

# FDIC 2016 CLASSROOM SESSIONS

Thursday, April 21, 2016, 10:30 AM-12:15 PM

## **BIG ROOM SESSION**

**They Are Us: Fireground Size-Up, Command, Control, Accountability, and Survival**  
*Deputy Chief Billy Goldfeder, Loveland-Symmes (OH) Fire Department*

It happened to them ... but when will it be us? We turn out day in and day out, normally expecting what to expect, but that's not always the case. Sometimes, things don't go as we thought they would. Sometimes, it goes far worse. Success and survival on the fireground have no guarantees; sometimes things go horribly wrong, even when we do our best. Other times, things go horribly wrong, and all the warning signs were there on the scene well before the fire even started. These are the fires we must learn from. The focus is on the proven facts of some recent fires. The lessons learned are taught with the resolve to honor those involved by not repeating fireground history. ALL LEVELS

**Room Sagamore 3-4-5**

## **Real-World Hydraulics**

*Chief Kirk Allen, Kansas (IL) Fire Protection District*

Are you tired of being told something, taught something, or sold something with claims of performance, only to find out after the fact that the claims were less than promoted and, in some cases, completely erroneous? The focus is on flow testing--the major issues uncovered that few are aware of--from the water main in the ground to the fire hose in your hand. Knowing the problem is only half the battle. The other half is becoming acquainted with the simple solutions proposed in this class. ALL LEVELS

**Room 105-106**

## **Gaining Relative Superiority: the 2½-Inch Attack Line**

*Firefighter Brian Brush, Edmond (OK) Fire Department*

Students learn that a cut in staffing does not automatically have to mean a reduction in the size of the hoseline used. A three-person engine is far and away the most common firefighting unit in the country. On paper, this appears appropriate: an officer, an engineer, and a firefighter. The real-world translation at a working fire is pump operator and two firefighters. Many organizations use this perceived staffing deficiency to explain away their ability to place anything other than a 1¾-inch hoseline into service. The fallacy is that the 2½-inch line necessitates more people or is more complicated. In many situations, this is not true. Operating as a 1¾-inch-only department is a choice; operating as a one-line engine is a result of staffing deficiencies. They are independent. The 2½-inch handline is a larger line, but it is still a single line. Through training, education, and proper tool selection, your company can effectively deploy and initiate an attack with the bigger weapon. ALL LEVELS

**Room 120-122**

## **The Changing Nature of Large-Vehicle Fire Operations**

*Captain/Fire Prevention Officer Robert Callahan, Bossier Parish (LA) Fire District 1*

Much like today's structure fires, fires involving large highway vehicles, including 18-wheelers, buses, and recreational vehicles, have undergone a radical change in the past several years. New hydrocarbon-based solid fuels in greater quantities have led to faster burning, hotter, and more dangerous fires that can easily challenge a department's response capabilities. The changing nature of these fires presents personnel, operational, and logistical challenges that were not issues in the past but now challenge even the most well-staffed volunteer, combination, and small career

departments. These challenges are discussed, and students learn how to solve them through preplanning, using mutual aid, and employing tactical changes that include using heavy-flow initial lines on the fireground that will allow the balance of power to tip back into the favor of the responding departments. ALL LEVELS

**Room 132-133**

### **Drawn by Fire: the Art of Making a Difference**

*Editorial Cartoonist Paul Combs, Fire Engineering*

Paul Combs has been creating fire service editorial cartoons for more than a decade and has the stories, successes, failures, and backlash scars to show for it! Get an inside look at his creative process and see what makes one of his zany cartoons come to life. He will also show a selection of work that has made a difference in his career and share the cartoons that have evoked the strongest reactions--good and bad. You will be encouraged and motivated to find your own voice to make a positive difference in the fire service by exploring your own tools (skills). ALL LEVELS

**Room Wabash 1**

### **“Drive to Survive”: the Art of Wheeling the Rig**

*Firefighter/EMT (Ret.) Christopher Daly, Goshen Fire Department, West Chester (PA)*

Countless hours are spent training on topics such as fire suppression, vehicle extrication, and mass-casualty incidents, yet these skills are used few and far between. But, every emergency incident, no matter how minor, requires drivers to use their driving skills, and little attention is paid to driver training. Although nearly 25 percent of firefighter and EMS fatalities are the direct result of motor vehicle crashes, few agencies train their members on the safe operation of emergency apparatus. This class teaches members that no matter how long they have been driving or how “good” they think they are, there are limits to the safe operation of an emergency apparatus or personal vehicle. Using the same techniques used by crash investigators, the seminar is designed to provide a better understanding of important topics critical for the safe operation of an emergency vehicle. ALL LEVELS

**Room 101-102**

### **Real-World Counseling in the Assessment Center Setting**

*Deputy Chief Freddie Fernandez, Miami (FL) Department of Fire Rescue*

Human resources are the most valuable assets fire officers manage; therefore, excellent interpersonal skills are mandatory to be a thriving leader. The focus is on counseling subordinates and the effects of personal problems on workplace performance. Addressed are developing and implementing an achievable performance improvement plan, strategies for uncovering underlying personal issues that may be affecting personnel performance, and tips for enhancing the effectiveness of a counseling session. Students are guided in methods for obtaining input from the subordinate for the improvement plan and in the potential consequences of action or nonaction. ALL LEVELS

**Room 127-128**

### **Tilt-Up Construction: Fortress or House of Cards?**

*Firefighter James Johnson, Vancouver (British Columbia, Canada) Fire and Rescue Services* **International Presenter**

An in-depth look at the construction process of tilt-up buildings: their construction and their materials and components. Students will learn how to identify a tilt-up structure and the reasons this type of structure is inherently dangerous for firefighters. Student participation is encouraged. ALL LEVELS

**Room 206-207**

### **Rescue Company Tools: the Must Haves and the Nice to Haves**

*Lieutenant Thomas Kenney, Hyannis (MA) Fire Department*

The class covers the tools available for rescue companies. Tool groups are broken down into packages such as manual, mechanical, electric, pneumatic, and hydraulic. Among the topics discussed are which tools always work, must-have tools on the rig, and buying into package tool systems. ALL LEVELS

**Room 125-126**

### **Engine Company Operations: Avoiding Failure on the Fireground**

*Captain Mike Kirby, Cincinnati (OH) Fire Department*

A review of the cultural, mental, and physical factors involved in engine companies failing on the fireground. Poor fireground operations, inadequate training, and multiple other factors can lead to serious injury or death on the fireground. Firefighters and company officers can effect change in the fire service. This class will reenergize you and show you ways to be successful on the fireground. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 1-2**

### **Atmospheric Monitoring on the Fireground**

*Special Operations Chief Jason Krusen, Columbia (SC) Fire Department*

Participants learn why atmospheric monitoring is needed on the fireground. The focus is on products of combustion and detecting some of the most dangerous gases commonly present at all fires. Recent findings and common practices are also discussed. ALL LEVELS

**Room 243-245**

### **Effective Use of Tower Ladders in Tactical Operations**

*Battalion Chief Nicholas Martin, Columbia (SC) Fire Department*

This class is for departments with tower ladders and those without tower ladders. The popularity of tower ladders has grown, but they are still less common than traditional "straight stick" aerial apparatus, and their optimum use is not always understood. To obtain maximum benefit from this versatile apparatus, firefighters, officers, and incident commanders must understand their capabilities and how they can most effectively be integrated into the fireground. The focus is on the proper use of tower ladders in several fireground scenarios including firefighter access, rescue of civilians or firefighters, elevated master streams, and technical rescue. Rear-mount and mid-mount devices are also discussed, and "ladder towers" and "tower ladders" are compared. In addition, the pros and cons of using tower ladders and straight aerials in various scenarios are discussed. INTERMEDIATE

**Room 240-242**

### **Winch Operations 101**

*Instructor Stephen J. Martin, SE-WY-CO (PA) Fire Company*

Have you ever been properly trained on the safe operation of your winch? Just about every fire department has some type of winch in its equipment arsenal. Few have ever been trained to use it. This interactive training program was designed to meet the rescuer's needs and provides the proper procedures and techniques for using vehicle-mounted or portable winches. Maintenance, use, and safety aspects of a winch and its related equipment are among the topics covered. The participant learns how to hold loads, pull loads, and secure vehicles for stabilization and techniques for inspecting the winch for safe, efficient, and effective rescue operations. Participants learn to use a simple formula to calculate how to safely operate a winch to prevent injury to personnel or damage to equipment. ALL LEVELS

**Room 136-137**

### **The Chief Officer's Role in Creating Enhanced Engine Operations**

*Lieutenant Ray McCormack, Fire Department of New York*

Chief officers need to look at the big picture and maximize the capability and effectiveness of their engine companies. More than just directing fires, engagement begins with evaluating and modifying hoseload configurations, surveying the response area, developing quicker stretches, effectively tasking personnel, streamlining water delivery, and developing extinguishment tactics. When you design winning engine company layouts and strategies, you enhance both community and firefighter safety.

INTERMEDIATE

**Room 231-233**

### **Firefighter Mental Health: Skills for Helping Yourself and Your Firehouse Family**

*Firefighter (Ret.) Beth Murphy, Bellevue (WA) Fire Department*

Behavioral health continues to be an area that needs focus in the fire service. Firefighting is the most stressful job of 2015, as identified by CareerCast.com. The evaluation was based on the typical demands and crises inherent in the job and did not include the intersection of job demands with the firefighters' personal lives. The complexity of stressors both on and off the job firefighters experience contributes to varying degrees of mental health struggles. Untreated, the effects of these stressors can lead to a loss of career or, worse, suicide. This class provides a brief overview of the problem and, then, through discussion, demonstration, and role-play, attendees learn the skills that help them become more comfortable with recognizing and helping individuals who are struggling with mental health issues. ALL LEVELS

**Room 123-124**

### **Special Needs Fire Prevention and Response Awareness**

*Battalion Chief Craig Nelson, Fargo (ND) Fire Department*

Attendees are introduced to important issues relating to fire prevention and emergency response when people with disabilities are involved. The class provides an introduction to some of the common disabilities responders may encounter, a description of each, and ways in which responders can best help. Proactive fire prevention methods are also discussed. ALL LEVELS

**Room 107-108**

### **Hybrid Search Techniques**

*Lieutenant Keith Niemann, Wichita (KS) Fire Department*

Far too often when rope or thermal imaging cameras (TICs) are used during searches, the process is slowed down instead of speeded up. The focus is on increasing accountability and speed when adding TICs or rope to the proven methods of traditional searches. Some of the pitfalls of rope-assisted search and incorporating a TIC in the search are discussed. Company level drills to reinforce good search habits when using these valuable tools are presented. ALL LEVELS

**Room 234-235**

### **Commanding the Incident from the Front Seat to the Chief's Buggy**

*Battalion Chief David Polikoff, Montgomery County (MD) Fire Department*

This interactive class uses a short PowerPoint® presentation to review the National Incident Management System, tactical worksheets, and size-up. During the hands-on training portion, participants will command incidents using radios that are provided and the latest fire simulation programs. ALL LEVELS

**Room 138-139**

### **Hazardous Materials Training: Next-Generation Training Props**

*Chief Jake Rhoades, Kingman (AZ) Fire Department*

This program challenges the traditional approach to hazardous materials training. Its highlights include an emphasis on innovative training props that can be used to increase the effectiveness, confidence, and safety of responders because they have “been there, done that” in the most realistic hazardous materials training environment. Evolving risks, increasingly complex scenarios, and the low frequency of hazardous materials calls combined with the decreased level of experience of many new officers have made the need for training more important than ever. Departments across the country are struggling with hazardous materials training because of a lack of realistic training environments that can simulate real-world decision making. ALL LEVELS

**Room 109-110**

### **Improving Fireground Operations with Thermal Imaging and Modern Fire Dynamics**

*Division Chief of Training & Safety Mike Richardson, St. Matthews (KY) Fire Department*

This presentation provides firefighters with the knowledge they need to combine thermal imaging technology with the latest National Institute of Standards and Technology and Underwriters Laboratories firefighting research to improve the effectiveness and safety of fireground operations. Students will view videos from fireground operations in which thermal imaging was used and in which key concepts such as ventilation-limited fire behavior, compromised structural integrity, flow path development, and victim survival profiling were in play. Firefighters will ultimately be able to apply thermal imaging in fireground operations with an understanding of its capabilities and limitations. ALL LEVELS

**Room Wabash 2**

### **Combat-Ready Firefighting: Are You Ready?**

*Operations Chief Richard Riley, Clearwater (FL) Fire & Rescue*

This interactive, multimedia-based presentation discusses the effects of complacency in the fire service and why we must combat it. Tips on attitude and equipment readiness are offered for the engine and the truck company, rapid intervention team, and incident commander. A complacent attitude is the first step in a tragic calamity of errors that results in a fire extending beyond where it should have been controlled or in preventable civilian or firefighter injuries and deaths. Firefighting is a “team sport” in which we all count on each other to be ready when the moment comes. Firefighters often think that they are “ready.” Scenarios presented focus on the instructor’s personal experiences at several near-miss fireground incidents; they show how the presence or absence of a “combat-ready” mindset influenced the outcome. ALL LEVELS

**Room 103-104**

### **The First Five Minutes: Size-Up, Decision Making, and Effective Communication**

*Deputy Chief Charles Ryan, Fairfax County (VA) Fire & Rescue*

This review of the 13 fundamental elements of size-up addresses the formulation of initial action planning and discusses effective communications/fireground terminology. Multimedia examples are included to illustrate key points. Audience interaction is strongly encouraged. INTERMEDIATE

**Room 238-239**

### **From the Xbox to the Box Alarm: Engaging Today’s Firefighters**

*Deputy Fire Coordinator Tiger Schmittendorf, Erie County (NY) Department of Emergency Services*

The focus is on creating connections among generations of firefighters. How do we motivate today’s recruits away from the Xbox long enough to answer the box alarm? This facilitated conversation builds the consensus, “The majority of the fires we fight are in the firehouse, not on the fire scene.” Students learn to combat these challenges with

solutions that are within their reach, focusing not on generational gaps but, more importantly, on the opportunities for creating connections among generations of firefighters. ALL LEVELS

**Room Wabash 3**

### **High-Rise Fires: Essentials for Volunteer Fire Departments**

*Firefighter Sergio Selman, Cuerpo de Bomberos de Santiago, Chile* **International**

**Presenter**

**This Class Is Delivered in Spanish.** The students and instructor “respond” to an imaginary call to a fire on the 20th floor. As they proceed, they identify the key positions, beginning with the incident commander, and determine the training requirements for those positions. The focus is on training for the worst-case scenario. In mid-/high-rise fires, it could be responding alone or with a second-due engine that could take ages to arrive. Furthermore, with an ongoing shortage of volunteers and the difficulty in securing an exact number of firefighters on each engine, we must prepare our volunteers for all the roles. They need to know the essentials of each position they should cover in this type of scenario--from incident command to nozzle, ventilation, and even positioning ladders. All of the essential positions an engine company would have to be proficient at to put out a fire by itself are covered. Each task; the minimum and optimal requirements for each position; and, of course, the best way to train for the functions are included.

ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 3-4**

### **Elevator Emergencies**

*Captain (Ret.) Tony Tricarico, Fire Department of New York*

Attendees learn what they need to know to mitigate an elevator emergency. Beyond learning how elevators work, the types of elevators, and the basics of elevator emergencies, students become acquainted with the terminology of elevator machinery room mechanics and the elevator mechanics and shaft parts. Among the topics covered are the tools needed to repair an elevator, how to use the tools, construction, site safety hazards, steel and wire supports, interlock devices, hoistway door operations, gaining entry, internal and external safeties built into elevators, lock out and tag out, locating an elevator, and the phases of elevator recall. In addition, the two basic types of elevators, wire hoist and pneumatic, are discussed. ALL LEVELS

**Room 236-237**

### **Situational Awareness Barriers in a Digital Information Environment**

*CEO/Senior Firefighter Bart van Leeuwen, Netage, Netherlands* **International Presenter**

New technologies like mobile data terminals, iPads, and cellphones are entering the fire service at an ever increasing pace. Often, the biggest argument for these technologies is increased situational awareness. However, when used in the wrong way, they can be barriers to situational awareness. This class examines this issue and discusses the source and presentation of information, generational influences, and the differences in the ways varying generations of firefighters use technology. Students are introduced to a common terminology and are given a nontechnical introduction to the way information systems work. A supporter of using digital information at the front line, the instructor did ground-breaking work on this subject at the Amsterdam Fire Department and shares information on the potential pitfalls you may encounter when using these technologies.

ALL LEVELS

**Room 134-135**

**Thursday, April 21, 2016, 1:30 PM-3:15 PM**

## **BIG ROOM SESSION** Add Fire-Dex sponsor logo

### **Issues and Challenges in Today's Fire Service**

*Chief (Ret.) Rick Lasky, Lewisville (TX) Fire Department; Battalion Chief (Ret.) John Salka, Fire Department of New York; and Chief (Ret.) Bobby Halton, FDIC Education Director/Fire Engineering and Fire Apparatus & Emergency Equipment Editor in Chief*

The fire service is faced with a vast array of issues and challenges. For the past 88 years, FDIC has been the place where honest discussions have led to workable solutions to these issues and challenges. This session features three of North America's most outspoken and informed practitioners. Join them as they tackle the most critical issues facing the fire service today in a no-holds-barred session. From pike poles to pensions, from VES (vent-enter-search) to VSP (victim survivability profiling), and from staffing to science, join the chiefs as they discuss the biggest issues in frank, open, and straightforward language. ALL LEVELS

**Room Sagamore 3-4-5**

### **Combined Fire Attack**

*Fire Officer Arturo Arnalich, European Organization for Nuclear Research* **International Presenter**

A proper combination of tools, techniques, and tactics (3T) allows for safer, more efficient, and more effective firefighting operations. It's all about timing and coordination. Given the same fire scene and context, different fire services approach the situation using divergent tactics, often with opposite approaches. The combined fire attack is one of many examples of a tactics combination that brings together the advantages of transitional attack, positive-pressure attack (PPA), and the traditional European antiventilation and gas-cooling techniques. One of the biggest disadvantages of PPA is the rapid fire development in today's ventilation-controlled fire environments. Softening the target and using gas cooling before and during interior progression prevent fire development while the positive-pressure ventilation fan enforces the desired flow path and prevents steaming of the attack team during the transitional attack. ALL LEVELS

**Room 120-122**

### **105 Tactical Extrication Tips in 105 Minutes**

*Engineer Paramedic Leslie Baker, Charleston (SC) Fire Department*

This high-tempo presentation covers the extrication process from preparation to termination and includes 105 tactical-level tips that better prepare students to respond to today's motor vehicle collisions. Establishing command, sizing up the incident, and formulating a plan based on good strategies are among the topics addressed. The street-level tips are presented through case studies with photos and videos and can be implemented in any department. ALL LEVELS

**Room 240-242**

### **The Fire Service Harness: a Multipurpose Tool**

*Firefighter Chris Botti, Fire Department of New York*

The fire service harness is more than just something to which you attach your firefighter escape system. It is a multipurpose tool that can be used for self-rescue, the rescue of civilians, and the rescue of down firefighters. Students will gain an understanding of how to use their fire service harness to its fullest extent. ALL LEVELS

**Room 132-133**

### **Preparing You for Survival: IAFF/IAFC Wellness Fitness Initiative/Candidate Physical Ability Test**

*Lieutenant Michael Cacciola, Fire Department of New York*

The International Association of Fire Fighters (IAFF)/International Association of Fire Chiefs (IAFC) Fire Service Joint Labor-Management Wellness-Fitness Initiative (WFI) is

the fire service-accepted program to build and maintain fit uniformed personnel. Fitness--medical, physical, and mental--necessitates that an effective wellness program be available to recruits, incumbents, and retirees. This program offers a step-by-step approach to implementing the entire WFI. It has now been more than 10 years since the release of the Candidate Physical Ability Test (CPAT). More than 1,000 jurisdictions have successfully implemented this valuable program. This class provides data to demonstrate the successes in this program, especially as a fair evaluation system for the selection of firefighters to ensure that all firefighter candidates possess the physical ability to complete critical tasks effectively and safely as well as provide for increased fire department diversity. ALL LEVELS

**Room 127-128**

### **Tower Ladder Tactics and Tips**

*Lieutenant Michael Ciampo, Fire Department of New York*

More and more fire departments are purchasing tower ladder apparatus for the overall safety of their firefighters. Many departments and firefighters transferring to a tower ladder company don't understand all of the apparatus' uses and capabilities. This class covers everything from training to setup, tactical tips, and overall operations, including street smarts for the tower ladder operator. ALL LEVELS

**Room 234-235**

### **Developing the Next Generation of Fire Service Leaders**

*Assistant Chief Douglas Cline, Horry County (SC) Fire Rescue*

The focus is on creating a professional development model for your organization. This model consists of a planned, progressive, and lifelong process of education, training, self-development, and experience. Professional development is a critical element of leadership. When you step up to accept the responsibility of leadership, you also accept an obligation to continue your training, education, learning, and personal experience so that you improve your effectiveness. Fire service organizations must provide continual guidance to their personnel through a carefully crafted professional development plan that meets the specifics of the organization. ALL LEVELS

**Room 206-207**

### **Understanding Mentoring in the Fire Service**

*Firefighter/Special Operations Technician Eric DePoto, Charlotte (NC) Fire Department*

The true meaning of mentoring, the characteristics that make effective mentors, improving your already adequate mentoring skills, and the effects of mentors (good or bad) on firefighters are among the topics discussed. Students will critique the mentoring styles and performances of individuals presented by the instructor. ALL LEVELS

**Room 136-137**

### **Normalization of Deviance: How to Overcome Complacency**

*Lieutenant John Dixon, Teaneck (NJ) Fire Department*

The focus is on the "Normalization of Deviance" phenomenon, which highlights all aspects of complacency on and off the fireground. Emphasis is on organizational learning and leadership and strengthening personal leadership qualities to navigate through the "Drift into Failure" process. This is not solely a theory or thought-laden class. The "how to" is stressed as students learn to become more self-aware; recognize the signs of "drift"; and learn to avoid, overcome, and battle this process by employing actions that can help prevent firefighter injuries and deaths. ALL LEVELS

**Room 134-135**

### **Drilling for Function: an Examination of Methods and Culture**

*Firefighter Aaron Fields, Seattle (WA) Fire Department*

The focus is on the nuts and bolts of creating and implementing drills and training programs. The methods within the program are scalable, allowing individuals to create individual and company level drills up to departmentwide training and curriculum development. The program uses “Nozzle Forward” as the model, but it is focused on the methods used for instruction within the program, which provide a template for any skill set. In addition, the program addresses common educational mistakes, pitfalls, and misinformation often found in fire service training circles. ALL LEVELS

**Room 123-124**

### **Meth Lab Fire; Now What?**

*Captain Tobias Frost, Lafayette (IN) Fire Department*

Meth labs are everywhere, even on TV. What are our hazards? What is the myth vs. the science? How do we decontaminate responders and limit on-scene time? How can we handle these labs, and what do we need to watch out for? These are among the questions addressed. In addition, several production methods are evaluated along with a new response model that pairs fire-based hazmat response with police-based lab processing for faster, more efficient scene processing. Several case studies are used to help identify some of the hazards associated with illicit labs. ALL LEVELS

**Room 125-126**

### **Construction Concerns: Modern Materials**

*Deputy Chief (Ret.) Gregory Havel, Burlington (WI) Fire Department*

At most fires, we assume that immediate structural collapse will not happen. Today’s manufactured building materials have little fire resistance and collapse rapidly in fires. Prefire plans, operational procedures, and size-up help us make informed decisions and can help us work safely. Steel studs and trusses, laminated wood, and drywall board were developed to save time and skill and are part of most new and renovated buildings. Cross Laminated Timber (CLT) was recently approved for use in load-bearing walls of Type IV and Type V buildings, with exterior wall panels rated as high as two-hour. This is a result of today’s concern for sustainable building and manufacturing practices and reducing the “carbon footprint” of our new construction and remodeling. Changes in construction methods and materials mean changes in fire behavior and changes in firefighting. Firefighter survival requires prefire planning, incident size-up and action plans, and changes to operating procedures. Builders prefer manufactured wood products to natural wood since the performance is more predictable under normal conditions. Firefighters are concerned with the performance of these products under abnormal conditions. We must know our buildings: their construction, changing use, deterioration, and fire resistance.

INTERMEDIATE

**Room 243-245**

### **Command and Control of Fireground Operations**

*Battalion Chief George Healy, Fire Department of New York*

Firm command and control of fire operations are critical to safely mitigate the hazards encountered at the fire scene. All too often, command fails to recognize or adjust to the current hazards units are faced with at an incident. A confident fireground commander is critical to ensuring the safety of operating units. An incident commander is constantly growing and maturing as a leader with each incident. Students share in lessons learned and tactics the presenter used to control the fire scene during his 10-plus years as an incident commander. INTERMEDIATE/ADVANCED

**Room 236-237**

### **Engine Company Operations: “Gallons Per Second”**

*Battalion Chief Curt Isakson, Ecambia County (FL) Fire Rescue*

This class covers the fire alarm assignment and where to stretch the first three lines at a private-dwelling fire to stop fire spread and search for trapped occupants. The focus is on aggressive interior operations to save lives and stop property loss. Today's accelerated fire growth necessitates rapidly applying water in terms of gallons per second and stopping fire growth while still considering the trapped occupants. Nearly 3,000 Americans trapped inside private dwellings during a fire die every year. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 10-12**

### **Alternative Fuel and Hybrid Trucks and Buses Are Here Now!**

*Rescue Instructor (Ret.) Billy Leach, Ash-Rand (NC) Rescue & EMS*

It was only a matter of time before alternative fuel (AF) and hybrid trucks and buses began appearing on American roadways. Responders need to prepare for them. Students are introduced to AF and hybrid heavy vehicles, how they work, and their associated hazards and will learn a "simple" strategy they can employ to make these vehicles safer for responders. Hazard mitigation tasks are also included. ALL LEVELS

**Room 138-139**

### **Strategies and Tactics in Subdivided Single-Family Dwellings and Single-Room Occupancies**

*Firefighter Aaron Martin, Fire Department of New York*

The concept of subdividing single-family dwellings began in the urban areas and matriculated into a nationwide dilemma for firefighters. This growth was caused in part by the rising cost of housing and expansive job cuts. This has been a dangerous and potentially fatal trend for firefighters. This class focuses on the inherent hazards associated with modifying the structure or floor plan and adding occupancies. ALL LEVELS

**Room 231-233**

### **Building Intelligence for Initial Operations and Beyond**

*Fire Marshal (Ret.) Jack J. Murphy, Leonia (NJ) Fire Department*

The focus is on the levels of building intelligence: Basic for initial operations; Intermediate for strategy and tactics; and Comprehensive as the incident is unfolding. Gain an understanding of real-time building construction projects and fire protection system impairments. Although many departments are rich in knowledge of construction/occupancy types and fire protection systems, they lack information as to specific building components as well as firefighter safety and precautions. As construction moves forward with lightweight materials and other industries are installing energy storage systems and residential ion-lithium batteries, and so on, firefighters need to ask, "Do I feel comfortable reading the outside of the building?" and embrace a military mentality when analyzing the fireground. ALL LEVELS

**Room Wabash 1**

### **The Right Seat: a Volunteer's Perspective**

*Operations Deputy Chief Christopher Niebling, Mantoloking (NJ) Fire Company*

The focus of this class is on the unique problems associated with the volunteer ranks discussed from the perspective of the volunteer fire officer, not the many issues fire officers in career and volunteer departments face in common when dealing with personnel in their stations. ALL LEVELS

**Room 107-108**

### **First On Scene Water Rescue Operations**

*Lieutenant Josh Percy, Oklahoma City (OK) Fire Department*

The focus is on giving the first-in company to water rescue incidents the tools and information to help make time-critical decisions. A wide range of water responses ranging from static water drowning to high-risk, low-frequency swift/flood emergencies are covered. Scene size-up techniques, response considerations, and interviewing witness techniques are addressed. PowerPoint® is used. Students are encouraged to prepare for water-related emergencies and to move water rescue into every company's regular training schedule if it is not now included. ALL LEVELS

**Room 101-102**

### **The European Way to Stop Smoke, Eliminate the Air Track, and Sniff the Fire**

*Regional Fire Commander Michael Reick, Eislingen, Germany* **International Presenter**

The ability to control smoke flows in buildings in a fire is essential for safe rescue and firefighting operations. Protecting civilians from the exposure of smoke and keeping escape routes smoke free are fundamental, especially in larger buildings. The principles of stabilizing smoke flows and fire conditions have been studied extensively in Central Europe in the past 10 years. One main approach to this problem is to partially block openings by fire crews and apply either positive-pressure ventilation or antiventilation whenever these opponent strategies are needed. The principles, limitations, and chances of these strategies are explained together with multiple examples of real fireground experience where these approaches have been applied. Discussing the differences and similarities between this tactic and the related "flow path discussion" in the United States provides a deeper understanding of this subject.

INTERMEDIATE/ADVANCED

**Room Wabash 3**

### **Flashover! Case Study of a Near Miss During Vent-Enter-Isolate-Search**

*Captain Jonathan Rigolo, Virginia Beach (VA) Fire Department*

The focus is on an incident in which a firefighter near miss occurred as a result of a flashover at a dwelling fire. Students hear the events that led up to the flashover, the changes in conditions that occurred, and the subsequent bailout and view a video of prearrival conditions. Topics such as the "indirect" or "hit it hard from the yard" method of fire attack, how vent-enter-isolate-search played a role in the near miss, bailout techniques, physical fitness, and the proper wearing of firefighter protective gear are discussed from the perspective of safety. ALL LEVELS

**Room 109-110**

### **Engine Company MCI First Strike: Maximizing the First Five Minutes**

*Paramedic Captain Justin Schorr, San Francisco Bay Area (CA)*

We know that the first five minutes dictate the next five hours at a multiple casualty incident (MCI). Forget the tarps, tags, and bags. Let's focus on the first company's rapidly gathering information, counting the wounded, and relaying the information to incoming units. The actions of the first-arriving unit are crucial in determining conditions, hazards, and the overall scope of the incident. Attendees are led through simple techniques for rapidly deploying a triage team at any level of incident to ensure maximum information gathering, successfully design drills that mimic a real MCI event, and focus on the company-level tasks that must be completed. ALL LEVELS

**Room 103-104**

### **Size-Up Videos and Tactics for the First-Due Engine**

*Lieutenant Tom Sitz, Painesville Township (OH) Fire Department*

This dynamic and interactive class features audience participation as a key component. Raw fire scene videos that begin prior to the fire department's arrival and progress through the arrival of the first-due engine are analyzed and discussed from the perspective of strategy and tactics with the focus on the first-due engine. Emphasis is

on points of entry and the pros and cons of each entry point, line selection (gallons per minute) and length, flow path control, and probable routes of extension. Direct fire attack, transitional fire attack, and blitz attacks are discussed. Case studies of similar fires in the buildings used in the video emphasize building construction and fire location and extension. Engine company tricks of the trade are also covered. ALL LEVELS  
**Room Wabash 2**

### **SCBA Bootcamp: a Firefighter's Survival School**

*Captain Trevor Steedman, Ocean City (MD) Fire Department*

The focus is on a variety of principles and practices all firefighters can use--rural and urban, career and volunteer. Fire does not discriminate. The Self-Contained Breathing Apparatus (SCBA) Continuum of Survival illustrates the training needs of the SCBA firefighter and provides multiple skills that maximize the potential for everyone to go home. Many firefighters are unaware of the survival options available to keep them alive. SCBA is the lifeline of the firefighter. Basic SCBA training provides rudimentary skills on which firefighters must build. Unfortunately, many firefighters and training programs neglect to advance SCBA skills to adequate levels. When the fire doesn't go "by the book," knowing the SCBA Continuum of Survival can make all the difference. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 1-2**

### **RIC for REAL: How Ready Are You to Save Firefighters' Lives?**

*Captain Paul Strong, Valley (WA) Regional Fire Authority*

This class covers many of the details learned from realistic, hands-on, rapid intervention training. Four-hundred firefighters were put to the test in stressful training environments that challenged everything they had ever been taught. They were challenged in their basic skills: Officers were challenged in critical decision making; crews were challenged in their efficiency, choreography, and coordination under realistic stress. Learn the best practices for increasing the chances for successful rescues by paying attention to the details in this session's approach to training rapid intervention crews. ALL LEVELS

**Room 238-239**

### **"Invitational Intervention": Understanding Where Addiction and Hope Meet**

*Rev. Jim Swarthout, Rosecrance Florian Program, Illinois*

Sitting around the table at the house--home or station--we often talk about motivation to change, which is a powerful and an influential force when it is harnessed. Much like a flowing river, when the water is channeled, it can be converted to life-enhancing energy. The process of change starts when any one family member decides that the addiction with which he/she is living is creating pain that can no longer be lived with. The addiction has made family interactions too controlling, too chaotic, too isolated, too filled with emotional ups and downs, too filled with anger and resentments, and too controlled by fears. Research has shown that a family member can be successfully coached in how best to invite other family members to participate in an intervention. Our research shows that this coaching is also 60 percent successful at getting the addicted person to attend the first family session designed to get this individual started in treatment. ALL LEVELS

**Room 105-106**

### **How to Avoid Social Media-Assisted Career Problems**

*Deputy Chief Curt Varone, Exeter (RI) Fire Department*

The focus is on training firefighters to avoid social media disasters. Social media has been a blessing and a curse for the fire service; it has the potential to create public relations nightmares and disciplinary disasters. The challenge is to establish boundaries between acceptable and unacceptable online conduct without violating individual rights.

Career, volunteer, and combination departments all have been impacted by social media. Managing the risks posed by social media involves striking a balance between members' rights and organizational responsibility while considering the impact of a variety of legal concerns, including the First Amendment; collective bargaining; and privacy rights. ADVANCED

**Room Lucas Oil Stadium Meeting Room 3-4**

**Thursday, April 21, 2016, 3:30 PM-5:15 PM**

### **BIG ROOM SESSION**

#### **Leadership Panel on Firefighter Addiction, Mental Health, and Recovery**

*Moderator: Battalion Chief Daniel DeGryse, Chicago (IL) Fire Department*

*Panel: Captain/Chaplain Jeremy Hurd, Palm Beach County (FL) Fire Department; Firefighter (Ret.) John Walters, Fire Department of New York; Captain (Ret.) Jeff Dill, Palatine (IL) Rural Fire Protection District; and Firefighter (Ret.) Dr. Beth Murphy, Bellevue (WA) Fire Department*

The mental health and well-being of the men and women in the fire service are the focus of this forum. With growing awareness and discussion on topics such as suicide, depression, post-traumatic stress disorder, and substance abuse, fire service personnel are looking for venues that provide information and direction on such topics. The experienced professionals on this panel have presented on these topics across the United States. They will share some of their experiences and field critical questions surrounding these issues. ALL LEVELS

**Room Sagamore 3-4-5**

#### **Effective Roof Operations: Lessons Learned from East to West**

*Chief Ken Bailey, Travis County (TX) Fire Rescue*

Roof operations vary from the East Coast to West Coast. Students gain an understanding of vertical ventilation techniques from across the country and are shown how to blend best practices for safe, predictable, and effective roof operations. The course is based on firsthand experience of training with firefighters from coast to coast and cutting countless roofs in training and on the fireground. Among the topics covered are tool selection, roof techniques/tricks of the trade, building construction, and roof diagnostics; all of this is compared and contrasted with what the new science is saying about traditional ventilation practices. ALL LEVELS

**Room 101-102**

#### **Running a Volunteer Fire Department**

*Harry Carter, Chairman, Board of Fire Commissioners, Howell Township, New Jersey*

The majority of the fire departments in the United States and North America are volunteer organizations. This class will help members of volunteer departments of all sizes to understand their organization and how it works. Organizational design, leadership, management, training, recruiting and retention, and ethical behavior are addressed. Attendees will be able to use the information to make their organizations more dynamic and effective. ALL LEVELS

**Room 231-233**

#### **Zero to Hero: Leadership Habits Before the Emergency**

*Captain Larry Conley, St. Louis (MO) Fire Department*

The focus is a principle-based approach to emergency services. Participants learn the details of the EMPOWER model. By internalizing this model, they learn to improve their personal leadership qualities and, consequently, to build stronger teams. ALL LEVELS

**Room 136-137**

### **Toothpick Towers: a Fire Officer's Guide to Operating in Lightweight Wood-Frame Multiple Dwellings**

*Associate Professor Glenn Corbett, John Jay College, New York City; Technical Editor, Fire Engineering*

This course covers the evolution of lightweight Type V construction and the variety of dangers it poses to firefighters. Attendees will become acquainted with specific tools for dealing with these buildings from the planning stage blueprint through the major nightmare fire. Most fire departments across the United States have lightweight Type V construction apartments, townhouses, and hotels in their jurisdictions. Although lightweight wood-frame construction has been in existence for more than 40 years, recent changes to codes and new technologies have conspired to make them one of the most significant challenges the fire service faces today. **ADVANCED**

**Room 125-126**

### **Successful Management of Extrications and Complex Roadway Incidents**

*Director (Ret.) Anthony Correia, Bucks County (PA) Rescue Squad*

Dealing with vehicle extrications and complex highway incidents involves the coordination of multiple agencies, whether a one-car motor vehicle collision that ties up traffic on the New Jersey Turnpike on a holiday weekend or a multiple-casualty incident (MCI) with a school bus on a weekday. The dynamics related to these incidents create chaos surrounding issues such as who is in charge and how to properly manage and use resources at these types of incidents. Attendees actively participate in team-building exercises related to managing people, vehicles, egos, and the scene through proper size-up and use of the incident command system. Topics include crew resource management, communication, situational awareness, teamwork, decision making, and barriers to implementing these functions. Students will practice these skills in exercises to improve their operational effectiveness at these types of incidents.

**INTERMEDIATE/ADVANCED**

**Room 105-106**

### **IAFF/IAFC/ACE Peer Fitness Training and Rehabilitation Program**

*Battalion Chief George Cruz, Los Angeles County (CA) Fire Department*

Firefighting continues to be one of the most demanding occupations in the United States and Canada. Research reveals the need for high levels of physical fitness to safely perform the necessary duties within the fire service career. Students become familiar with the new third edition of the International Association of Fire Fighters (IAFF)/International Association of Fire Chiefs (IAFC)/ACE<sup>®</sup> Peer Fitness Training (PFT) program, which has been revised to place emphasis on overall health and wellness both on and off the job. The focus is on the fire department's taking the lead in ensuring that uniformed personnel are properly rehabilitated. During rehabilitation, clinicians familiar with firefighting job requirements or essential job functions should determine uniformed personnel's functional capacities and readiness to return to full duty. In short, the fire department must facilitate the process from beginning to end, and the revised PFT program focuses on aiding personnel to be physically prepared for returning to full duty and thereafter. **BASIC**

**Room 127-128**

### **Emergency Responses to Alternative Fuel Vehicles**

*Captain Jason Emery, Waterbury (CT) Fire Department*

Recent trends in the transportation industry have shown that the number of hybrid and electric vehicles as well as gaseous fuels and fuel cell vehicles on the world's roads continues to grow. Students are given an overview of vehicles using these types of alternative drive systems and the impact on emergency operations. Among the topics

covered are identification methods, vehicle systems and hazards, and response procedures. Buses and other commercial vehicles now gaining in popularity are included. Attendees learn how to safely work around these vehicles. ALL LEVELS

**Room 120-122**

### **Attack from the Burned Side**

*Lieutenant Sean Gray, Cobb County (GA) Fire and Emergency Services*

There are many tactics for attacking structure fires. For years, the fire service has been preaching to attack from the unburned side. However, there are times when this isn't always the best tactic. Students will learn tasks and tactics they can use to extinguish fires that originate on the exterior and extend into the attic. Using case studies and with practical experience, students analyze how the "unburned side" fallacy and other fallacies have led to firefighter injuries and deaths. Recent research data are discussed in detail, and students learn how to apply this research to the fireground to make it safer, smarter, and more efficient. This class is against the grain of traditional firefighting and offers an innovative approach to fighting today's fires. ALL LEVELS

**Room 236-237**

### **Surviving the Insult: 2016 Interior Benchmarking**

*Lieutenant William Greenwood, Keene (NH) Fire Department*

Making educated decisions in today's hostile fire environment is critical for firefighter health and safety. This class helps to make sense of the science and help students understand why bad things are happening to good firefighters every day. The latest fire dynamics studies, an in-depth look at interpreting the findings of a thermal imaging camera for safer decision making, and a review of how your personal protective equipment protects from burn injuries are discussed. Students will examine damaged turnout gear firefighters were wearing when they suffered burn injuries and will receive the five-step situational awareness model "Interior Benchmarking," an easy-to-remember systematic process for benchmarking interior conditions as you operate on the inside. These benchmarks (What do I see? What do I hear? What do I feel? Where exactly am I? How long did it take to get here?) will provide the interior firefighter with information for making educated-aggressive decisions on "go or no go." ALL LEVELS

**Room 132-133**

### **Incident Scene Safety for Fireground Operations**

*Assistant Chief Todd Harms, Phoenix (AZ) Fire Department*

The focus is on the incident commander's (IC's) operational and safety responsibilities on the scene of a structural fire; the IC fills the command and control role for the overall incident. Attendees learn how to apply the eight functions of command and 11 safety considerations discussed in class to fulfill these IC roles. The objective is to decrease firefighter deaths and injuries on the fireground. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 1-2**

### **Big Box Store Firefighting Strategies and Tactics**

*Captain Aaron Heller, Hamilton Township (NJ) Fire District #9*

This presentation is for any fire department that will potentially respond to incidents involving these challenging structures. The various aspects of box store building features, engine company and truck company operations in these structures, large-area search considerations, and firefighter safety and survival as applicable to these large commercial buildings are among the topics covered. Included are considerations for the incident commander and the company officer. ALL LEVELS

**Room 109-110**

### **Doing More with Less: Cross-Staffing Apparatus**

*Battalion Chief Chris Hubbard, Hanover (VA) Fire EMS*

With many departments facing budget cuts and increasing demands for emergency medical services (EMS), the fire service has been forced to evaluate the possibilities of cross-staffing EMS and fire apparatus with minimal staffing. Attendees learn from several tricks of the trade to ensure they are meeting the community's expectations. This program provides a brief overview of how the fire service began cross-staffing apparatus and how this is quickly becoming the norm across the country and the views of local government administrators. The program also discusses the advantages, disadvantages, and challenges some departments are facing. ALL LEVELS

**Room 103-104**

**The "Combat Ready" Engine Company**

*Chief Tony Kelleher, Kentland (VA) Volunteer Fire Department*

With the "Combat Ready" mindset as the foundation, this multimedia, interactive class brings back the basics of engine company operations and teaches attendees how to use those basics to overcome obstacles, think outside the box, and prepare for any operational task that needs to be carried out. ALL LEVELS

**Room Wabash 3**

**The Illicit Manufacture of Butane Hash Oil: Dangers to First Responders**

*Captain Siegfried Klein, Aurora (CO) Fire Department*

The focus is on the chemicals, dangers, and risks for first responders associated with the manufacturing of butane hash oil and safe practices when encountering these labs. Students are shown demonstrative evidence seized by Aurora Fire Department fire and explosive investigators. On January 1, 2012, the State of Colorado enacted Amendment 64, which made recreational use and possession of marijuana and hash oil legal for people 21 years of age and older. As a consequence, many people in Colorado have been manufacturing this lucrative and potent oil, which has led to several explosions in private and multifamily residences in Aurora and throughout Colorado; in 2014, there were 32 explosions and fires in the state. ALL LEVELS

**Room 138-139**

**Initial Company Search and Rescue Tactics for Tornado Events**

*Lieutenant Scott Kleinschmidt, Wichita (KS) Fire Department*

Search and rescue operations related to tornado events are not confined to any particular geographical location within the United States. These violent acts of nature can strike anytime and anywhere; lightweight residential and commercial structures are at high risk for catastrophic damage. Often, these storms strike in areas that might not have the specialized rescue equipment of larger departments, leaving personnel to perform these rescues under marginally safe conditions at best. Even the biggest departments can find their resources maxed out, leaving them in the same situation. This class focuses on how to safely perform search and rescue operations in and around these types of structures. Emphasis is on basic rescue operations and techniques that can be safely performed using equipment found on most engine and truck companies before specialized equipment arrives from regional, state, or federal teams. ALL LEVELS

**Room 206-207**

**Fighting Fires in Fast-Food Restaurants**

*Chief Joseph Knitter, South Milwaukee (WI) Fire Department*

Based on extensive research and a photo library of "behind-the-counter" and actual incident pictures, this program highlights for company officers and firefighters the dangers of this common form of free-standing construction that can be found in nearly every fire department's response area across the country. Topics covered include the

common causes of fires in these structures, common construction features, and operational considerations for grease duct fires. Spurred on by the tragic loss of two firefighters in an intentionally set fire at a McDonald's restaurant in Houston on Valentine's Day 2000, this program takes a first-hand look at the building construction and design characteristics and the associated hazards that pose deadly threats to fire suppression personnel. ALL LEVELS

**Room Wabash 1**

### **Training Liabilities: Preventing Legal Jeopardy**

*Deputy Chief (Ret.)/Attorney at Law John Murphy, Law Office of John K. Murphy*

Fire departments are continually under the threat of litigation from the public and, at times, from our own firefighters or their families. At times, a training accident will prompt litigation against the fire department and the training staff. The focus of this class is to make training officers, chiefs, and firefighters aware of the legal risks of providing training. Applicable National Fire Protection Association training standards, National Institute for Occupational Safety and Health investigations of firefighter deaths caused by training, and current national incidents that involved firefighter fatalities and injuries on the training ground will be reviewed. Current case law related to training fatalities will be analyzed from the perspectives of risk analysis, best practices, and measures for preventing litigation. ALL LEVELS

**Room 238-239**

### **Volunteers: Doing the Job with Limited Resources in Small Departments**

*Captain Todd Parker, Ward (LA) Fire Protection District #1*

Volunteers provide fire protection to more than 70 percent of America. Today, the number of volunteers is dwindling, and volunteer firefighters are faced with limited personnel and resources to handle structure fires. Beginning with the response, arrival, size-up, and extinguishing of the fire, attendees will be challenged to use the limited resources to perform all firefighting tasks on scene. On-scene responsibilities, training, and use of partnerships, which reflect the real-world experiences of the attendees, are highlighted. Attendees are encouraged to share their ideas and solutions. ALL LEVELS

**Room 107-108**

### **Hoarder Homes: Using Offensive Tactics on Traditionally Defensive Fires**

*Fire-Medic Ryan Pennington, Charleston (WV) Fire Department*

Compulsive hoarding disorder, a growing issue facing firefighters worldwide, is the focus. The number of people afflicted with this disorder has been steadily climbing. Very little research on fire attack has been documented. Traditionally, many firefighters use the mentality, "We won't go in." This can be a solid choice, but it is not the only option. Commonly, hoarding is found in ventilation-limited conditions that may produce smoldering fires that can be extinguished easily. Education is essential to identify the presence of cluttered conditions, understand the fire dynamic variables, and apply appropriate tactics. All hoarding fires do not fall into defensive-only tactics. Attendees are introduced to the cues and clues of hoarded environments, exposed to fire dynamic variables, offered solutions to search orientation, and presented with potential solutions. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 3-4**

### **Vehicle Extrication from Inside the Auto Industry**

*Senior Firefighter/Design Engineer Michael Smith, Wixom (MI) Fire Department*

This class takes the new out of new vehicle technology and presents leading-edge information. Students will walk through vehicle design and construction from bumper to bumper, highlighting changes in technology, materials, and processes. In those places

where new technology is found in the vehicles, the “why” and “how” of the technology are briefly covered. ALL LEVELS

**Room 243-245**

### **CNG Commercial Vehicles: a Ticking Time Bomb**

*Lieutenant Steve Smith, Arvada (CO) Fire Protection District*

Compressed natural gas (CNG)-powered commercial vehicles are the focus. The basics of these vehicles are covered; emphasis is on rubbish vehicles. Topics include liquefied natural gas (LNG)-powered vehicles and the difference between LNG and CNG vehicles. An incident involving two CNG tanks that failed in Indianapolis is analyzed from the perspectives of the investigators and manufacturer, their conclusions, and what the industry proposes as far as firefighting is concerned (which tactically and mentally go against what we were taught since the fire academy). ALL LEVELS

**Room Wabash 2**

### **Cancer: Prevention Begins with Awareness**

*Director of Fire Service Programs Victor Stagnaro, National Fallen Firefighters Foundation*

Occupational cancer is a reality in the fire service. The outcomes and objectives of the January 2015 Occupational Cancer in the Fire Service Strategy Meeting held in Washington, D.C., are discussed, including the outcomes of the eight objectives reviewed during the strategy meeting. Among topics covered are cancer awareness, recommendations for preventing cancer, and the ongoing research needed to prove some cancers are related to the fire service as an occupation. The National Fallen Firefighters Foundation Cancer Awareness and Prevention video is featured and discussed. ALL LEVELS

**Room Lucas Oil Stadium Meeting Room 10-12**

### **There Is No Such Thing as Extreme Fire Behavior!**

*Associate Professor Stefan Svensson, Lund University, Sweden* **International**

**Presenter**

The focus is on approaching fire scientifically and viewing it from the perspective of scientists. Scenarios will include simple examples of theory through small-scale experiments to large-scale experiments. Fire is a process of combustion, and it is driven by laws of nature. Such laws describe how various phenomena in nature are related and affect each other. That we do not always understand these fundamental laws and how they affect the behavior of a fire does not make the fire extreme in any way. The fire simply follows the conditions given, whether we know them or not.

INTERMEDIATE/ADVANCED

**Room 123-124**

### **What Matters? Situations That Arise in a Diverse Fire Station**

*District Chief Susan Tamme, Tampa (FL) Fire Rescue*

An in-depth look at the issues that surface in the firehouse regarding gender, sexual orientation, and equality. Many company officers are not prepared for these types of issues when they come to light at the first onset. Understanding the underlying message and the needs of a nontraditional firefighter can make these situations easier to navigate. Information is presented from the human resources and legal perspectives. A question-and-answer session is included. ALL LEVELS

**Room 134-135**

### **Truck Company Operations for the Engine Company Firefighter**

*Firefighter Jeff Weffelmeyer, St. Louis (MO) Fire Department*

This class focuses on the truck company skills in which every firefighter should be proficient. Because of a lack of dedicated truck companies, engine operations are usually the main focus of the suburban and rural fire service. Just because your department doesn't have a dedicated truck company doesn't mean these vital fireground operations don't need to be accomplished at a structure fire. Who performs these operations on your fire scene? What truck company operations need to be performed? Forcible entry: You can't put the fire out if you can't get inside. Search: You won't find the victims if you don't go looking for them. Ventilation: Improve interior conditions for firefighters and victims. Ladders: Access to roof and upper floors and means of escape for firefighters operating interior. Overhaul: Opening up and making sure the fire is out. Aerial operations: Access to upper floors and elevated master streams. ALL LEVELS

**Room 240-242**

### **Trench Rescue Shoring: Our Dirty Little Secret**

*Rescue Team Manager Ron Zawlocki, Michigan USAR Task Force*

In this interactive session, students are challenged to create a model for a trench rescue shoring performance standard. Firefighters are needlessly risking their lives each time they enter a trench that has been shored with equipment and techniques that have not been scientifically proven (tested) to be capable of supporting the soil. The absence of a trench rescue shoring "performance standard" has allowed the continued use of inadequate shoring techniques by firefighters. This presentation teaches the participants to apply critical thinking and system analysis to the shoring systems and practices used for trench rescue shoring. Current theories, myths, and folklore are examined.

Participants will learn and apply a simple formula for determining the potential soil forces on their shoring systems and the safety factors of commonly used trench rescue shoring systems. Students learn methods for testing the strength of shoring systems in trenches. ALL LEVELS

**Room 234-235**