

## **Rescue of Lost or Trapped Firefighters**

**# A-022**

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This procedure identifies operational approaches for search and rescue of a lost or trapped firefighter.

Rescue of trapped or lost firefighters in a burning building is especially time sensitive. An immediate and well-organized search and rescue response must be implemented to take advantage of the very limited survivable time element.

Rescue needs generally fall into two categories. A firefighter (or firefighters) is trapped by a collapse, or is lost in a smoke filled and burning building.

### **Building Collapse**

The dispatcher will be requested to activate emergency "MAYDAY" procedures and an announcement of a collapse in which firefighters may have been trapped.

Command will immediately initiate an evacuation of the collapse area, rescuing firefighters as necessary, as crews exit the area.

A roll call of all firefighters operating in the area will follow immediately to determine if firefighters are missing and how many.

Command will immediately send the Firefighter Assistance & Search Team (FAST) to the area.

If it is suspected or confirmed that a firefighter(s) is missing, additional mutual aid and ambulance(s) will be requested.

Command will adjust the incident tactics to a high priority rescue effort and for the protection of firefighters from the affects of fire. Command must immediately place additional attack lines, deck guns, or elevated streams as appropriate, in the collapse area to protect trapped firefighters, and rescuers, from the fire. Positive pressure ventilation should be initiated to improve atmospheric conditions and visibility. Write off the remainder of the building may be required in order to commit resources to the rescue effort. When searching for a firefighter, the following should be considered to aid in the search and rescue efforts:

1. Visible sighting of trapped firefighters such as arms or legs.
2. Knowledge of their last known location.
3. Shouts for help from the collapse area.
4. Tapping noises, etc.
5. Sounds of portable radio broadcast in the collapse area.
6. Breathing, moaning sounds.
7. The sound of the PASS devices' audible tones.
8. The sound of the SCBA bells sounding.
9. Radio request for help from portable radios from within the collapse area.
10. Tracing attack hose lines into the collapse area.
11. Locations of ladders, fans, lights, or other equipment being used by missing firefighters.

If the PASS devices are not operating, rescuers can use portable radios as a potential locator. All radios in the immediate collapse area, including apparatus radios, should be turned off (to

eliminate confusing background broadcast). Radios will remain off only long enough to complete the locator test. Officers' radios will remain on. Various messages can be broadcast from a single radio at the collapse area. Rescuers can then listen for radio transmission from lost firefighter's radio. In some cases, placing two portables side by side and "keying" their microphones will produce a feedback squeal that may be more audible.

During the rescue effort, crews should take protective measures to protect trapped firefighters from the effects of fire. In addition to attack lines, deck guns, etc., early lighting of the area will be required (inside and outside). Positive pressure ventilation should be used to minimize smoke inhalation by trapped firefighters and improve visibility for rescuers. Debris will need to be stabilized as rescue efforts proceed. Spare SCBA's should be brought to the rescue area. These will be used to place on firefighters who are trapped and awaiting extrication.

An early assessment on the need for heavy or specialized equipment must be conducted by command. Request for this resource must be made as early as possible, even if it is unsure if it will be needed on arrival.

Rescue crews must be cautious not to cause an additional collapse in their haste to rescue trapped firefighters.

A treatment area, with appropriate resources, must be implemented early and be prepared to receive patients.

Command and the safety officer should use the accountability tags to obtain an accurate roll call and determine the names of missing firefighters.

### **LOST FIREFIGHTERS**

Lost firefighters in a building pose a different search and rescue problem. The most significant problem and difference is that the search area can be substantially larger than a collapse area.

In many cases, lost firefighters will be able to radio to command that they are lost and in need of rescue, prior to being incapacitated when a SCBA goes empty.

Firefighters who find themselves lost, and who have a radio, will immediately notify command their situation while they continue to attempt to find their way out. Lost firefighters will give command information as to where they think they are, description of building structure where they are, sounds of nearby activity, (i.e., ventilation saw noise), or any other information that might direct rescue crews to their location. If firefighters detect they are about to become incapacitated (i.e., now breathing smoke), they should take whatever protective measures are necessary to increase survivability and manually activate their PASS devices. Flashlights must be turned on and placed in a position that will assist rescue crews in locating downed firefighters.

Command or officers who receive information that firefighters may be lost will request dispatch to activate tones for emergency traffic, announce the situation, and initiate appropriate rescue efforts.

Command will immediately send the Firefighter Assistance & Search Team (Rescue Sector) to the most appropriate location to initiate search and rescue efforts.

Additional mutual aid and ambulance will be requested.

Command may initiate an evacuation of the building, or applicable sectors, in order to obtain a roll call of all personnel operating in the building.

Command will adjust the incident tactics to a high priority rescue effort. In many cases, the offensive fire attack must be continued in order to protect lost firefighters from the effect of fire. However, some portion of the building may need to be written off to concentrate on the rescue effort and protecting firefighters.

Early and continued ventilation, including positive pressure ventilation, must be implemented. Early and continued interior lighting must be implemented.

Command and the safety officer will determine the search area based on last known locations of lost firefighter(s) and closely coordinate rescue efforts. They will assign specific areas or grids of the building to each rescue team entering the building.

If multi-entry points to the building are available, search and rescue teams may need to operate from all these points, starting with the area where the lost firefighters are believed to be.

In searching for lost firefighters, the following should be considered:

1. Knowledge of their last known location.
2. Tracing attack hose lines into the area the lost firefighters were known to be.
3. Evidence of building structures or locations that were described by lost firefighters.
4. Listening for the sound of PASS devices' audible tones.
5. Listening for the sound of SCBA bells.
6. Sounds of shouts for help, tapping sounds, sound of breathing, etc.
7. Sounds of portable radio broadcast audible in search area.
8. Flashlight beams.

If PASS devices on lost firefighters are not operating, the use of portable radio feedback may be used, as previously described for locating firefighters in a collapsed area.

Additional standby rescue crews should be maintained outside the entry points to relieve initial rescue crews as SCBA's go empty. At least two fully equipped firefighters for each rescue team should be on standby outside the entry point(s).

These standby rescue crews may also be required to quickly enter and assist with removal of lost firefighters once they are located. Several firefighters for each downed firefighter will be needed to quickly remove them.

Treatment areas and personnel must be ready to receive and treat rescued firefighters.

Spare SCBA's should be available to take into the building to be used on lost firefighters if needed.

Command and the safety officer should use the accountability tags to obtain or keep accurate roll call and determine the names of missing firefighters