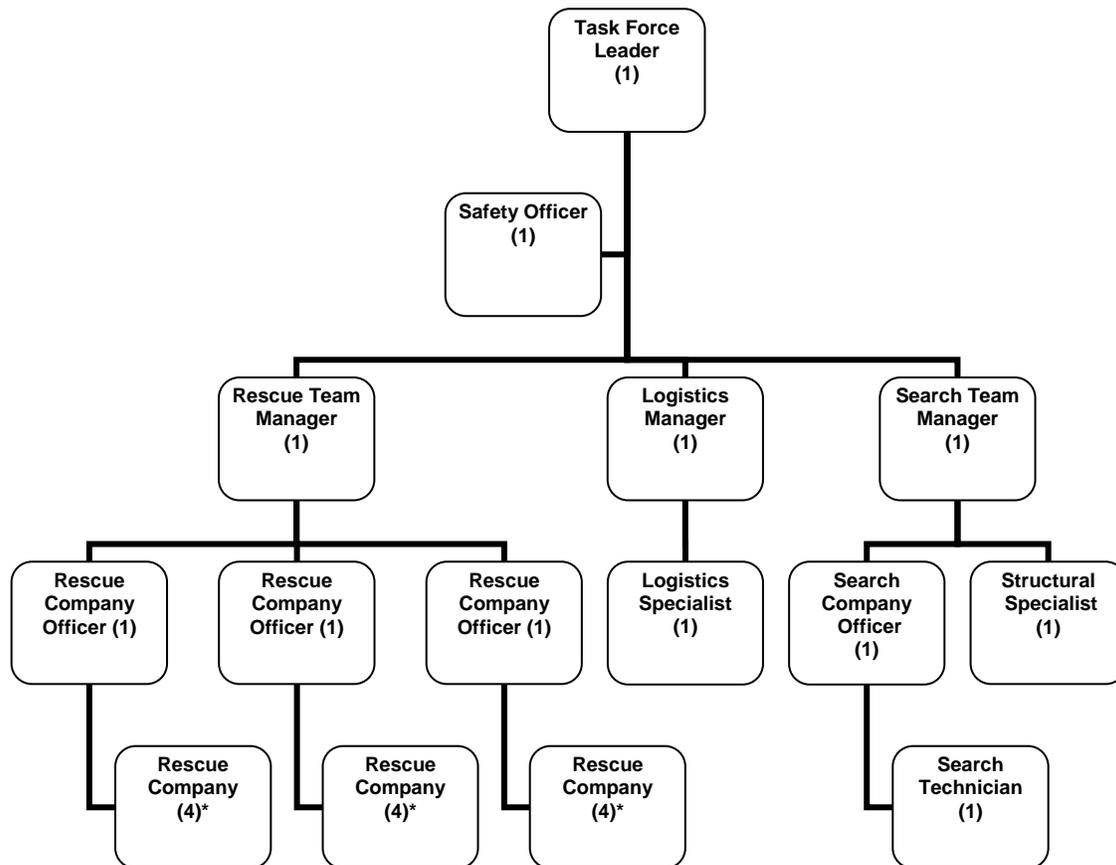
The US&R Task Force shall be able to provide 12 hour nonconsecutive shifts for 72 hours.

The US&R Task Force Search element includes physical and electronic search. The Rescue element can conduct rescue operations in all types of structures. The Rescue company will have an assigned Paramedic who is primarily responsible for the care and treatment of Task Force members and entrapped victims during extrication. The US&R Task Force provides personnel competent in structural integrity assessments, hazardous materials, heavy equipment and rigging and logistics.

The US&R Task Force is commanded by a US&R Task Force Leader and is organizationally at the same level as any Strike Team/Task Force. The US&R Task Force is unique in that unlike other task forces it is designed to be used as a "single resource." It should not be disassembled to make use of individual task force elements.

The US&R Task Force will normally assemble at a point of departure and travel together to an incident, however, for Mutual Aid responses the Task Force will most likely be assembled at the incident.

REGION 9 US&R TASK FORCE ORGANIZATIONAL CHART



24 POSITIONS

* Includes 1 Paramedic and 1 Haz Mat Specialist

A Spokane County Incident Management Team responds with the Regional US&R Task Force

US&R GLOSSARY OF TERMS

Basic Operational Level: The Basic level represents the minimum capability to conduct safe and effective search and rescue operations at structure collapse incidents. Personnel at this level shall be competent at surface rescue which involves minimal removal of debris and building contents to extricate easily accessible victims from non-collapsed structures.

Basic Rope Rescue: Rescue operations of a non-complex nature employing the use of ropes and accessory equipment.

Confined Space Rescue: Rescue operations in an enclosed area large enough to enter and perform work, with limited access/egress not designed for human occupancy and has the potential for physical, chemical or atmospheric injury.

Hazardous Materials Specialist: The Hazardous Materials Specialist provides technical expertise in the identification, monitoring and management of hazardous chemicals. This position may report to the Task Force Leader, or be assigned to a Rescue Company under the supervision of the Rescue Company Officer.

Heavy Floor Construction: Structures of this type are built utilizing cast-in-place concrete construction consisting of flat slab panel, waffle or two way concrete slab assemblies. Pre-tensioned or post-tensioned reinforcing steel rebar or cable systems are common components for structural integrity. The vertical structural supports include integrated concrete columns, concrete enclosed or steel frame which carry the load of all floor and roof assemblies. This type includes heavy timber construction that may use steel rods for reinforcing. Examples of this type of construction include offices, schools, apartments, hospitals, parking structures and multi-purpose facilities. Common heights vary from single story to high-rise structures.

Heavy Wall Construction: Materials used for construction are generally heavy and utilize an interdependent structural or monolithic system. These types of materials and their assemblies tend to make the structural system inherently rigid. This construction type is usually built without a skeletal structural frame. It utilizes a heavy wall support and assembly system to provide support for the floors and roof assemblies. Occupancies utilizing tilt-up concrete construction are typically one to three stories in height and consist of multiple monolithic concrete wall panel assemblies. They also use an interdependent girder, column and beam system for providing lateral wall support of floor and roof assemblies. Occupancies typically include commercial, mercantile and industrial. Other examples of this type of construction type include reinforced and unreinforced masonry (URM) buildings typically of low rise construction, one to six stories in height, of any type of occupancy.

Heavy Operational Level: The Heavy level represents the structural collapse incidents involving the collapse or failure of reinforced concrete or steel frame construction and Confined Space Rescue operations.

Light Frame Construction: Materials used for construction are generally light weight and provide a high degree of structural flexibility to applied forces such as earthquakes, hurricanes, tornadoes, etc. These structures are typically constructed with a skeletal structural frame system of wood or light gauge steel components which provide support to the floor or roof

assemblies. Examples of this construction type are wood frame structures used for residential, multiple low rise occupancies and light commercial occupancies up to four stories in height. Light gauge steel frame buildings include commercial business and light manufacturing occupancies and facilities.

Light Operational Level: The Light level represents the minimum capability to conduct safe and effective search and rescue operations at structural collapse incidents involving the collapse or failure of light frame construction and basic rope rescue operations.

Logistics Manager: The Logistics Manager is responsible for managing and supervising the equipment cache for the US&R Task Force during incident operations. The Logistics Manager reports directly to the Task Force Leader.

Medical Technician: The Medical Technician is responsible for performing Basic and Advanced Life Support medical care for Task Force members and rescue victims during US&R incident operations. The Medical Technician reports directly to the Rescue Company Officer or Rescue Team Manager.

Medium Operational Level: The Medium level represents the minimum capability to conduct safe and effective search and rescue operations at structural collapse incidents involving the collapse or failure of reinforced and unreinforced masonry (URM), concrete tilt-up and heavy timber construction.

Pre-cast Construction: Structures of this type are built utilizing modular pre-cast concrete components that include floors, walls, columns and other sub-components that are field connected upon placement on site. Individual concrete components utilize imbedded steel reinforcing rods and welded wire mesh for structural integrity and may have either steel beam or column or concrete framing systems utilized for the overall structural assembly and building enclosure. These structures rely on single or multi-point connections for floor and wall enclosure assemblies and are a safety and operational concern during collapse operations. Examples of this type of construction include commercial, mercantile, office and multi-use or multi-function structures including parking structures and large occupancy facilities.

Regional Type 4 Urban Search & Rescue (US&R) Task Force: Consists of approximately 24 personnel specifically trained and equipped for large or complex urban search and rescue operations. The US&R Task Force is designed to be used as a “single resource” and not disassembled to make use of individual task force elements.

Rescue Company Officer: The Rescue Company Officer is responsible for managing and supervising one of the established rescue companies of the US&R Task Force during incident operations. The Rescue Company Officer reports directly to the Rescue Team Manager.

Rescue Team Manager: The Rescue Team Manager is responsible for managing and supervising the rescue function of the Task Force during incident operations. The Rescue Team Manager reports directly to the Task Force Leader.

Rescue Technician: The Rescue Technician is responsible for performing the rescue function of the US&R Task Force incident operation. The Rescue Technician reports directly to a Rescue Company Officer or Rescue Team Manager.

Rigging Technician: The Rigging Technician (Rigger) is responsible for performing various assessments and is the construction-related liaison for the Task Force during incident operations. The Rigger reports directly to the Rescue Company Officer or Rescue Team Manager.

Search Company Officer: The Search Company Officer is responsible for managing and supervising one or more of the Search Team Technicians of the US&R Task Force during incident operations. The Search Company Officer reports directly to the Search Team Manager.

Search Marking System: A standardized marking system employed during and after the search of a structure for potential victims.

Search Team Manager: The Search Team Manager is responsible for managing and supervising the search function of the US&R Task Force during incident operations. The Search Team Manager reports directly to the Task Force Leader.

Search Technician. The Search Technician is responsible for performing the search function of the US&R Task Force incident operation. The Search Technician reports directly to a Search Company Officer or Search Team Manager.

National Urban Search & Rescue (US&R) Task Force: A 62-person team specifically trained and equipped for large or complex urban search and rescue operations. The multi-disciplinary organization provides five functional elements which include command, search, rescue, medical and technical. The US&R Task Force is designed to be used as a “single resource” and not disassembled to make use of individual task force elements.

Structural Specialist: The Structural Specialist is responsible for performing the various structural assessments for the Task Force during incident operations. The US&R Structural Specialist reports directly to the Task Force Leader.

Structure/Hazards Marking System: A standardized marking system to identify structures in a specific area and any hazards found within or near the structure.

Task Force Leader: The Task Force Leader is responsible for managing and supervising all aspects of a mission, both operational and managerial, from the time of activation through the return to the home jurisdiction for his/her task force.

Transportation Specialist: The Transportation Specialist is responsible for driving the cache trailer to the incident location and performing checks and maintenance on the cache trailer. Other duties include assisting the Logistics Manager at the Base of Operations.

Urban Search & Rescue (US&R) Company: Any ground vehicle(s) providing a specified level of US&R operational capability, rescue equipment and personnel.

Urban Search & Rescue (US&R) Crew: A predetermined number of individuals who are supervised, organized and trained principally for a specified level of US&R operational

capability. They respond with no equipment and are used to relieve or increase the number of US&R personnel at the incident.

Urban Search & Rescue (US&R) Safety Officer: The US&R Safety Officer is responsible for monitoring and assessing the safety aspects of the US&R Task Force during incident operations. The US&R Safety Officer reports directly to the Task Force Team Leader.