

Fire in the Sky: Firefighters Navigating the Evolving Urban and Rural Building Landscape to Save Lives and Property

A High-Stakes Gathering for Firefighters Focused on Advanced Tactics and Strategies for Bigger than Life Structures

HOUSTON, TX, UNITED STATES, July 23, 2025 /EINPresswire.com/ -- The landscape of firefighting is evolving as rapidly as our urban and rural environments. As cities expand both vertically and horizontally, the demands on firefighters have never been more complex. It is within this context that the "Fire in the Sky" conference takes center stage from September 16-18, 2025, in Houston, TX. This essential three-day event, presented in association with the Houston Fire Department and Affordable Drill Towers, aims to equip firefighters with the knowledge and tools they need to navigate the new challenges of high-rise, mid-rise and big-box fires.

Navigating Vertical and Horizontal Growth

Modern cityscapes present unique challenges to emergency responders. High-rises and sprawling complexes are emblematic of the urban and rural sprawl, introducing unprecedented complexity in firefighting operations.



Fire in the Sky, Texas 2025



More Air, More Time

Limited air supply, unique to large-scale structures, demands new tactical approaches to meet the oath of safeguarding life and property. Fire In the Sky is not just an event—it's a necessary evolution in how we approach firefighting in these environments.

Today's landscape is dominated increasingly by super-sized building structures, from big box warehouses in rural areas to high-rise towers in urban settings. Although both structural types offer huge financial advantages to developers, cities and towns, these structures require advanced training for firefighting and emergency response.

[Firefighter air](#) supply is challenged by the sheer size and magnitude of these buildings. Navigating these structures, particularly when lives are at risk, can be stressful and challenging when a 30-minute bottle of compressed air may give a firefighter 15 minutes of breathable air for the firefight

It takes three things to fight a fire: firefighters, water and air. Without air – there is no interior attack.

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High-rise fires require many full air cylinders & fresh air cylinders must be available. If the delivery of fresh air bottles is delayed by a lengthy stairwell the high-rise operation is set back.”

Jimmy Davis, Chicago Fire Department

Stairway to Hell

High-rise structures have been likened to large distribution warehouses standing on end. Both pose similar dangers, but notable differences exist due to height. “The elevators are out - we'll have to take the stairs” has probably been heard by every firefighter who's battled high-rise fires.

When elevators cease operating in high rises, as they often do, the entire firefighting operation can suffer significant

time delays, with adverse effects. Valuable time lost during a stair climb gives the fire more time to spread, which can limit search, rescue and evacuation and ultimately cause more property damage and toxic smoke penetration.



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Firefighter Air Supply Challenged

The major challenge with fighting fires in big-box and high-rise building structures is firefighter air. The challenge of getting water supply was greatly reduced by the implementation of water standpipes as far back as 1840. Air, however, seems to have eluded our understanding as the one commodity that firefighters need to do their job.

“High-rise fires require many full air cylinders,” says James Davis, a veteran Chicago firefighter who has battled many high-rise fires. “Fresh air cylinders must be available without delay during a high-rise fire. In the early stages of fire suppression, air cylinders are supplied in limited quantities. After about twenty minutes, supplemental air cylinders need to be brought in. If they are delayed, say, by a lengthy stairwell-only ascent, the entire high-rise operation is set back. This is due to the inability and lack of support to replenish breathing air for already committed firefighters.”

The challenge is and always will be: without air, firefighters cannot make entry to attack the fire, search and perform rescues. Without air, firefighters cannot perform the interior fire attack. Without air, they may have to retreat from the attack and switch to an exterior strategy, which delays rescue efforts and exposes citizens to significant threats.

Millions of Horizontal Square Feet

Big-box stores, distribution centers and warehouses present numerous fire hazards due to their size, inventory diversity, and storage practices. These facilities can contain flammable liquids, electronics with lithium-ion batteries, and large quantities of goods made of plastic materials and textiles, which can rapidly ignite.

High ceilings and vast open spaces offer a make-ready volume of air that can rapidly fuel a fire. While most fire and building codes require sprinkler systems in buildings of this size, it's important to understand that sprinklers only contain the fire. Firefighters are still required to extinguish the fire (through an interior fire attack), perform search and rescue, and carry out overhaul operations in a toxic cloud of gases, toxicants and carcinogens. These activities all require a continuous, breathable air supply.

Research conducted by Underwriters Laboratories, Inc. found that the “smoke and gas levels were quickly reduced by suppression activity however they remained an order of greater magnitude during overhaul.” IDLH (Immediate Danger to Life and Health) levels of carbon monoxide and hydrogen cyanide (The Toxic Twins), benzene, formaldehyde and arsenic were exceeded during fire growth and overhaul stages, all of which firefighters would be exposed to without air. What this means is that firefighters absolutely must have a continuous breathable air supply while on the fireground. Otherwise, they are exposed to toxic gases that can have cumulative or immediate, life and health consequences.

Air Technology

If we know a firefighter can only survive 3 minutes without air, and we are faced with 10+ vertical stories, or 2,000,000 square feet spread over acres of land, then we must accept that advancements in air technologies are critical to the firefighter and the firefight. The FAC supports the recognition and air standpipes as a means of continuous breathable air. Other technologies such as mobile air trailers and advanced compressor systems and cylinders will also be introduced during the training.

Advanced technology plays a pivotal role in modern firefighting, enhancing safety and efficiency on the fireground. Without a reliable air supply, a firefighter's operational time is severely limited, increasing the risk of toxic exposure or asphyxiation. Innovations and best practices in firefighter air safety can be the difference between life and death in high-stress situations. Simply stated firefighters need [More Air, More Time](#). Human physical limitations

As Steve Sanguedolce, President of Affordable Drill Towers, explains, construction of buildings is ever-changing, and the challenges that firefighters face are no exception. It is our goal to provide firefighters with the highest quality training from some of the most skilled, experienced, knowledgeable, and seasoned instructors in the country."

Meet the Masters of High-Rise, Mid-Rise and Big Box Firefighting

Fire In the Sky brings together a stellar lineup of instructors, each a luminary in the field of firefighting with a wealth of experience and expertise:

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Brent Brooks, a renowned figure in high-rise operations from Toronto Fire Services, will lead "Highrise Firefighting," focusing on updated equipment and tactics necessary for modern skyscrapers.

- Dave McGrail of Denver Fire Department (retired) will present "High Rise Ops: Keep it Simple," emphasizing straightforward strategies for effective incident management in complex structures.

- Jimmy Davis, with over 30 years at the Chicago Fire Department, will conduct "Protecting Vertical Cities: The First Five Minutes," centered on critical, time-sensitive decision-making during high-rise fires.

- John Norman, a veteran of FDNY, will share his expertise in "Lessons Learned from Extreme Fire Events," with insights into strategies developed from past firefighter fatalities.

- Mike Gagliano, from Seattle Fire Department (retired), will delve into air management tactics in "Lost, Disoriented & Out of Air," crucial for ensuring firefighter air safety in large-scale incidents.

- Jack Murphy, an expert in high-rise buildings and fire response, will address "Response Challenges: Super Block Hospital," covering strategic responses to complex urban structures.
- Daniel DeYear of Dallas Fire Department will explore "Low and Mid-Rise Building Construction, a Recipe for Disaster."
- Aaron Heller from Hamilton, New Jersey Fire Department will speak to Commanding the Commercial Fireground.
- Chief Kris Blume from Meridian Fire Department will present "When Size Matters: Navigating the Challenges of the Big Box," focusing on unique fire dynamics in expansive commercial spaces.
- Robert (RJ) James with the Frederick County Maryland Fire Department will present "Bigger Buildings Present Bigger Challenges."

These instructors are more than educators; they are guardians of their craft, imparting essential skills and knowledge to firefighting professionals. Their sessions provide the foundation for more effective strategies, tactics and operations in the rapidly changing fireground environment of the mega buildings.

A Call to Action

"Together, with Affordable Drill Towers and the support of the Houston Fire Department, the focus for Fire in the Sky is to bring the best training and finest minds to educate firefighters on critical topics of strategy operations, and tactics that must change in the face of the the vertical and horizontal building growth in this country," said Mike Gagliano, President of the Firefighter Air Coalition.

Fire In the Sky is more than a conference—it's a call to action for firefighters to adapt to the complexities of modern urban and rural changing landscapes. In a world where cities continue to grow and evolve, the need for innovative firefighting approaches has never been more critical.

Register today at [Fire In the Sky Registration](#) and be part of shaping the future of firefighting.

The time for change is now. Equip yourself with the latest knowledge and skills at Fire In the Sky, and rise to meet the challenges of a new fireground, requiring a challenging firefight.

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