



Rural Water Movement Operations

Captain Bill Adkins, Loveland-Symmes (OH) Fire Department

This class will discuss the various strategies and tactics for rural water movement from nurse tankers to the rural hitch, drafting operations, vacuum tankers, and the jet syphon. This class will discuss advantages and disadvantages of these strategies; why or why not a certain strategy may work for your department, depending on resources; flow charts and times for loss of water in each strategy; apparatus placement; pump operations; and assignments.

ALL LEVELS

Addressing Suicide: A Proactive Approach to First Responder Mental Wellness

Captain Dena Ali, Raleigh (NC) Fire Department

Students will learn the importance of proactive mental health as a means to combat the many mental health disorders that are common among first responders, including depression, addiction, anxiety, and post-traumatic stress symptoms. Tragically, when not addressed, the end result of each of these can be suicide. Students will learn methods to prevent suicide by learning its traceable causes. Rather than focusing on individual risk factors, this class will explain how creating an environment to encourage help-seeking behavior can alter an individual's trajectory from reaching suicide.

ALL LEVELS

Real-World Hydraulics

Chief Kirk Allen, Kansas (IL) Fire Protection District

From the water main to the hose in your hand, learn from the instructor's 29 years of flow testing to uncover the major issues. Topics include the danger of blanket guidelines for hydraulics, manufacturers' information or lack of, numerous true nightmares from all over the country and simple solutions to fix them, fire hose myths, and friction loss formulas related to today's vast brands of fire hose and how to prevent getting burned--literally!

ALL LEVELS

The 7 C's of Fire Officer Trust

Chief John Alston, New Haven (CT) Fire Department

Learn the traits that are commonly associated with good officers and successful leaders. Drawing on elements of the National Fire Academy course "Shaping the Future," participants will exchange ideas and insight for the past, current, and future fire and emergency services culture and identify the elements of change in a nonjudgmental way.

ALL LEVELS

Hazmat Hot Zone Rescues: The Gray Area

Battalion Chief Phil Ambrose, Glendale (CA) Fire Department

A common-sense approach to first-in hazmat that is relatable to all levels as well as volunteer and career departments, this class explains when firefighters in structural gear can make a rescue in a hazmat hot zone and when they need to wait for the hazmat team. It dispels the go/no-go myths surrounding increasingly common hazmat incidents like chemical suicides and drug labs. Learn how to read the incidents and recalibrate the rules of thumb on when to fall back and when to move forward.

ALL LEVELS

Leadership from the Bottom Up

Battalion Chief Candace Ashby, Indianapolis (IN) Fire Department

This fun and engaging personal leadership development class is designed to inspire, educate, and motivate attendees on the vital role they play in the success of the organization. Attendees, from firefighters to fire chiefs, will walk away with valuable information on caring for the organizational spirit while enhancing individual, team, and organizational performance. If you want to make your organization better, it must first start with you. If you are a firefighter, stop complaining and start doing; if you are an officer, stop criticizing and start commending; and if you are a chief officer, stop talking and start listening. It is time we all come together, shed the negative narrative, and become part of the solution. If you love the job, want to have fun, and be the change, then this class is for you!

ALL LEVELS

Truck Company Operations Without the Truck

Captain Arthur Ashley, Lexington (KY) Fire Department

Truck work takes place at every fire to some degree, and some personnel should understand that truck work supports the engine company in extinguishing the fire. Good, solid truck work can be successful even without an aerial apparatus on scene. It all depends on attitude and the understanding of several areas. Search/rescue, ladders, forcible entry, ventilation, tools, and other important tactics may be assigned to that crew that arrives on an engine and now must operate as a functional truck company with the "know-how" to carry out truck company operations. This is a class that will define the need for truck work at all fires including the need to be ready to rescue persons in harms way. This class, for both small and large departments, can be used for short staffing and adequate staffing.

ALL LEVELS

Fireground Strategies: Strategic Decision Making

Deputy Chief (Ret.) Anthony Avillo, North Hudson (NJ) Regional Fire and Rescue

This class covers decisions to make regarding fire scene strategy determination, including strategy selection considerations, strategy modification cues, and offensive-to-defensive strategic transition. Areas of focus include below grade fires, attached and closely spaced buildings, cockloft fires, exposure issues, and large area buildings. Learn when an exterior strategic opportunity presents itself, precipitating a transitional strategy as the initial fireground action, making a transitional attack more effective, additional alarm considerations, and the importance of progress reports from all operational areas as the basis of ongoing review/evaluation/revision.

ALL LEVELS

Training as the Priority in the Volunteer Fire Service

Chief Justin Bailey, Oliver Springs (TN) Fire Department

Making training a priority in volunteer or mostly volunteer fire departments can be a struggle. This can lead to catastrophic results such as an increase in risk for injury and death and failing to meet the expectations of the community you serve. This class will help you determine the need for training and how to make it the leading priority. Topics include organizational training needs and expectations, the selection of a training officer, training program delivery, and personal responsibility in maintaining a healthy training environment. Attendees will leave the class with knowledge on how and why to make training a priority in their department as well as their personal lives.

ALL LEVELS

Vehicles Hanging from Structures: Not Your Typical Extrication

Engineer Les Baker, Charleston (SC) Fire Department

Because of several recent incidents and social media, vehicles hanging from structures and the subsequent strategy/tactics needed to mitigate the situation have become a popular topic. These low-frequency/high-risk events require a varied approach and specific set of additional skills from the typical extrication process. Learn the necessary tools to safely and efficiently operate at these challenging incidents. Topics include scene set-up, hazard mitigation, rope system management, and specific disentanglement tactics.

ALL LEVELS

How to Succeed on an Assessment Center

Battalion Chief (Ret.) Lisa Baker, Oakland (CA) Fire Department

When it's time to promote, you need to be prepared to be successful and understand the process. This class will discuss what an assessment center is, what the typical exercises on an assessment center are, and how to be successful in each exercise. Learn a good response vs. an excellent response. This class is taught from the prospective of an assessor, the person scoring you. Sample exercises will give attendees the opportunity to practice.

ALL LEVELS

Today's Safety First Culture vs. High Performance

Chief Michael Barakey, Suffolk (VA) Fire & Rescue

Reduction of firefighter injury and death continues to be an initiative of the fire service. The ability to provide progressive, aggressive, and responsive firefighting and rescue services is desired but is often complicated by the "safety first culture" that has overtaken the fire service over the past decade. As the fire service moves to a safety first culture--i.e. no breathing apparatus in the cab of fire trucks, clean cabs, carcinogen reduction measures, and transitional fire attack models--the ability of competent fire officers and firefighters to make aggressive and progressive critical decisions that place firefighters in difficult environments while citizens' lives are on the line is curtailed. Furthermore, at times, this new culture is preventing firefighters from engaging in, and learning how to engage, critical incidents; thus, firefighters are more prone to injuries and death from these critical incidents.

ALL LEVELS

Learning to Burn: Safety and Realism in Acquired Structure Live Fire

Lieutenant Ian Bennett, Seattle (WA) Fire Department

This class will discuss how to achieve realistic live fire training in acquired structures while maintaining safety and complying with National Fire Protection Association 1403, *Standard on Live Fire Training Evolutions*. Students will learn about the major risks, the benefits and limitations, and the procedures necessary to create safe and realistic live fire training as well as the deaths and close calls related to such training.

ALL LEVELS

First-Due Priorities

Division Chief of Training Oren Bersagel-Briese, Castle Rock (CO) Fire and Rescue

Department

Is the focus on firefighter safety providing the citizens their best possible outcome? The tactics of the first-in company are squarely at the intersection of firefighter safety, department policy, training, and citizen need. This class will discuss how to prioritize tactics in a way that promises the public the best opportunity at a positive outcome, how to gain a tactical advantage through preparation, and how to increase operational tempo and provide you with actionable takeaways to immediately apply on your crew. There are many competing priorities when trying to find your way to a successful outcome on an incident scene. The company officer must navigate through those to implement a tactical action plan. The combined result of a firefighter safety centered message, a heavy investment in technical rescue over the past 20 years, and the need to create more policies is a professionwide paradigm that has left common sense and citizen outcome as secondary thoughts on an incident scene. This class will discuss commitment to both the citizens and the firefighters, and attendees will leave with the tools and tactics to make good decisions on incident scenes and in the firehouse.

ALL LEVELS

Cognitive Neuroscience, Artificial Intelligence, and Robotics

Dr. John G. Blich, Senior Research Professor, U.S. Air Force Academy Department of Behavioral Science and Leadership, Colorado

This class presents research and scientific progress made in the field of cognitive neuroscience, which endeavors to understand the many complex brain functions associated with behavioral aspects of firefighting and emergency response. An overview of cognitive psychology principles is presented first, with an emphasis on the essential components of human behavior that allows rescue professionals accept extreme personal risk on behalf of others. This is followed by a review of human performance vulnerabilities, which may contribute to operational shortfalls in chaotic and unpredictable situations that are common to warfare and emergency response. After a few practical exercises, the class will conclude with a review of development trends in related technology fields such as artificial intelligence and robotics that provide an optimistic outlook for human resilience in the face of future calamity and disaster response.

ALL LEVELS

Rapid Intervention: Don't Just Stand There

Captain (Ret.) Art Bloomer, Kearny (NJ) Fire Department

Rapid intervention has been an evolving topic for a long time. Most units hate being assigned as the RIT, as they feel they just wait around until a Mayday is called. We need to get away from

that mindset. This class will show that there are many tasks a RIT needs to perform. Learn how to conduct a proper RIT size-up during the 360 to evaluate the fire and the unit's progress on fire attack, how to "soften up" the structure and identify and remove obstacles that may impede the rescue, how building construction can change the way the RIT is deployed, telltale radio transmissions that may lead to a Mayday being called,; and the tactic of "following the fire" to be positioned in the right place if a Mayday is called. RIT is not just for fires; it's needed for all incidents.

ALL LEVELS

The Anatomy of a Push

Firefighter Jay Bonnifield, Everett (WA) Fire Department

This class is for any firefighter on the nozzle at a fire as well as the company officers and training officers who are building curriculum and driving company level training. It begins by confronting the topics of how we view risk and safety in the fire service as well as the optimal mindset that provides a firm foundation for the skills covered later. It discusses why it is important to simplify and give a clear mission to the nozzleman so everyone from the most junior firefighter to the most senior can understand how to establish "hierarchies of line placement" and quickly and simply read the fire behavior to know intuitively what to do with the handline. Then attendees will dissect thermal imaging footage recorded in heavy fire conditions in live fire.

ALL LEVELS

The 3 Rs of Fireground Size-Up

Chief (Ret.) Gary Bowker, Winfield (KS) Fire Department

The 3 Rs--Reading the Risk, Reading the Structure, and Reading the Smoke--will enhance firefighters' ability to perform size-up. The capacity to quickly and accurately read key fireground factors, such as wind, fire fuel load, construction, and fire behavior, will have a direct impact on the effectiveness of the fire attack. The 3 Rs are an ongoing assessment throughout the incident. Today's rapidly changing fireground dynamics is the new normal. This requires that all firefighters proactively understand the art and the science behind the 3 Rs when formulating a fire attack plan on the ever-changing 21st century fireground.

ALL LEVELS

Optimizing Human Performance at Fires and Emergencies

Major Jason Brezler, U.S. Marine Corps; Fire Department of New York

Fires and emergencies create complex problem sets in which leaders and personnel function in a time-competitive environment where uncertainty, friction, and risk are pervasive. The American fire service has made great strides in advancing its understanding of the physical sciences but has largely neglected the scientific disciplines that inform leaders on human performance. This class explores critical human performance concepts, many of which are the product of applied research efforts in the military, professional sports, and more recently the fire service. Leaders and operators will be exposed to optimal human performance practices through a performance cycle that includes the phases of preparation, execution, and reflection. This class also highlights strategic human performance initiatives that are actively underway in the Fire Department of New York and the Milwaukee Fire Department, where leaders are proactively optimizing individual, unit level, and organizational performance at fires and emergencies.

ALL LEVELS

Attack of the 2.5-Inch Hose: A Case for a Bigger Handline

Firefighter Jonathan Brumley, Denver (CO) Fire Department

Many firefighters do not know when or how to use a 2½-inch attack line with confidence. As a result, many engine companies rarely attempt to deploy it, despite the fact that it is the most versatile line on the apparatus. Some departments have even opted to remove this line from service completely; this obviously leaves them unable to capitalize on its numerous benefits.

This class will take an in-depth look at when to deploy the line; how to select, stretch, and operate a medium-diameter fire attack package; and practical solutions that will guide any department in developing competency within 2½-inch operations, regardless of department staffing or size.

ALL LEVELS

Fireground Civilian Rescue Research Project

Chief of Training Brian Brush, Midwest City (OK) Fire Department

To date, the American fire service has not collected the number of or means by which civilians are rescued at fires. An unintended result of this is a myopic data set limited to loss relationships.

The demonstration of reduction in civilian fire deaths is only that; it cannot conclusively show more lives are actively being saved. The result of this information gap is a service unable to demonstrate how presence, actions, or operations result in saving lives. For the fire service to deliberately improve outcomes and not just reduce loss, the mission (saving lives) must match the metrics (lives saved). Until then, the operational impact of the American fire service will remain unknown. This class presents research that demonstrates the scope and value of fireground civilian rescue reporting. A clearer vision of the nation's fire problem for the future includes the knowledge of both the parameters of our problem (loss) and the dimensions of our success (saves).

ALL LEVELS

Fires in Vacant and Abandoned Buildings

Captain Brian Butler, Trenton (NJ) Fire Department

Fires in vacant and abandoned buildings are dangerous jobs that have resulted in the deaths and serious injuries of firefighters and civilians. Vacant buildings were always thought of as an inner-city problem but now many vacant and abandoned residential and commercial properties are in suburban and metropolitan areas. As a result of the pandemic and civil unrest, we will see a huge increase in vacant properties. Many of these buildings are illegally occupied with squatters and vagrants who may still be inside. Fires with entrapment in these dangerous buildings will require some unorthodox tactics to increase the chances of a successful outcome.

Accomplishing that while ensuring firefighter safety, gaining entry to fortified properties, analyzing structural stability, perimeter dangers, and fire conditions will be a major challenge.

ALL LEVELS

Fire Suppression in Small Box Stores with Limited Staffing

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

This class will discuss how to prepare for and respond to fires in box stores up to about 25,000 square feet, with an emphasis on volunteer, combination, and smaller all-career departments

likely operating with limited staffing. As this is a low-frequency/high-risk event for smaller departments, it represents significant operational and member risk. Topics include an overview of fire behavior, building construction, apparatus positioning, size-up, flow requirements, and managing fire spread in concealed spaces.

ALL LEVELS

Initial Size-Up Reports for First-Due Incident Commanders

Deputy Chief of Operations (Ret.) Leonard Carmichael Jr., Trenton (NJ) Fire Department

This class covers the initial on-scene size-up for the first-arriving officer at all incidents. It sets up the framework for the entire fireground experience from assessing the incident scene arrival information and setting up an IMS organization to using a systematic mental checklist using the CASH acronym (Command, Actions, Size-Up, and Help) for all incidents. Topics include the establishment of command, the 13-point size-up factors, first-due company assignments, and additional resources that will be needed.

ALL LEVELS

Mayday Monday: Tips and Techniques for Firefighter Survival

Captain/Shift Commander Tony Carroll, District of Columbia Fire Department

This class highlights a monthly firefighter survival campaign championed by the District of Columbia Fire Department. The mission of the campaign is to remember fallen firefighters and to provide monthly drills/skills for officers and members that will help with surviving the fireground. On the first Monday of the month, a new drill/skill is presented. In addition to the training, the memory of a fire service line-of-duty-death (LODD) is reviewed. Participants are provided with a report or story about the highlighted LODD and the drill/skill that ties into the cause of death cited in the after-action report. Attendees of this class will dig deeper into the lives of the lost and be provided with the steps to present the drill/skill to their department. Mayday Monday's provides tips and techniques to survive all firefighter killers, including fitness, health, highways, fire, collapse, and air management.

ALL LEVELS

How to Become a Better Fire Chief

Chairman, Board of Fire Commissioners Harry Carter, Howell Township (NJ) Fire District #2

This class helps participants prepare to assume top-level leadership roles within their fire department by addressing the problems they may be facing in such chief fire officer positions. Far too many people are unfamiliar with the nuts and bolts of what constitutes the skill and abilities of a good leader. In many instances, fire departments are not operating as efficiently as possible because some chiefs just do not know how to lead and manage. Learn to recognize good and bad leaders and how to overcome the bad ones.

ALL LEVELS

Failing to Teach or Teaching to Fail?

Dave Casey, Managing Partner, Ascend Leadership, Florida

Teaching is hard. Unintended detractors or distractions can make teaching harder and will reduce the participants' learning of what is intended. Time with the participants (students) is too important to reduce the learning and competency of what has been deemed as necessary instruction. Often, the wrong message and attitude are imparted unintentionally. Also, the true

message can get lost or diminished by how a class is taught (classroom or practical) and the goal of the training is not met. This class points out distractions and detractors from course delivery and how to overcome them.

INTERMEDIATE/ADVANCED

Survivability from Streams: The Facts and Fiction of Extinguishment

Captain Chad Christensen, Los Angeles County (CA) Fire Department

Most incident priorities start with life; thus, getting water where it needs to go in a timely manner can allow you to be more aggressive in search and increase the survivable space on the inside for everyone. The people we serve want us to save life and property as best we can. Using today's research and combining it with experience, we can improve our actions on the fireground tremendously. This interactive class will discuss the facts and highlight some of the fiction about hose streams and the use from the interior or exterior positions. Let's find a way to get inside as quickly as possible to search and isolate rooms to preserve what we can for the homeowners.

ALL LEVELS

Smart Instructors + Smart Tech = Smarter Students 2.0

Firefighter Shea Chwialkowski, Richfield (MN) Fire Department

This class offers an easy-to-follow blueprint for creating training content that meets the needs and expectations of modern-day fire and EMS students. The focus is on the resources and tools available to the modern fire service instructor, emphasizing creating an updated, interactive, engaging learning experience for students. The class will present novel ideas and specific examples of how to use and adopt a vast array of technologies into fire training and education. It will cover mobile applications, virtual and augmented reality, simulations, hardware, online software, and online SaaS. Attendees will leave motivated and equipped with the confidence to implement innovative, ready-to-use, low-cost options for modernizing and maximizing their training delivery model's efficacy in today's digital information age.

ALL LEVELS

Tower Ladder Tactics and Tips

Lieutenant Michael Ciampo, Fire Department of New York

Students will review tower ladder operations in terms of positioning, setup, and operating from the pedestal and bucket and review many proven tactical street smarts in master stream operations, roof ventilation from the bucket, and bucket positioning at fire escapes and at windows. Numerous tips will allow the student to learn from street-proven experience the value of this most versatile piece of firefighting apparatus.

ALL LEVELS

My Lieutenant Didn't Come Home: Lessons from a Line-of-Duty Death

Advocate for Firefighter Safety Melanie Clark, Hanover (VA) Fire-EMS

This class highlights a real-life incident where Lieutenant Brad Clark died in the line of duty and two other firefighters were seriously injured during a highway incident. It provides critical information to prepare fire departments, firefighters, and their families for when tragedy strikes. It provides an inside look at family notification and the days immediately after the tragedy. Lessons learned will be shared on how firefighters can better prepare themselves and their

families should the worst occur. This class provides intimate details into what happened from the spouse's perspective. Topics such as family notifications, working through the days immediately after the death, and negotiating through the benefits and administrative processes are discussed.

ALL LEVELS

Developing the Next Generation of Fire Service Leaders

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

Professional development is the planned, progressive, and lifelong process of education, training, self-development, and experience that one gains during development. In the fire service, professional development is a critical element of being a leader and being a professional. When we step up to accept the responsibility of leadership, we also accept obligation to continuing our training, education, learning, personal experience, and growth and work to improve our effectiveness. Professional development is an excellent tool for meeting that obligation. As fire service organizations, we must strive to provide continuing guidance to our most valuable resource, our personnel, through a carefully crafted professional development plan that meets the specifics of the organization. This class will help students with developing a model for their organization.

ALL LEVELS

The Experience of Firefighting

Deputy Chief (Ret.) Robert Cobb, Jersey City (NJ) Fire Department; and Battalion Chief (Ret.) John Salka, Fire Department of New York

Fires are still deadly. Nearly 70,000 people have died from fire in the past 20 years, more than 3,000 a year; 70% of the deaths from fire were in residential buildings, their homes. At the time of their deaths, 37% of fire victims in residential buildings were trying to escape; an additional 31% were sleeping. It is time to refocus on our most important priorities, saving lives and protecting property. This class will cover not just on scene size-up but mental size-up from the time the alarm is received, engine company operations, stretching the first line to save lives, truck/rescue company search and rescue tactics, fire floor-floor above, VES, and command decisions when occupants are trapped. The experience of firefighting is a training tool that still matters.

ALL LEVELS

Don't Touch the Red Button: Understanding the Ins and Outs of Pump Controls

Firefighter/AEMT Edward Collet, Jackson Township (OH) Fire Department

We have all been told not to touch something at some point in our life. When it comes to operating a pump, we are told push this, pull that, don't touch this, always do one thing, and never do another. But why? In many departments, this information has been passed down from one generation of pump operator to another. Unfortunately, this tribal knowledge often does not keep up with changes in technology and leaves out the why of the process. Pump controls have changed greatly going from manual valves and throttles to automatic pressure governors and electric valves. What the controls on a pump panel do, why they do it, and how they impact getting water to the fire are critical for an operator to understand. The most competent pump operators understand what and why behind all the pump controls, allowing them to consistently get water to the fire and proficiently troubleshoot issues when things go wrong.

ALL LEVELS

Be the Target!

Lieutenant Paul Combs, Bryan (OH) Fire Department

It is not enough to want to make a positive difference. You must put in the hard work and be prepared for the success of your goals--and the inevitable backlash from critics! Any cause worth your passion makes you a target for criticism, but it's how you respond to your critics that in most circumstances dictates the success or failure of your mission. Criticism can make you stronger, prove your point, make you wilt under the scrutiny, or destroy your reputation--it's up to you. This class explores these scenarios in an interactive environment where student participation is encouraged with positive discussions on how best to respond to critics. It will give you the tools to succeed where others fail. Not only will you be better prepared when you're the target, but you will put yourself in a better position to be the target of aspiration as well.

ALL LEVELS

Fire Service Court: Burning Legal Issues

Chief David Comstock, Western Reserve (OH) Joint Fire District; Attorney

This class will review hot legal issues affecting fire and EMS organizations on a daily basis. Topics include employee use of legalized marijuana, transgender issues in the station, federal law restrictions on background checks, social media rants, cell phone and computer searches, guns in stations and vehicles, FLSA requirements for volunteers, First Amendment audits by the public, NFPA 1583 medical examinations, digital imagery and public record policies, embezzlement by those you know, body and dash cameras, and more.

ALL LEVELS

Proven Leadership Habits For Optimal Personal Performance

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

This class will help participants realize their leadership potential through the E.M.P.O.W.E.R. model, which helps them recognize individual strengths and the ability to integrate those with team strengths. Participants also learn communication skills that promote and maximize team unity.

ALL LEVELS

The Legacy of 9/11: A 20-Year Retrospective

Associate Professor Glenn Corbett, John Jay College; Technical Editor, Fire Engineering

It has been more than 20 years since the darkest day in fire service history. Many hard-earned lessons for the fire service emerged from the attacks on the World Trade Center, including issues of response protocols, building construction, emergency evacuation, multiagency coordination, as well as other important subjects. This class will examine each of these themes and review the changes that have taken place or haven't been addressed. The impact of the NIST WTC investigation report, the "McKinsey Report," and the 9/11 Commission Report will all be reviewed and compared with the actual changes that have taken place since they were issued.

INTERMEDIATE

Merging EMS into a Fire Department Culture

Division Chief of Medical Services Charles Coyle, Palm Beach County (FL) Fire Rescue

The fire department is steeped in culture, and years of tradition have built a culture that focuses on fire suppression. Over the years, fire departments have started to work in the areas of education and prevention, and now EMS has become a major component of fire rescue departments. In most such agencies, EMS makes up a majority of emergency calls, and it also tends to be the largest source of income for the department (due to transport and treatment fees). Regardless of the percentage of calls and percentage of income, EMS still has a lot to overcome in terms of culture. This class will help EMS officers learn how to integrate with the fire side of their agency and work together to create a true fire rescue culture that will most efficiently take care of our customers.

ALL LEVELS

Drive to Survive: The Art of Wheeling the Rig

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

This class is for serious fire apparatus operators who want to improve their driving skills and advance the art of driving an emergency vehicle. It addresses advanced topics not normally covered in basic driver training programs, including advanced vehicle dynamics, crash causation, and common driver errors. It drives home multiple teaching points that are essential for professional fire apparatus operators. Topics include vehicle dynamics, air brakes, brake fade, roadway friction, stopping distance, lateral g-force, rollover thresholds, siren limitations, and intersection crashes. The class is ideal for any member who operates a fire truck, ambulance, or personal vehicle. It also addresses important issues for the chief and line officers who are ultimately responsible for the operation of any vehicle or driver training program.

ALL LEVELS

The High-Rise Firefight: Problems, Pitfalls, and Traps

Captain James Davis, Chicago (IL) Fire Department

You have a confirmed working fire on the 12th floor of a 35-story occupied office complex. Are you ready for the problems, pitfalls, and traps? The reality is, high-rise operations will traverse through many areas of vulnerability, complexities, and an insurgence of problems that will manifest. Problems compound and tactical breakdown is inevitable. Success or failure weighs heavily on your ability to anticipate, recognize, and respond to a host of problems. Unfamiliarity with high-rise operations, coupled with lack of training and preparation, sometimes places severe limitations on our ability to fight a high-rise fire. We can't identify and correct problems if we are unaware of them. This class will examine why problems, pitfalls, and traps are present during a high-rise operation and offer suggestions and contingencies to minimize the impact when they do occur.

ALL LEVELS

Energy Storage System and Fire Service Response: Update on Testing

Battalion Chief (Ret.) Sean DeCrane, Cleveland (OH) Fire Department

It seems like we are experiencing an increase in incidents involving energy storage systems (ESS) or electrical vehicle failures. In 2019, four firefighters were seriously injured in an incident involving the failure of a lithium-ion-based battery system. UL has been conducting ongoing research developing an understanding of the effects of battery failures and developing tactical considerations for the fire service. Researchers have been working with stakeholders to develop fire test standards to improve the performance of ESS or to design appropriate fire

protection systems. This class will update the fire service on these continued testing efforts including a current project where UL is partnering with the IAFF to test large-scale failures of residential ESS in a residential setting.

ALL LEVELS

Roadway Response to New and Emerging Technology

Firefighter Jason Defosse, Quinte West (Trenton, Ontario Canada) Fire Department

This class covers the latest in hybrid and electric vehicle response and addresses what rescuers need to know about interacting with autonomous vehicles. Topics include hybrid and electric vehicle components and safe rescuer interaction, charging station emergencies, extrication considerations for high-voltage vehicles, high-voltage vehicle shutdown and understanding stranded energy, autonomous vehicles and the future of vehicle extrication and rescue, and managing battery damage and high-voltage roadway debris. The class will prepare the already capable vehicle rescue technician to confidently and effectively respond to autonomous and high-voltage vehicle incidents. Emphasis is placed on executing safe but aggressive rescue at roadway incident involving even the most technology advanced roadway vehicles.

ALL LEVELS

Thriving in the Fire Service

Battalion Chief (Ret.) Daniel DeGryse, Chicago (IL) Fire Department; Director, Rosecrance Florian Program

The instructor draws from his personal and professional experience of growing up in an alcoholic family, educating himself, and his 30-year career in the Chicago Fire Department to offer his viewpoints on how all his encounters, both good and bad, have shaped him into a stronger individual and peer supporter. Further, he has spent nearly four decades working in the field of substance abuse and mental health counseling and discusses how attendees can take their personal experiences and strengthen themselves and those around them. He touches on how he believes all leaders within the fire service can successfully intervene in the growing presence of behavioral health issues within our field. He will also explain the Rosecrance Florian Program model, its approach, and how it is an effective culturally competent model for treating fire personnel dealing with substance abuse and mental health issues.

ALL LEVELS

“It’s Not Easy Being Small” and Dealing with High-Risk/Low-Frequency Emergencies

Chief (Ret.) Nicholas DeLia, City of Groton (CT) Fire Department

This is a look at the trials and tribulations of planning for and providing high-risk/low-frequency emergency services in small career, combination, and volunteer departments. Attendees will leave with proven options to be successful in the small department setting. Emergencies include FAST operations, marine and cold water rescues, technical rescues, and active shooters.

ALL LEVELS

Leadership Through Turbulent Times

Chief David DeStefano, Belmont (MA) Fire Department

This class outlines potential causes of turbulence in a fire service organization using current news events, historical cases, and the experiences of the instructor and attendees. It will focus on the fact that many organizations feel that their problems are unique but, in reality, they have a

great degree of commonality with most other fire departments. Once identified, a common strategy to not only cope with but manage the level of disruption outside and internal turbulence causes will be outlined. Attendees will learn that they have the tools to decrease disruption at their disposal.

INTERMEDIATE/ADVANCED

Fire Officer Development on Any Budget

Captain (Ret.) Lawrence Doelling, Palm Beach (FL) County Fire Rescue

This class focuses on increasing officers' performance and developing them for the challenges of leadership ahead. Emphasis will be placed on the newly promoted officers, but these ideas will also work with the existing officer base. Learn models and techniques that have been used in fire departments of various sizes and budgets and how they can be customized to fit any department at any level of resources. Recognizing deficiencies and overcoming them are big parts of developing a training program for any training division.

ALL LEVELS

Extrication and EMS: Coordinating Delivery of Critical Care

Captain/EMS Coordinator Rommie Duckworth, Ridgefield (CT) Fire Department

Good vehicle extrication demands a unique collaboration between rescue and emergency medical personnel. Incorporating key victim assessment information in the extrication size-up will improve your strategic and tactical plans. To save a patient (not just chop up a vehicle), rescue and EMS must understand each other's jobs and work together effectively. This class uses a real-world approach to incorporate EMS care considerations in the extrication strategy and shows how a most critical trauma encountered in vehicle collisions can be managed quickly and effectively by first responders. It will help you make better strategic extrication decisions and more safely deliver immediate life-saving treatment, reducing time from patient contact to patient removal to patient surgery.

ALL LEVELS

Fighting Today's Private-Dwelling Fires

Battalion Chief/Shift Commander (Ret.) Jim Duffy, Wallingford (CT) Fire Department

If your fire department is like many, most of your structure fires are in private dwellings. It should be no surprise that that our work environment has changed: Structural members are lighter, cheaper, and more energy efficient and fuels have higher heat release rates. This class will explore command, fire attack, ventilation, and search of house fires and fire dynamics as applied to private-dwelling fires. Topics include the importance of thorough size-up, the importance of coordinating all fireground tactics safely and efficiently with today's staffing, and some of the current studies and how they may relate to your operations. Some of the lessons learned can be applied to other types of structure fires.

ALL LEVELS

Searchable vs. Survivable: Educated Decision Making

Firefighter Sean Duffy, Wyandotte (MI) Fire Department

On the fireground, time is not ours to waste. Our efforts should be directed to give us the greatest chance at rescuing our victims and doing so in the most efficient manner. This class covers data gained from 2,000 rescue surveys and stresses that time does matter when it comes to victims of

fire. Emphasis will be placed on the search size-up, order of assignments, and being cognizant of our terminology. It is important that we use facts, not fear, to choose the appropriate course of action, putting our citizens first and increasing their survivability rate. In today's fire environment, we simply do not have much time; we must identify our searchable spaces immediately. To accomplish this, we must make educated decisions that support an aggressive search culture. Life is, and always will be, our number one priority. It should never be the mindset of "what's good for us" but rather we must concentrate our efforts on what is best for them.

ALL LEVELS

First-Due Tactics for the Urban Truck Boss

Captain Sean Eagen, Buffalo (NY) Fire Department

The class will cover initial arrival considerations for urban-based company officers. Topics include assigning resources, managing truck company crews during emergency incidents, and debriefing calls and other major events. Learn methods for capitalizing on various experience levels within the ranks to successfully mitigate incidents and other company-related tasks and activities.

ALL LEVELS

Basic Guide to Building Construction

Captain Bobby Eckert, Camden (NJ) Fire Department

The ever-changing environment that is the fireground is a place of pure unpredictability. We're forced to make a multitude of decisions based on arrival conditions, often looking at these conditions as the obstacle, but when, in fact, it is the buildings in which we operate that are our greatest obstacle. This class gives a basic understanding of all five types of building construction, how they are built, how fire causes them to fail, the types of collapses that occur in each, how fire travels through them, the strengths and weaknesses of each, and how to tactically navigate each type. Understanding building construction not only enhances your overall operational effectiveness but helps you anticipate how the building will react to fire.

ALL LEVELS

Decision Making in the Safety Culture

Captain Robert Edwards, Atlanta (GA) Fire/Rescue

The average person makes more than 30,000 decisions every day. Fortunately for us, the majority of these decisions are based on our daily routines and made subconsciously. In most professions, critical decisions are given days, weeks, or even months of thought; this is not possible on the fireground. The safety culture, inexperience, and the ever-present demands on our time have made decision making an even more critical skill for first-arriving company officers. This class looks at case studies and provides students with easy and realistic ways to improve on their decision making before, during, and after an incident.

ALL LEVELS

Make Truck Work Great Again: Urban and Rural Truck Company Operations

Lieutenant Stephen Faulkner, District of Columbia Fire Department

This is a guide to strategic advanced truck company operations while operating in high-paced fireground environments in both the urban and rural setting. Beginning with a basic review of

truck company functions and tools and in-depth discussion of advanced tactics, students completing this course will redefine the "truck company size-up"; learn outside-the-box-considerations and tricks of the trade; and obtain foundational knowledge to guide their operations as first-arriving officers and firefighters. The class covers all levels of experience to ensure increased productivity in all of the students' individual skillsets while functioning as a truck company to increase victim survivability and achieve overall success regardless of staffing levels, apparatus, and incidental setbacks in the high-stress result-driven environments we encounter.

ALL LEVELS

Drilling for Function

Firefighter Aaron Fields, Seattle (WA) Fire Department

This class dives into psychomotor skill acquisition methodology and curriculum design and gives instructors insight into lesson plan, program design, and instructional techniques that build systems and algorithms rather than simply teach technique. The processes discussed are designed for firefighters working in a training capacity but are also beneficial for individual firefighters in organizing their own training.

ALL LEVELS

Having Fierce Conversations about Upfront Expectations

Assistant Chief Travis Ford, Richmond (VA) Fire Department

You really thought that you were clear and concise in your expectations. Everybody was nodding their heads like they understood. And then you see some other type of behavior displayed. You then say to yourself or them, "What the hell were you thinking?" Fundamentally, you think that since you said it and they nodded, communication had taken place. They hear, but they do not understand. As an officer, you must understand the benefits of creating standards and the consequences of having no standards.

ALL LEVELS

Creating and Managing an Effective Training Officer Program

Captain Brad French, Dayton (OH) Fire Department

Engaging, realistic, dynamic training programs have the largest downstream return-on-investment (ROI) of any expenditure in our industry. If our members are trained well, they will perform at a high level in the most adverse and challenging conditions. To have the best training, we have to equip our instructors and training officers with the best foundational skills and support available and reinforce high expectations in the classroom and on the drill ground. This class will provide a set of key foundational elements to establish an effective training program, cultivate instructors, and ensure consistency across cognitive and psychomotor instruction.

ALL LEVELS

Marketing Your Mission: Communicating Your Message to Internal and External Customers

Assistant Chief (Ret.) Michael Fronimos, Wytheville (VA) Fire Department

What is the perception of "what we do" or "who we are"? Whether it's our elected officials, citizens, customers, or even our own members, we must proactively market who we are and what

we do. This class will discuss ways to proactively communicate and market your organization to the community as well as to your employees.

ALL LEVELS

Things That Go Boom: BHO Extraction Labs

Captain Tobias Frost, Lafayette (IN) Fire Department

When fire meets hazmat: Butane hash oil (BHO) labs are becoming more and more common, both commercial and illicit. There have been numerous large fires or explosions associated with these operations. Do you know the hazards? There are flammable and explosive gases, chemical hazards, electrical hazards, and even pressurized vessels. This class will explore the hazards of these labs and the hazards of these labs on fire, case studies and lessons learned, and the components of various production methods and the hazards associated with them. These labs are coming to a neighborhood near you; are you ready?

ALL LEVELS

Challenges of the Firefighter Marriage

Instructor Anne Gagliano, Saved from the Flame; and Captain (Ret.) Mike Gagliano, Seattle (WA) Fire Department

Marriage can either be a passionate, intimate love affair that lasts a lifetime or a toxic, contentious experience that ends in utter heartbreak. Add in the unique challenges presented by the rough and tumble world of the fire service, and making it work can be tough. In this class, real life husband and wife team Anne and Mike Gagliano take an honest, hard-hitting look at what is happening to firefighter marriages and why. They examine what makes this profession different than any other and how those differences impact marriage. With their 30-plus years of experience, they will share what they have learned that has helped their marriage stand the test of time and defy the odds.

ALL LEVELS

The Art of Go/No-Go

Captain (Ret.) Mike Gagliano, Seattle (WA) Fire Department

The toughest and most critical decisions you make in your career typically revolve around committing to an interior attack or choosing another route. Seasoned officers know the difference between "We can get it" and "It's lost." You should, too. Using a simple framework that allows you to build on your experiences and those of others, you can develop an intuitive approach that grows with you throughout your career. This is not a magic class, and no one becomes a great decision maker by attending a few classes and watching a few videos. The goal is to create a framework of three varying profiles: rescue, building, and fire. These profiles allow you to keep focused on your decisions and give you the ability to draw on what you've learned and react to changes in the dynamic fire environment.

ALL LEVELS

A Municipal Firefighter's Guide to Industrial Incidents

Captain Brian Gettemeier, Cottleville (MO) Fire Protection District

Industrial facilities are found in the majority of our communities, yet there are very limited textbooks and training to provide guidance to these unique and complex facilities. The fire service cannot simply apply residential tactics to these incidents. Failure of a fire department to

properly prepare for an industrial incident can result in a disaster. Topics will include the importance of developing a relationship long before an incident, some of the common rules of engagement at an industrial facility, the facility's incident priorities vs. common fire department operating practices, the importance of unified command, the ripple effect a loss of industry can have on a community, unique fire protection systems and specialized agents used in industrial firefighting, the training and capabilities of industrial emergency response teams, and the uncommon hazards firefighters face.

ALL LEVELS

Your Second to Last Breath: Strategies to Extend It

Acting Captain David Gillespie, Peterborough (Canada) Fire Service

What if command advised RIT that you were lost inside the hot zone? You were nearing your cylinder max time and soon would be on your last breath. Wouldn't you want to know what do on your second to last breath? Learn through line-of-duty death and NIOSH reports how a lack of air management skills and not heeding warnings from the Smoke Coalition and other initiatives are getting missed by a new generation of firefighters. The class offers solutions compiled from multiple training drills across America and Canada by changing our natural breathing cycle. It will cover various personal biometric devices and commercial biometric devices, smartphone apps that help manage our respirations, and how to teach it back home.

ALL LEVELS

Swing Stage Scaffold Emergencies

Lieutenant Mike Giroux, Yonkers (NY) Fire Department

Swing stage scaffolding has become more prevalent in the urban environment because taller buildings need to be cleaned, maintained, and worked on from the exterior. This class will look at every component of the swing stage scaffold; guidelines, rules, and regulation for these temporary scaffold systems; and how to handle rescuing workers who are suspended by their safety lines or hanging from the scaffold platform.

ALL LEVELS

Making It or Breaking It

Gordan Graham, Research Consultant; Deputy Chief Billy Goldfeder, Loveland-Symmes (OH) Fire Department; and Chief (Ret.) Bobby Halton, Education Director, FDIC/Editor in Chief, Fire Engineering

Learn how the success or failure of life at the fire station, operations on the scene, and overall department success are directly related to ONE specific role: the company officer (and the investment the agency makes in them and what they invest in themselves). Do you have a problem at your department? Let's start with how prepared your company officers are, since they will inevitably be the first to face (or to fix) that problem on the scene, in quarters, and even off duty!

ALL LEVELS

Attack from the Burned Side

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

There are many different tactics for attacking structure fires. For years the fire service has been preaching to attack from the unburned side. This isn't always the best tactic. The modern

fireground is evolving more than ever before, and with the use of research to enhance our procedures, this class will show different tasks and tactics that can be used to extinguish fires from all angles. Using case studies paired with practical experience, this class will examine the fallacies of the fireground. Recent firefighter safety research and data will be discussed in detail and the students will be shown how to apply evidence-based tactics to achieve a safer, smarter, and more efficient fireground. This class is against the grain of traditional firefighting and has a common-sense approach to fighting the fires that we face today.

ALL LEVELS

Man vs. Machinery: Are You Prepared?

Captain Mark Gregory, Fire Department of New York

Man vs. machinery incidents occur across the country. They may involve a person stuck in some sort of industrial machinery or be as routine as a ring stuck on a victim's finger. Are you prepared to handle these incidents? This class will introduce tools and methods that have been proven to be effective in rescuing victims. Case studies will be reviewed as well as the pros and cons of various tactics. Medical issues will be addressed, and the importance of a strong command structure and interagency operations will be stressed.

ALL LEVELS

Maximizing the Effectiveness of Fire-Based Ambulance Crews on the Fireground

Firefighter/Paramedic Timothy Griswold, Portsmouth (NH) Fire Department

No one becomes a firefighter to be assigned to the ambulance. Yet, for the 45% of fire departments in the United States that provide an ambulance service, this is an everyday reality. While most fire departments have taken an all-hazards approach to emergency response, the primary mission of the fire department remains fire suppression. This class explains how to maximize the capabilities of the ambulance crew during fire suppression operations by using their staffing, skills, and knowledge; how fire department administration can create policies to efficiently integrate the ambulance crew into fireground operations; how to properly equip the ambulance for the tasks that the crew could be expected to perform; and for firefighters assigned to ambulances, how to maintain the proper mindset to be a valuable asset on the fireground.

ALL LEVELS

Standpipe Operations

Captain Bill Gustin, Miami-Dade (FL) Fire Rescue; Technical Editor, Fire Engineering

The class examines standpipe firefighting tactics and strategy, various types of standpipe systems and components, supplying fire department connections, and methods of stretching and advancing hoselines from standpipe outlets.

ALL LEVELS

After Hours

Captain Bill Gustin, Miami-Dade (FL) Fire Rescue; Chief (Ret.) Bobby Halton, Education Director, FDIC; Battalion Chief (Ret.) Rick Lasky, Lewisville (TX) Fire Department; Deputy Assistant Chief (Ret.) John Norman, Fire Department of New York; and Battalion Chief (Ret.) John Salka, Fire Department of New York

Join this highly respected and opinionated group of veteran firefighters as they debate and discuss the issues and hot button topics of the day and your questions. During "After Hours," no

question is off the table and no scripts or predetermined answers are possible. The “After Hours” group--Gustin, Halton, Lasky, Norman, and Salka--all have very diverse backgrounds, but one thing they do have in common is they came up through the ranks the hard way, through competitive exams and merit; they skipped no steps along the way. These are firefighters who paid their dues and understand the job from house duties to hiring practices; several have served and are serving on career as well as volunteer departments. They will give it to you and each other straight and pull no punches. The “After Hours” group will leave you laughing, informed, energized, and excited to continue talking fire at dinner and into the night, as is our custom at the world’s greatest celebration of firefighting and tradition.

ALL LEVELS

Health and Wellness for Women in the Fire Service

Operations Chief Amy Hanifan, McMinnville (OR) Fire Department; President, Women In Fire

This class is based on the USFA study “Emerging Issues for Women in the Fire Service.” The numbers of women in the fire service have increased over time, yet there has been very little data regarding their health, safety, and wellness. To establish an inclusive, healthy fire service, we must consider the vast amount of factors that affect the crews. Cardiac health is among the top causes of fatalities in firefighter line-of-duty deaths. Resources based on the NVFC Heart Healthy campaign provide a well-rounded approach to preventive cardiac health. Cancer prevention and available data will be shared. Attendees will be presented with information and resources regarding the impacts of culture, harassment and bullying, mental health, and suicide among women in the fire service. These are topics that everyone can learn from, regardless of gender.

ALL LEVELS

The 75%/25% Concept for Firefighter Safety and the Incident Commander

Chief Todd Harms, Sacramento Metropolitan (CA) Fire District

The focus of this class is on improving fireground operations and firefighter safety at the task, tactical, and strategic levels of operation by examining the Operational Safety program strategy that is currently in use and has shown success. The class is based on a 75%/25% concept for fireground operations. In this concept, 75% of the operations will focus on firefighter performance, safety, and success while operating on the fireground. The remaining 25% deal with operational emergencies and firefighter self-survival.

ALL LEVELS

Command and Control of Multiple-Alarm Fires

Deputy Chief George Healy, Fire Department of New York

Commanding fire operations is one of the most basic tasks of a chief officer. Growing and developing as an incident commander take time, and the incident commander (IC) needs opportunities to run and command fires. Large-scale incidents do not happen on a regular basis, so the opportunity to grow and learn at these complex incidents is limited for many ICs. Developing the experience and skill set to manage multiple-alarm fires can be challenging and time-consuming for the recently promoted chief. This class will present the keys to successfully commanding and controlling multiple-alarm fires. Implementation of sectoring and strong incident command can set the foundation for a successful operation. The IC must take firm control of the operation directing units, ensuring the incident priorities are being addressed. The

IC must remain mindful that he ultimately is in command of the operation and must ensure a safe operation.

INTERMEDIATE/ADVANCED

Simplified Approach to Understanding Fire Alarm Systems

Deputy Chief Steve Heckman, Trenton (ME) Volunteer Fire Department

Fire departments respond to approximately 2.2 million fire alarm activations every year in the United States. Firefighters are regularly confronted with fire alarm system activations and responding to these alarm systems in their jurisdiction. With hundreds of fire alarm systems of varying makes and models, responders may encounter systems that they have never seen or with which they have limited familiarity. This class presents a simplified instructional approach to understanding system operations, fundamental limitations, and a comprehensive overview of specific industry terminology common to all systems. This will allow responders to make more informed on-scene decisions, enhance preplanning, and improve community educational delivery.

ALL LEVELS

Preparing for the Commercial Fireground

Deputy Chief Aaron Heller, Hamilton Twp. (NJ) Fire Department

This class covers the unique and challenging aspects of commercial building fires. Preparing companies for their roles at these incidents is rarely discussed in many departments because of their relatively low frequency. However, they do pose great risks; therefore, in-depth discussion will cover engine and truck company operations, company officer considerations, and the incident commander's considerations.

INTERMEDIATE/ADVANCED

Survive Alive: The Ultimate Public Education Program

Aleatha A. Henderson, Director of Public Education/Firefighters Survive Alive, Indianapolis (IN) Fire Department

The Firefighters Survive Alive class will introduce participants to the high-tech, interactive, and remote operated educational experience Survive Alive! Participants will be captivated by the facility and the equipment. They will be inspired by the success of the program and how it can impact their community. They will also learn how they can start their own Survive Alive through grants and community contributions. Each participant will walk away with a packet that includes floorplans, lesson plans, and more. This public education class truly has it all!

ALL LEVELS

Grant Writing for Emergency Services

Firefighter/Paramedic David Hesselmeyer, Buies Creek (NC) Fire Rescue

Funding for public agencies is hard to come by. The current economy is not much help as taxes are not being paid, bills for services are not being paid, and some elected officials want to decrease taxes. Grants can be a good option to help achieve projects that may not otherwise be funded. However, a major issue with grants is that people are not aware of the process and often follow myths vs. facts. This class will focus on the art of the grant writing process and how to be successful. It will dispel myths, explain the overall process, and give helpful hints as to how to increase your chances of obtaining grant funding.

ALL LEVELS

Saving the Volunteer Fire Department

Deputy Chief Christopher Hinde, Rockville (MD) Volunteer Fire Department

This class highlights programs and best practices to set your volunteer fire department for success. Throughout its 100-year existence, the Rockville (MD) Volunteer Fire Department has had a robust cadre of volunteers from all walks of life. Learn the success and failures of various approaches to staffing one of the busiest volunteer firehouses in the country. Topics include recruitment opportunities, standby systems, conducting high level in-house training, command structure, and many other facets of adapting your volunteer fire department to meet modern day challenges.

ALL LEVELS

Forcible Entry Wins Are in the Details

Captain Samuel Hittle, Wichita (KS) Fire Department

Why are some forcible entry attempts efficient while others embarrassing? The answer is in the details. Setting forks, running a saw, and merely striking are not enough to ensure a win. It takes more than that. Success requires knowledge of the system being defeated, familiarity with tool potential, and understanding basic physics concepts (levers, force multipliers, torque, impulse, inertia, vectors). This class will demonstrate methods for windows, residential and commercial doors, overhead doors, hinges, padlocks, magnetic locks, high-density commercial systems, window bars, glass block, shearing, boarded openings, and more. Techniques include hand tools only, saw capabilities, single firefighter, or as a company. Numerical evidence and video will justify why details like body positioning, tool placement and alignment, striking techniques, and exploiting system flaws matter.

ALL LEVELS

Garden Apartments: Considerations for the First-Due Battalion Chief

Chief Jason Hoevelmann, Florissant Valley (MO) Fire Protection District

This class will focus on the role of the first-arriving commander at garden apartments and other similar multifamily, low-rise buildings. The discussion will focus on what the first IC needs to be aware of and consider early in the incident to ensure life safety and fire control issues are successfully addressed. Learn the importance of knowing the building and complex well ahead of the incident to identify protection systems, egress components, access issues, occupancy challenges, and operational guidelines to operate successfully at these fires. Topics include crew deployment and the factors that contribute to how you assign companies or reassign based on the situation being presented; current data as related to low-rise, multifamily buildings and victims; and how knowing layout and access are critical factors to successful rescue efforts.

ALL LEVELS

Training Fire Exposures from the Source

Research Engineer Gavin Horn, UL FSRI

The risks firefighters face are constantly changing on both the fireground and in the training scenarios. Live-fire training is evolving rapidly in part due to the use of new materials to provide smoke and fire development that appears more closely aligned with today's fireground. However, the occupational health impacts of burning these fuels is unknown, and claims that one

fuel is more or less safe than another are rarely supported by data. Furthermore, the link between the fire environment and valid fire dynamics lessons is not well understood and inconsistently applied. These limitations can introduce misleading lessons that that can be applied on the fireground. UL FSRI has begun a study to quantifying the impact of fuel choice on exposure risk in training scenarios and develop a better understanding of how this risk may be controlled. This class will provide a first look at those results and discuss implications of these findings.

ALL LEVELS

Help, This Job Is Killing Me!

Battalion Chief Jeremy Hurd, Palm Beach (FL) County Fire Rescue

This class will focus on the stress and trauma first responders face and give a strategy for how to recognize the dangers, prevent exposure, and handle the effects of the trauma. There will be discussion regarding post traumatic stress and how to turn that into post traumatic growth, how to recognize the issues in ourselves and others, and how to get the appropriate next level of help based on the need. Other topics include how to deal with family tragedy and loss, how to make a death notification, suicide prevention, how to take care of our retirees, preparing our officers to recognize post traumatic stress, how to train our EAP and counselors in traumatic awareness for firefighters, how to collaborate in the behavioral health world, and how to develop a curriculum for behavioral health training for new firefighters and new recruits.

ALL LEVELS

How to Achieve and Sustain Long-Term Success at Work and Home

Work-Life Balance and Self-Care Leader Donnie Hutchinson, Dayton (OH)

The topics of health, wellness, and family harmony bring freedom few realize until they no longer have it. If you don't concentrate on these principles and practices, you will be forced to concentrate on the tragic health and personal results of neglect. Work-life balance and occupational health challenges continue to be a growing concern for today's firefighters. Sustainable success at work and home cannot be achieved absent of family harmony and proper preventive health measures.

ALL LEVELS

One Bad Day: The Proactive Mindset--RIT Operations

Lieutenant Bassel Ibrahim, Orlando (FL) Fire Department

Learn the many facets of RIT, from the command aspect to the rescue itself. Topics include defining what a RIT is and discussing the difference between a proactive and reactive RIT; the key factors for success (teamwork, communication, leadership, and preplanning); and the actual RIT activation process in the following order: Mayday, size-up, access, search, troubleshooting, air management, victim packaging, extraction, and post extraction care.

ALL LEVELS

People Before Water

Battalion Chief Curt Isakson, Escambia County (FL) Fire Rescue

Today's fireground requires tactics that take today's fire behavior, building construction, and response models into consideration. We must also use the UL studies, Firefighter Rescue Survey results, and civilian fire fatalities data to better deploy our local fire resources to meet life safety and property loss priorities. When smoke detectors fail, the fire service cannot fail. We are the

last line of defense. This class will give attendees a possible approach to getting the annual civilian fire fatality numbers consistently below 2,000 a year. It shows how to use data to assist us in adjusting our fireground assignments in the first five to seven minutes to remove trapped occupants sooner while still using decades of proven fireground tactics that work.

ALL LEVELS

Science Update on Cancer Prevention and Detection

Dr. Sara Jahnke, Director and Senior Scientist, Center for Fire, Rescue, EMS Health Research

Cancer has received an enormous amount of attention over the past decade in the fire service, and huge strides have been made in raising awareness about the issue. Some have argued the topic is already overdone and that the need to continue highlighting the risk is a waste of time and energy. Scientists disagree. This class will focus on the latest data on what we know--and what we don't know--about cancer in the fire service, how to prevent it, and how to know when and if you should worry about your own health. The focus will be not only on the obvious risks of breathing in smoke but will extend to the other factors beyond the fireground that put firefighters at risk.

ALL LEVELS

20 Training Props/Drills on a Shoestring Budget

Assistant Chief James Jester, Ocean City (MD) Fire Department

Funding is getting harder and harder to come by, and fire departments are forced to stretch their precious dollars to the limit each year. Unique funding sources are out there, but figuring out how and who to approach is often a lesson in futility. Timing of requests is also paramount in the successful acquisition of funds and materials for training props. These 20 training props—and the drills that go with them—won't break the budget but will afford quality training to your department.

ALL LEVELS

Fire Service Guide to Lightweight Construction

Firefighter James Johnson, Vancouver (Canada) Fire Rescue Services

Lightweight construction is a topic that truly affects every fire department in North America, and despite its prevalence, it is often still misidentified, miscategorized, and largely misunderstood. This class will provide students with a better understanding of how these materials and systems react under fire conditions and help equip them to make tactical and strategic decisions on the fireground.

ALL LEVELS

The Art of Reading Smoke: The Next Generation

Deputy Chief (Ret.) Phil Jose, Seattle (WA) Fire Department

Reading smoke is a skill. Skills improve with practice. Learn how to read smoke. Highlights include a new look at the combinations of VVDC (volume, velocity, density, and color) and the necessary street-read skills. Want to know where the fire is? Learn to read smoke. Want to know where the fire is going? Learn to read smoke. Want to know where to search? Learn to read smoke. Whether you are new to the reading smoke topic or a long-time practitioner, improved decision making relies on the cues and clues available in reading smoke. Improve your game through deliberate practice in the art of reading smoke.

ALL LEVELS

What to Do When First Due: Being in the Hot Seat

Assistant Chief Nicol Juratovac, San Francisco (CA) Fire Department

This class involves a series of working fire scenarios, with the instructor asking the students a set of questions to place them in the "hot seat" to respond in a simulated environment. They will act as the officer arriving on the scene either on the engine or the truck, and they will tackle questions such as the following: What is your initial report? What additional resources will you call for, if any? Where will you position your apparatus? What tools and equipment will you order you and your crew members to bring? What actions will you perform given those tools and equipment? This is an action-packed class where students who love going to fires will feel like they had gone to many. The artificial stress environment will place the student in a virtual officer's seat, relying on rapid prime decision making.

ALL LEVELS

Fight the Fire, Not the Building

Executive Inspector Ron Kanterman, Fire Department of New York Bureau of Fire Prevention

Commercial buildings present many challenges during a firefight, but knowing what they have to offer will make your job easier and safer. Learn to work smarter and not harder. This class will review the built-in active and passive fire protection systems that make up the building's fire and life safety system and will give the participants an understanding of the basic working of said systems. Participants will be able to return to their home departments and examine buildings and target hazards in their first-due response district and make changes to strategy and tactics, prefire plans, and battle plans. Firefighter safety is emphasized.

ALL LEVELS

Leadership and Succession Planning for the Next Generation

Battalion Chief (Ret.) Anthony Kastros, Sacramento Metro (CA) Fire District

This highly interactive, fun, and humorous workshop focuses on the tools necessary for succession planning in today's fire service. Leadership is a vast topic and talked about throughout the fire service, but building modern leaders in house who are ready to fill the gap left by their predecessors remains an elusive accomplishment. Students will learn how to build leaders from the next generation for the next generation. Students will learn about the Millennials, Generation X, Generation Y, Baby Boomers, and learning methods for each. In addition, students will be introduced to several tools that they can employ in their departments to develop future company and chief officers including task books, officer academies, professional development series, mentoring, simulations, role plays, and strategic planning teams. These tools really work and have been used to develop countless new officers who hit the street ready to lead.

ALL LEVELS

Tactical Response to Natural Gas and Propane Emergencies

Chief Jerry Knapp, Rockland County (NY) Hazmat Team

This class will show attendees how to improve their response to explosive gas (natural gas and propane) emergencies. It concentrates on the three main areas where most fire departments are not properly trained. First is the complacency that naturally develops because we are called to gas leaks when civilians smell gas at very low levels. Some important case histories of gas leaks

gone bad resulting in line-of-duty deaths will be reviewed. Second is teaching the specific strengths and weaknesses of common air monitoring sensors. Along with this, attendees are show how to train their members at their home departments with new tabletop explosion chambers. Third, students are presented with response SOPs based on gas industry best practices for use in training their members at home.

ALL LEVELS

Fire Smoke: The Hidden Dangers

Deputy Chief Jason Krusen, Charleston (SC) Fire Department

Firefighters continue to be exposed to dangerous toxicants on the fireground. Learn about the hidden dangers present in fire smoke and how to break the complacency that so many firefighters have fallen into. This class will discuss the common problem areas that firefighters continue to have, which result in unnecessary injuries. Firefighters are faced with increased health risks on the job and complications to their health extending into retirement. Attendees will be able to start practicing the behavioral changes discussed as necessary to improve their safety and will learn about the toxicity of smoke, atmospheric monitoring, PPE care and maintenance, firefighter wash down and decon, emerging innovations and trends in the fire service, measures they can take to improve their health, and ways to implement these changes through training and policies.

ALL LEVELS

Designing Structures to Perform Safely Under Fire Attack: A Novel Approach!

Kevin J. LaMalva, Fire/Structural Consultant, Massachusetts

For more than 100 years, building codes have taken a piecemeal approach to addressing the fire resistance of buildings. Beams, columns, floors, and walls are tested individually through small-scale furnace testing. In recent years, firefighters increasingly interrogated the merit of this approach and whether a structural engineered alternative could have a place in our codes. Notably, the American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) has made recent advancements to define requirements and best practices for such an alternative approach within the ASCE/SEI 7 standard and new companion guidance documents. For the first time in the United States, use of such an alternative can explicitly address the safety of occupants and firefighters in the context of structural collapse due to uncontrolled fire events. This class will highlight the role of firefighters and fire officials working with structural engineers in the structural fire safety design of new buildings.

ALL LEVELS

Critical Initial Assignments for a Successful High-Rise Firefight

Captain Clark Lamping, Clark County (NV) Fire Department

Fighting fires in high-rise buildings is one of the most dangerous and labor-intensive operations we conduct in the fire service. These are typically massive buildings with millions of square feet and multiple floors. They hold thousands of employees, clients, and guests who access the building through multiple entrances and exits and dozens of elevators. High-rise firefighting has specific challenges that require knowledge, skills, and abilities to conduct successfully. Personnel accountability, clear communication, and a strong command presence are crucial for a successful firefight. In addition, it is necessary for incident commanders to have a well-established plan that has been proven and trained on. This class will explore some of

considerations necessary to develop a high-rise operations plan, taking into account the size and capabilities of the students' departments.

ALL LEVELS

Cancer: Combining Research with Fireground Experience for Best Practices

Deputy Assistant Chief Frank Leeb, Fire Department of New York

Cancer is increasingly recognized as one of the most dangerous threats to firefighters. Several studies have shown that firefighters are at increased risk for many different types of cancer as compared with the general population. The toxins and carcinogens firefighters are exposed to on scene and through residual effects of firefighting are better understood now than ever before and require immediate changes in the fire service to reverse the upward trend. By combining research with fireground experience, this class will offer real-world, practical, and common sense best practices that can be immediately implemented to best protect yourself, your family, and your department from dangerous exposures and cross contamination of fireground containments. Know your risk and the steps you and your department should be taking now to minimize this risk.

ALL LEVELS

Wye Operations

Lead Consultant Dennis LeGear, LeGear Engineering Fire Department Consulting

Modern flows of 160-185 gpm in 1.75-inch hose and wye operations are a troubling pair in 2.5-inch trunk line hose, even when the rules of equal leg lengths and matched nozzle pressure and gpm are followed. Problems can be very significantly from an uncontrollable nozzle to substantial drop in attack flow from both legs of 1.75-inch attack handlines. This class covers the additional specters of line commitment, line selection, line identification, dual line failure, stretching, wye shutoff/on tying, and extra connection issues that exist tactically and cause many possible problems during wye operations. Then three optional 1.75-inch bulk-bed handline solutions will be covered: bundle/finish driven, stack/shoulder driven, and horseshoe/flat driven as well as their pros and cons.

ALL LEVELS

Modern Fire Instructor Bootcamp: Building an On-Demand "Flipped" Training Program

Co-Owner and Lead Instructor Frank Lipski, Engine House Training LLC

The instructor will share how he took a failing training division and built it into an amazingly successful program that has become the model for many agencies across the country. These techniques can be used by any department no matter the size or type of agency. As instructors, we struggle to develop, organize, and deliver efficient and meaningful training to our members on a consistent basis. Using flipped training principles will greatly improve training delivery and retention of learned skills on the fireground. This class will show the impact a flipped training program can have on a department. Attendees will also be given a detailed roadmap of success that they can follow to achieve amazing results at their departments right away.

ALL LEVELS

How Chief and Company Officers Get in Trouble

Chief Gary Ludwig, Champaign (IL) Fire Department

Do a Google search for chief or company officers who are under investigation, put on administrative leave, asked to resign, arrested, or fired, and you will see it happens almost daily somewhere in the United States. The landmines of being a chief or company officer are many. Some landmines you don't see, and some chief and company officers choose to purposely step on them when they are in clear view. Learn the most common mistakes that get chiefs and company officers in trouble and strategies to avoid a career disaster.

ALL LEVELS

The Reality of RIT

Driver Operator/Paramedic Ricky Mantey, Bryan (TX) Fire Department

On February 15, 2013, Engine 5 was deployed as the RIT to rescue a down firefighter. The lieutenant became separated from his firefighter and was running low on air. The crew of Engine 5 found the lieutenant and began removing him from the building when suddenly the building flashed. In the blink of an eye, the conditions inside the building changed and not only did the behavior of the fire change, the instructor's life changed forever. This class will review the fire in great detail and walk through the instructor's burn injuries; rehab; and physical, emotional, and mental pain he encounters on a daily basis. It will discuss how the department changed operationally in hopes of preventing another tragedy like this from occurring.

ALL LEVELS

The Tactical Public Information Officer

Captain Stuart Marrs, College Station (TX) Fire Department

The tactical public information officer (PIO) is a company level officer who finds himself in front of a camera, microphone, or newspaper reporter. The tactical PIO understands that the local media is not an annoyance to be dealt with but a community partner that can be leveraged for good. The tactical PIO uses the backdrop of everyday emergency scenes as an opportunity to explain the value firefighters bring to their communities. Firefighters are often taught or encouraged to shy away from and shun local media and reporters when they arrive at emergency scenes. While some statements are best delivered by a dedicated PIO or the chief himself, most media interactions at incident scenes can be handled by the responding officer or tactical incident commander. Company officers become the de facto point-of-contact for media and reporters at an emergency scene. Who is better suited to explain the situation and tell the story than the company officer who just mitigated an emergency?

ALL LEVELS

Survivability Profiling

Battalion Chief Stephen Marsar, Fire Department of New York

This class focuses on the correlation between firefighter and civilian fatalities at the same structural fires. It quantifies basic risk vs. reward and goes beyond the tendency to justify risk whenever we respond to an occupied building. Size-up components, situational awareness, and calculating if civilians are savable before committing firefighters to an aggressive interior attack are discussed. Today's fire progression is discussed as a precursor to survival limits. The class concludes with fire scenarios and the appropriate firefighting strategies they call for. The audience will have the opportunity to apply concept and to discuss where and when interior fire operations should be focused on firefighting first and rescue/recovery operations second.

ALL LEVELS

Intoxicated Leadership: Thinking Strategically vs. Reacting Emotionally

Captain Benjamin Martin, Henrico County (VA) Division of Fire

The chance to lead and create opportunities for others can be incredibly rewarding. But let's be real, it can also be tremendously frustrating, especially in situations where leaders face supervising unengaged, negative, or even toxic people. While the fire service continues to do a great job of preparing people to lead on the fireground, it struggles to provide strategies and tactics for navigating the larger frequency and challenge of personnel issues happening back at the firehouse. Learn the role human emotions play in either aiding or undermining leadership efforts both in the firehouse and on the fireground. This class illustrates why the body responds to conflict the way it does, whether it be on the fireground or in the firehouse, and what steps we can take to build credibility as leaders who are capable of answering these challenges.

ALL LEVELS

Aggressive Command Supports Aggressive Firefighting

Battalion Chief Nicholas Martin, Salisbury (NC) Fire Department

Our overall goal is to put the fire out and save lives, and most of that happens in the hands of firefighters operating at the task level. However, in the most successful operations, the skills of talented firefighters are enabled, supported, and best deployed by talented chief officers who run a well-organized and well-managed incident. These are ICs who understand what firefighters can and should do, understand tactics, and know how to build an incident that puts things together the right way to crush the problem. This class will discuss the habits, practices, and attitudes that must exist at the strategic and tactical level to make our actual job--putting the fire out--most effective. It will discuss preincident investment and preparation, street-smart fireground command practices, incident organization, and management of tactical objectives--all toward the goal of best supporting our firefighters' ability to do their job.

INTERMEDIATE/ADVANCED

The Search Reformation

Captain Dustin Martinez, Cobb County (GA) Fire and Emergency Services

Life safety has always been and always will be the primary mission of our service.

Unfortunately, the speed and commitment of search teams aren't always living up to this mantra. This class examines how we can continue to execute a fast and efficient search and the steps it takes to get there. To breed, foster, and thrive, a department's search culture requires a three-level organizational commitment: The institution must declare its stance on the standard of search, the training division must be instrumental in implementing and maintaining performance, and the field must perform its one task--execute. This class examines the three key components to invoke a successful search outcome in your department: the leadership, the training division, and the personnel. Students will also examine proven skills, debunked myths, and case studies that include thermal imaging video of victim rescues.

ALL LEVELS

Firefighting Operations in Low-Rise Multiple Dwellings

Lieutenant Paul Mastronardi, Fire Department of New York

Effective fire extinguishment and search and rescue operations in low-rise (three- to seven-story) multiple dwellings can challenge a department to its limits. This class will discuss strategies and

tactics to aid firefighters operating in these structures. These buildings have many challenges. First, a large life hazard exists due to rapid vertical and horizontal fire travel. Rapid primary searches of the fire floor and the floors above must be conducted. Getting water on the fire is a challenge (supply, long stretches, standpipe ops). Firefighters will be operating in extremely hazardous conditions, especially when operating on the floor or floors above the fire. Second, our forces will be taxed due to vertical and horizontal spread of fire; our trucks will be involved with search for victims, opening up ceilings/walls/voids to expose fire for extinguishment, and definition of the fire area. These structures exist in urban and suburban towns across the country.

ALL LEVELS

Electrical Systems: How They Work and the Hazards They Present

Lieutenant (Ret.) Sean Mayo, Fairmount (CO) Fire Rescue

This as a basic electricity 101 class. It will teach terminology; electrical components; electrical systems; very basic electrical theory; the hazards that electricity presents to firefighters; how electricity is generated, transmitted, and distributed into residential and commercial properties that firefighters work in; how to recognize and mitigate safety hazards associated with electricity; solar array and backup generator systems and the hazards they impose to firefighters; and how to look for and recognize different systems and what safety considerations must be made.

ALL LEVELS

The Company Officer Leadership Roller Coaster

Lieutenant (Ret.) Ray McCormack, Fire Department of New York

The people with the most direct impact on a fire department's success are its company officers. Getting them to a place where their leadership inspires others and protects our brand is like a slow climb up the first hill of a roller coaster. Once you crest that hill, you will drop into an endless cycle of leadership challenges. Being ready takes time, and staying on track requires strong principles. Join the instructor in the first car, and take the ride together.

ALL LEVELS

Building a Training Network That Works

Assistant Chief David McGlynn, Letterkenny (PA) Fire Department

This class is designed to offer instruction and direction on how to build a training network. It focuses on the lack of resources and funding to get specific and, more importantly, relevant training for your people. It stresses the importance of networking and how to network. Networking is key; by networking with others, we open our rolodex of resources and build our training plans to being more broad and versatile.

ALL LEVELS

Rapid Risk Assessment in the Dynamic Wildland Fire Environment

Chief Todd McNeal, Twain Harte (CA) Fire Department

This class will provide all firefighters with the timely and essential crew safety skill of accurately evaluating the potential of the wildland fire environment. The discussion will include identification of the possible dangerous wildland flow path, fuel bed condition and moisture content, and spotting potential. Participants will have a deeper understanding of the risks of

operating in the dynamic wildland and WUI environment during suppression operations. The class will identify the environmental factors necessary to produce intense flow path and extreme fire behavior and give participants tools for rapid identification and mitigating actions. Participants will be further challenged by applying fire behavior variables to topographic maps and scenarios for better risk reduction and crew safety.

ALL LEVELS

Transitional Search: Modern Views on Finding and Removing Victims

Captain David Mellen, Reno Township (KS) Fire Department

In today's modern fire service, there is more information and data regarding survivability, victim location, and inherent risk to firefighters than ever before. However, we are faced with an ever-growing divide on when to, when not to, and where to conduct a search for victims. While some firefighters depend on experience, others are left to rely solely on education, information passed down from senior members, and best guesses. This class examines actual rescues and data from the Firefighter Rescue Survey to establish a solid foundation for conducting searches using statistical data and empirical evidence alike. Students will not only learn various search methodologies but the reasoning behind them, their risks, and their benefits. From the probationary firefighter to the chief, every student can take away valuable lessons that will undoubtedly give victims the best possibility for survival.

ALL LEVELS

The First-Due Engine

Captain/Paramedic Chad Menard, Madison (AL) Fire & Rescue

This class will take a look at the first-arriving engine company and break down the basics of engine work to ensure your engine company arrives prepared. Regardless of whether you come from rural, suburban, or urban America or are volunteer or career, this class will provide you with street-smart tips to be a successful engine company. Topics include estimating the stretch, hose loads, various hose stretches, line staging, masking up, blitz attacks, searching off the hose line, and more.

ALL LEVELS

Swift Water Rescue Rules of Engagement

Battalion Chief Greg Merrell, Oklahoma City (OK) Fire Department

This class is designed for all fire and rescue personnel, including nonwater rescue trained members as well as experienced water rescue team members and technicians. Water rescue is one of the most dangerous and dynamic rescue situations that a first responder may encounter. The lessons learned in this class will provide students with a foundation to properly perform the following skill sets: scene size-up, scene safety, assessing the victims, hydrology, assessing the water conditions, allocation of rescue resources, and rescue decision making. This class will outline steps to be taken and decision making to ensure that fire crews will respond quickly and safely and meet the needs of the citizens we serve. On completion, attendees will be able to identify rescue priorities and use them to ensure a safe and successful rescue.

ALL LEVELS

Best Practices for Proficiency-Based Training

Assistant Chief Kevin Milan, South Metro (CO) Fire Rescue Authority

Leveraging task books along with engine company and ladder company manuals provides the foundation for proficiency-based training. Building KSAs begins in recruit school and continues through every rank in the department. Standard evolutions, often grounded in NFPA 1410, *Standard on Training for Emergency Scene Operations*, provide building blocks for competence. Assembling these building blocks into multicompartment evolutions spreads competency upward through your organization. The ability to produce a proficiency-based training and qualification program is the key objective of this class. Case studies of theory will be translated into action. Templates are provided that can be tailored to meet the needs of any fire service organization. Examples of task book qualification programs for recruits, firefighters, company officers, and battalion chiefs are provided.

INTERMEDIATE/ADVANCED

"First-Due!" Residential Fire Concepts for Engine and Truck Companies

Captain Doug Mitchell, Fire Department of New York; and Deputy Chief Dan Shaw, Fairfax County (VA) Fire & Rescue Department

This class discusses the mission-critical incident actions for engine and truck companies at residential fires, highlighting the must-have roles and responsibilities for each unit and honing those elements that are imperative to employ an efficient and effective fire attack. Successful fire attack dictates a deliberate balance of coordination and communication between all members. This class covers preincident readiness, radio reports, and tactical resource deployments for 'both sides of the floor.' While we all know that the application of water still extinguishes fire and searches still locate trapped civilians, the art and science behind "how, when and why" to mount the attack is being questioned. The initial company level actions can make or break the operation. Are you and your team best prepared to operate mentally, physically and tactically in our residential environment? Don't think so, know so...

ALL LEVELS

Down and Dirty Fireground Decision Making

Battalion Chief Corley Moore, Moore (OK) Fire Department

Of course, no short class can turn someone into the ultimate fireground commander. This, however, provides the tools and a framework to begin the journey to be that kind of commander. It starts on the premise that making decisions is simple when you understand your priorities and then expands from there. Just remember that simple does not mean easy!

BASIC

Be Your Own Hero: Defining Your Why to Develop Your How

Director Heather Moore, Illinois Fire Service Institute Special Operations Training Program

This class will address the creation of the "how" and make the connection to individual and department leadership. This is a one-of-a-kind personal and professional development training program that will encourage students to recognize how to lead themselves, a crew, and a department.

ALL LEVELS

Train, Pipeline, and Bulk Storage Tank Planning Basics

Commissioner Jeffrey Moran, Woodbridge (NJ) Fire Department

The course will establish a foundation of knowledge in safety, planning and operations for responders to railroad, pipeline or storage tank incidents, focusing on flammable liquids and gasses. It will be presented using slides, video, lecture and case studies brought together via exercises and discussion. Attendees will be introduced to Apps/programs designed to aid in product identification, plume plotting and evacuation areas which can be used in both planning and for on-scene decision making. The safety aspect covers operations on the right-of-way, rail and wreck scene hazards, pipelines, storage tanks and health, fire end environmental concerns. Planning covers interaction with railroad, pipeline and tank companies, scope and magnitude of a wreck/leak, preparing for a large scale, long duration operation, evacuations, establishing access, high volume water supply, specialized equipment and identifying the responsible railroad, pipeline or tank owner.

ALL LEVELS

11 Steps to Creating a Culture of Firefighter Fitness

Captain/Training Officer Jim Moss, Metro West (MO) Fire Department; and Chief Dan Kerrigan, Upper Providence Township (PA) Fire Department

This class will share 11 key elements of successful fire department fitness programs. From medical and fitness evaluations to creating fitness SOGs and purchasing cost-effective fitness equipment, it will give all firefighters (both career and volunteer) the tools they need to create a culture of fitness and wellness at their fire department. Doing so will improve fireground performance and safety, career longevity, and overall morale. Attendees will learn that any investment in firefighter wellness will pay huge dividends (physically and financially) for all parties involved. Firefighters will be healthier, and fire departments will save money and have firefighters who are able to perform better on the fireground. Creating a culture of firefighter fitness and wellness may at first seem daunting, but it is within reach for every firefighter and fire department.

ALL LEVELS

Command in Tall Buildings: A Holistic Perspective

Fire Marshal (Ret.)/Former Deputy Chief Jack J. Murphy, Leonia (NJ) Fire Department; and Battalion Chief (Ret.) Gerald Tracy, Fire Department of New York

Many fire departments responding to tall buildings are challenged with limited personnel resources to perform many duties and responsibilities that must be accomplished for minor fires, all-hazard emergencies, or any major incident. An incident commander's (IC's) holistic perspective in managing an event must consider the entire area or boundary of operations occurring in and around a high-rise or tall building complex. When assessing the scope of an event, the IC must take into account the life safety of anyone threatened by the event and where they are located in relation to the fire or life-threatening emergency. This class will cover command organization, an incident process system, command support priorities, lobby unit operations, the fire command center; the value of a preincident building information to further support operations, and the new roles of a building intelligence rep. (BiR)/incident intelligence fire officer (IiO).

ALL LEVELS

Pump Panel Pointers for Training and Operations

Safety Officer Jerry Naylis, Bergenfield (NJ) Fire Department

This class will prepare pump operators to use a variety of techniques including tools, job aids, and pointers to ensure the proper flow and pressure while operating a pump during fireground operations. Successful delivery of water will be stressed. The class will examine fire operations in urban, suburban, and rural settings. The case studies will show how one or two simple changes would alter the water supply and enhance the operation from the pump panel. Practical training session setups will also be provided to demonstrate how to conduct pump training exercises using readily available apparatus, equipment, and appliances. This will also include how to deliver large volumes of water using relay pumping and how to maximize flow when your supply is limited.

ALL LEVELS

Training as a Method of Risk Reduction in the Volunteer Fire Service

Deputy Chief of Training Joe Nedder, Mendon (MA) Fire Department

Risk management is a topic so often avoided or ignored by the volunteer fire service. Yes, we need to understand and follow risk management systems, and yes they can be overwhelming and complex. But, the foundation of everything we do on the fireground is basic training, and yet no one advocates that training is a critically important aspect of risk management. We profess more on systems and community risk. We assume all are trained properly and yet deep down inside know that many are not. This class is designed to open eyes and share ideas and actions that can and will work for any size organization.

ALL LEVELS

Training with Incident Simulations

Deputy Chief (Ret.) Ted Nee, Albuquerque (NM) Fire Department

Why do the United States Armed Forces, the airline industry, and the medical profession continue to spend billions of dollars on simulation training? Because simulation training has been shown to be the most effective way to develop the nontechnical skills (decision making, situation awareness, and communications) needed for successful job performance. This class will illustrate best practices for incorporating simulation training in your department. Learn the technique of "Deliberate Practice," which has proven to be the single best tool for rapid skill acquisition, and how to use emergency scene simulations to certify and assess officer candidates.

ALL LEVELS

How You Run Your Firehouse Is How You Run Your Fire Scene

Assistant Chief of Training Adam Neff, Nixa Fire (MO) Protection District

As the chief, training officer, company officer, or senior firefighter of your organization, you should be invested in the future of your department and how you will develop future firefighters and company officers. Are you tired of the cookie cutter programs that are just repeating the same material over and over again? Are your firefighters and company officers succeeding on the fireground but failing in the firehouse? This class was designed out of necessity because the instructor's organization doesn't have many seasoned firefighters or company officers leading the way. He had to find a way to shorten the learning curve for new firefighters, drivers, and company officers. This mentoring program and task book will help chief officers, training officers, and company officers establish new expectations of skills, operational readiness, and accountability.

ALL LEVELS

Fire Operations at Mid-Rise Office Buildings

Deputy Assistant Chief (Ret.) John Norman, Fire Department of New York

This class introduces strategic and tactical considerations involved in fighting fires in low- and mid-rise office buildings. Topics include overview of office building fires, fire and smoke spread, collapse deficiencies, incident command and control of building systems, use of elevators, engine company operations, hoseline selection and placement, standpipe system use, ladder company operations, search and rescue, and ventilation. The class will include an interactive fire scenario involving a typical office floor layout.

ALL LEVELS

First Lead Yourself: Critical Truths for the Mission-Oriented Leader

Deputy Chief Eric Nurnberg, Iowa City (IA) Fire Department

Contemporary leadership programs in the American fire service have made strides in considering the psychological profiles and personal skills inventories while examining administrative and operational best practices for leadership and management. Where mission-oriented leadership is concerned, however, the most formative lessons for aspiring and incumbent leaders are often neglected. This class will explore several critical themes related to fostering leadership skills that will significantly enhance climate, culture, confidence and fulfillment, and mission accomplishment. It will examine the trials and failures that plague every officer and explore the personal and professional value in purposeful reflection. It will also explore the mission-oriented leader's imperative for solitude and introspection, particularly as a means to illuminate the personal leadership ethos and command philosophy, which will ultimately serve to enhance the department.

ALL LEVELS

The Successful Short-Staffed Engine

Firefighter/EMT Timothy O'Connor, Port Penn (DE) Fire Company

In today's fire service that is ruled by the almighty dollar, staffing reductions and lack of membership response have created a unique set of challenges. Regardless of if your department is career, volunteer, or combination, we have been tasked with doing more with less--less funding, less equipment, and less people. We, as the fire department, are still expected to solve every problem that is thrown our way. To do that, we must adapt and overcome--change our tactics and operations--to incorporate the increase in responsibility and decrease in staffing. The most common change that has been made is to operate with a crew of three personnel on engine companies. While this is no doubt less than optimal, it is attainable when you become extremely effective through training and practice. This class reviews some specifics related to the tools, responsibilities, and operations of the three personnel.

ALL LEVELS

The Future Fire Service: The Environment, Technologies, and Society

Deputy U.S. Fire Administrator (Ret.) Denis Onieal, Gettysburg, PA

Our ability to navigate the future will depend on our ability to anticipate change and adapt to new environments. This class will identify the principal areas of change affecting the fire and emergency services: the fire and building environment, the technologies that will demand changes, and the society in which the fire department of the future will operate.

ALL LEVELS

Cancer: Prevent It, Detect It Early, Survive It

Chief Russell Osgood, Portsmouth (NH) Fire Department; Firefighter Cancer Support Network

Through an interactive presentation and discussions, students will learn about the problem of cancer in the fire service. Cancer exposure occurs on the fireground, fire stations, and even from the gear designed to protect you. Leveraging a new analyses from the Center for Fire, Rescue, and EMS Health Research, the Firefighter Cancer Support Network (FCSN) will reveal the cancers that impact the fire service most frequently and best practices for reducing exposure and preventing cancer. Because we will never eliminate cancer risk completely, it will discuss 3 Steps Detect, a program teaching firefighters to recognize early warning signs of cancer and give them a framework for when and how to seek help from their healthcare team. Finally, FCSN will share the services offered to firefighters in the event that they do have to deal with a cancer diagnosis. Through sharing data and stories of survival, this class will motivate you to take personal responsibility for your health.

ALL LEVELS

Coordinating Ventilation: Supporting Extinguishment and Survivability

Lieutenant Nicholas Papa, New Britain (CT) Fire Department

Ventilation can make or break the outcome of a fire. Successful execution requires the comprehension of how it works and the precautions that must be taken to ensure our actions are well coordinated and achieve their intended outcome. This class examines ventilation and its relationship with fire behavior; firefighting operations; and, most importantly, victim survivability to identify how the tactic impacts the fireground. By incorporating previous experiences as well as data from current research, the common pitfalls and misconceptions are addressed to reduce potential errors and avoidable losses. A set of guiding principles and practices is provided to establish an operational baseline. The framework is universal and can be applied to any environment--from rural to urban communities. With a functional understanding of ventilation and the methodology for its execution, participants can more consistently make the right call for their fireground.

ALL LEVELS

Heavy Rescue: Initial Size-Up

Lieutenant Josh Percy, Oklahoma City (OK) Fire Department

This class will give the students a process for sizing up incidents involving over-the-road trucks ("big rigs") involved in accidents in their response areas. Topics include common scenarios like rear under rides, side under rides, rollovers, pin-ins, and over-rides. Learn when and how to stabilize, lift, and extricate victims in these high-risk situations.

ALL LEVELS

Three Degrees of Hoarding Fire Attack: Time, Geography, and Occupancy

Captain Paramedic Ryan Pennington, Charleston (WV) Fire Department

After years of researching fires that occur with hoarding conditions present, three common variables continue to dictate the attack operations. Using these three distinct variables can lead firefighters to success in rescue and fire suppression efforts. Time is the basis used to determine how bad the hoarding level will appear. Has the occupant lived there for two weeks or two

decades? Geography is an extremely important variable to use, as rural environments will have an easier time identifying the presence of hoarding while having a harder time making access vs. a fire inside city limits, where there are codes to dictate the amount of clutter visible. The final variable is occupancy. Commonly hoarding can be found in single-family and multifamily dwellings. Determining the type of occupancy will dictate the tactics used due to access issues and the size of the interior living spaces.

ALL LEVELS

Left Seat Tips and Tactics

Captain Nicholas Peppard, Holley-Navarre (FL) Fire District

There is no doubt that the engineer (driver/operator) is one of the most critical jobs on any fire company. This class is a fast-paced look at effective, time-tested techniques; tricks of the trade; and tips for driver/engineers. It will review tactical considerations on a variety of incidents uniquely from the perspective of the engineer. The wide variety of incidents a fire company responds to requires the engineer to be on his game at all times. Learn best practices, tips for skill building, overcoming common problems encountered on the fireground by the engineer, and methods of troubleshooting issues encountered in the delivery of effective fire streams. This is geared toward current, newly promoted, and step-up driver/engineers as well as those firefighters seeking to promote and company officers looking to provide quality company level training to their crew.

ALL LEVELS

Urban Meets Suburban: The Static Stretch

Deputy Chief William Perritt, Hartsdale (NY) Fire District

This class is a review of the skill set needed to complete hose stretches from the static hosebed in the suburban environment. Most fire departments throughout the country have developed skill and experience stretching and operating preconnected hose systems, but many are not prepared for the challenges of stretching past the limits of their longest preconnected hoseline. A well-designed static hosebed allows for the short-staffed suburban department to stretch successfully at fires where the stretch demands more than 200 feet of hose. The class will deconstruct the static stretch and focus on each component part, covering static hosebed design, apparatus positioning, estimating the stretch, and performing the stretch. Student will learn options for the design of their static hosebed, techniques to estimate the stretch, and proper techniques to complete the static stretch in the reduced-staffed suburban fire department.

ALL LEVELS

Your PPE: What You Need to Know

Past Chief Tim Pillsworth, Winona Lake (NY) Fire Department

The most used equipment we don for every alarm is our personal protective equipment (PPE). Too many don't have knowledge of their PPE. This class will cover what our PPE cannot do, proving PPE is not everything proof; a simplified review of the NFPA standards for each type of garment, concentrating on structural; the knowledge needed to understand the PPE system; and a step-by-step method on how to specify, bid, and place in service PPE. We have come to realization that fire is not only danger on the fire scene. Carcinogens present at our alarms place all at great risk. Acceptance that "salty" gear needs to be a thing of the past as well as proper

cleaning and care are important. We can reduce our exposure to reduce the ravages caused by cancer in the fire service.

ALL LEVELS

Must-Have Policies and Practices for Every Fire Department

Chief (Ret.) Bradley Pinsky, Manlius (NY) Fire Department; Attorney, Pinsky Law Group, PLLC

This class reviews the top administrative policies and operational practices every fire department (U.S. and Canada) must have to prevent liability, firefighter injuries, and public embarrassment and to increase proficiency on the fireground. The suggested policies are derived from U.S. and Canadian safety regulations and National Fire Protection Association recommendations and case studies on poor outcomes in fire departments that lacked sufficient policies or operational practices. Attendees will learn how to create vital administrative policies and operational practices to protect their personnel and the department and learn to conduct a risk analysis of their operations to determine if there are policies or practices they must implement immediately. Among the topics addressed are the OSHA Operational Statement, physical fitness, carrying firearms, photography, training requirements and skill testing, health and safety, drug testing, and more than 30 operational practices.

ALL LEVELS

Mobile Homes: Small House, Big Challenge

Battalion Chief Joseph Polenzani, Franklin (TN) Fire Department

Manufactured housing accounts for about 10% of the new homes built each year. Learn what makes trailers different from “regular” wood-frame structures and how to safely operate within this challenging environment. Tactics for suppression and ventilation as well as strategies for operating in high-density mobile home communities are also presented. Although often overshadowed by larger residences, mobile homes are found in communities of all sizes. In fact, 24% of all mobile homes are located in cities with a population of over 2,000,000. In rural areas with long response times, a trailer fire is often a defensive operation. However, in urban or suburban communities, interior fire attacks are feasible, especially in larger double- and triple-wide homes. In these structures, ultra-lightweight construction, tight hallways, and unusual floor plans all combine to make an unfamiliar and potentially dangerous environment for firefighters accustomed to operating in site-built houses.

ALL LEVELS

The 2022 Fire Officer: Are You Up for the Challenge?

Deputy Chief (Ret.) Steve Prziborowski, Santa Clara (CA) County Fire Department

The focus of this session is to reduce and prevent life- and career-altering events while ensuring organizational excellence and top-notch customer service. It is about getting inside that burning building to aggressively do a primary search and get fast water on the fire; it’s about being a brother or sister and mentor to those you serve with; it’s about doing the right thing for the right reasons and not forgetting what we agreed to when we raised our hand to say yes to that oath of office we freely agreed to, especially those who promoted to fire officer. Situations a fire officer (or any rank) may face today that could potentially result in a life- or career-altering event will be shared and discussed with possible solutions. Not a day goes by without seeing someone’s career being ruined for something they or a fellow firefighter could have possibly prevented.

ALL LEVELS

Recruitment and Retention in Today's Fire Service

Lieutenant Terri Reid, Baltimore County (MD) Fire Department

Public service is one of the most sought-after professions; yet, the fire service continues to struggle in the recruitment and retention arena. This class will review the most current statistics of fire and emergency services based on data from the 2015 NFPA Needs Assessment and compare it to data over the past several years. We will discuss public perception as it relates to why women don't believe they have what it takes. The class will introduce proven strategies to recruit and retain a more diverse fire service.

ALL LEVELS

Firefighting PPE Evaluations: From Need to Selection

Lieutenant Jim Reidy, San Antonio (TX) Fire Department

This class covers the process for establishing need, performing evaluations, and selecting firefighting PPE ensemble elements--coat, pant, helmet, hood, gloves, and boots. It will also explore the certification aspects and tests of NFPA 1971 and 1851, product acquisition, committee/evaluator selection and involvement, staged and live fire evolutions, evaluation criteria, composite layering, fabrics, fibers, PFAS, and emerging issues relating to bunker gear. Actual evaluations and criteria used to acquire products will be presented.

ALL LEVELS

Fireground Communications: Improving Operations by Building an Effective Communications Culture

Battalion Chief Jaime Reyes, Plano (TX) Fire-Rescue

Having reliable communications on the fireground is critical to the safety of all firefighters on scene and is listed as one of the "NIOSH 5." Dependable communications start way before your shift starts. It begins with the fostering of relationships that we work daily to build. This is especially true for officers and chief officers. Have you invested in your crew? Have you earned their trust? The daily deposits we make to build relationships will pay dividends on the emergency scene. This class will address all aspects of fireground communications--everything from knowing the capabilities and limitations of your department's radio system to understanding each person's role in achieving reliable fireground communications and getting dispatch involved in your training. It will introduce skills that can immediately improve communications as well as provide a plan for developing and implementing a communications model for your department.

INTERMEDIATE/ADVANCED

Aggressive Search: It's Still About the Victim

Battalion Chief/Drillmaster (Ret.) Frank Ricci, New Haven (CT) Fire Department

This class will focus on smart and aggressive tactics to perform search operations at working fires. It will cover searching with and without a line, tactics that take into account size-up and fire behavior, and operations to support search and removal of victims.

ALL LEVELS

Building an Apparatus to Do Work

Firefighter Richard Riley, Kentland (MD) Volunteer Fire Department

This class will go through the process and design of an apparatus that is ready to go to work. The cost of apparatus today demands that departments get the most for their money and that the rig can do the job for the community and firefighters it will serve. The engineering of rigs should always be driven by the firefighters who ride it, with a balance of mechanical needs to ensure reliable performance. This class will help guide you through the design, engineering, and final delivery of your apparatus.

ALL LEVELS

Engine Company Tactical Traps

Lieutenant Steve Robertson, Columbus (OH) Division of Fire

We have all been there: The fire goes sideways, and we struggle to get it back on track. When tactical mistakes happen early in a fire, things tend to continue down that path. These fires happen all too often, yet we fail to address the real issue: bad tactical decisions. Tactical traps are all over the place on fire scenes and often overlooked. This class will discuss several common ones, from discount auto part stores, dollar stores, and all Type 2 construction buildings. These types of buildings offer several of the same tactical traps--fortified rear doors, partition walls, and heavy fire loads. Also covered will be gaining access to balloon-frame void fires, cockloft and attic fires, basement fires, electric cars, hoarder conditions, and vertical stretches. Your initial tactical considerations will dictate the outcome of the fire.

ALL LEVELS

16 Roadway Safety Strategies from Lessons Learned

Lieutenant Brady Robinette, Lubbock (TX) Fire Rescue

This class will cover the lessons learned and the changes implemented in the wake of several struck-by incidents. The dangers the roadway presents to emergency responders is extremely high. Roadway safety education and other proactive steps to improve roadway safety is often overlooked by departments until they experience a struck-by incident. In January 2020, a struck-by incident killed a firefighter and a police officer and critically injured another firefighter in Lubbock. Irving, Texas, has had several near misses, several apparatus struck, and a firefighter was injured in December 2020 by a vehicle traveling the wrong way on a section of roadway that was closed to all through traffic. Learn from these case studies to make your roadway operations safer for your personnel.

ALL LEVELS

The Initial Attack Line

Captain Anthony Rowett, Mobile (MO) Fire Rescue Department

The initial attack line is the backbone of every fireground operation and will have a greater impact on the outcome of a fire than any other fireground operation. As the first line goes so does the fire, so we must get it right. What is your target flow rate? How do you determine your hoseline selection based on the buildings and conditions that you encounter? How do you estimate the stretch? All of these questions will be answered and discussed during this class. It will also discuss tactical decision making for fires in single-family dwellings, multiple-family dwellings, commercial buildings, standpipe-equipped buildings, attics, cocklofts, and basements.

ALL LEVELS

The First Five Minutes: Size-Up, Incident Action Planning, and Effective Communications

Chief Charles Ryan, Tucson (AZ) Fire Department

This class is for fire officers and those who fill in as officers to understand and appreciate the basic elements of scene size-up and situational awareness. It examines incident action planning and decision making processes and explains why "having a plan" is supremely important before committing firefighters into action. Covered is fireground communications: what should be said, how it should be said, and why it should be said. Examples are offered to demonstrate how a great deal of information can be conveyed in far fewer words than we often use. A well-evaluated fireground, managed with a defensible plan that is effectively and efficiently communicated, will lead to a safer and more effective operation.

INTERMEDIATE

The Three Degrees of Mayday

Battalion Chief (Ret.) John Salka, Fire Department of New York; and Chief (Ret.) Rick Lasky, Lewisville (TX) Fire Department

This class looks at the established Mayday procedures used by most departments and proposes some changes to make your next Mayday response more effective and successful. Does your fire department respond with and use the same resources for every call regardless of the size or complexity? Probably not. The "three degrees" are a multilevel Mayday response to Mayday situations of varying complexity and size. Smaller RIT operations are used for single-firefighter situations, larger teams with more equipment are used for multifirefighter situations, and an even larger RIT response is called for for catastrophic events.

ALL LEVELS

Buddy to Boss: Effective Fire Service Leadership

Division Chief/Paramedic/Emergency Medicine Physicians Assistant (Ret.) Chase Sargent, Varangian Guard International

Effective fire service leadership requires a range of skills. This class is a result of years of real-world leadership issues in emergency and nonemergency events. It focuses on expectations from the organization and the individual member and reviews key leadership principles, communications, vision, planning, and individual characteristics that leaders must emulate to create individual and organizational success. Organizations spend little time educating their officers but a tremendous amount of time training entry level firefighters. For those who are new officers or who have been in the job for many years and for those aspiring to leadership and promotion, this will help you succeed and survive the job of leadership.

ALL LEVELS

What the Chief Needs from 21st-Century Officers

Chief Salvatore Scarpa, Columbus (GA) Fire & Emergency Services

While the fire service is steeped in tradition, the needs of modern communities are ever evolving. The expectations and demands placed on chiefs create new challenges for leaders in today's fire service. With changing community needs, the role of the fire service must change as well. The 21st-century chief has different expectations for the officer corps of the organization. This class will explore the changing role of the fire officer. Participants will learn what it takes to be a successful fire officer in the modern era, the changes occurring in the fire service requiring a shift of our leaders, the characteristics of an effective leader, and the role the company officer plays in shaping the 21st century fire service.

INTERMEDIATE/ADVANCED

Are You Ready for Your Next Recruit?

Deputy Fire Coordinator (Ret.) Tiger Schmittendorf, Erie County (NY) Department of Homeland Security & Emergency Services

Rushing to market for new recruits is not always the best approach to long-term sustainability and growth in your volunteer fire department. Too often, we fail to get our firehouse in order before inviting others in, creating a revolving door of increasing recruitment efforts and crippling retention issues. Learn the three major phases of the “volunteer life cycle”--recruitment, onboarding, and retention--for a framework for sizing up the health of your volunteer organization’s culture and environment. This critical conversation investigates the cause and origin of conflict in the firehouse and outlines a balanced environment for thriving with a volunteer workforce. This class will address the challenges of today’s public safety leaders in attracting and retaining the appropriate quantity and quality of volunteers they need to support the delivery of emergency services in their communities.

ALL LEVELS

First-Due Engine: Mass-Casualty Response

Rescue Captain Justin Schorr, San Francisco (CA) Fire Department

The engine company is the workhorse of the modern fire service. As a result, it has the widest training spectrum of any other apparatus in the fleet. So why do we train on first in fire but not first in mass casualty? No one arrives at a fire and meets at the front bumper to assign roles and determine strategy; it is all assigned at the morning meeting and reinforced in multiple company drills. This class focuses on the first in engine, gathering information, deploying resources, and informing incoming units. There are no tarps and no vests, just the officer and members assigned to the engine. Attendees will be sent home with tips on how to outfit and train their members back home and build up strong reflexes for when they are dispatched to an MCI.

ALL LEVELS

Fail Falling: Structural Collapse and the Impossible Diagnosis

Structural Engineer/US&R Structures Specialist Andrew Schrader, Marion County (FL) Fire Department; Florida Urban Search and Rescue Task Force 8

If you've ever responded to a structural collapse, you may have asked yourself, What caused the first half to come down? Why isn't the second half also on the ground? And, most importantly, what is stopping the second half from collapsing on top of me during our rescue operations? This class will help you answer those questions to allow you to go after more live victims with less unnecessary risk to yourself or your tech rescue team. When it comes to structural collapse situations, there is never a "right" decision--only a "less-wrong" decision. Firefighters and tech rescue teams will use critical thinking coupled with basic construction knowledge to help save more lives with less unnecessary risk to themselves. Also covered are lessons learned from the instructor's deployment to the Champlain Towers (Surfside) collapse.

ALL LEVELS

Residential Primary Search: Establishing an Aggressive Search Culture

Lieutenant Grant Schwalbe, Estero (FL) Fire Rescue

Approximately 95% of civilian fire deaths occur in the residential setting. This should be our bread and butter. Yet many departments are plagued with a passive search culture due to poor SOGs, overcautious safety concerns, and poor training. This class makes a case that our goal should be to complete a primary search within the first 10 minutes of all structures. It covers search-the big picture, best practice search skills, executing the search (hasty search, oriented search, and VES, victim removal including drags, window lifts, and upper-floor removals.

ALL LEVELS

Aerial Apparatus: Use and Training Drills for the Truck Crew

District Chief (Ret.) Louis Sclafani, Pinellas Park (FL) Fire Department

This class will review the types of aerials available today--ladders, platforms, tractor-drawn aerials, water towers, rear mounts, and mid mounts--including pros and cons and operational differences. The class will review some of the important concepts of aerial operations including positioning for rescue or fire attack, stabilization issues, understanding your load capacities, and override and emergency lowering procedures. It will look at a number of aerial device failures and make available a series of training drills students can take home to practice with their crews and with their truck. These drills emphasize teamwork and operator skills.

ALL LEVELS

Fire Service Mortar: The Critical Role of the Company Officer

Captain Jarrod Sergi, Norfolk (VA) Fire Rescue

This class provides the tools and knowledge to lead from the front as a company officer, all while building an effective group of performers. It targets newly promoted company officers as well as those who may assume the role in the near future but will ultimately benefit anyone who has the desire to make change and drive ownership into the company level. Company officers truly are the mortar in any fire department. They have the ability to keep their department running strong and efficient with their example, attitude, and passion. This class emphasizes the importance of unit cohesion and how it can have a lasting impact. It is meant to inspire action and produce results in your company, your station, and your department.

ALL LEVELS

Responding to Places of Worship in Suburban and Rural America

Chief of Training & Safety John Shafer, Washington Township/Avon (IN) Fire Department

Regardless of the size of the community or fire department's size, almost every agency in North America will typically have at least one house of worship for which they will be responsible for providing fire protection. Although fires in these occupancies do not happen every day, they will be taxing to most agencies, and often the fire department chooses the same tactics that are for a 1,200-square-foot residence fire. When, in reality, a church building is much larger. Rural fire districts and limited-staffed suburban departments have unique challenges: lack of water supply, lack of resources, and long response times. Topics include fire behavior in an open-floor plan church building, building construction, initial apparatus positioning, size-up, initial line selection that focuses on obtaining maximum water with minimum personnel, forcible entry challenges, water supply, managing void spaces, rapid intervention, and ventilation.

ALL LEVELS

Critical Thinking for Fire Officer Development

Deputy Chief (Ret.) Leigh H. Shapiro, Hartford (CT) Fire Department

Without practical education, guidance, and critical thinking skills, those in leadership positions are often thrust into situations where they are charged with making critical decisions without the essential knowledge base and abilities. This lack of awareness is the source of misinterpreting situations, which can have a ripple effect within an organization and the community. Often, excuses regarding the circumstances or being ill-prepared are made to justify negative outcomes. This class will teach students to critically evaluate their situation, select the appropriate leadership strategies and tactics, and drive the intended outcome. It provides a leadership roadmap to enhance your likelihood of success both on and off the fireground. Because there is no substitute for wisdom—gained only through experience—it is the responsibility of senior leadership to pass on those lessons to the new/aspiring officers to prepare them for what lies ahead so they don't have to learn them the hard way.

The Engine Company: Firefighting in Contemporary Times

Firefighter (Ret.) Jeff Shupe, Cleveland (OH) Fire Department

This class will discuss firefighting from the past to the present. It will review a few historical events and enlighten students on how they can relate the material to modern times. Students will be challenged to make comparisons as to what their own histories and experiences are. The class will review fire service culture and the importance of looking at firefighting as a team operation.

ALL LEVELS

Conflagrations in Very Large Apartment Complexes

Chief Drew Smith, Prospect Heights (IL) Fire Protection District

Fires in very large apartment complexes represent extraordinary challenges for any fire department. The typical suburban fire department first-alarm resources and house fire tactics place the fight in a losing position from the start. Early recognition of fire potential and aggressive strategy supported by a well-structured ICS are key to a successful outcome. These fires are low-frequency/high-risk events that many firefighters may not experience in a career. When they do, implications are profound. Attendees will examine incidents involving large complex fires that required a significant mutual-aid response.

ALL LEVELS

The Multiple-Dwelling Fire

Battalion Chief Jonah Smith, Charlotte (NC) Fire Department

This class will address the challenges and tactics to be successful for fires in multiple dwellings. It will present proven methods to combat and simplify the multiple-dwelling fire. Topics include tactics, challenges, tactical priorities to ensure fireground success, and the tactical triage of ensuring search and fire attack work together for successful citizen outcomes.

ALL LEVELS

Advanced Drafting Operations: Getting Greedy with Water in Rural Environments

Fire Instructor II Andy Soccodato, Charlottesville (TN) Fire Department

In today's fire service, it is very common to see fire departments that purchase pumping apparatus with 1,500- to 2,000-gpm-rated pumps. NFPA 1901 and 1911 both state that pumping apparatus with pump capacities greater than 1,500 gpm must be capable of doing so using no more than two separate suction lines. This may seem like a trivial piece of information; however,

it is often overlooked and results in less-than-ideal flow rates in the real world. This class is designed to teach students proven methods for maximizing their capability while operating from a static source. Students will be introduced to several alternative drafting techniques that don't require the use of a primer. Methods for expanding the initial system to incorporate multiple intakes will then be discussed. This setup will yield higher fire flows and reduce the amount of work required by the pumper during rural water supply operations.

ALL LEVELS

A Holistic Approach to Tactical Professional Wellness

Owners/Managers Jim Sorgi and Joey Vandever, ProTeam Tactical Performance

As a professional athlete, ProTeam Tactical Performance's co-founder Jim Sorgi received top-of-the-line preventive and rehabilitative care. Now, he is dedicated to providing the men and women of fire service the very same level of care. This class will look at an innovative, holistic approach to treating first responders and provide the opportunity for you to discuss challenges your department may be facing when it comes to health and wellness. The class will share industry research, practical insight, and services you can implement in your department. Topics discussed will include rehabilitation, recovery programs, preventive assessments, behavioral health, strength and conditioning, nutrition, and more.

ALL LEVELS

Danger Zone: Roadway Incident Operations

Director of Training Jack Sullivan, Emergency Responder Safety Institute

Struck-by-vehicle incidents continue to be a serious hazard for emergency responders. Fire service operations on roads and highways put personnel at serious risk of being struck by vehicles and injured or killed. From 2008 through 2020, 63 firefighter and EMS line-of-duty deaths have occurred from being struck by a vehicle. Many more personnel have sustained serious life-changing and disabling injuries. This class will provide guidance on how to conduct various types of operations on rural roads and highways with the emphasis on how to protect emergency personnel, the victims they are responding to assist, and other motorists in the vicinity of the incident. Strategies and tactics, new technology, and apparatus innovations that can help improve incident scene protection will be presented.

ALL LEVELS

Legacy Construction: A New Take on Old Buildings

Firefighter Christopher Tobin, St. Louis (MO) Fire Department

This class will discuss legacy buildings, identifying characteristics, hazard identification, and visual decision making cues. The overemphasis on modern buildings and fire environments has resulted in a knowledge gap concerning pre-1940 construction. This class will focus on educating the younger generation of firefighters as well as creating buy-in with the more senior members.

ALL LEVELS

What the Best Fire Instructors Do

Captain Edward Tracey, Rochester (NY) Fire Department

Designed for fire service instructors and fire officers, this class will explore the research and best practices that make a "good" fire instructor in the classroom and on the training ground.

instructors can improve their instructional delivery through the presentation of new material, review of research on instructing, and critical reflection of teaching practice.

ALL LEVELS

Learning from Others' Experiences

Chief (Ret.) Fire Training Instructor David Traiforos, McHenry County College (IL) Fire Academy

This class focuses on viewing dramatic videos and photographs depicting moments captured on the fireground that illustrate how firefighters' aggressive actions can lead to danger and interfere with the task at hand, leaving firefighters at risk for injury or death. Topics include fire scene incident command, safety and accountability, vehicle placement and operations, hoseline placement, the use of portable ladders, building construction, water supply, and search and rescue. Also discussed will be officer development covering strategy and tactics, radio communications and fire department policies and procedures, SOPs, and best practices.

ALL LEVELS

Step Up and Lead: Leadership Skills

Deputy Chief (Ret.) Frank Viscuso, Kearny (NJ) Fire Department

This class will introduce officers and aspiring fire service leaders to some of the most important skills they will need in order to become a more effective leader in today's fire service. Those skills include Goal Setting, Mentoring and Succession Planning, Critiquing Others, Delegating, Preventing Freelancing, Technical Report Writing, Tackling Administrative Tasks, Dealing with Subordinate Issues, Conducting a Post Incident Analysis, Building Morale, and the reasons why it's important to Step Up and Lead in the fire station, as well as on the Fire ground. The class will end with a discussion on creating the right culture within your organization with emphasis on the importance of customer service.

ALL LEVELS

Fully Involved: The Deliberate Leader

Captain Mark vonAppen, Palo Alto (CA) Fire Department

Geared toward professionals who wish to expand their abilities in leadership, this class is aimed at anyone who wishes to lead at any level. It is rooted in improving team performance and has application in both the public and private sectors. Getting team members to pull toward a common goal is a key component in successful operations. This class gives students the tools to create a pact that is applicable to all levels of the organization.

ALL LEVELS

Barn Boss Leadership

Global Emergency Preparedness and Response Leader Brian Ward, Georgia Pacific

This class is a unique blend of fire, science, leadership, mentoring, and history with a gut check for individuals of all ranks. However, an emphasis is placed on informal leaders, who are the catalyst for action in your department. True leaders develop their power long before they receive a promotion. This class is for the individual who considers mastery the minimum standard.

ALL LEVELS

Fireground Pump Operations: Mastering the Panel

Battalion Chief of Training Paul Watlington, Burlington (NC) Fire Department

The pump operator is the connecting link in operations between the suppression decision making and the implementation of those decisions. It is easy to get comfortable at the panel when all things are flowing smoothly. Then there are the adversities on scene with water supplies, ruptured hoselines, malfunctioning equipment, and other unforeseen situations. Many operators feel that operating alone at the panel is stressful. Equipment improvements such as pressure governors and improvements in fire hose and nozzles have created opportunity to refine our skills at the panel. This class will help to prepare pump operators for the on-scene adversities, the transitions from older to modern apparatus as well as the differences between the two, changes and differences in fire hose and nozzles when dealing with friction loss, and managing the responsibility of a fireground pump operator. It will present training ideas to take back to your department.

ALL LEVELS

The Art of Caring for Apparatus and Equipment

Captain/Training Coordinator Mark Watters, Sunrise (FL) Fire Rescue

This class is designed for all levels of firefighters looking to improve and enhance their department's state of readiness for apparatus and equipment. It will discuss new technology and techniques to improve a department's equipment and apparatus state of readiness and appearance. In addition, with the events of the pandemic, it will also discuss proper cleaning and decontamination of equipment, the long-term effects of using improper products or techniques, and the long lost art of apparatus care and maintenance at the fire station level.

ALL LEVELS

Large Truck Extrication

Battalion Chief Steve White, Fishers (IN) Fire Department

Rescuers should not take a passenger vehicle approach to a large truck extrication. Students will gain working knowledge of large truck and trailer construction including air, electrical, and suspension systems and learn options for use of electric, pneumatic, and hydraulic tools to stabilize, gain access, and perform disentanglement from semi tractors, large straight trucks, and cars trapped under trailers. Working with heavy wreckers will be also covered.

INTERMEDIATE/ADVANCED

Flashover: Life and Death Decisions on the Fireground

Lieutenant Bryan Winzer, Fire Department of New York

This class will examine two case studies of incidents where flashover occurred. In one incident, a firefighter was severely burned while battling a private-dwelling fire. In the other incident, one firefighter was severely burned and his partner succumbed to his injuries while fighting a fire in a garden apartment. The class will provide an in-depth look at the firefighting operations at the incidents and the outcomes. The 13 points of size-up will be discussed, as well as fireground communications, the warning signs of flashover and ways to prevent flashover from occurring, building construction, rapid intervention team operations, and mutual-aid response. The importance of properly wearing and maintaining personal protective equipment will also be discussed.

ALL LEVELS

Developing and Managing a Breathing Air Maintenance Program

Battalion Chief, SCBA Program Coordinator Scott Zelhart, Fishers (IN) Fire Department

This class is for individuals who are considering starting their own in-house breathing air maintenance programs or who currently have in-house programs but are looking to improve, change, or modify their existing format to better serve the firefighter, our ultimate customer. The basic elements of a program will be covered along with a SWAT analysis to better enable the student to further define needs. A detailed view of a working model in a suburban fire department will be reviewed. This concept is not manufacturer specific and may be applied to any breathing apparatus manufacturer that sponsors and encourages an in-house repair center operation. It may also be adapted to the manufacturer's representative providing field and repair service to further streamline operations. Topics addressed will be potential costs, liability, personnel, and space requirements.

INTERMEDIATE/ADVANCED