



MASON COUNTY FIRE DISTRICT #4

TITLE: ROPE RESCUE

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APPROVED: Signature on file Bob Burbridge, Chief

Introduction

This procedure establishes guidelines for performing rope rescues under fire ground operations and under non-fire operations. A rope rescue is defined as any incident which involves the removal of a patient(s) by Mason Fire District #4 personnel with the use of rope and rope accessories from locations unreachable by standard fire department equipment; elevated areas inaccessible by ground ladders.

The purpose of the Rope Rescue Team (RRT) is to relocate patients, which cannot be reached by normal means utilizing any other piece of fire department equipment other than rope and rope accessories. Relocation is made to a place of safety, where emergency medical service can be given or transportation to a medical facility initiated.

The department recognizes the dangers to its personnel during any rope-assisted rescue; which takes members to extreme heights or into confined areas. These operating procedures are designed to ensure the safety of each rescuer during such operations.

Fire District personnel should think of rope rescue as the ability to extend the rescuer's reach, making it possible for a rescuer to reach a patient at any location, whether it be an above or a below ground location.

Definitions

RRT - Those district members having completed a minimum of 40 hours of Fire District #4 approved specialized rope training and identified as members of the Fire District #4; organized for the purpose of providing rope rescue skills and equipment.

Leader - The Member of the Rope Rescue Team who will oversee the rescue operation and serve as liaison between the RRT and the Incident Commander. The leader has the responsibility for safety of Fire District #4 personnel, which may be delegated. He may choose to delegate safety to another, medium-angle trained member from the RRT.

Team Concepts - A breakdown of positions and responsibilities of each member of the team using the ICS concept.

Angles - Low Angle is considered anything under 45 degrees.

- Medium Angle is considered 45 to 60 degrees.



MASON COUNTY FIRE DISTRICT #4

- High Angle is considered anything above 60 degrees.

Command Responsibilities/Considerations

The Incident Commander will be responsible for the overall Command and control of the scene.

The Incident Commander must assign a Safety Officer for site control.

The Incident Commander, based on input from the RRT Leader, will determine the amount of resources needed. The Incident Commander will also coordinate with the RRT Leader on decisions involving number of rescuers to put on rope, equipment to be used, and additional support needs.

The Incident Commander **shall** evaluate the risk versus benefit when considering high angle rescue.

Procedures

The Incident Commander must secure the area under the patient if that patient is in an elevated location. If the patient is in a sub-grade location, the area surrounding the location shall be secured. If the patient is in an elevated location, securing the area means roping or coning off a large area below the patient's locations. One person must maintain visual contact with the patient at all times throughout the operation if that is possible from the ground.

Scene Evaluation (upon arrival) to determine the number of patients and their locations. Remove all surface-trapped patients who are located in dangerous position; i.e., directly under a failed scaffolding which is still hanging, positioned under broken out windows above, or a patient that has pulled themselves out of a sub-grade location, but is close to the edge.

Determine location of patient to enable members to choose the proper equipment.

Locate the quickest and safest route to take all personnel and equipment to the operation site.

Secure the area below the patient. If this is a sub-grade location, secure the area above the patient.

When hauling systems are used, Command may need to request additional resources for staffing.

Initial Response to all rope rescue situations shall have two "A" Team members dressed in harness and protective gear; i.e., helmet, gloves, and appropriate shoes.



MASON COUNTY FIRE DISTRICT #4

The members of "A" team have the responsibility of being the rescuers who will come in contact with the patient(s). Their primary job is getting to the patient, packaging, and maintaining contact with the patient until they have reached a safe location for further treatment/transportation. The skills that these members can expect to be performing are:

Rappelling.

Ascending.

Being lowered by a rope system.

Riding with the patient.

Being lowered into sub-grade areas.

The members of "B" Team have the responsibility of supporting the "A" Team members. Their primary job is rigging and operating the secondary belay lines. The skills that these members can be expected to be performing are:

Rigging and mechanical advantages.

Lowering and belay safety.

Back-up systems for safety.

Anchoring techniques.

The members of "C" Team have the responsibility of checking all parts of the operation, from technique to safety. Their primary responsibility is to oversee the rigging operations, to pick the main anchor points, and to supervise the operations of the "B" Team. Both of the "C" Team members will assist the "A" and "B" Team members in accomplishing their assignments.

The RRT Leader and/or Safety Officer has the primary responsibility to oversee and visually check each operation to assure all safety measures are met.

The Operational Plan is established once the Incident Commander and the RRT Leader have investigated and evaluated the scene. The operational plan is then implemented.

The Mode of Operation is determined by the Incident Commander and the RRT Leader, as to the resources needed, how the team members are going to get to the patient, what equipment they will use, and how many rescuers are going to get on the rope.

Critical Rescue Mode - When the patient is in a situation in which time becomes an important factor in the patient's recovery (i.e., patient hanging from unstable/failing structures or submerged under water in a confined space),



MASON COUNTY FIRE DISTRICT #4

Incident Commander and RRT Leader must quickly define a plan of action that will include the most important aspect of the operation: the safety of the team members.

Non-Critical Rescue Mode - When the patient is not injured and in no immediate danger. The patient is in a position that he/she cannot get down or out of without assistance.

Upon arrival, the RRT Leader shall report to the Incident Commander for a situation report and other pertinent information. Based on the information given, the responding team shall decide the following action:

Control of the situation.

Most direct access to the patient.

Initial responsibilities as directed in the SOPs.

On-Scene Standard Operating Procedures

Whenever a rescue line is tied off to an anchor point, the safety tag lines, the RRT Leader will make a determination as to the relative safety of using a single anchor to execute the rescue operation.

If it is impossible to establish a second anchor for the safety tag lines, the RRT Leader will make a determination as to the relative safety of using a single anchor to execute the rescue operation.

Only ½" or greater static kern mantle rope will be used for rescue. This rope must meet or exceed the criteria established in NFPA 1983 for Life Support Rope.

Safety tag lines, guidelines, and personal safety roof edge lines must be a minimum of ½" static kern mantle rope.

Rope Rescue Safety Standards

No member of the team goes on a rope or starts an operation until another team member checks him.

Every part of the rescue system must be backed up with a safety.

Each line shall have a safety person. The rescue person that is ascending or descending shall always get the attention of the safety personnel before they start their rappel.

Rope shall not be deployed or hung over any height without being anchored off first. Each member that is going to work on a line shall check his/her anchor



MASON COUNTY FIRE DISTRICT #4

If the rescue is a vertical basket lowering, a safety line must be attached to all personnel working with the basket near the roof edge.

All ropes and equipment shall be inspected before and after each training session and/or rescue operation.

Any piece of hardware equipment dropped onto a hard surface from a height five feet shall be taken out of service until inspected.

Each team member is responsible for the safety of all other team members. Any team member observing an unsafe practice shall correct the situation immediately.

Safety Responsibilities

Safety Officer or Section must get to the point known as the "edge" as quickly as possible. The edge is the point at which the rescuer is going over. On a building, this would be the roof top above the patient; at a sub-level location, the edge would be at the point where the ground opens up to the hole; or on a structure like a radio tower, the edge would be the point at the base of the tower. The edge could be thought of as the point at which the rescuer is going to start descending or ascending to reach the patient.

The Safety Officer is responsible for making sure all rappellers have a secondary line with a secondary anchor, that all climbers have a safety rope (in the form of a climbing system), and all personnel (including Safety) working close to the edge have a safety line attached to them.

The only situation in which a secondary line is not used when rappelling within Fire District #4 is under fire ground operations, whether it is a rope rescue or a Firefighter emergency escape.

Training

Rope Rescue Team members will perform a minimum of one half-day training twice per year, and should attempt to complete 4 hours of in-service training per month, schedule permitting.

The Training Officer will schedule on-going training, oversee scheduled training classes, training documentation, reports, and may act as a Safety Officer or to the best advantage of Command on an incident