

# Size Up Before You Search

BY DAVID RHODES

**T**OO OFTEN, OUR SEARCH TRAINING ends with the through-the-front-door, right- and left-hand search that we all learned in recruit school or a basic firefighter program. Although this is a very safe search, it may not be the most effective one given conditions. We rely on experienced crew members to know what to do, where to go, and how to search in the real world. The insufficient staffing levels in many departments have led to delays in conducting interior searches as more emphasis is placed on using the available resources to attack the fire. Simply put, we are often incapable of accomplishing more than one task at a time because of a lack of staffing.

One of the first things I tell the candidates of the Georgia Smoke Diver program is that the only reason we go to fires and attack them is so we can search. We search every time and we search everywhere. Remember, life safety is still our number-one priority. In some cases, we do need to control the fire before we can search, but more often than not, we can and should be doing both at the same time.

## SITUATIONAL AWARENESS AND SEARCH SIZE-UP

One thing I can't stand to hear on the radio is an incident commander (IC) as-

signing a company to "go in and search." I want to hear that the IC has grasped the location of the fire, considered the potential for savable occupants and determined their most likely location, and then command a company as follows: "Truck 1, you're assigned to do primary search on the second-floor bedrooms and then to check the primary means of egress." If you are just assigned to search, then the IC has given you a blank check to start and prioritize your own plan without any particular consideration of strategy. Imagine assigning three companies to "go in and search." Most departments would have three companies entering the front door and following each other around the house on a right-hand search in order of their arrival. Meanwhile, the occupants are roasting upstairs in the hallway. It is the responsibility of the initial IC (starting with the first officer on the scene) to give specific, nonambiguous direction to the arriving companies in the first few minutes of the fire.

As a responding chief or senior officer, you can gain situational awareness by monitoring the radio traffic while responding so that you know which companies are where and what they are doing. You have to know the location of the fire, the building construction, and

the most likely avenue of fire spread. You have to know the time of day and look for clues that the building may be occupied and who might be occupying it. Within just a couple of seconds of looking at the scene, you should be able to formulate a very educated guess as to about how many individuals should be occupying the structure, how many crews it will take to search within an effective time frame, and where you are going first. If all you do is apply the left- or right-hand search from the front door, you won't be effective, and you will certainly not make very many rescues.

## SEARCH PLAN

Searching without a plan is like teaching without an objective or outline. You will cover some ground and might cover it more than once, but you will miss something. You can't develop a good plan if your situational awareness is off base. You must know the environment, constantly assess the situation, and adapt your plan to fit the situation.

Your search plan is not something for which you hold a conference or develop from a checklist. It is your plan of action for the task that you communicate to your crew or assign to a company. Your plan should start you at the most likely location of a victim, given your size-up.



(1) It is safe to assume that a family lives here with at least two kids—one small enough to fit in the toy car and one big enough to roll a tire. In this house, the bedrooms are upstairs. (Photos by author.) (2) This house appears unoccupied, since there are no curtains and a "For Sale" sign is in the front yard. We will still search to confirm that it is unoccupied.

In creating a plan of action, you must *Look, Listen, Plan, and Act.*

- Look at the scene to see what is happening so you can understand the situation.
- Listen to the radio traffic to determine the conditions and the tactics being used.
- Develop your plan based on the above data.
- Act on it.

**Type of occupancy.** This your first clue to how many individuals you will possibly be looking for. Is it a single- or a multifamily dwelling? Is it an apartment or a duplex? Is it one or two stories? Is it a mid- or high-rise? Why is this important? You have to know this to determine how many resources you will need to search effectively. We all laugh about the crew that pulls the same 1¾-inch handline on every fire no matter how big it is. They go straight for the same line they use in a single-family residence and try to attack a warehouse with heavy involvement. "Engine 1 to radio, we have a 200 × 400 warehouse

with heavy fire involvement. We will be pulling two 1¾-inch handlines." They do this because it is habit. Many do the same thing with search. We can effectively cover a 1,200- to 1,400-square-foot, one-story wood-frame structure with one search crew (four members), so we assign the same search crew to the second floor of an eight-unit apartment building. *Big fire, big water; lots of building, lots of search crews!*

**Time of day.** This is critical to your situational awareness and search plan. Is it the middle of the day or the middle of the night? Are the occupants likely to be home or at work? Are they asleep? Statistics tell us that most residential fire deaths occur at night while the occupants are sleeping. So given that information, if we have fire in the middle of the night, we should go straight to the bedrooms and work our way out through the normal means of egress on our primary search.

**Physical signs.** These are clues that you notice as you approach the structure or conduct your regular size-up—for ex-

ample, a "For Sale" sign out front, kids' toys and bikes, vehicles, curtains or no curtains, grass cut or overgrown. These signs help your orientation to the environment to let you know if the structure is likely occupied and the ages of the potential victims (photos 1, 2).

**Human behavior.** People are creatures of habit. Most of the people we are looking for in a fire are not the ones who conduct monthly or yearly Exit Drills In The Home (EDITH) or check their smoke detectors for proper operation. This means that the individuals we are looking for will try to get out of the structure using the most common route that they take every day (the primary means of egress). If we take these primary routes on our primary search, heading from the bedrooms in the middle of the night, then we are searching the most probable locations first.

## SEARCH TACTICS

**Primary search.** We usually start the primary search before we control or confine the fire. In this quick, get-in-and-

# COLUMBIA SOUTHERN UNIVERSITY

## Save Money. Save Time.

Earn Your Fire Science Degree Online with CSU.

- Accelerated, Flexible Degree Programs
- Maximum Transfer Credit
- Affordable Tuition
- Textbooks at No Cost
- Complimentary Tutoring Services
- No ACT, SAT or GRE Required
- Federal Financial Aid  
*(Some Programs May Not Qualify)*
- TA, DANTES and VA Benefits

Associates | Bachelor's | Master's | DBA | Certificates

- Fire Science
- Emergency Services Management **NEW**
- Business Administration
- Organizational Leadership
- Occupational Safety & Health



[www.ColumbiaSouthern.edu/info/fe](http://www.ColumbiaSouthern.edu/info/fe) | 877.845.7668

Superior Service. Flexible Programs. Exceptional Value.

ORANGE BEACH, AL 36561

get-out search, we prioritize searching the most likely place that victims may be and where they would be in the greatest danger—i.e., the fire room. Determining where to search first requires us to answer some questions: Where is the fire? Where is the fire going? What is the most likely place (given the occupancy type and the time of day) that trapped individuals might be?

The primary search is a race against time; a rescue during this search pro-

vides the victim with the greatest chance of survival. Communication is essential to success in the primary search. We do not want crews duplicating efforts; we want to maximize the resources we have to the most threatening area and the most probable area for victims.

We always want to search in teams of two, but this doesn't mean you have to strap yourself together or hold hands down the hallway. Many rooms we encounter simply are not big enough for

two people to crawl around in a circle while dodging furniture. It is perfectly acceptable to have a person search a room alone while the other member is monitoring conditions from the door to the room. The key again is communication. Your search partner has to know to come back to that door and not to go off into other rooms until you both move forward. This tactic also works well with the thermal imaging camera (TIC). The firefighter at the door can complete the six-sided scan of the room and direct the searching firefighter to any potential points of interest. The TIC firefighter can also monitor the conditions and heat movement. This is vital if you are searching above the fire. Somebody must watch the stairs, which are your primary means of egress. Good rapid intervention crews should ensure that ladders are up to provide you with a secondary means of egress and should not stand in the front yard with their hooks, posing as shepherds.

**Secondary search.** Once the fire is under control, you usually have plenty of resources arriving and you must complete a second, very thorough search of the entire structure. Use a different crew to perform this search. Although the chances are diminished, there is still a possibility of finding live victims on the secondary search. During this search, leave no stone unturned, inside or outside of the structure. Wouldn't you hate to have searched throughout the house only to have a police officer advise you, after you completed your search, that a woman is lying unconscious in the shrubs behind the house?

I have seen the critical priority of the secondary search slip down the priority list in many departments over the years. Too many firefighters automatically think the secondary search is a recovery search. We should separate the two tactics and actually change the mindset for a recovery search.

**Recovery search.** Once the secondary search is completed, you may need to change tactics to a recovery search if it seems evident that a victim who was not located during the primary or secondary search likely perished in the fire. This is based on information from neighbors or family members that, with a high prob-

Rescue 42 proudly introduces its new series of innovative products

**VAULT™**

Hitch mounted solutions for Fire, Rescue, Law Enforcement and Military

www.RESCUE42.com  **RESCUE 42** (888) 427-3728 

*Innovative Tools for Extrication and Rescue*

Enter 117 at [fireeng.hotims.com](http://fireeng.hotims.com)

[www.FireEngineering.com](http://www.FireEngineering.com)



ability of accuracy, places the victim in the structure during the fire. In the case of collapsed structures, this search may require additional equipment, such as that needed to screen sift for bone fragments or other clues. It is not a typical search and is not required at all fires.

## SCENARIOS

**1** It is 6:30 a.m. and you are the first-arriving engine officer (photo 3). A neighbor returning home saw the

fire and called 911. He advises you that a family of four lives in the house. With you are the engine driver and a firefighter. What is your size-up, and what are you going to do?

- The fire is in the garage (probably a vehicle fire).
- If the kitchen door is intact, the fire probably hasn't spread.
- Have your driver secure a water source and deploy a handline to the front door.

- Enter the structure; check the integrity of the kitchen door.
- Go upstairs and remove/rescue the occupants to the exterior.

**2** It is 2:00 p.m. on a July weekday (photo 4). You are the second-arriving truck company on the scene and the IC assigns you to "search"; that is all the information you receive. What do you do?

- Size up the fire, and determine its location.



A Division of Witmer Public Safety Group

**ORDER TODAY!**  
800.852.6088  
TheFireStore.com

**ADVANCED ROPE RESCUE TECHNOLOGY?**  
Don't get hung up looking – we have what you need!



**EVERYTHING BUT THE TRUCK**

## KOCHEK CO. LDH STORZ Couplings SPEC THE BEST quality,

STANDARD - Forged 6061-T6  
low profile aluminum Storz heads  
with stainless steel locking trigger  
Meets and exceeds all NFPA standards  
and proudly made in the U.S.A.

**Request the best, Kochek  
LDH Storz Couplings from  
your HOSE manufacturer!**

**KOCHEK Options:**

- powder coat colors
- hard coat
- reflective powder coatings
- laser etched engraving
- recessed reflective tape
- 4", 5" and 6" Storz Couplings



STANDARD  
Stainless  
Steel Locking  
Trigger

**NEW S,T  
Storz / Thread  
Dry Lube**



**20 YEARS  
STRONG**

[www.Kochek.com](http://www.Kochek.com)

Enter 121 at [fireeng.hotims.com](http://fireeng.hotims.com)

- Observe what actions are being taken to contain the fire.
- Select the appropriate ground ladder and use the vent-enter-search tactic to get as close to the fire as possible through a second-floor window.
- Advise command of your plan, actions, and location.

...

Searching a residential building is one of the most critical fireground operations. However, too often, it does not receive the priority it deserves for many reasons. Meanwhile, time races on, continually reducing the victims' chances of survival. We control, extinguish, or contain fires to buy the potential victims survival time and give our search crews the time to find them alive. As a secondary benefit, we might save some property, but we have to remember that saving property is always secondary to saving lives.

We must think about what we are doing before we start our search. Blindly going to the front door and going left or right without first considering the situ-

ation is usually not the best tactic and relies heavily on luck as a strategy for finding anyone alive. Effective searching requires experience, communication, situational awareness, coordination, and competent firefighters and officers. Remember, search every time, and search everywhere! ●

● **DAVID RHODES** is a battalion chief and a 25-year veteran with the Atlanta (GA) Fire Department. He is a chief elder for the Georgia Smoke Diver program, a member of the FDIC executive advisory board, the H.O.T. logistics coordinator for FDIC, and a member of the *Fire Engineering* editorial advisory board. He is an adjunct instructor for the Georgia Fire Academy. He is the incident commander for the Georgia Emergency Management's Metro Atlanta All-Hazards Incident Management Team and a task force leader for the Georgia search and rescue team. He codeveloped the "Marketing the Mission" video (*Fire Engineering*, 2000).

## When every second counts!



**EXTENDO  
BED Light  
Available  
for SUVs!**



- 1200-1800 lb. capacity at over 100% extension
- Fast and easy access for all emergency vehicles
- Sizes and shelving designs for most work vehicles
- GSA Schedule #GS-30F-0004S

## EXTENDO BED

[www.extendobed.com](http://www.extendobed.com) 1-800-752-0706

Enter 122 at [fireeng.hotims.com](http://fireeng.hotims.com)