



TOLEDO FIRE & RESCUE DEPARTMENT



C-33 Large Area Search

Emergency Manual

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Policy/Procedure

Open Floor Plan or Large Commercial Structure Search

- Search in a commercial structure, especially one with an open floor plan such as churches, gymnasiums, warehouses, big box stores or open office concepts in a high rise creates an exceptionally challenging scenario for fire operations. Crews will need to perform large area search operations off a hose line or using a search rope. Fire attack companies with their hose streams and crews pulling ceiling checking for extension will create debris piles, visibility and entanglement problems that crews must deal with. These searches are difficult at best and require effective team leadership, discipline and rope maintenance.
- Before committing to this, you must ensure it is necessary. You must consider the survivability profile of victims and the Risk/Reward formula. Use for RIT rescue makes sense, since firefighters have added protection from the environment it will buy time to make an effective rescue successfully. Try to incorporate PPV, if situation safely allows, into making the visibility and survivability greater.
- There are two styles of Large Area Search; a rope assisted search, or a hose assisted search. Rope assisted search techniques are often employed more remote from the seat of the fire such as the floor above, on the opposite side of a warehouse or while working under the protection of a charged hose line. Hose assisted search procedures are often employed while operating in the fire area without the protecting of a separate attack line.

Rope Assisted Large Area Search:

Items Needed:

- Personal webbing bundle and carabineers

- Utility Rope bag, two carabineers, on one end for anchor and other end for hooking to officer.
- Red rope throw bag
- TIC, a flashlight for each firefighter and hand tools, Hydra-Ram
- RIT pack

This is going to be a situation where you are going to have to do the best you can under the conditions you have. The Search team shall be at least 4 firefighters.

1. The main rope is the utility rope and should be anchored to a point outside of the fire area or even outside the structure.
 1. This rope can be anchored in the stairwell, to a railing, etc.
2. One firefighter will be the "CONTROL FF" and serve as the oriented person. The CONTROL FF will remain between the search team and the exit to guide them out.
 1. The CONTROL position will maintain some tension on the rope and will advance into the search area while maintaining contact with the rope as he begins to lose voice or visual contact with the search team.
 1. A wide open or patterned search must be decided upon before committing to the search.
 2. The Control FF should have a flashlight to serve as a beacon for returning firefighters. The "Henry Light" from TFRD RIT bag should be placed at the doorway for the same purpose.
 3. The Control FF should also maintain control of the RIT bag.
3. The officer will click in with a carabineer to the end of the tether and have point, directing the searchers using the TIC. They will also carry the RIT bag.
 1. Operate the TIC looking for room layout, holes in the floor, open stairwells or shafts, the seat of the fire or fire extension, keeping a PAR count, and looking for fire victims or a down firefighter.
 2. Always allow all members of the Search crew to view the area being searched with the TIC prior to entry. A quick visual inspection of the room layout is all that is needed.
4. The other two firefighters, using their webbing bundle, will click to the tether on one end and their SCBA on the other using carabineers. These searchers can be sent laterally away from the main tether to explore precise areas.
 1. Both the left and right searcher shall clip to the tether with the same carabineer so that they are tied together at a single point on the reference rope, therefore they don't pull the rope into a Z pattern and if an immediate withdraw is required, they are both at the same spot.
 2. The RIT pack can be used for a victim but it is mainly for firefighters if there is an air problem.



Maneuvering the far anchor point (officer spot) will take a little skill and thus some practice. Since the webbing bundle only gets the searcher 20' from the reference line, it is possible in a large/open area search, the far anchor point must move so the searchers can cover the entire area. This may require that the exit anchor point also move such that a grid pattern is performed rather than a sweep pattern. When there is furniture, office cubicles, support columns, debris, etc. this can be difficult too impossible to conduct quickly or completely.

Hose Assisted Large Area Search

The concept of working off a hose line is like working off a rope but with a few differences.

- There will be a dedicated firefighter on the nozzle whose sole responsibility is the nozzle and protecting the Search crew.
- The officer will be tethered several feet behind the nozzle team using webbing and carabiner. They are still the oriented person and not only directs the searchers but the nozzle firefighter using the TIC.
- The two searchers will use webbing bundles to remain secured to the hose line. These bundles can be connected to create longer lines. If these are unavailable utility rope can substitute.

See Also:

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