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Snapshot Size-Up #120

Search Ropes

There will be times, at both private dwelling and commercial occupancy fires, where it will be too dangerous to enter the fire building without utilizing a search rope as a safety measure. The primary reason for a search rope is to ensure that you can back out to a safer position if conditions worsen. Your immediate danger may not always be from fire. Many times, your greatest challenge will come from the threat of disorientation, which commonly occurs when presented with a maze like configuration (ex: a basement full of storage) or large open spaces (ex: a warehouse). Sometimes, a small diameter, 25'-50' tag line with a single carabiner on the end, will suffice. This is a tool that you should invest in and carry in your turnout pocket. Additionally, every department should develop a Search Rope SOP that is practiced and understood by ALL members. Below are some tips to help get you started in developing that procedure:

1. Based on a 30-min. SCBA cylinder, many experts believe that a search rope should be a minimum of 150', but never longer that 250' (otherwise you will not have enough air in a cylinder to fully deploy all 250' and get back safely). This (250') is a sufficient size line that will enable most firefighters to reach their desired location.
2. Tie the rope off to a fixed item, preferably OUTSIDE of the building, before moving into the area you will be searching. Conditions inside can change rapidly. An area that was clear when you tied off, may soon become dark and disorienting.
3. Knots should be placed every 25 feet (*1 knot at 25', 2 knots at 50', etc*). This will help Firefighters know exactly how deep they are into a structure. Also place a ring at each knot, this will enable firefighters to tether with smaller lines and search off the main rope without making too many directional changes. (When you do make a directional change, tie off to a fixed object before continuing in a new direction).
4. At each knot, radio the Incident Commander to inform him/her how deep you are into the structure. (This will also help with Accountability and RIC awareness).
5. Utilize Thermal Imaging Camera's, but don't rely solely on them. TIC's are great tools, but they can fail.

Deputy Chief Frank Viscuso is a twenty-year veteran of the fire service. He is a regular contributor to Fire Engineering Magazine & FireOpsOnline.com. He is also co-author of the book Fireground Operational Guides (PennWell 2011). The book features universal tactical worksheets and operational guides for more than 70 incidents that range from water, gas and electrical emergencies to multiple-alarm structure fires.