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S.O.P #: TACTICAL OPERATIONS MANUAL #20

SUBJECT: ROPE RESCUE

DIVISION: EMERGENCY OPERATIONS

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Objective: To serve as a guide for all fire department personnel operating around and in a rope system environment during emergency or non-emergency operations.

Section 1: Purpose

- A. This SOP is to be used by all fire department personnel for developing strategic and tactical objectives in a rope rescue operation. This guide by no means circumvents the use of training, practice, experience and judgment by an individual or individuals while operating at a rope rescue.

Section 2: Definition

- A. Rope Rescue is defined as any rescue attempt that requires rope and related equipment to safely gain access to, and remove patients from hazardous geographic areas with limited access such as mountains, high rise buildings, ships, above or below grade structures, etc., by means of rope systems.

Section 3: Response

- A. A rope rescue assignment shall consist of the following:

1. (1) Battalion Chief, (1) Engine, (1) Truck, (1) ALS Medic Unit, (1) EMS Supervisor, (1) Heavy Rescue Squad and Station 17 with the ATR Team.

Section 4: Safety

- A. The incident management system will be used on all rope rescue operations regardless of emergency or non-emergency incidents. If the incident meets the above definition(s) command will implement the following:
1. Request a rope rescue assignment.
  2. Obtain information from witnesses.
  3. Establish zones.
  4. Establish fall and leading edge protection for all personnel in the Hot Zone.
  5. Ascertain victim location rescue or recovery.
  6. Victim consideration supported or suspended, hanging or stranded.
  7. Can the victim be reached by other methods.
  8. Any additional hazards, i.e., structural, water, weather, haz-mat.

Hot Zone – defined as 10 feet from the leading edge.

Warm Zone – defined as 50 feet from the Hot Zone.

Cold Zone – defined as 100 feet from the Warm Zone.

- B. The Incident Commander should continuously monitor the condition of all personnel, as well as existing and potential environmental conditions during these events, and take appropriate action with regard to staffing and resource allocation. The minimum positions to be filled within the command structure for this type of incident shall be as follows:

1. Rescue Safety – This position is in addition to the overall safety officer and when available shall be filled with those members meeting the NFPA 1006 Technician Level for Rope. This position will primarily be concerned with the scene and personnel safety in the warm and hot zones.
2. Rescue Group Officer – When available this position shall be filled by those members meeting NFPA 1006 Operations or Technician Level for Rope. This person will be responsible for the development and implementation of the rescue plan in the Hot and Warm Zone. They will also be responsible for the four Rescue Specialists assigned to their group.
3. Rescue Specialist – When available these positions shall be filled by those members meeting the NFPA 1006 Operations or Technician Level and will report directly to their assigned Rescue Group Officer.

Section 5: Rescue/Recovery Operations

A. Strategic Priorities

1. Most often in rope rescues and recovery operations the strategies focused on: locate, stabilize, access, removal, transport and demobilization. Each phase shall be approached as an individual challenge with efforts directed towards making a smooth transition between them. Resources shall be made readily available that is specific to the task. It is imperative that members of the fire department understand and comply with training, equipment, and operational standards set forth by NFPA, OSHA, and department SOP's.

B. Tactical Considerations

1. Rope rescue operations shall be used only after all other options to access and remove the patient have been ruled out or when the patient's medical condition warrants.
2. The order of rescue from low risk to high risk.
3. Place the Hot and Warm Zone operations on a separate talk-group.
4. Assure adequate fall and leading edge protection is in place for all members in place in the Hot Zone.
5. Verify that all members in the Hot and Warm Zone are aware of the rescue action plan.
6. Make the general area safe, i.e., secure, restrict access.
7. Maintain Level Two Accountability.
8. Verify and set in place a back up plan with equipment.
9. Be prepared to change the action plan as needed.
10. Depending on the situation an attendant may be positioned with the patient to access and treat. (not always required)
11. Assure that all live loads are supported by two points of contact.
12. Assure that all anchor points are "bomb proof" and are independent of each other.
13. Test all systems before a live load is placed in a dangerous area.
14. Verify system design to be safe, simple, and swift.
15. Assure that Rescue Safety has verified and checked the entire rope system prior to the start of the operations.

Section 6: Special Considerations

- A. Rope rescue operations can be very technical and dynamic in nature. It is critical that the Rescue Group Officer, Rescue Safety and the Incident Commander be focused on the safety and well being of all fire department personnel. Below is an additional list of items that may need to be considered to assure a successful and safe incident.

1. All edges must be protected that will come in contact with the rope system.
2. The use of full structure gear as PPE can fatigue personnel quickly. Remember the basics of good PPE, head, hands, feet and eye protection.
3. This type of incident is unforgiving, and the kind of lapse that might go unnoticed on level ground could result in severe injury or death. Attention to detail is necessary.
4. Have a back-up plan and all rescuers should be equipped and prepared mentally for self-rescue.
5. Protect all of the rescue hardware and equipment. Do not step on or drop any part of the rope rescue system.

- B. The Maryland State Police Aviation Unit will provide helicopter(s) as needed in rope rescue operations. Helicopter operations are considered high risk. Several factors must be considered before deciding on the use of the helicopter for extrication. Some of them are time of day, condition of victim and access. The Rescue Safety Officer, Rescue Manager will confer with the Incident Commander prior to any operations relative to the use of the helicopter. Remember that the pilot of that unit has the final say.

Section 7: Demobilization

- A. Once the rescue/recovery is complete the Rescue Group Officer and the Rescue Safety Officer shall confer with the Incident Commander on an appropriate demobilization plan. The plan should include the following:
1. Assure all information gathered from the incident has been properly documented and all IMS 200 forms completed and turned in to the Rescue Group Officer.
  2. A complete inspection and inventory of all equipment used and the proper logging of inspection forms as needed.
  3. Assure that units are restored for service and any and all equipment that has been damaged or needs repair is tagged accordingly.
  4. The Rescue Group Officer shall be responsible for notifying in writing to the Division Chief of Special Operations for any equipment or materials that have been expended.