All Hands Herald

Massachusetts Department of Fire Services June 2022

$5 Million in Grants Awarded
to 306 Fire Departments

Investigators Reflect on Fire Caused by Sunlight Focused through Glass

Side-By-Side Sprinkler Demonstration Now Available in Virtual Reality

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The *All Hands Herald* is published three times a year by the Department of Fire Services. Our title incorporates the traditional fire service meaning of all hands working to extinguish a fire. In this publication, all hands is DFS staff providing information, training, and assistance with fire service issues which affect all levels of the fire service.

Let us know how you like the *All Hands Herald* and what we can do to make it even more useful to you – our dedicated fire service members and customers.

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From the Fire Marshal

March Tragedies

The loss of a 4-year-old girl in a March 3 fire in Lowell marked the first child fire fatality in Massachusetts in nearly three years, and it was followed by the loss of a teenager in an Agawam fire less than a week later. Their deaths were among seven fire fatalities during a tragic 17-day period that claimed young people, adults, and seniors in apartment buildings and single-family homes. Some of the causes included factors we see regularly, such as smoking materials, and others were less frequent, like the combustion of oily rags. The only common thread was the absence of fire protection systems when and where they were needed most: none of the seven residences had home fire sprinkler systems, and only one had working smoke alarms. As fire service professionals, we can all play a role in preventing tragedies like this through outreach. When discussing the fire experience in your communities with local leaders, state legislators, social service providers, and residents, please consider reminding them of the urgent need for working smoke alarms on every floor of every home and the benefit that fire sprinklers would have in preventing injury, death, and property damage if they were required in all residential occupancies.

Skin Cancer Partnership

On March 24, I joined Commissioner Jack Dempsey and Deputy Chief Mark Buchanan of the Boston Fire Department; Rich MacKinnon, president of the Professional Fire Fighters of Massachusetts; and Chief Russ Osgood of the Firefighter Cancer Support Network at the American Academy of Dermatologists' (AAD) annual conference in Boston. We were there to support and assist Dr. Christine Kannler, our partner for free firefighter skin cancer screenings through the Massachusetts Firefighting Academy (MFA). With MFA Program Coordinator Abby Baker, Dr. Kannler has screened about 2,600 firefighters in sessions from Pittsfield to Provincetown, and she pitched the program to the AAD as one that could be replicated in other states. So far, the response has been encouraging, with state dermatological societies in New York and Pennsylvania expressing interest. To learn more about our occupational cancer awareness, prevention, and early detection programs, including skin cancer screenings, visit *www.mass.gov/dfs* and search for *occupational cancer.*

Bridgewater Progress

The MFA recently took delivery of the first section of the new Search and Rescue Prop at the DFS Bridgewater campus. The second section is expected in June. Once complete, the three- to four-story prop will provide a realistic training environment for indoor search and rescue operations, technical rescue, additional burn rooms, and opportunities for instruction on shipboard, basement, and high-angle tactics. The new prop is just one of many developments planned for our Bridgewater campus, and it will be a huge benefit to the firefighters and departments of southeastern Massachusetts in the months and years to come.

Boston Marathon Returns to Patriots Day

The Boston Marathon returned to tradition this year and was held on April 18 — just six months after the previous race in November 2021. DFS staff hit the ground running! Hazmat, Rehab, and ISU apparatus and personnel supported the event, along with the CBRNE Task Force staffed by members of DFS, State Police, the National Guard, and our municipal and federal partner agencies. The work of protecting participants and spectators started long before the starting gun, it didn't end until hours after the last runner crossed the finish line, and planning for next year's event is already underway. I had the opportunity to see some of this work from the Homeland Security Operations Center at State Police Headquarters, and I'd like to thank everyone who took part in it, especially those in Special Operations, Hazmat, and the Fire & Explosion Investigation Unit.

PFAS Interagency Task Force Recommendations

On April 20, the Legislature's PFAS Interagency Task Force issued a series of recommendations to protect public health and the environment from contamination by per- and polyfluoroalkyl substances, including several that were based on input from firefighters, fire chiefs, and union leaders. These recommendations range from funding another Aqueous Film-Forming Foam Take-Back Program to supporting efforts to develop PFAS-free turnout gear. As

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$5 Million Awarded to 306 Departments

through the FY22 Firefighter Safety Equipment Grant

In January, the Department of Fire Services announced $5 million in grant awards to 306 local fire departments through the FY22 Firefighter Safety Equipment Grant. This is the second of five planned years that this program will be available, with funding coming from a $25 million bond bill filed by the Baker-Polito Administration. The program aims to ensure that firefighters go home safe after every call, and that they remain healthy throughout their careers and into retirement.

The program was highly competitive this year, with the application total greatly exceeding the $5 million available to distribute. Despite that, the program will provide firefighters across Massachusetts with a tremendous amount of equipment to protect them as they protect their communities. The funded equipment includes:

- 688 Pairs of Boots
- 447 Bunker Coats
- 119 Cold Water Immersion Suits
- 105 Combustible/Hazardous Gas Detectors
- 46 Extrication Tools
- 21 Gear Dryers
- 662 Pairs of Gloves
- 422 Helmets
- 526 Hoods
- 1,033 Lengths of Hose/Fittings
- 415 Pairs of Bunker Pants
- 162 Portable Radios
- 88 Rescue Saws
- 78 SCBA Bottles
- 147 SCBA Face Pieces
- 186 Thermal Imaging Cameras
- 40 Vehicle Stabilization Struts
- 20 Ventilation Fans

While incredible strides have been made in recent years regarding our understanding of how to keep firefighters safe, the financial cost has been significant. The Baker-Polito Administration conceived this grant program with the understanding that no local fire department could immediately meet all of these challenges, and set the goal of significantly improving the health and safety landscape in the fire service across the Commonwealth over a five-year period.

If your department did not apply this year, there will be similar opportunities annually through 2025. Grant opportunities are posted at *www.mass.gov/dfs* (search for *grants for fire departments*) as they become available, and on the DFS Facebook, Twitter, and Instagram accounts.

FFY21 Homeland Security Grants

In the spring of 2021, DFS successfully applied to the Federal Emergency Management Agency (FEMA) Homeland Security Grant Program through the Executive Office of Public Safety and Security (EOPSS) for a variety of projects that are now beginning to show their impact for the Massachusetts State Police Bomb Squad and the DFS Hazardous Materials Emergency Response Division (Hazmat). These projects include two robots, a short-range chemical identification tool, a digital x-ray system, and an advanced biohazard detection platform.

The Bomb Squad received two robots: a four-legged quadruped robot and a more traditional tracked robot. Like all the tools used by the Bomb Squad, these robots' fundamental purpose is to protect human life from the dangers posed by explosives. The quadruped robot has the greatest mobility of any robot in the Bomb Squad fleet, easily traversing stairs, doors, and other obstacles. When investigating suspicious packages or potentially hazardous environments, it excels in getting Bomb Squad technicians critical information quickly. The tracked robot, while not as mobile, specializes in maneuvering and manipulating packages during highly technical operations, with the ability to make extremely precise movements. This unit can also transport hazardous materials meters into potentially dangerous environments. It is used in Joint Hazardous Incident Response (JHIRT) activities, where state hazardous materials technicians and bomb technicians work together to evaluate situations involving reactive or energetic materials.

The Bomb Squad also acquired a new digital x-ray system with this funding. Traditionally, bomb technicians have used hardwired x-ray machines to image and evaluate suspicious packages. These devices require the technician to remain near the suspicious device to take the images, and often involve a repetitive process of adjusting the imaging device to take pictures from various angles. The newer digital x-ray systems enable bomb technicians to take these images from a safe distance, provide higher quality images, and allow enhancement and manipulation of the images from a remote device. This is much safer and more efficient than the older method and

Search and rescue prop under construction at the Bridgewater campus. Built with an award from the Assistance to Firefighters Grant program.

it limits public disruption caused by bomb threats and suspicious packages when no actual hazard exists. This is the fifth digital x-ray system acquired by the Bomb Squad. The transition to this modern platform has consequentially changed the way they operate.

The Homeland Security Grant Program also enabled the Hazmat Division to acquire two new detection/identification devices that allow Hazmat technicians to identify unknown substances more safely and more rapidly. The first is a short-range chemical identification tool, which uses spectroscopy to identify military explosives, homemade explosives, explosive precursors, synthetic opioids, fentanyl, chemical warfare agents, and a wide variety of toxic industrial chemicals from up to 6 feet away. Previous versions of these meters were unsafe to use with black powder and other unstable materials, as they could cause ignition or explosion of those materials. Recent advances have made these meters safe to use with those substances, which is beneficial to the JHIRT mission. The second new device is an automated bio-detection response tool capable of identifying a wide variety of pathogens, including those that cause anthrax, Ebola, botulism, tularemia, plague, and smallpox. It can test material samples taken from the scene of a release or from exposed and/or infected persons. The time required to prepare a sample for identification with this device is about two minutes, and final results are available in an hour. Both of these time frames represent a dramatic improvement from the capability levels that the hazardous materials team previously possessed.

This program was made possible for DFS through the work of the EOPSS Office of Grants and Research staff, who successfully applied for this funding from FEMA and made it available to all Massachusetts state agencies with a public safety mission.

Assistance to Firefighters Grant Update

Since the Assistance to Firefighters Grant (AFG) program made state firefighting academies eligible for grants in FFY2013, DFS has been fortunate to receive a substantial grant each year to improve the academy. This program has become an integral part of the development of the three Massachusetts Firefighting Academy (MFA) campuses in the last nine years.

In FFY2018, DFS was awarded funding to build a multi-story search and rescue prop at the Bridgewater campus. Construction is now well underway, and the prop is expected to be ready for use this fall. This 60' long CONEX box-style prop will provide a burn element, sloping roof prop, forcible entry prop, confined space prop, and more. The prop will support both recruit and technical rescue training.

In FFY2019, DFS received funding for the Mobile Extraction Unit (MEU). The MEU is a fully outfitted laundromat on wheels custom built to clean turnout gear of fireground carcinogens. This unit was delivered in the spring of 2021 and DFS makes it available to all graduating MFA classes so that recruits can begin their firefighting careers with a set of turnout gear that has been cleaned to NFPA 1851 standards.

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Investigators Reflect on 2021 Fire

Caused by Sunlight Focused through Glass Bottles

A year after a rare combination of sunlight, curved glass, and combustible materials caused a three-alarm structure fire in Stoneham, the Stoneham Fire Department is drawing attention to the case as an example of a thorough investigation that used the scientific method to follow the evidence beyond early theories to reach the truth.

"I have heard from neighboring fire chiefs of solar magnification causing fires in their cities when residents remove screens from replacement windows, however I haven't heard of an upside-down beer bottle as the cause of a fire," said Stoneham Fire Chief Matthew Grafton.

The fire at 24 Hersam St. broke out on March 6, 2021, at approximately 11:15 a.m. and progressed to three alarms. The first arriving company saw fire showing from a second-floor deck on the side of the four-family dwelling, and quickly discovered that the flames had spread into a ceiling and attic space. By the time the blaze was extinguished, it had caused more than $700,000 in damages, drawn mutual aid from almost a dozen departments, and injured two firefighters.

Massachusetts law requires fire departments to investigate and report the cause of any fire that causes property damage. Stoneham's Fire Investigation Unit consists of Captain Jim Marshall, Lieutenant Rick Darragh, and Firefighter Mike Labriola of the Stoneham Fire Department, and Sgt. Dave Thistle of the Stoneham Police Department, all of whom are part of the Metro Fire Arson Investigators Association, a group of fire investigators from the Greater Boston area that meets monthly to network, discuss fires, training methods, and other issues.

To support local investigations, the State Fire Marshal's office makes four regional teams of State Police fire investigators available upon request, 24 hours a day and 365 days a year. These troopers undergo extensive training and certification in fire investigation techniques and can bring all the resources of Massachusetts State Police to bear, including the Crime Scene Services Section and State Police Crime Laboratory. Sgt. Justin Peledge of the State Police Fire & Explosion Investigation Unit represented the State Fire Marshal's office on the Hersam Street investigative team. His K-9 partner, Vasco, was deployed at the scene but didn't alert to accelerants.

As the fire was brought under control, investigators went to work immediately. Based on an examination of the damage, burn patterns, and witness statements, they soon focused on the second-floor deck as the point of origin.

> "We're trained to use the scientific method." said Stoneham Police Sgt. Dave Thistle. "We used a K-9 to make sure there were no accelerants, and we ruled out every possible cause we could think of and narrowed it down to smoking or our rare solar theory."

With the point of origin identified, investigators observed what at first appeared to be an obvious cause — there were glass bottles, discarded Marlboro and Dunhill cigarette butts, and combustible items of trash scattered across the porch.

"We all initially thought it was going to be the cigarettes," said Captain Jim Marshall, the initial incident commander upon arrival. Careless disposal of smoking materials is a common cause of structure fires in Massachusetts, and fires on porches tend to rise in the early spring as people begin to step outside more often.

However, investigators soon learned that the porch had been unoccupied in the hours preceding the fire. Residents reported that they hadn't been on the second-floor porch all morning, and their statements were corroborated by footage from a neighbor's video camera system.

Fire investigators can't rely on assumptions when conducting investigations. Instead, they follow the evidence, narrowing the investigation by eliminating possible causes until only one remains.

"We're trained to use the scientific method and work our way through all the steps," said Stoneham Police Sgt. Dave Thistle, who is a member of the Stoneham Fire Investigation Unit. "We had a K-9 come in to make sure there were no accelerants, and we worked to rule out every possible cause we could come up with and narrowed it down to smoking or our rare solar theory."

"We are all familiar with the concentration of sunlight by a convex lens or a concave mirror," said Jeffrey Baumgardner, senior research scientist at the Boston University Center for Space Physics. "Some bottles (with or without some liquid inside) could act as a lens. . .There are well documented cases where large buildings with curved faces covered by glass have focused the sun on cars and have melted the plastic in the interiors."

"There were cigarettes everywhere, along with cardboard boxes filled with beer bottles. Once we ruled cigarettes out as the cause, we had to thoroughly determine that electrical was not a factor," said Firefighter Michael Labriola. They soon determined that there were no electrical wires, devices, or components in the area that could have ignited a fire.

"Early photography and video from bystanders and neighbors helped us base our investigation on the process of elimination," said Lieutenant Rick Darragh. In addition to showing that no one had been smoking on the porch that morning, photos and video showed that the area of origin was in direct sunlight for about five hours preceding the fire, providing ample time for the sun's rays to be focused through the glass bottles onto the combustible items nearby.

Of about 16,000 structure fires in Massachusetts during an average year, fewer than 10 — or less than one one-thousandth of one percent — are attributed to sunlight as the heat source, said State Fire Marshal Peter Ostroskey.

"It's uncommon but definitely not unheard of," the Marshal said. "We've seen several fires involving windows, mirrors, and other glass surfaces. This was the first one we can remember involving glass bottles, but there's no question these surfaces can concentrate sunlight into a competent heat source under the right circumstances."

The fire at 24 Hersam Street on March 6, 2021. Courtesy of the Stoneham Fire Department.

"Thorough, professional fire investigation serves important public safety purposes," said Chief Grafton. "First and foremost, it helps us identify, charge and prosecute criminal conduct. But it can also support recalls for dangerous products and develop targeted fire safety strategies to prevent future fires. All of these results make us safer in the long run."

From the Fire Marshal, *continued from page 1*

a member of the Task Force, I was encouraged by the interest and concern that Rep. Kate Hogan and Sen. Julian Cyr showed in firefighter health and safety as it relates to these "forever chemicals," and I hope to continue this work in the months ahead. With occupational cancer a deadly serious issue in the fire service, the adoption of the Task Force's recommendations would allow us to expand our prevention efforts and help local fire departments stay ready for any emergency without putting their personnel or the public at risk. To read the full report and all recommendations, visit *www.mass.gov/dfs* and search for *PFAS*.

NFPA 3000

The number of active shooter incidents in the United States doubled between 2016 and 2020. This growing rate highlights the need for fire, police, and EMS personnel to jointly prepare for, respond to, and recover from hostile events of all types. Toward that end, Secretary Terrence M. Reidy of the Executive Office of Public Safety & Security hosted public safety leaders on April 26 for a presentation led by Chief Otto Drozd. Chief Drozd responded to the Pulse Nightclub shootings as Orange County Fire Rescue Chief and now serves as NFPA executive secretary of the Metropolitan Fire Chiefs Association. Based on his experience, Chief Drozd proposed and helped develop NFPA 3000: Standard for an Active Shooter/Hostile Event Response (ASHER) Program through consensus among a broad array of experts from the fire service, law enforcement, emergency medicine, facility management, and other disciplines. We look forward to working with our EOPSS partners to develop symmetrical ASHER training for the Commonwealth's fire and police personnel to better protect our communities from this continuing public safety threat.

Side-By-Side Sprinkler Demonstration

Now Available in Virtual Reality

The Home Fire Sprinkler Coalition (HFSC) is taking home fire safety education to the next level with a new resource. They have created a virtual reality house fire flashover and sprinkler comparison using actual fire footage.

Thanks to state-of-the-art cinematic technology, viewers can experience a fire as if they were inside a burning house. They can experience the fire with and without home fire sprinklers. They can see flames and smoke from any angle and hear the fire crackle and smoke alarms activate. In the video without a fire sprinkler, viewers see flashover in real time and experience how quickly the flames and smoke spread. When they see the video with an installed fire sprinkler, they learn how the high heat from the fire activates the water flow and see the sprinkler quickly control the blaze and minimize smoke spread.

Free, Online Viewing

The new virtual reality video is free and available on demand at HFSC's website. Viewers on a computer can move their mouse or trackpad to look around inside the active fire rooms. Turning a tablet or other smart device will achieve the same 360 degree views of the fires.

A Public Education Opportunity

Fire departments can download the video and share the link as part of community risk reduction outreach. The new video was featured during Home Fire Sprinkler Week (May 15-21, 2022) by many fire departments. Firefighters can encourage consumers and all those who plan to build new homes to watch the free video at www.myhomefiresprinkler.org.

Immersive Formal Education

For a more immersive educational experience, the HFSC developed an advanced virtual reality kit for use by the fire service. The kit includes high-tech headsets that allow viewers to experience the two fires as a realistic 3D home fire scene. The videos can be presented to target audiences in individual or group settings. The kit is ideal for outreach to builders, developers, planners, building officials, water purveyors, and other local stakeholders involved in the decision to protect new homes with fire sprinklers.

Accessing the Virtual Reality Kit

The Massachusetts Fire Sprinkler Coalition has received a grant to pilot the immersive experience. During the pilot, between four and six communities will schedule demonstrations and formally evaluate the kit and process. Fire departments can contact the Coalition to schedule a demonstration with local stakeholders for this fall. Contact MFSC Chair Tom Poirier at tpoirier@hopkintonfd.org.

FEMA-Funded Fire Service Resource

HFSC produced the virtual reality video in 2021 with a seed grant from State Farm. HFSC was later awarded a

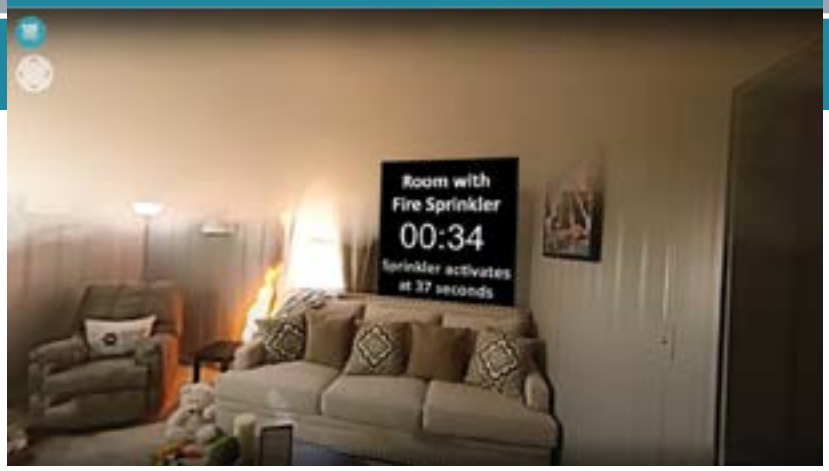
Side-by-Side Sprinkler Trailer

Bring it to Your Community

The Department of Fire Services has a Side-by-Side Sprinkler Demonstration Trailer that was donated by the National Fire Sprinkler Association (NFSA). This prop gives fire departments a dramatic teaching tool that demonstrates how sprinklers save time, and time buys lives in a fire. The mobile unit has two identical rooms that are set on fire. One room has a sprinkler, and one does not. During the fire, observers see how quickly fire spreads and how little time there is to escape a fire. After viewing this demonstration, the public walks away knowing that fires are fast but sprinklers are faster.

For details about the program visit *www.mass.gov/dfs* and search for *sprinkler demonstration trailer*. For a reservation, contact Vicky Giguere at 978-567-3813 or Vicky.Giguere@mass.gov; or Matthew Brennan at 978-567-3381 or Matthew.Brennan@mass.gov.

Virtual Reality Home Fire and Sprinkler Burn Kit



Still image from the new virtual reality sprinkler demonstration video. Courtesy of the Home Fire Sprinkler Coalition.

FEMA Fire Prevention & Safety Grant to build on that initial production, promote it to the fire service and the public, and purchase a set of the immersive kits in order to work directly with the fire service to evaluate the effectiveness of the virtual reality experience.

A Better Side-by-Side

"Because our specialized crew shot the 360-degree video footage during live home fires, this groundbreaking virtual reality resource provides authentic education that can replicate the impact of live side-by-side demonstrations," says HFSC President Lorraine Carli. To reach a wider audience, the online version can be added to fire department websites, shared via social media accounts, built into PowerPoint™ presentations, run on video monitor loops, and sent via email.

While public fire demonstrations have been effective as community events for many years, they are not feasible for every fire department. Many jurisdictions have environmental regulations and fees pertaining to burns; and there are costs to build, store, and transport side-by-side units. It can also be difficult to get targeted stakeholders to attend public events. With this new virtual reality resource, firefighter educators can bring dramatic and memorable home fire side-by-side demonstrations directly to local stakeholders using the free online video, or with a one-time purchase of the kit option.

Future Plans

Another project is underway for sharing this experience with the general public. It will include special goggles that allows people to turn a smart phone into a 3D virtual reality viewer to see the video.

Adapted from the Home Fire Sprinkler Coalition website by the Massachusetts Fire Sprinkler Association.

$5 Million in Grants Awarded, *continued from page 3*

In FFY2020, DFS applied for and was awarded funding for two new mobile training props for the MFA that will replace aging, outdated equipment and enhance training opportunities for fire departments across Massachusetts. A new SCBA maze trailer will provide local training to communities in the eastern part of the state, supplementing existing trailers that are currently used to provide on-site training at the DFS Springfield and Bridgewater campuses. A new Emergency Vehicle Operator (EVO) training simulator is a state-of-the-art training resource designed specifically to help firefighters become safer drivers, and save departments the costs of repairs, lost work time, and legal liability. This trailer-based simulator will be dual-seated, with multiple HD displays presenting a full field of view for the operator, and a complete replica cockpit with a reactive operator platform that provides feedback to the driver and passenger via pitch, roll, and heave. The simulator software package has a complete virtual driving environment, allowing instructors to create customized scenarios and produce reports on student performance. This is a dramatic upgrade from the current EVO simulator MFA uses, and it will benefit the many firefighters who will use it each year.

In December 2021, DFS submitted an AFG application for two gas/liquid leak props and another flashover simulation trailer. The gas/liquid leak props would enhance existing hazardous materials technician training by allowing students to practice patching and plugging leaks in a Level A suit. The flashover simulation trailer would restore MFA's ability to deliver this prop to local fire departments for training on demand, as all current units are typically committed to on-campus training in Bridgewater, Springfield, and Stow. An award decision on this application is anticipated shortly.

Instructors Attend FSRI Fire Dynamics Boot Camp

Intensive Course on the Science of Fire Behavior

Four instructors from the Massachusetts Firefighting Academy (MFA) recently attended an intensive "train the trainers" course held by the UL Fire Safety Research Institute (FSRI) that will help inform recruit training at all three MFA campuses.

Career recruit instructors Mike Gelinas from Stow, Patrick Smith from Bridgewater, and Bill Schuetze from Springfield and Call/Volunteer Firefighter Training Program Assistant Coordinator Mike Dupuis attended the Fire Dynamics Boot Camp, held at the Connecticut Fire Academy from April 6–9.

"This training provided the most current information regarding fire dynamics," said Instructor Bill Schuetze. "It gave us additional tools to help the recruit firefighter better understand fire behavior which will directly impact their effectiveness and safety on the fireground."

The course brought engineers and training officers from the fire departments of Chicago, Los Angeles County, New York City, and elsewhere together with instructors from across the Northeast for an in-depth examination of the latest scientific research on fire behavior and tactical considerations for firefighters. They used PowerPoint™ presentations, video footage, tabletop exercises, and live demonstrations to illustrate how fire spread is affected by modern structures and fuels.

Left to right: Instructors Mike Gelinas, Patrick Smith, Mike Dupuis, and Bill Schuetze of the MFA and Pete Van Dorpe of FSRI.

This is especially important for firefighter safety because changes in building construction, components, and furnishings mean modern structures burn hotter and faster than they once did – and as a result, the time window for making fireground decisions has gotten narrower.

"The props UL brought along really drove home the message," said Instructor Patrick Smith. "It's one thing to throw a bunch of graphs and charts up on the board and talk about it in a classroom, but when you bring in a prop to visually see, and be able to replicate unfortunate events of the past like our lecturers did, I believe we get a lot more out of it. Along with that, the water mapping prop is an unbelievable visual of just how effective your water stream could be. That prop, along with the graphs of how little water it takes to put out a fire if applied properly, was a huge takeaway."

Though developed by engineers and grounded in hard science, the material was presented in a format for fire service leaders and instructors to take back to their departments and academies. This includes the MFA, where instructors expect to incorporate the information into classroom lectures and drill yard exercises. Attendees also received copies of the presentations they viewed during the course for use in future trainings.

"It was unbelievably valuable to us as instructors," said Instructor Mike Gelinas. "We're so fortunate to have these dedicated engineers, instructors, and firefighters who care so much about the fire service and the civilian population we're sworn to protect."

Foxboro Home Show

Public Education Opportunity

DFS personnel and fire and life safety educators from across the state staffed the DFS booth at the Foxboro Home Show March 18 – 20. They took the opportunity to educate thousands of show attendees about fire and life safety.

Left to right: Holbrook FF/EMT Matthew Gray, Middleborough FF Ryan Herrick, Middleborough Lt. Laurence Fahey, Mansfield FF/EMT Ryan Brousseau, Cohasset Lt Robert Nadeau, New Bedford/Dartmouth FF Anthony Poente.

Tech Rescue News

Confined Space Rescue Program Updates

In April 2019, the Massachusetts Firefighting Academy's (MFA) Technical Rescue Group began the task of rewriting and updating its three-day Confined Space Technician program. Three years and one pandemic later, the course has been expanded to five days and began delivery in April 2022.

The course update reflects ever-changing equipment, techniques, and challenges faced by firefighters across the Commonwealth. The updates also encompass and expand upon the job performance requirements found in Chapter 7 of NFPA 1006, Standard for Technical Rescue Personnel Professional Qualifications.

The new Confined Space Rescue Technician program follows a "crawl-walk-run" approach. In classroom instruction, students are first introduced to the definitions and hazards of a confined space, related OSHA requirements, how to preplan for an emergency, and an effective order of operations from NFPA on how to respond to a confined space rescue. After the classroom portion of the program, students dive into an immersive four-and-a-half days of hands-on learning. Our firefighter students have been requesting this additional hands-on time, and practicing under real-world conditions is a major benefit to their learning.

Using this instructional framework allows students to become familiar with introductory concepts and the equipment related to confined space rescue before moving on to atmospheric monitoring, proper ventilation techniques, and patient packaging and care — all while facing challenging training evolutions.

Those evolutions begin with performing non-entry rescues, followed by entering spaces where the victim is seen and there are no hazards. From there, the scenarios increase in complexity and difficulty as more knowledge, skills, abilities, and equipment are needed to effect a safe and successful rescue. The five-day course concludes with a full-class scenario in which students are tasked with putting their new knowledge to use and working as a team to conduct a simulated confined space rescue. By the end of the course, students have developed a multitude of cutting edge, safe, and effective strategies to handle and implement a successful confined space rescue.

The continued development and expansion of the Confined Space Technician course could not have happened without the support of stakeholders at the Department of Fire Services, the Massachusetts Firefighting Academy, Academy directors, and especially the development team: Lead Instructors Michael Caddell, Scott Jensen, and Iain McGregor.

What's next for technical rescue training at the MFA? The first delivery of a new Structural Collapse Rescue Technician class is anticipated this fall. This eight-day class will give students the knowledge, skills, and abilities to effectively respond to a collapse incident. Look for coverage in forthcoming issues of the *All Hands Herald*.

Fireworks Fires Decline in 2021

Falling from a record high, Massachusetts fireworks fires decreased by 67% from 2020 to 2021. There were 123 fireworks fires in 2020 and 40 in 2021.

Fireworks fires may have spiked in June and July of 2020 due to the COVID-19 pandemic. After being stuck indoors throughout the winter and spring, and with public fireworks displays canceled, many more people used illegal fireworks than ever before and caused a much larger number of fires than previously seen. The number of fireworks fires in 2021 is closer to the levels seen in recent years, possibly reflecting the easing of pandemic restrictions and the return of some public fireworks displays.

Fires and Injuries Caused by Fireworks

In the past decade (2012-2021), there have been 944 major fire and explosion incidents involving illegal fireworks reported to the Massachusetts Fire Incident Reporting System (MFIRS). The incidents caused 3 civilian injuries, 43 fire service injuries, and an estimated dollar loss of $2.1 million, which is high considering that most fireworks fires are outdoor brush fires.

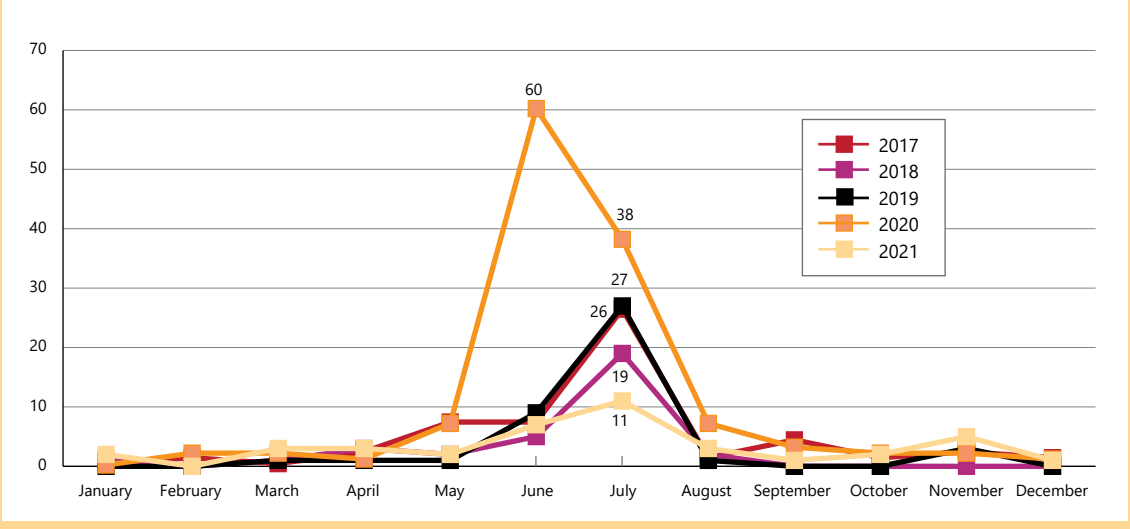
Teach communities about fireworks safety, fireworks laws, and public fireworks displays. Spread the message: Leave fireworks to the professionals.

Also during this time, 31 people were treated at Massachusetts emergency rooms for severe burn injuries from fireworks, according to data reported to the Massachusetts Burn Injury Reporting System (MBIRS). These reports reflect burns covering 5% or more of the victim's body.

Public Education

Now is a great time to teach communities about fireworks safety, fireworks law, and public fireworks displays. DFS has fireworks safety information at *www.mass.gov/dfs*. Search for *fireworks*. Information includes a pamphlet for public use, press releases, information about fireworks laws, a link to a list of 2022 public fireworks shows, and two powerful and informative videos. Remember to spread the message: Leave fireworks to the professionals.

Massachusetts Fireworks Fires, 2017 - 2021



Fireworks Safety Tips:

All fireworks are illegal in Massachusetts.
For a safe celebration, attend a professional fireworks display.
It is illegal to bring fireworks into Massachusetts,
even if they were legally purchased, elsewhere.
Do not purchase fireworks by mail.
Set a good example for children: don't use fireworks.

Crackdown on Fire Code Violations

Beginning in late 2019, the Department of Fire Services (DFS) Division of Fire Safety saw a dramatic increase in violations of the State Fire Code relating to hood cleaning and fire suppression work, as well as licensees working after suspension of their professional licenses.

The largest number of licensing violations and hearings referrals (19 cases and counting) has come from Captain Joseph Flynn of the North Attleboro Fire Department. Captain Flynn and Code Compliance Officer Jordan Greene-Williams spent countless hours gathering evidence and building cases against licensees alleged to have violated provisions of 527 CMR 1.00.

Following their investigations, the cases were referred to the DFS Office of the General Counsel for licensing hearings. As a result of these investigations and hearings, the cases have resulted in the indefinite suspension of three licenses, one voluntary surrender of a Certificate of Competency and Certificate of Registration, and action on 14 other licenses that includes suspensions and probationary periods of more than 20 years.

"I want to commend the hard work of Captain Flynn, Deputy Fire Chief Mike Chabot, and Compliance Officer Jordan Greene-Williams. They have worked hard on code enforcement in our community, ultimately making it safer for residents and visitors," said North Attleboro Fire Chief Christopher Coleman.

"Fire codes exist to prevent tragedy," said State Fire Marshal Peter Ostroskey. "Through these continued and collective efforts, we're sending a strong message to the regulated community that the Commonwealth's fire service takes violations seriously. DFS is committed to working with local partners to be sure businesses, patrons, and firefighters are protected by meaningful code enforcement."

Fire departments with questions or concerns about regulated work in their community, or how to refer a case for a licensing hearing, can contact the Code Compliance and Enforcement Unit at (978) 567-3375.

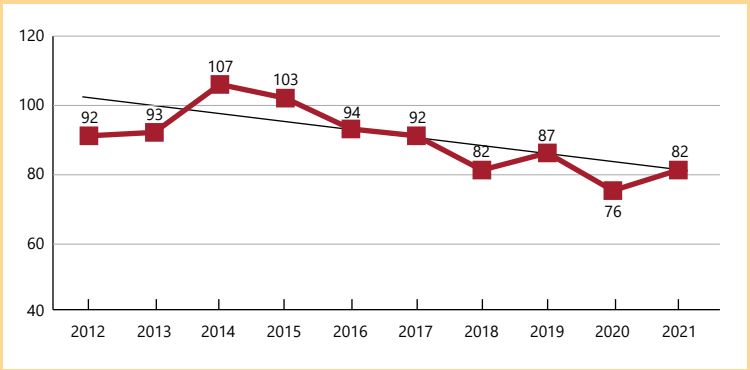
Code Compliance Officer Jordan Greene-Williams and Captain Joseph Flynn of the North Attleboro Fire Department.

Grilling Safety

Warm weather has returned and with it, grilling. Seventy-six percent of all grill fires in Massachusetts happen between May and September. Between 2012 and 2021 there were 908 fires involving grills, hibachis, and barbeques. These fires caused 35 civilian injuries, 10 fire service injuries, and $8.9 million in estimated damages.

June is a great time to educate the public about safe grilling and fire safety. The Department of Fire Services has information on safe grilling on its website: visit *www.mass.gov/dfs* and search for *grilling*. You can read tips online or download a grilling safety pamphlet to share in your community.

Massachusetts Grilling Fires, 2012 - 2021



Grilling Safety Tips:

Always grill outdoors.

Grills must be 10 feet from the side of a building.

Don't grill underneath branches, a roof, overhang or wall.

Training New K-9 Teams at DFS Bridgewater

The State Police Fire & Explosion Investigation Unit (F&EIU) assigned to the State Fire Marshal's office currently has 10 ignitable liquid detection dogs working with State Police fire investigators and 11 explosives detection dogs working with State Police bomb technicians. This is more dogs than the F&EIU teams have ever had before, making it possible to provide an unprecedented level of service to the communities they serve and protect. All F&EIU K-9s were generously purchased by the Massachusetts Property Insurance Underwriting Association, also known as the Massachusetts & Rhode Island FAIR (Fair Access to Insurance Requirements) Plan, for the Office of the State Fire Marshal.

Training Team

The F&EIU has a team of trainers led by Sgt. Paul Horgan, who is also assigned to the Statewide Bomb Squad. The team, which trains all K-9s, includes Trooper Michael Fagan, Trooper Jim McTeague, Trooper John Ragosa, and Sgt. Gregory Spahl. They work with every new dog for an initial 6 weeks of imprintation. This work "imprints" every K-9 with the scents it must alert to. After the dogs are imprinted, the new handlers begin to train with their dogs. The training team supervises this work as well. Sgt. Horgan and his trainers don't just prepare K-9s and handlers for the Fire Investigation Unit and Bomb Squad: they also train these teams for local, state and federal agencies and for universities.

Training Facility

K-9 training takes place in a former barracks building at the Department of Fire Services' Bridgewater campus. This building has allowed the team to continue training activities in all seasons and in all kinds of weather. Prior to the use of this building, the trainers traveled to different facilities with dogs and trained primarily outdoors. The dedicated indoor facility has allowed training to move more rapidly and efficiently than previously possible.

Whether they're trained to detect ignitable liquids or explosives, K-9s must learn both to locate targeted scents and to bypass distractor scents such as food, household and office products, and more. K-9s must learn to search at different heights, reaching high into cabinets and other areas, along walls, and inside openings. The barracks building now has everything the training team needs to ready K-9s for their work lives, including:

- Concrete block walls that require the K-9s to sniff inside each opening and to reach both high and low,
- "Training wheels" (plywood crosses with a can on each arm to hold scents),
- Scent boxes that hold smells at nose-level for the K-9s,
- Lockers to simulate school searches,
- File cabinets to simulate office searches,
- "Seam walls" (walls with open seams, behind which trainers hide scents),
- Luggage to train for airports or media events, and
- Cardboard boxes.

Each type of equipment allows K-9s to practice alerting to target scents, and not alerting to everyday scents.

Two New K-9 Teams Certified

The F&EIU trainers certified two new handling teams on May 26: Trooper Bob McCarthy and his K-9 Clifford, and Trooper Dan Jones and his K-9 Bogie. Both black Labradors came from Puppies Behind Bars, an organization that trains incarcerated people to raise service dogs for wounded veterans, first responders, and law enforcement. Puppies begin training at the age of 8 weeks and live with their incarcerated puppy-raisers for approximately 24 months. As the puppies mature into well-loved, well-behaved dogs, their raisers learn what it means to contribute to society rather than take from it.

Trooper Michael Fagan and Clifford working at the concrete wall.

K-9 training team members, left to right: Trooper James McTeague with Bogie, Trooper Michael Fagan with Clifford, Trooper John Ragosa, Sgt. Paul Horgan.

Fire Investigation News

Oily Rags Cause 3 Fires and One Fatality

Fatal Agawam Fire Started by Oil-Soaked Rags No Working Smoke Alarms

The March 9, 2022, fire that claimed an Agawam teenager's life started with the combustion of oil-soaked rags in the home's breezeway. Agawam crews arrived just after 9 a.m. at the two-story house at 8 Squire Lane. The blaze quickly engulfed the house. Firefighters knew that two people and a cat were inside. One woman escaped and was taken to the hospital with injuries. One man and the cat were rescued but the teenager was trapped. The house is a total loss. Investigators found no working smoke alarms in the two-story home.

"If you're using rags to clean up oil-based paints and stains, take them outside when you're done," said Agawam Fire Chief Alan Sirois. "Let them hang dry or lay them flat on the ground, out of the sun, weighted down so they don't blow away."

The fire was investigated by the Agawam Fire and Police Departments, the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police assigned to the Hampden District Attorney's office.

Ludlow Fire Started by Oily Rags

On April 5, 2022, Ludlow firefighters responded to a fire on Marion Circle. The occupant called 9-1-1 after smoke alarms sounded. Responding firefighters saw light smoke coming from the front door. They found fire in the living room, which was brought under control quickly. Damage was confined to that room.

The fire was jointly investigated by the Ludlow Fire Department and State Police assigned to the State Fire Marshal's office. Investigators determined that it started with oil-based staining rags that had been left overnight in a five-gallon plastic bucket.

"Fortunately, this home had working smoke alarms to alert the occupant and firefighters were able to extinguish the fire before it spread to the rest of the home," said State Fire Marshal Peter Ostroskey. "Without smoke alarms, the fire could have spread undetected until it was too late. This is just one example of why it's so important to have working smoke alarms on every floor of every home."

Combustible Staining Products Caused Berkley Fire

An April 10, 2022, fire on David Way in Berkley began when polyurethane staining products combusted. The fire destroyed a two-story home. "We've seen several fires caused by oily rags over the past few weeks, including one that was fatal," said State Fire Marshal Ostroskey. "Fortunately, the smoke alarms in this home helped alert residents to the danger and they escaped without injury."

The fire was reported just before 4:00 a.m. on Sunday morning. Berkley firefighters responded to find the home fully involved. They battled the fire for an hour and a half with assistance from 10 fire departments before bringing it under control.

The fire was jointly investigated by Berkley Fire Rescue and State Police fire investigators assigned to the State Fire Marshal's office. Investigators determined that the fire originated on a screened-in porch between the home and the garage. The fire extended upward and throughout the house. The fire was caused by the combustion of polyurethane and a lamb's wool applicator that had been placed with trash on Saturday evening.

Oily Rag Fires in Hopkinton Illustrate Value of Sprinklers

An April 13, 2022, fire in a new construction townhouse on Weston Lane in Hopkinton caused minimal damage thanks to a single sprinkler head. The residence had just received its certificate of occupancy and the fire was caused by combustion of oily rags left behind by workers preparing for the new owner to move in. Even with no one present to report or extinguish the fire, the damage was limited to a small area of the dining room.

Three days later, a fire on Clinton Street destroyed another new construction home that was almost complete. Like the fire on Weston Lane, it was caused by the combustion of oily rags left by workers, but the Clinton Street home was not built with home fire sprinklers. The structure was declared a total loss after being consumed by flames.

"It was almost the exact same thing," Hopkinton Fire Chief William R. Miller told the MetroWest Daily News afterward. "The difference was that one had a sprinkler system, which helped put out the fire with minimal damage. This one (Clinton Street) did not have residential sprinklers. We highly encourage residential sprinklers because they can make a big difference."

Both fires were investigated by the Hopkinton Fire Department and State Police assigned to the State Fire Marshal's office.

9-Alarm Fire Destroys Hotel and 5 Residences

The cause of the January 17, 2022, fire that destroyed a hotel and five residential buildings at 40 Central Avenue in Salisbury is officially undetermined. Catastrophic damage in the area of origin prevented investigators from ruling out multiple potential causes.

Continued on next page

"The magnitude of this fire and the high wind conditions had us very concerned about the community's safety, and I want to recognize the work of Salisbury firefighters and the firefighters from surrounding cities and towns who rushed to help," said Salisbury Fire Chief Scott Carrigan. "Five buildings were a total loss, but we're extremely fortunate that this fire was contained and did not cause any injuries or worse."

"Investigators found that smoking materials and an electrical event were potential causes of this fire," said State Fire Marshal Ostroskey. "These are also the leading causes of fatal fires in Massachusetts, and the danger at night is even greater because people are sleeping. As we enter the time of year when more smokers are stepping outside, we want to remind everyone to use a sturdy ashtray with water or sand and *put it out, all the way, every time.* Remember also to check extension cords and replace them if they're cracked, damaged, or worn, and use only outdoor-rated extension cords outdoors."

The fire was jointly investigated by the Salisbury Fire and Police Departments and by the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office.

Fatal Fires and the Need for Working Smoke Alarms

Fatal Fire in Ayer

On March 19, 2022, Ayer firefighters responded to a fire at the Zodiac Village Apartments at 75 Groton Road. They extinguished a fire in a first-floor apartment in a two-story, multi-unit building. One older adult was removed from the apartment and later succumbed to his injuries.

The fire started near a utility closet in the apartment and multiple causes could not be ruled out, including combustible items too close to the water heater and a malfunction or electrical event. Investigators found no working smoke alarms in the apartment of origin.

Ayer Fire Chief Timothy P. Johnston said, "Our thoughts are with the family in their time of loss, and we want to remind everyone how important it is to have working smoke alarms on every level of every home to avoid tragedies like this one."

"Almost half of fire deaths take place at night, when most people are sleeping," said State Fire Marshal Ostroskey. "Smoke alarms can alert you to a nighttime fire, but only if they're working properly. Test them once a month, change alkaline batteries twice a year, and replace the alarm after 10 years."

Fatal fires highlight the need for continuous public education about the importance of working smoke alarms in every dwelling in the Commonwealth, and on the dangers of smoking.

The fire was investigated by the Ayer Fire and Police Departments, the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police assigned to the Middlesex District Attorney's office. They were assisted by the Department of Fire Services' Code Compliance & Enforcement Unit.

Fatal Fire in Marstons Mills

A March 6, 2022, fire at 118 Lakeside Drive in Marstons Mills claimed the life of a 62-year-old woman. Centerville-Osterville-Marstons Mills (COMM) firefighters responded to the scene around 8:00 p.m. and observed heavy smoke and flames. Firefighters did not hear smoke alarms sounding at the scene. The fire was extinguished in about one hour.

An investigation determined that the point of origin was between the basement and first floor at the front of the single-story home. The cause remains under investigation. The investigation is being conducted jointly by the COMM Fire Department, the Barnstable Police Department, the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police assigned to the Cape & Islands District Attorney's office.

COMM Fire Chief Michael Winn said, "I want to remind everyone in the community that working smoke alarms and home escape plans are some of the most valuable tools in surviving a fire."

"Modern fires burn much faster than they did decades ago because of changes in construction and manufacturing, and you could have less than three minutes to escape," said State Fire Marshal Ostroskey. "Working smoke alarms on every level of the home and a practiced home escape plan that includes two ways out can reduce your risk of injury or worse."

Fitchburg Fire Claims One Life

The March 4, 2022, fire at 27 Hartford Street in Fitchburg remains under investigation. Fitchburg firefighters responded to the multi-family triple decker at 7:22 a.m. They found heavy smoke and flames and rescued a 21-year-old woman from the second floor. She was transported to a hospital but later succumbed to her injuries.

Two men escaped from the building and were also transported for medical treatment.

Investigators believe the fire began in a hallway on the first floor. "While the investigation is ongoing, we know that smoke alarms are important tools for preventing tragedies like this one," said Fitchburg Fire Chief Dante Suarez. "Working smoke alarms should be present on every floor of every home."

The fire is being jointly investigated by the Fitchburg Fire and Police Departments, the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police detectives assigned to the Worcester County District Attorney's office.

Improper Disposal of Smoking Materials

Smoking materials cause more residential fire deaths than all other known causes combined. A fire that begins on the exterior of a building can grow undetected until it is too late, even if the home has working smoke alarms inside. "As we head into spring, we urge everyone to be careful with open flames or burning objects on exterior porches, balconies, and stairways," said State Fire Marshal Ostroskey.

Dropping butts in planters, grinding them on railings, or flicking them along the side of a building can ignite dry leaves, mulch, and other flammable materials. Fire officials remind smokers to fully extinguish cigarettes and other materials. "Use a sturdy ashtray with water or sand and be sure to *put it out, all the way, every time*," they said.

Smoking Materials Likely Caused Fatal Lowell Fire First Child Fire Fatality in Nearly Three Years

On March 3, 2022, Lowell firefighters responded to a fire at 27–29 Maude Street. They found heavy smoke and flames and began rescuing occupants, including three children, from a third-floor porch using ground and aerial ladders. A Portuguese-speaking firefighter learned from residents that a four-year-old girl was unaccounted for. Tragically, the child died inside the residence, marking Massachusetts' first child fire fatality since March 16, 2019, when two siblings perished in Pittsfield.

"I want to extend our continued heartfelt condolences to the family and loved ones of this innocent child," said Lowell Fire Chief Phillip A.J. Charron. "They haven't left our thoughts for a moment since that tragic day."

While the building had working smoke alarms, investigators determined that the fire began on an exterior porch, which delayed alarm activation and gave the occupants less time to escape than in an indoor fire.

The fire was jointly investigated by the Lowell Fire and

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Public Education

Oily Rags and Working Smoke Alarms

Now is a great time to remind people in your communities about the fire hazards of oily rags and the necessity of smoke alarms in every dwelling.

Many people don't know that the oils in some paints and stains release heat as they dry. A pile of oily rags can trap that heat and ignite. To prevent a fire, always dry oily rags and applicators individually, outdoors, away from combustibles, on the ground or on a metal rack. Occasional users can place the dried rags with water and detergent in a small metal container with a tight-fitting lid, such as an old paint can. Keep the container out of the sun, and dispose of it during a hazardous waste collection. Contractors and others who use oily rags regularly should place dry rags in a listed oily waste container to be emptied by a private contractor.

Working smoke alarms and a practiced home escape plan are the most important ways to protect yourself from fire. Working smoke alarms should be on every level of every home. They alert residents to fire in time to get out safely. Remember: you have less than three minutes to escape the average house fire after the alarm activates, so every second counts.

DFS has resources to teach the public about the fire hazards posed by oily rags and the protection offered by smoke alarms and home escape plans. Visit *www.mass.gov/dfs* and search for *smoke alarms, home escape plans,* or *oily rags.*

Shutterstock

Massachusetts Firefighting Academy Graduations

Class #299

Class #S26

Class #BW17

Class #300

Career Recruit Firefighter Training

In the 50-day Career Recruit Firefighter Training Program, students receive classroom training in all basic firefighter skills. They practice first under non-fire conditions and then during controlled fire conditions. To graduate, students must demonstrate proficiency in life safety, search and rescue, ladder operations, water supply, pump operation, and fire attack. Fire attack operations range from mailbox fires to multiple-floor and multiple-room structural fires. Upon successful completion of the Career Recruit Program, all students have met the standards of National Fire Protection Association 1001 and are certified to the level of Firefighter I and II, and Hazardous Materials First Responder Operational Level by the Massachusetts Fire Training Council, which is accredited by the National Board on Fire Service Professional Qualifications. Training is held at the Stow headquarters of DFS, the Springfield campus, and the Bridgewater campus.

Class #299

On March 4, 2022, members of Career Recruit Firefighter Class #299 graduated at the Stow Campus. The 26 graduates represent the 12 fire departments of Beverly, Chelmsford, Devens, Douglas, Framingham, North Andover, Sudbury, Taunton, Tewksbury, Wayland, Wellfleet, and Wilmington.

Class #S26

On March 4, 2022, members of Career Recruit Firefighter Class #S26 graduated at the Springfield Campus. The 22 graduates represent the 8 fire departments of East Longmeadow, Gardner, Marblehead, Northampton, Northbridge, Pittsfield, Springfield, and Waltham.

Class #BW17

On March 4, 2022, members of Career Recruit Firefighter Class #BW17 graduated at the Bridgewater Campus. The 13 graduates represent the 9 fire departments of Cambridge, Chatham, Fairhaven, Kingston, Marshfield, Orleans, Salem, Walpole, and West Bridgewater.

Class #300

On April 8, 2022, members of Career Recruit Firefighter Class #300 graduated at the Stow Campus. The 25 graduates represent the 13 fire departments of Andover, Beverly, Clinton, Dracut, Malden, Methuen, Needham, North Andover, Plymouth, Reading, Sudbury, Wellfleet, and Westminster.

Class #BW18

On April 8, 2022, members of Career Recruit Firefighter Class #BW18 graduated at the Bridgewater campus. The 18 graduates represent the 12 fire departments of Belmont,

Centerville-Osterville-Marstons Mills, Dennis, Fairhaven, Hanover, Harwich, Lakeville, Marlborough, Mendon, Peabody, Salem, and Whitman.

Call/Volunteer Recruit Firefighting Training

The Call/Volunteer Firefighter Recruit Training program is unique in that it delivers a standard recruit training curriculum, meeting national standards, on nights and weekends to accommodate the schedule of firefighters in suburban and rural areas. Graduates complete 240 hours of training. Bringing the training closer to the firefighters often means more firefighters can participate. The program uses an online format that has students doing more work outside of class and taking quizzes online. This allows students more time to practice training skills with instructors and to better control their own workloads and time commitments. Upon successful completion of this program, all students have met the standards of National Fire Protection Association 1001.

Class #95

On February 28, 2022, members of Call/Volunteer Recruit Firefighter Training Class #95 graduated. The 21 graduates represent the 13 fire departments of Boxford, Georgetown, Hamilton, Lincoln, Lynnfield, Middleton, Nahant, Newburyport, Rockport, Rowley, Topsfield, Wenham, and West Newbury. The ceremony took place at the Hamilton Wenham Regional High School in Hamilton.

Class #96

On March 1, 2022, members of Call/Volunteer Recruit Firefighter Training Class #96 graduated. The 24 graduates represent the 14 fire departments of Grafton, Holden, Hopedale, Hubbardston, New Braintree, Oxford, Paxton, Pepperell, Sherborn, Spencer, Sutton, Three Rivers, Townsend, and Uxbridge. The ceremony took place at the Department of Fire Services in Stow.

Today's Firefighters Do Far More than Fight Fires

Today's firefighters do far more than fight fires. They train to respond to all types of hazards and emergencies. They are the first ones called to respond to chemical and environmental emergencies, ranging from the suspected presence of carbon monoxide to fentanyl overdoses or a gas leak. They may be called to rescue a child who has fallen through the ice or who has locked himself in a bathroom. They rescue people from stalled elevators and those who are trapped in vehicle crashes. They test and maintain their equipment including self-contained breathing apparatus (SCBA), hydrants, hoses, power tools, and apparatus. At the Massachusetts Firefighting Academy, they learn all these skills and more.

Class #BW18

Class #95

Class #96

First responders are on the front lines of any crisis and these new firefighters are needed now more than ever. The rigorous training they've completed provides them with the fundamental skills and knowledge necessary to protect their communities safely and effectively.

- Deputy State Fire Marshal Fournier

Pride in Performance Awards 2021

Each year, a committee of Department of Fire Services (DFS) staff selects full-time employees from among nominees for recognition with Pride in Performance awards. This year, the committee recognized one individual and one group consisting of full-time and contract employees for distinguished dedication and commitment to the agency's mission. They were recognized during a May 23 ceremony held at the DFS Stow campus and with Citations for Outstanding Performance announced as part of the Commonwealth's Performance Recognition Program on March 30.

Above: Marshal Ostroskey, Susan Mondi-Sykes, Paul Betti, Christina Mitchell, Samantha Turco, and Richard Craven. Below, Marshal Ostroskey and Jennifer Hoyt.

Jennifer Hoyt, Chief Fire Protection Engineer

Over the past year, Jennifer Hoyt has been at the forefront of technical reviews of the most recent editions of the national consensus fire and building codes from the National Fire Protection Association (NFPA) and International Code Council (ICC), respectively. Jen is keenly attuned to emerging technologies and was instrumental in the Board of Fire prevention Regulations (BFPR) becoming an early adopter of the new NFPA regulations for hydrogen refueling, cannabis, and energy storage systems.

As a key advisor to the BFPR, a resource for DFS staff, and State Fire Marshal Peter J. Ostroskey's designee to the Board of Building Regulations and Standards (BBRS), she is continually raising awareness of persistent challenges across disciplines, identifying and addressing the potential hazards of emerging technologies in new and innovative ways, and working to raise the bar for fire and life safety in order to protect the Commonwealth and its residents.

In addition to her role as the Marshal's designee to the BBRS, Jen is an active member of that board's Fire Prevention and Fire Protection Advisory Committee. Using her experience and expertise, she confidently and professionally provides well-reasoned and extensively researched arguments to ensure that all committee members' recommendations are informed by a complete understanding of the long-term safety consequences.

DFS Virtual Classroom Team

The DFS Virtual Classroom team was recognized for their contributions to creating, piloting, and running virtual firefighter training during the pandemic.

In March of 2020, the pandemic forced the Massachusetts Firefighting Academy (MFA) to suspend in-person training of new and experienced firefighters. But the MFA had to find a safe and effective way to resume training — a critical need in the state at all times. In April 2020, the MFA charged its staff with finding a way to run virtual courses so training could restart. Paul Betti and Josh Shanley tested a product for virtual training and piloted two classes in May of 2020 with the software. Then Christina Mitchell joined their team to develop training on how to use the product and much more. By June, the team grew to 5 people and was running 15 virtual courses. In the months that followed, many more courses were added to the virtual system and many more people joined the team to convert, upload, run, and administer all the new programs. Training was up and running again due to the extraordinary efforts of this large group.

The DFS Virtual Classroom team included the following full-time staff: Heather Antell, Abby Baker, Julie Bergeron, Paul Betti, Christine Dansereau, Kyla McKenzie, Christina Mitchell, Susan Mondi-Sykes, and Samantha Turco. The team also included contractor staff: Dick Ares, Bill Barry, Al Beardsley, Mike Boucher, Steve Chandler, Rich Craven, Matthew Ernst, Dennis Foley, Patrick Haskell, Mike Haslam, Peter Jerusik, Steve Lemieux, Scott MacArthur, Paul McPhail, Jason Messenger, Michael Quinn, Peter Raposa, Dave Rex, Doug Robertson, Robert Rogowski, Josh Shanley, Jonathan Tiplady, and Gene Os.

This team implemented a brand new virtual educational platform on very short notice, allowing the MFA to continue training during the pandemic. Virtual training is now an integral and valuable segment of MFA offerings alongside crucial in-person firefighter training.

Maynard Students Win Burn Awareness Video Contest

Prizes Sponsored by the Massachusetts Property Insurance Underwriting Association

On May 13, State Fire Marshal Peter J. Ostroskey presented a team of Maynard High School students with a new digital video camera and $200 in Best Buy gift cards as their prize for winning first place in the Department of Fire Services' (DFS) 13th annual *Burn Awareness Video Contest*. The camera and gift cards were made available by the Massachusetts Property Insurance Underwriting Association. The Maynard team's entry in the annual contest was titled *Fire Feud* and presented fire and burn safety tips in an homage to the game show *Family Feud*. The students, Connor Capone, Ryan Cedeno, Blake Dreskin, Adam Kysiak, and Kyle Monahan, also toured DFS headquarters in Stow, taking in decades of fire history and observing as Massachusetts Firefighting Academy (MFA) recruits trained in the campus drill yard.

Dangerous behavior on social media underscores the continued need for this contest as a way to show the truth about burns and fire, and to teach young people about fire safety and media literacy.

Students from Masconomet Regional High School received $100 in gift cards for their second-place entry, *Fire Mix Tape*, and students from Oakmont Regional High School received $50 in gift cards for their third-place entry, *Prom Gone Wrong*. Entries from Nauset Regional High School and two additional teams from Masconomet Regional High School received Honorable Mentions. All six video submissions can be viewed on the DFS YouTube channel at *www.youtube.com/DFSOSFM*.

"Social media is a great way for people of all ages to stay in touch and informed, but we've seen it used to promote dangerous stunts and challenges among kids and teens," said State Fire Marshal Ostroskey, who led the students on a tour of DFS headquarters in Stow. "The Burn Awareness Video Contest is a chance for young people to learn about fire-safe behavior and promote it among their peers using their media literacy skills. Some lessons — like preventing fires and burns — aren't worth learning the hard way."

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Maynard High School team's winning video, *Fire Feud*.

Firefighter Safety Stand Down 2022

Safety Stand Down is a joint initiative of the International Association of Fire Chiefs (IAFC) and the National Volunteer Fire Council (NVFC). The event is coordinated by the IAFC Safety, Health and Survival Section, the NVFC, the National Fire Protection Association, and the Fire Department Safety Officers Association, and is supported by national and international fire and emergency service organizations as well as health and safety-related organizations. *Safety Stand Down* focuses on responders taking care of themselves on and off the job. The week is designed to increase awareness and action so that safety and health become a priority in all fire and emergency service departments.

The *Safety Stand Down* theme for 2022 is *Situational Awareness: The Foundation for Good Decision Making*. The week (June 19–25), focuses on the importance of situational awareness during response operations to help firefighters solve problems, prevent bad outcomes, and make better decisions in high stress environments. Five focus areas will highlight situational awareness for different types of incidents: structure fires, EMS, wildland incidents, roadway response, and acts of violence.

Fire and EMS departments are encouraged to suspend non-emergency activity during *Safety Stand Down* and to focus on education related to the theme. The event lasts for a week so that all shifts and duty crews can participate. Visit *www.safetystanddown.org* for more information and resources.

Fire and EMS departments are encouraged to suspend non-emergency activity during Safety Stand Down and to focus on education related to the theme. The event lasts for a week so that all shifts and duty crews can participate.

Fire Investigation News, *continued from page 15*

Police Departments, State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police detectives assigned to the Middlesex District Attorney's office. Investigators recovered abundant evidence of smoking in the area of origin, but the cause remains officially undetermined.

Fatal Springfield Fire Caused by Smoking Materials

The March 11, 2022, fatal fire on Wilmont Street in Springfield was caused by the improper disposal of smoking materials. The investigation determined that the fire began in the second-floor living room in the three-unit multi-family home. One man was taken to the hospital with injuries and a 65-year-old woman died at the scene. Three other residents escaped unharmed. Four residents were displaced by the fire.

The fire was jointly investigated by the Springfield Fire and Police Departments, State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police assigned to the Hampden District Attorney's office.

Home Oxygen Likely Caused Haverhill Fatal Fire

A two-alarm fire claimed the life of a 60-year-old woman on March 16, 2022. The Pilling Street fire was ruled accidental and the most likely cause was smoking while home oxygen was in use.

"Three deaths were linked to smoking and home oxygen in Massachusetts last year, triple the number from the year before," said State Fire Marshal Ostroskey. "Any open flame is a fire hazard when oxygen is in use, including matches, lighters, candles, stoves, and fireplaces. It's important to practice fire safety when there is medical oxygen in the home, and especially important not to smoke."

The Department of Fire Services' *Breathe Easy: Home Oxygen Fire Safety Campaign* provides resources about home oxygen safety and materials are available in Spanish and Portuguese. For more information, visit www.mass.gov/dfs and search for *Home Oxygen Safety*.

The fire was reported at 10:06 p.m. and witnesses reported smoke alarms sounding. Firefighters responded and contained the fire to the first floor of the triple-decker. About 10 people were displaced by the fire.

The fire was jointly investigated by the Haverhill Fire and Police Departments, the State Police Fire & Explosion Investigation Unit assigned to the State Fire Marshal's office, and State Police assigned to the Essex District Attorney's office.

2022 License Examination Schedule

Fire Safety Division

The Department of Fire Services' Fire Safety Division issues licenses, permits, and certificates of competency (licenses) to people and companies engaged in fireworks, blasting, explosives, special effects, cannon and mortar firing, commercial cooking exhaust system cleaning and inspection, hood cleaning, special hazard systems, portable fire extinguishers, marine fueling facilities and above ground tanks. Register for exams and see detailed information at *www.mass.gov/dfs*. Search for *DFS Licensing*. For questions, contact the Licensing Desk at 978-567-3700 or at dfs.licensing@state.ma.us.

Boiler and Pressure Vessel Program

The Boiler and Pressure Vessel Program offers monthly license exams for oil burner technician and all classes of fireman and engineer licenses. Register for exams and see detailed information at *www.mass.gov/dfs*. Search for *BPV Exams*. For questions contact the Boiler & Pressure Vessel Program at (978) 567-3780 or at BPV.Exams@MassMail.State.MA.US.

Licensing Status

To see the licensing status of an individual or company, visit the DFS License Look Up at http://elicense.chs.state.ma.us/Verification/ or go to *www.mass.gov/dfs* and search for *DFS licensing*.

Examination Schedule	Examination Dates	Deadlines for Applications
FSD Exams	Exams start at 10:00 a.m.	
Fire Suppression and Commercial Hood Cleaning	July 13, 2022 September 21, 2022 November 9, 2022	June 17, 2022 August 26, 2022 October 14, 2022
Cannon/Mortar, Fireworks, Special Effects, Blasting, Blasting R&D	August 17, 2022 October 19, 2022	July 22, 2022 September 23, 2022
BPV Exams	Exams start at 9:00 a.m.	
Oil Burner, Fireman & Engineer (all classes)	July 27, 2022 August 31, 2022 September 28, 2022 October 26, 2022 November 30, 2022 December 28, 2022	June 24, 2022 July 29, 2022 August 26, 2022 September 30, 2022 October 28, 2022 November 25, 2022

Maynard Students Win Video Contest, *continued from page 19*

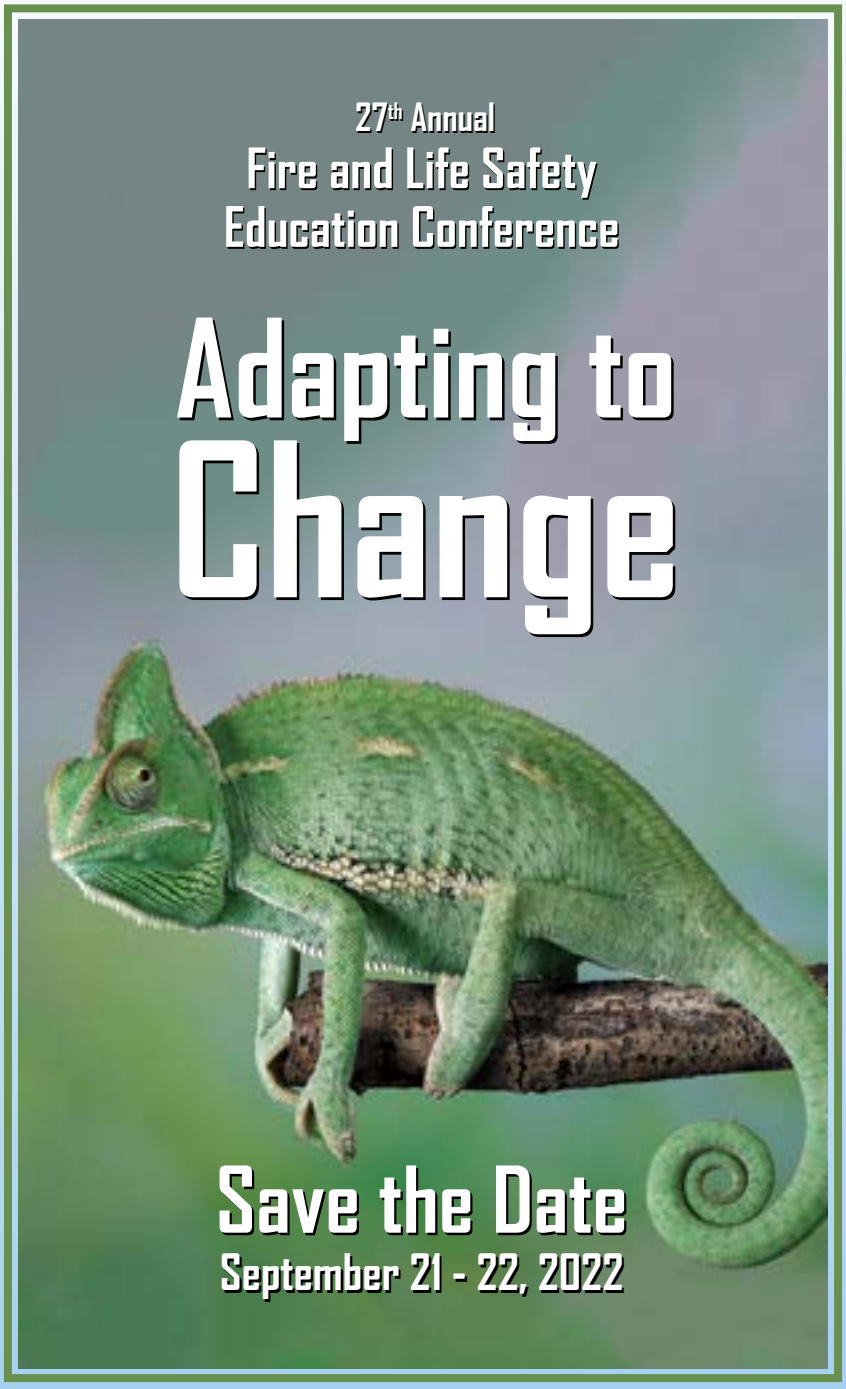
Burn Awareness Video Contest

The annual *Burn Awareness Video Contest* is open to students in Massachusetts schools who are enrolled in grades 9 through 12 and part of school-sponsored communications courses or extracurricular groups. Communications teachers or faculty sponsors are required to review and approve all storyboards prior to filming. Videos are required to explore burn prevention topics in one to three minutes, be well-researched, not demonstrate risky or unsafe behavior, and be both educational and informative.

This year's judges included Julie Bergeron, Sara Pragluski-Walsh, and Julie Weinstein of the Department of Fire Services; Loren Davine of the Northwestern Youth Fire Intervention Response, Education and Safety Partnership (NoFIRES); Barbara DiGirolamo of Boston Children's Hospital; Lt. Robert Feeney of the Onset Fire Department; Lt. Joseph Overly of the Douglas Fire Department; Firefighter/EMT William DeKing of the Medfield Fire Department; Firefighter/Paramedic Joshua Gray of the Whitman Fire Department; and Firefighter/Paramedic Cori Handorff of the Bridgewater Fire Department.

Department of Fire Services
Commonwealth of Massachusetts
978-567-3100

www.mass.gov/dfs



Mark your calendars now for the 27th annual Public Fire and Life Safety Education Conference on September 21 – 22 at the Southbridge Hotel and Conference Center.

Don't miss this chance to learn new skills, refresh old skills and connect with colleagues.

Registration information will be available soon at *www.mass.gov/dfs*. Search for *Massachusetts Public Education Conference.*

For more information, email Matthew.Brennan@mass.gov.