



Street Smarts
by Michael Lee

Successful Rapid Primary Searches and Victim Location

All firefighters know that a primary search is the "rapid" search of an area to find viable victims during an emergency scene. Generally, we associate this term with a search of an occupancy during a structure fire, predominantly residential. In order to ensure it's done well, you should consistently practice primary search skills as a team to learn how to operate and the strengths/weaknesses of individual members, as well as the tactics that can be applied to both residential and commercial properties.

This skill is one of the reasons firefighters get tax support from our constituents — they want to know that should they be trapped in a structure fire, the arriving crews will rapidly find and rescue them. Without the primary rescue responsibilities, we are just there to put water on fire, which any individual could do.

As we respond, certain "givens" will start to prioritize our rescue-based fireground tactics. These givens are pre-arrival size-up factors that are evident or gathered from dispatch as we respond. The factors consist of time of day, type of occupancy and 911-caller information.

Other information we gather once on scene — vehicles in the driveway or in front of the occupancy, lights on in the structure, information from occupants or neighbors, etc. — can indicate victims may be trapped. But always be aware that conducting a search is one of the most dangerous activities firefighters perform. We should not be risking the lives of firefighters for a victim recovery nor should we be trading lives during very risky rescues.

The primary search is an immediate task performed by firefighters in teams of two. This process should be systematic and fast. It may be done in conjunction with trying to find the seat of a fire, or if your system has the resources, can be performed by its own assigned personnel (engine vs. truck company assignments). If you are lucky enough to have the [NFPA 1710](#) personnel numbers, you can often perform both primary search and location/confinement of the fire at the same time. If you are more of the [NFPA 1720](#) type of department, your on-scene conditions should direct you to prioritize your resources for rescue.

There are search guidelines that each firefighter should remember to keep them safe and to accelerate the primary search such as always maintaining voice or visual contact. Then, search the area of the fire first and the area immediately surrounding the fire. Next, search the floor above the fire. Third, search the point highest above the fire. You can complete all other areas after these have been covered. When searching, always remember to close doors to slow down the spread of fire. Perform local ventilation as needed to improve conditions for the victims and search team visibility. It's important to mark the entrance to the room you are initiating a search in, following the SOPs utilized by your department or region. My department currently utilizes a slash (/) upon entrance and makes a second slash, creating an "X" when the primary is completed.

In addition:

- Always turn the same direction when searching (left or right hand search pattern).

- Try to stay in contact with a wall to keep from getting lost. If necessary, consider using a search rope to cover areas not covered in the wall-based search.
- When searching non-standard rooms (irregular shapes or larger in area), consider search ropes to prevent loss of direction.
- Remember that thermal cameras are a great tool for primary search. However, a team must be practiced in utilizing them to assist with search methods. The team must also carry a spare camera battery and be prepared to shift into standard search methods should the thermal camera fail.

It's important to bear in mind that just because we are on the floor searching, it does not mean the victims are; check upper areas of beds, sofas, etc. for victims, and be aware of the existing heat levels. Check under, behind and on top of objects. Check locations such as closets, bathtubs and under beds (kids' favorite hiding spots). Stop occasionally to listen for any possible sounds being made by victims.

Don't hesitate to request a hoseline if you did not bring one to protect escape routes or keep the fire from the victims, have a secondary means of escape and keep watch on changing fire and structural conditions, remembering to update the IC of conditions and progress.

When considering the best methods to search smaller occupancies, whether residential or commercial spaces with sub-divided areas such as office spaces, consider the following process from the [Maryland Fire and Rescue Institute](#) at the University of Maryland:

Small area search — residential or commercial with individual offices

- 1. Carry necessary tools (entry tools, hand light, radio, search rope or webbing, etc.)*
- 2. Check door with back of hand before entering to determine if fire is on the other side*
- 3. If door opens in, stay to side away from door opening to avoid fire and heat (put rope or webbing on doorknob in case the door needs to be pulled closed)*
- 4. If door opens out, stay behind door to avoid fire and heat (use a foot to stop the door from opening further than desired)*
- 5. Stay low and open door slowly*
- 6. Search in teams of at least two with team members staying in visual or voice contact with each other*
- 7. If the smoke is light (firefighters can see their toes) the search can be conducted while walking, otherwise crawl on hands and knees*
- 8. One firefighter should maintain contact with the wall while searching the perimeter of the room if both firefighters are staying together*
- 9. If the two firefighters split, both firefighters should maintain contact with the wall while searching the middle area of the room*
- 10. Tools can be used to probe areas*
- 11. Be sure to stay low if crawling but search upper areas especially the surfaces of beds, couches, and chairs*

12. Use a hand light to extend visual reach

13. Once the two firefighters have met or reached the entrance point, there may be a need to search the middle area if this has not already been searched

14. Once the room has been searched, close the door and mark it to indicate that the primary or secondary search has been completed

15. Move from room to room until the entire structure has been searched

16. Larger structures may require multiple search teams

17. If the building being searched is an apartment building with a common corridor, teams may be assigned to each side of the hallway

18. If there are rooms running off the room being searched, mark the point of departure from the initial search so that the initial search can be resumed after the other room or rooms have been searched

19. Once the search has been completed, advise the Command Post of the results

The primary search is the foundation for all fireground skills we perform as professional firefighters. We are tasked with saving lives as one of the first actions we perform during a fire call. When we talk to the public, they are told this exact point. They believe they will be saved should a fire occur in their homes or businesses. Shouldn't we be practiced and prepared to do exactly that? Take the time to drill with your companies to ensure they are polished and capable of dealing with unexpected impacts. Ensure that they have the equipment to search a variety of occupancy footprint layouts. Finally, make sure they understand that a successful rapid primary search is the reason we do this job.

About the author

Michael Lee has 25 years experience in pre-hospital paramedic experience and about 20 years experience in the fire service. He started as a FF/Paramedic and worked up through the ranks, including training officer, to his current position as battalion chief at Cunningham Fire Dept in Colorado. He is currently filling the role of safety officer for FEMA USAR Colorado Task Force One and has military service in the U.S. Navy. To contact Michael, email Michael.Lee@FireRescue1.com.