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FIRE WATCH

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VENT-ENTER-ISOLATE-SEARCH

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Our primary mission is to save lives. To do this effectively, we must prioritize immediate primary search, fire attack, and coordinated ventilation. We should look to optimize our operations for those we serve. Hopefully, the following article will shed some light on a tactic that has yielded positive results.

What is VEIS?

Vent-Enter-Isolate-Search (VEIS) is a targeted search aimed at rescuing victims quickly. Members enter a building through a window to isolate the space from heat and harmful gases and remove any victims through the entry window. Using this tactic, we can gain immediate access to areas where victims are most likely trapped and provide a prompt exit from the IDLH environment. VEIS requires crew coordination, knowledge of building construction, and a full understanding of fire dynamics.

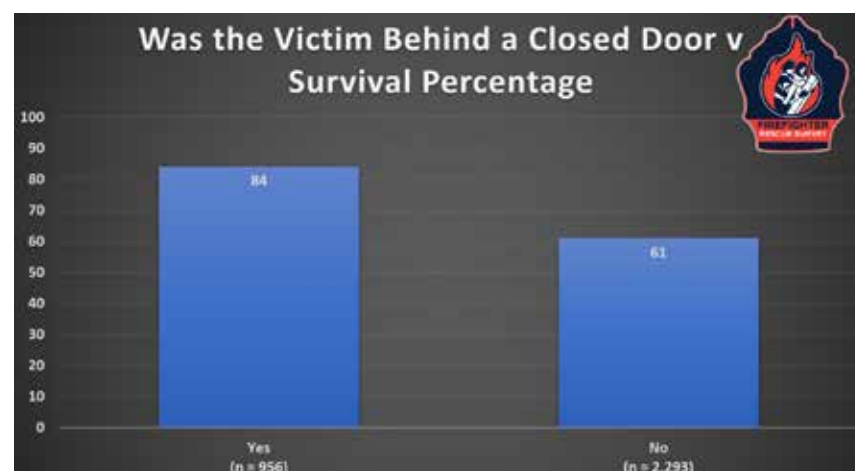
Why VEIS?

By entering through a window and isolating the space, we create a safer environment for us and a more survivable one for victims. Ventilating the compartment and isolating it from the fire significantly reduces heat and toxic gases, while increasing visibility. Research by the UL Firefighter Safety Research Institute (FSRI) shows that isolating the space from the fire and its flow

path, pre-suppression, drastically reduces exposure to heat and toxins for both victims and firefighters.

Isolating for Survivability

While removing a victim through a door is an option, it may not always improve survivability. A study done by UL found that, pre-suppression, isolating a room from fire and toxic gases—even if slower—greatly increases survival chances. Prioritize limiting exposure over speed, and consider both rescue time and environmental conditions before making a decision.



Where Are We Finding Victims?

Our textbook says, "Quickly check likely victim locations and all affected areas". The data shows the most likely victim location to be the bedroom, regardless of the time of day. A survey of over 4,000 rescues confirms this. This insight is particularly relevant when considering the "Close Before You Doze" campaign by the OFM, which encourages people to close their bedroom doors before sleeping. With this in mind, bedrooms should be heavily targeted for VEIS operations.

45%	Bedrooms
17%	Family Room
11.5%	Hallway
42%	Room Adjacent to
23%	Room of Origin
36%	Trying to Escape

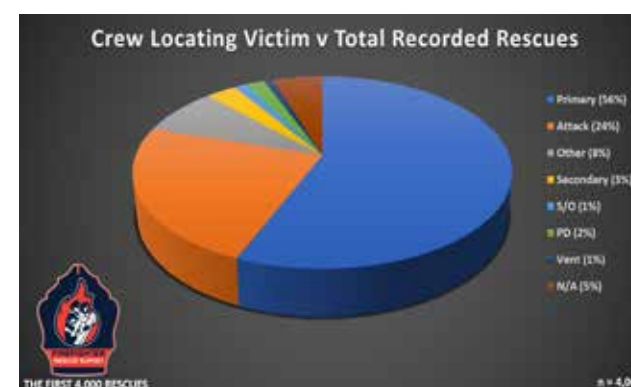
-NFPA & www.FirefighterRescueSurvey.com

Who Is Finding Victims?

According to data from the Clackamas Search Manual & the Firefighter Rescue Survey:

- 24% of victims were located by Fire Attack, with a 59% survival rate.
- 56% of victims were located by Primary Search, with a 62% survival rate.

This highlights the critical role of primary search in improving the chances of victim survival.



Victim survival rate is highly dependent on how quickly they are located. The National Institute of Health tells us that for every minute that passes between cardiac arrest & CPR, survival rate decreases by 7-10%. By reducing our time to the interior, we improve their chances of survival significantly.

VEIS Basics

There are typically three positions in a VEIS operation:



1. Ladder Firefighter

This Firefighter is responsible for positioning a ladder (14', 24', 35', etc.) to the window with minimal assistance, to allow their crew time to mask up. The ladder should be set up for rescue, to improve safety and ease victim removal. After placement, they stage tools (like a NY Hook or Halligan) on the ladder for the Search Firefighter. Once these tasks are done, their main role is to secure (butt) the ladder.



2. Search Firefighter

This Firefighter brings tools from the apparatus to the VEIS location, masks up quickly, and climbs the ladder for entry. Using tools staged by the Ladder Firefighter, they ventilate the window—breaking high first then working down in a "Z" pattern—then remove the sash by striking down and toward them on either side of it. They clear the remaining glass with a tool along the frame. Before entering, a quick scan with a TIC can help assess room layout, door location, heat levels, and potential victims. **This DOES NOT replace the need for a Primary Search.**

After ventilating the window, the Search Firefighter stays low in the frame away from heat. **Before sounding the floor, they sweep beneath the window using a Hook or Halligan in a wide semi-circle.** This is to avoid injuring any trapped occupants by locating them before sounding the floor. They then sound the floor by striking it with a tool or applying body weight to ensure it's safe for entry.



The Search Firefighter places their tool against the windowsill to mark the exit point. They then enter using the Controlled Headfirst method—or step through if the window allows—while staying low. In a Controlled Headfirst entry, they reach down to the floor, then guide their body through carefully, flaring their legs against the window frame to slow and control the descent.



After entering, the Search Firefighter quickly locates the room's door, performs a "Life, Fire Layout" down the hallway for victims, then closes the door. **Closing the door is crucial**—it cuts off the flow path to the vented window. Once isolated, they begin a primary search of the room. The Search Firefighter can also update Command on interior conditions.



3. Captain

The Captain remains at the sill to scan the room for victims and doors with a TIC. VEIS is typically a single-firefighter entry operation, however additional members can join the search. Consider the size of the room and how adding members could impact egress in an emergency. An officer at the sill can maintain crew accountability, monitor radio traffic, and assist with victim removal. A searching officer can make real-time decisions in the IDLH, help move obstacles or victims and speed up victim extrication.

Once the room has been cleared, all members descend the ladder. This process can be repeated as many times as necessary. The Search and Ladder Firefighter can be rotated to minimize fatigue and maximize air availability.⚡



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This article offers a basic overview of VEIS. A more detailed document is available. Please email me. Thank you to Captain Maybrey, Terry Leimonis and Christopher Downham for providing their knowledge. Without them this article wouldn't have the street level experience needed to reinforce the message behind it.

We only improve if we track data. If you make a rescue, PLEASE fill out the Firefighter Rescue Survey. An Ontario specific survey is currently being developed, Firefighter Rescues Ontario. It will be the primary source of data for rescues in our own backyard.