

All Hands Herald

Massachusetts Department of Fire Services September 2016

Maritime Incident Response Team

*Joint Exercise
Held with Partners*

FirstNet and
the Fire Service

Hoverboard Recalls

Public Education
Update



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Editor
Jennifer Mieth

Copy Editor
Julie Weinstein
Jim DeSimone

Graphic Artist
Julie Weinstein

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.

If you have suggestions, ideas, questions or want to make a contribution to the *All Hands Herald*, contact:

Jennifer Mieth
Public Information Officer
Department of Fire Services
1 State Road
Stow, MA 01775
Jennifer.Mieth@state.ma.us
978-567-3189

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From the Fire Marshal

I want to thank Governor Baker, Lieutenant Governor Polito and Secretary Bennett for coming to Stow and publicly swearing me in as the Commonwealth's state fire marshal. The ceremony was attended by members of the fire service, public safety agency heads, New England state fire marshals, and friends and family. The kind words of support from all, including now retired Fire Service Commission Chairman Butler were an honor. I look forward to working with the Baker administration to protect the public from the ravages of fire and to properly train and equip our firefighters so they go home safely at the end of every shift.

Active Shooter Initiative

DFS is coordinating a group from law enforcement, EMS and the fire service to research and recommend best practices and model policies for fire departments when responding to active shooter incidents.

Career Recruit Changes

Over the summer the Mass. Firefighting Academy's Career Recruit Firefighting Training Class shifted from a 9-week to a 10-week program. Instead of three recruit classes of 24 students every three weeks, we will have two classes of 36 recruits every five weeks. There will still be a total of 72 recruits on the Stow campus all the time. The longer program adds more practical time for recruits, including training in water rescue, power saws, additional live fire training, and more focus on Firefighter I/II practical skills. The same 10-week Career Recruit Training will run in Springfield, but for one class at a time. The recruit class size will remain 18-24.

Learning Management System: Improving Customer Service

This year, Massachusetts Firefighting Academy staff have been working with technical experts to develop a new Learning Management System (LMS). The primary goal of the project is to harness technology to make it easier for firefighters to register for courses and for training officers to make selections. We hope to create online self-service so students can access their training history and document completion of Office of Emergency Medical Services (OEMS) qualified training. The new LMS will allow us to offer more e-blended and online training. Those working on this project have analyzed existing data and moved it to the new system and have found better ways to store, access,

and share data. This has been a long and time-consuming process. I truly appreciate those on this project, and their commitment to both improving customer service and to figuring out ways to improve their own efficiency by using new technologies. In the lead up to the new system, there will be plenty of communication with students about the new services.



Hazardous Materials Emergency Response Division

This summer, the Hazardous Materials Emergency Response Division held an exercise of the Maritime Incident Response Team (MIRT). You can read more about that in this issue, but it is another example of the division constantly evolving its response capabilities to real world incidents. Several years ago, local fishermen hauled some WWI-era mustard mortars in with their catch and one individual was severely injured when the substance leaked on board the boat. The MIRT exercise was a good trial for protocols and for how the MIRT would collaborate with partner agencies to respond to such an incident in Massachusetts waters in the future.

Fire Prevention Officer II Training

DFS staff in both the Fire Safety Division (FSD) and the Training Division (MFA) have been working hard to finalize the long-awaited Fire Prevention Officer II training course. It will be scheduled for the fall. The course is designed to build on the Fire Prevention Officer Basic, and Fire Prevention Officer I courses. We are committed to providing solid training for firefighters in all disciplines at all levels of their careers. Uniform, comprehensive code enforcement, combined with good customer service techniques helps us to keep the public safe from fire.

Off-Campus Fire Safety

Lt. Governor Karyn Polito officially proclaimed September as Campus Fire Safety Month in a State House ceremony attended by fire and building officials, college safety officers and campus fire safety advocates. In the last five years, every college student fire death nationally happened in off-campus housing. Campus Firewatch has been promoting the *See It Before You Sign It* campaign aimed at parents

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Maritime Incident Response Team (MIRT)

Joint Exercise Held with Partners

By David DiGregorio



An abandoned vessel is reported adrift off the coast of Cape Cod. Members of the U.S. Coast Guard Sector Southeast board the vessel and investigate. Two dead victims are found and a further search of the vessel reveals what appears to be a clandestine laboratory in the galley. As Coast Guard personnel approach the lab, one of their chemical detection meters alarms and they evacuate the vessel. The local fire department is notified and calls for a hazmat response team. Hazmat members arrive and begin to organize resources. Team leaders establish communications plans, build equipment load-out plans, and assign personnel to vessels or land-based assignments. Once at sea, the team meters the perimeter of the suspect vessel, boards and initiates a full search, conducts a hazard risk assessment, verifies the victims are dead and communicates this information to land and sea-based command and control.

This may sound like the beginning of a very good movie or the start of a very bad day. In reality, the scenario is a joint maritime exercise with the Department of Fire Services (DFS) Hazardous Materials Emergency Response Division (Hazmat) Maritime Incident Response Team (MIRT), the Technical Support Unit (TSU) and several other fire service and agency partners. The exercise took place in Buzzards Bay Harbor on June 24. Participating agencies included the Massachusetts Maritime Academy, the USCG Sector Southeast, the Massachusetts State Police Maritime Unit, the Wareham, Bourne, Sandwich, and New Bedford Fire Departments, the Massachusetts National Guard 1st Civil Support Team and the Massachusetts Fire-fighting Academy.

MIRT is a specialty team of the state Hazmat Response Teams and was created to meet chemical, biological, radiological, and nuclear (CBRN) capability gaps identified during and after a 2010 maritime incident in New Bedford Harbor. Over the past six years, the department has selected and trained specialists from the three hazmat district teams that serve Massachusetts coastal regions.

Maritime CBRN responses are complex and no defined capability previously existed, so the Mass. Hazmat MIRT conducted substantial research and development to define and operationalize unique capabilities and has worked with its response partners to incorporate capabilities into response planning.

The Technical Support Unit (TSU) of the state hazmat teams is a small group of specialists who operate highly complex communications, wide area chemical and radiological detection systems and plume modeling for the hazmat teams. The unit augments district and other specialty teams as needed on complex incidents. It includes members from each of the six state hazmat response teams.

The June exercise was the first, full-scale exercise of its kind in Massachusetts waters. It allowed the MIRT and TSU to practice skills including: assigning personnel and equipment to the incident, seaside vessel to vessel boarding, vessel to vessel and vessel to land communications, maneuvering on board while wearing hazmat protection, and recognition and potential mitigation of a clandestine lab. Those viewing the exercise included Undersecretary of

Homeland Security Patrick McMurray, State Fire Marshal Peter Ostroskey, Commanders of the MA and NH Civil Support Teams and various intra- and interagency partners.

Although well-equipped to respond to incidents at sea, the MIRT must rely on relationships and partnerships within the Department of Fire Services as well as those with external agencies, as the MIRT does not have their own vessel. In fact, response to an incident would involve multiple vessels, for transport of personnel and equipment, command and control, and safety. The MIRT team fosters and depends on relationships with coastal fire departments and the U.S. Coast Guard to accomplish their mission. This allows for realistic training and gives the opportunity for all response agencies to review their tactics, techniques and procedures within their agencies and with interagency partners.

Each MIRT and TSU member is a local firefighter, as well as a member of one of the coastal district hazmat teams. All are trained to the hazmat technician level. Equipment and technology is ever-changing in hazardous materials emergency response and training is essential for a safe and effective outcome. In addition to monthly hazmat district team drills to assure skills are maintained and honed, MIRT and TSU technicians train in four additional

drills annually, putting into practice skills that are specific to this specialized mission.

The June drill was the culmination of a year of training. Although the exercise was a success, the MIRT and TSU will continue to hone their skills. As with any disaster or incident, no one agency can handle it alone. Additional drills and exercises will be held, existing relationships will be cultivated and new relationships will be made. The MIRT and TSU will continue to do their part to be prepared for a potential “very bad day.”



Photos by Public Safety Multimedia

From the Fire Marshal, *continued from page 1*

and students signing leases for off-campus housing. In addition, a group of fire, building and college safety officials met over the summer with fire safety advocates to find ways to bring greater focus to the issue of off-campus housing safety through awareness, education and enforcement. The group has developed a college fire safety campaign slogan and logo: *The Best Roommates Evah! A Working Smoke Alarm and Two Ways Out*. For more information, visit www.BestRoommatesEvah.org.

Fire Service Commission

I want to wish Everett Fire Chief David Butler well on his retirement from both the department and the Fire Services Commission. I also welcome Palmer Fire Chief Alan Roy who was elected chairman of the Fire Service Commission.

DFS Staffing Changes

The long-time director of the Hazardous Materials Emergency Response division, David Ladd, will be stepping down this fall after 17 years at DFS. We wish him well and appreciate his excellent succession plan. He has been mentoring Deputy Division Director David DiGregorio over the past six months so that he is ready to lead the division. The Fire Safety Division has also added an additional code compliance officer to improve service to local communities. It was with regret that I accepted the resignation of Massachusetts Firefighting Academy Director George Kramlinger. DFS senior staff and I are working with the Massachusetts Fire Training Council in the search for a new director to lead our Training Division.



FirstNet™ & the Fire Service in Massachusetts



Executive Office of Public Safety and Security
Public Safety Broadband Office (PSBO)



Congress created the First Responder Network Authority (FirstNet) in 2012 to provide mission critical data communications to first responders and to address the last remaining unmet recommendation of the 9/11 Commission Report. This legislation was the result of years of joint lobbying by fire, police, EMS, and many others.

As a result of the law, FirstNet is responsible for deploying, operating, and maintaining the first high-speed, nationwide wireless broadband network dedicated to public safety. The network (National Public Safety Broadband Network or NPSBN) will use state-of-the-art, commercially-proven, 4G LTE standards and will operate on 20MHz of prime dedicated wireless spectrum. *Once deployed, the FirstNet network promises to provide priority to public safety users, resiliency during emergencies and disasters, and reliable coverage wherever first responders operate.*

Who are the potential users of this network?

First responders and public safety will be the primary users of the NPSBN. In Massachusetts, this could include upwards of 100,000 primary users representing nearly 1,200 fire service, law enforcement, emergency medical, emergency management, 911, transportation, and other public safety agencies. Within the fire service, FirstNet users would include traditional fire departments, as well as fire safety volunteers, hazardous materials response, and military and industrial fire response units.

Does my department have to use the network?

No. The decision to use the network will be made separately by each public safety organization. If a department decides not to use the network, it can keep using the wireless service it has today.

How much is the NPSBN going to cost to build?

Billions, but no one knows exactly how much. When Congress created FirstNet, it authorized up to \$7 billion dollars to fund the network. Most industry analysts believe that is

nowhere near enough money to roll out a nationwide, wireless data network.

To supplement that initial investment, the network will be funded in part by user fees and agreements allowing non-public safety users to use the network when it is not needed by public safety. Public safety users will have priority over these secondary users at all times.

What will we have to pay to use it?

We expect monthly service fees to be in line with what public safety organizations currently pay. Since there is no mandate to use the network, FirstNet services will need to be cost-competitive with private data carriers to win the business of fire, police, EMS, and others.

Who is going to pay for it?

FirstNet is going to act like a new national carrier that only provides service to public safety users. Public safety organizations wanting to switch to FirstNet will get new wireless devices, like smart phones and wireless cards, from FirstNet and will sign up for a data plan (similar to today). You (or your city or town) will pay FirstNet instead of your current carrier each month.

Is the NPSBN going to cover my town?

Yes, but to what extent, we do not know yet. In the January 13 request for proposal (RFP), FirstNet includes a map of coverage objectives where FirstNet expects a successful bidder to provide wireless data coverage nationwide. This map includes nearly the entirety of Massachusetts, including all of western and central Massachusetts and nearly all of the Cape and islands.

Is wireless data coverage going to be any better that what we currently have?

It is planned to be, but we will have to wait and see. Based on FirstNet's coverage objectives map, many of the known coverage gaps in Massachusetts that currently exist with

Continued on next page

traditional wireless data carriers should be addressed. That said, we will only know once we see the details of the winning bidder's plan for Massachusetts and then later test the deployment of the network to see if it lives up to those plans. You can search for FirstNet's baseline coverage objectives plans for your city or town on our website at www.mass.gov/psbo.

How is this going to affect my land mobile radio?

It is not (at least not anytime soon). The NPSBN is a data network, not a voice network. Work is underway to improve the global LTE standards to support mission critical voice, but that is still in development and is years from being a reliable option. That said, there are apps that currently support voice communications over LTE data networks. These apps will allow first responders to supplement, but not replace, their voice communications in the field.

How does FirstNet know what the fire services needs here in Massachusetts?

Last summer, the PSBO conducted a series of data collection activities to inform FirstNet of Massachusetts' wireless data needs and expectations. This included supplementing FirstNet's understanding of coverage objectives in Massachusetts with 73 data sets, as well as collecting survey data from public safety agencies across the Commonwealth.

We would like to thank the 184 Massachusetts fire services agencies that responded to this survey. Below are some highlights of the results. Looking at responses from the three primary first responder disciplines (fire services, law enforcement, and EMS):

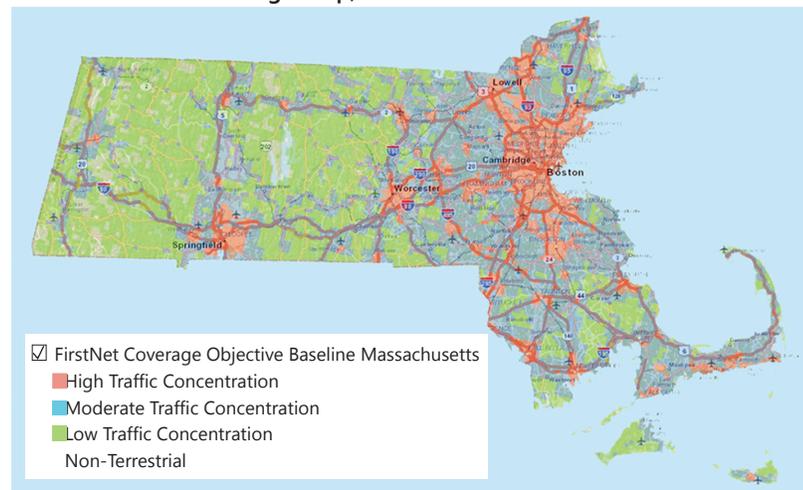
- Fire service agencies had the highest participation rate of all three disciplines (184 fire service agencies, 174 law enforcement agencies, 17 private EMS agencies, and 21 transportation and other agencies).

- Fire service agencies responded from all five Massachusetts homeland security regions (61 from Southeast, 47 from Northeast, 43 from West, 27 from Central, and 6 from Metro Boston).
- These 184 fire service agencies reported total personnel of 11,692 and combined fleets of 2,443 vehicles. Fire services reported the smallest average personnel size (64) and average fleet size (13).
- EMS (20%) and fire services (10%) reported the largest portions of their personnel as volunteer.
- Law enforcement had the most total data devices (9,221), followed by transportation (8,315) and fire services (3,165).
- Fire services reported an average of 0.12 data devices per staff and 0.6 data devices per vehicle. These ratios are similar in nature to law enforcement (0.14 and 0.58, respectively). Transportation (1.69) and private EMS (1.26) had the most data devices per vehicle on average.
- 20 of the 184 responding fire service agencies (11%) currently have no wireless data devices of any kind. That was the highest of all disciplines.
- 63% of fire service agencies generally allow the use of personal wireless data devices at work, but few (9%) provide any compensation for these devices.
- Fire services were most likely to report daily use of wireless data for communications (86%), general connectivity (75%), and computer aided dispatch (42%). Fire service respondents were unlikely to report currently using mobile data for telemetry (9%), automobile vehicle location (8%), video (3%), and over the top voice communications (1%).
- Fire services reported cost (65%), coverage (62%), network reliability (57%), and in-house expertise (53%) as current barriers to broader use of wireless data.
- Most fire service agencies (61%) say they "would pay a little more to have fixed rates regardless of wireless data usage" and most currently have unlimited (60%) or pooled (14%) data plans.

Fire services provided input on a broad range of critical coverage needs, including over 260 specific comments about coverage needs in individual fire service jurisdictions around the state.

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FirstNet Baseline Coverage Map, Massachusetts



When will the NPSBN be available in Massachusetts?

The FirstNet network is running in five pilot sites nationwide. These testbeds were drawn from a list of eight public safety communications projects that were awarded federal grants to develop LTE networks

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Self-Balancing Scooter & Hoverboard Recall

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The U.S. Consumer Product Safety Commission (CPSC) announced that ten companies are recalling self-balancing scooters/hoverboards because the lithium-ion battery packs can overheat, posing a risk of smoking, fire and/or explosion. The July 6, 2016 recall includes over 500,000 scooters sold in the United States. These scooters were the “hot” holiday toy last December. There have been at least 99 reported incidents of the battery packs in self-balancing scooters/hoverboards overheating, sparking, smoking, catching fire and/or exploding and reports of burn injuries and property damage. The reports are from across the U.S. and include several in Massachusetts (Chelmsford and Somerville).

US CPSC Chairman Eliot Kaye said in a statement, “Let me be clear about this — all of the hoverboard models included in this recall were made with fundamental design flaws that put people at real risk. They were made and sold without a safety standard in place. Two hazard patterns quickly developed. One involving falls, which could have been anticipated, and one involving fires, which definitely was not. Hoverboards that do not fully comply with the Underwriters Laboratories safety standard for these products are extremely dangerous and are a fire hazard waiting to happen. My message to the public was clear in February and continues to be clear today: Do not use a hoverboard that does not meet UL’s electrical safety requirements for these products (UL 2272).”

This recall involves self-balancing scooters, commonly referred to as hoverboards. They have two wheels at either end of a platform and are powered by lithium-ion battery packs. Consumers should stop using these recalled products immediately and contact the recalling company for a refund, repair or replacement depending on the model. Visit <http://www.cpsc.gov/> and type *hoverboard recalls* into the search box to see the full list of devices, manufacturers and remedies available.

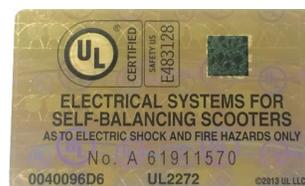
UL 2272

Electrical Systems for Self-Balancing Scooters

Excerpted from the UL website <http://www.ul.com/hoverboards/>

“UL supports retailers and manufacturers by offering electrical and fire-safety testing and certification under UL 2272, Electrical Systems for Self-Balancing Scooters. This standard evaluates the safety of the electrical drive train system and battery and charger system combinations, but does NOT evaluate for performance, reliability, or rider safety. As a result, UL recommends that proper safety precautions, detailed below, should be taken when buying and using a self-balancing scooter:

1. Safety First – Make sure it is UL certified. Look for the UL Mark on the packaging and the UL holographic certification label with the Enhanced Mark on the bottom of the product.
2. Keep the hoverboard away from flammable materials while charging.
3. Follow the manufacturer’s recommended charging times. DO NOT overcharge.
4. Use only the charger that is packaged with the hoverboard.
5. If an incident does occur, leave the area and call 911. Due to the nature of battery chemical fires, it may be incorrect to use a fire extinguisher.
6. Follow all manufacturer-recommended safety guidelines, including wearing recommended personal protective gear.



prior to the creation of FirstNet in 2012. No additional pilot sites are planned.

Deployment of the full network is still in the procurement stage. FirstNet released its request for proposals (RFP) on January 13 to select an industry partner to deploy the network nationwide. Bids were received back on May 31. A contract award is planned for later this year.

The timing for when the network will be available in Massachusetts is uncertain, but initial deployment of the network in Massachusetts could begin as soon as 2017. FirstNet plans a phased deployment of the network over five years with full deployment by 2022. The details for that deployment, including coverage areas, costs, supported devices, and other information, will be provided to the PSBO in a Massachusetts State Plan. This plan is expected to be delivered to the PSBO early next year.

What comes next?

FirstNet just completed a significant milestone with the submittal of bids to build the nationwide network. The next big milestone is the selection of a vendor and the issuance of a contract for services (currently planned to be completed by November). The next significant milestone for Massachusetts will be the receipt of our State Plan early next year. At that point, the Governor will decide whether

to move forward with the FirstNet plan or “opt out” and deploy the network ourselves.

Who leads FirstNet activities in Massachusetts?

Curtis Wood, EOPSS Undersecretary for Forensic Science and Technology, is the Commonwealth’s single point of contact with FirstNet. All communications, planning, and day-to-day FirstNet activities run through the Public Safety Broadband Office, which is headed by Undersecretary Wood. This office coordinates FirstNet planning with the Office of the Governor and seeks advice from the Massachusetts FirstNet Advisory Board and other public communications bodies.

Who should I contact if I have questions?

Contact the Public Safety Broadband Office with any questions you might have. We can be reached by email at psbo@state.ma.us. To keep up to date with FirstNet developments, check out our web site at www.mass.gov/psbo.

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Fire Prevention Week 2016

The banner features Sparky the dog on the left, holding a smoke alarm. A large red arrow points from the smoke alarm towards the right, containing the text "Don't Wait CHECK the date!". To the right of the arrow is a smartphone displaying a notification. On the far right, a blue box contains the text: "REPLACE SMOKE ALARMS EVERY 10 YEARS", "FIRE PREVENTION WEEK OCTOBER 9-15, 2016", and "firepreventionweek.org". The NFPA logo is in the top left corner. A small copyright notice at the bottom right reads "©NFPA 2016. Sparky® is a trademark of the NFPA®".

Fire Prevention Week is October 9-15, 2016. This year’s theme is Replace Smoke Alarms Every 10 Years. Each year Fire Prevention Week gives the fire service the occasion to reach out to communities and empower citizens to prevent home fires and protect their families. This year’s theme represents the final year of a three year effort to educate the public about smoke alarms. The National Fire Protection Association is the sponsor of fire prevention week and they have great educational materials on their website at <http://www.nfpa.org/fpw>.

The Department of Fire Services has a tool kit for smoke alarm information. Our newest campaign promotes the message *Smoke Alarms: A Sound You Can Live With*. You can find more information at www.mass.gov/dfs. Type smoke alarms in the search bar. The U.S. Fire Administration also has materials to support Fire Prevention Week. Visit <https://www.usfa.fema.gov/prevention/>.

Community Risk Reduction

Public Education Resources

Last winter, there was a terrible spike in fire deaths. Those fires were from all the usual causes: smoking, cooking, heating, and electrical. The one common thread was that many of the deadly fires occurred in homes without working smoke alarms.

Fall is a time when the fire service has many seasonal fire safety messages to promote. We start with getting the house ready for winter, chimney and furnace cleanings, installing smoke alarms, Fire Prevention Week, Halloween safety, Change Your Clock Change Your Battery, and move to candle and cooking safety, Thanksgiving and winter holiday safety.

Direct public education through classroom and home visits are key to teaching community members how to keep themselves and their families safe from fire. Those efforts can be supported by public awareness campaign materials and resources. As fire departments plan their fall community risk reduction strategies, taking advantage of established campaign materials allows the fire service to speak with a single voice and message that reinforces individual community efforts.

Off-Campus Fire Safety

Since 2005, all five student fire deaths have been in off-campus housing. There have been several terrible off-campus student housing fires in Massachusetts, some fatal, that were the subject of a *Boston Globe* Spotlight investigation. Communities can take steps to ensure landlords are providing safe housing to students including: home visits, neighborhood sweeps, code enforcement, and working with colleges to identify off campus houses.

There are also resources to educate both young adults renting for the first time and their parents who may be signing leases or paying the rent. It is important to know one's rights to safe housing. Many of these campaigns have social media resources to engage younger audiences. Massachusetts fire, building and college safety officials have formed a working group to address off campus fire safety. They developed

a new college fire safety campaign slogan and logo: *Best Roommates Evah! A Working Smoke Alarm and Two Ways Out*. Materials will be available on the new DFS Campus Fire Safety web page, and the Campus Fire Watch, NFPA, and Center for Campus Fire Safety websites. Resources include the following:

- *Student Renters Guide* from the Massachusetts Attorney General. <http://www.mass.gov/ago/docs/consumer/srg-1-pager.pdf>. All renters are entitled to safe housing. Know your legal rights.
- *See It Before You Sign It* at <http://www.campus-firewatch.com/seeit/>. This is a joint campaign from the U.S. Fire Administration, the National Fire Protection Association, the U.S. Consumer Product Safety Commission, and Campus Fire Watch.
- The Michael Minger Foundation at <http://www.minger-foundation.org/>. Resources including videos about off campus fire safety.
- Center for Campus Fire Safety at <http://www.campus-firesafety.org/>. Resources for college health and safety professionals and for students on fire safety.
- College fire safety campaign: *Best Roommates Evah! A Working Smoke Alarm and Two Ways Out*. www.BestRoommatesEvah.org

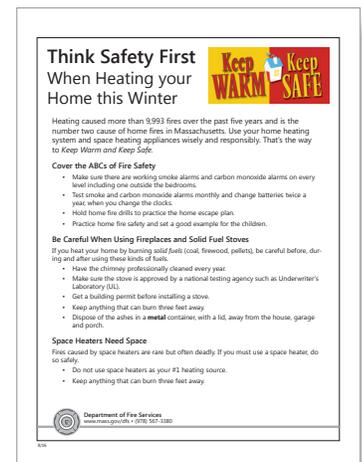
Vision 20/20

Vision 20/20 has guides and information about developing community risk reduction programs including smoke alarm installation and home visits. The resources include turnkey public education materials that are easily customizable by local fire departments. Find them at: <http://strategicfire.org/education-outreach/materials-generator/>.



Keep Warm, Keep Safe

The Department of Fire Services *Keep Warm, Keep Safe* campaign was developed in FY 2009. The brutal winter of 2007-2008 saw an increase in fire deaths after years of decline. The leading cause of the spike was space heater fires. The *Keep Warm, Keep Safe* campaign covers a large number of fire safety topics including maintenance of heating equipment, smoke and CO alarms, home escape planning, space heater safety and woodstove safety. The messages resonate in the early fall when people are getting homes



Continued on next page

ready for winter, and again in the heart of winter when so many deadly fires occur. There was a 43% drop in heating fires from 2007-2014 (3,038 fires to 1,717.) You can find campaign resources at www.mass.gov/keepwarmkeepsafe.

Smoke Alarms: A Sound You Can Live With

Last year, DFS launched a new campaign, *Smoke Alarms: A Sound You Can Live With*. Given the number of fire deaths in homes unprotected by smoke alarms last winter, this is an important message we need to address. One of the underlying causes may be that smoke alarms originally installed when homes were new or when the law first required them, have reached the end of their useful lives.

The first public service announcement (PSA) from this campaign educated people about the fact that smoke alarms need to be replaced after 10 years. This seems to be the one thing most people who think they know about smoke alarms did not know. The PSA was produced in both in English and Spanish. To see and download resources from this campaign go to: www.mass.gov/dfs and type "Smoke Alarm Campaign Toolkit" in the search box. The National Fire Protection Association's (NFPA) 2016 Fire Prevention Week theme emphasizes the need to replace smoke alarms after ten years as well. NFPA resources can be found at www.firepreventionweek.org.

Cooking Safety Campaign

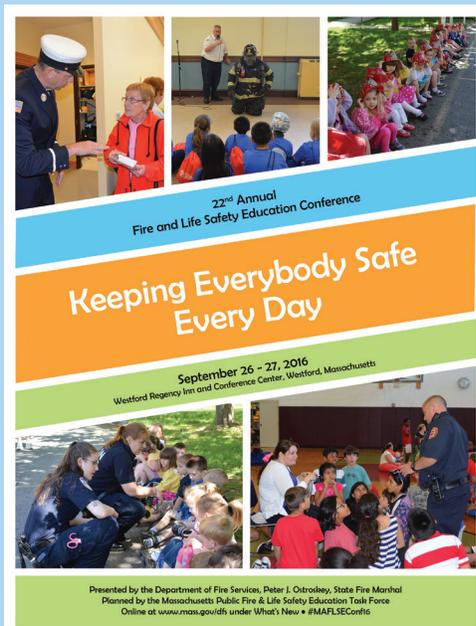
Cooking remains the leading cause of fires in the home and must be one of the key messages delivered by the fire service. Cooking is also the leading cause of fire injuries

and fire injuries to people over 65. Fortunately, it is not a leading cause of fire deaths. The Department of Fire Services Cooking safety campaign has both prevention and survival messages: *Stand By Your Pan and Put A Lid On It*. Fire Educators can borrow a DFS kitchen prop to let people practice what to do when a stove top fire occurs. Using a kitchen prop in addition to campaign materials provides an effective cooking safety lesson. Campaign resources and information about fire safety and prevention, can be found at our website www.mass.gov/dfs. Type Cooking Fire Safety Tool Kit in the search box.



Seasonal Fire Safety Topics

The U.S. Fire Administration, the National Fire Protection Association and the Department of Fire Services have materials on seasonal fire and life safety topics. Halloween is a holiday that traditionally involves fire, however the leading injury on Halloween is children being hit by cars. Thanksgiving is often the #1 day for fires in Massachusetts homes. It's a great time to promote cooking, candle and CO safety. The winter holidays also provide a great opportunity to present a variety of safety messages including: cooking, basic fire safety (smoke and CO alarms, home escape plans for all guests), electrical, candles, heating, smoking, and holiday decorations.



Register Now . . .

for ***Keeping Everybody Safe Every Day***
the 2016 Fire & Life Safety Education Conference

The 22nd annual Fire and Life Safety Education Conference will be held on September 26-27, 2016 at the Westford Regency Hotel and Conference Center in Westford, Massachusetts. The theme for this year's conference is Keeping Everybody Safe Every Day. Fifty-five speakers will present 30 workshops, two general sessions, and a keynote address. Over 200 firefighters, teachers, administrators and senior agency partners are expected to attend. The 2016 Public Fire and Life Safety Educator of the Year will be awarded on September 27. Visit www.mass.gov/dfs and search for Public Education Conference 2016 for all the details and registration information. Please join us for an informative and valuable program.



Facilities

The Backbone of DFS

The goal of the Department of Fire Services' (DFS) Facilities staff is to keep the two DFS campuses running smoothly and effectively. When we do our job correctly, no one notices. But many people work behind the scenes to support all the divisions of DFS. The Facilities staff supports the mission of DFS by providing an effective, up-to-date, safe, comfortable work environment for all employees and students, and critical support to firefighter training.

First Impressions

The first impression you get at the Stow campus is likely to be our receptionist whose job is to not only greet and assist visitors in a friendly, welcoming manner, but also has role in the agency's security. She tracks vendors and has a role in our disaster emergency response plan. She also helps other facilities units maintain records.



Vehicle Maintenance

DFS has over 150 vehicles including fire apparatus, trucks that deliver program trailers to various sites, medium and light duty trucks, dump trucks, front end loaders, back hoes, snow removal and grounds maintenance equipment, forklifts, the fire safety house/sprinkler demonstration trailer, as well as cars and small SUVs. One full-time and three part-time mechanics (who are also fire department mechanics), and one vehicle detailer, maintain this large fleet of vehicles and service the special operations and hazmat fleet which includes Incident Support Units, Rehab Units, Technical Operations Modules, and Operation Response Units. The staff does daily checks on vehicles as well as preventive maintenance and repair.

Warehouse

The Stow campus includes a warehouse that is used by all divisions to store materials and to house large props such as the wall breach and car door props. The Hazardous Materials Emergency Response division uses

the majority of the warehouse to store the equipment they need to stock hazmat response vehicles around the state. One full-time warehouse supervisor is responsible for the physical inventory of the agency and oversees four part-time employees in the print shop and mail room. The print shop produces training materials and publications for all divisions. The mail room ensures sorting and distribution of mail to agency staff and handles shipping and receiving.

Engineering

The Engineering staff includes two full-time and nine part-time people, most of whom are full-time firefighters who are also electricians, carpenters, welders, and general mechanics. This group provides all building maintenance from maintaining the HVAC system to mowing the lawn and shoveling snow. They oversee the janitorial services, fabricate training props, and provide plumbing and electrical services.

The Crib Room

The Crib rooms at both the Stow and Springfield campuses provide vital support to Mass. Firefighting Academy training that is delivered on- and off-campus. Crib room staff set up equipment for Career and Call/Volunteer Recruit training including ladders, hoses, pike poles, and halligans. Crib room staff makes sure that fire apparatus is packed with the equipment for the day's training such as hydrant assist valves, large diameter suction, and nozzles. They operate the pumps, and

Continued on page 13

New State Fire Marshal Sworn In



Peter J. Ostroskey, the new State Fire Marshal was sworn in on May 26, 2016 at DFS in Stow. Governor Baker, Lt. Governor Polito, fire service representatives, DFS staff, friends and family were on hand for the ceremony.

David Ladd Receives Level A Award



Hazardous Materials Emergency Response Division Director David Ladd was presented with the Level A Award at the 2016 International Association of Fire Chiefs (IAFC) Hazardous Materials Response Teams Conference held in Baltimore in June. He was nominated by his peers on the IAFC Hazmat Committee for his years of dedication and service to the hazmat community.

The Level A Award bestows the highest level of professional recognition to individuals or organizations that have made significant contributions to the hazardous materials emergency response profession. The award recognizes individuals who have provided an exceptional level of leadership, service and commitment to the mission and goals of the hazardous materials response community. Most award recipients have also made significant contributions to support the mission of the IAFC Hazardous Materials Committee, the Hazardous Materials Response Team Conference, or the IAFC's efforts in the hazardous-materials area.

David received this honor because he is held in high esteem by his colleagues and peers for upholding professional standards, mentoring other professionals and contributing to excellence within the hazardous materials emergency response community. David is retiring in a few months after seventeen years of pushing the Massachusetts hazmat response capability to grow and improve, responding to and often anticipating new challenges the teams will face.

Emergency Responder *Radio Coverage*



Emergency responder radio coverage (ERRC) was first introduced in the 2009 International Building Code. The ERRC requirement was established to address the performance of emergency responders' portable radios inside buildings because building construction, building size, construction features, and other elements can absorb or block radio communications. Concrete or metal construction, larger buildings, underground buildings, and buildings that use low-E (low emissivity) glass windows have been found to be problematic in achieving adequate ERRC. Communications affected include radio transmissions from responders inside buildings to an incident commander outside and/or the public safety communications center, or vice versa. During an incident, lack of communication can result in dire consequences.

In the 8th Edition of the Massachusetts State Building Code (adopted in 2011), designers were first required to provide emergency responder radio coverage in all new buildings (780 CMR 915.0) in Massachusetts. There was a major revision to 780 CMR 915.0 on April 11, 2014.

If a building needs ERRC, the most common solution is the installation of a bi-directional amplifier (BDA). Other methods have also been used to resolve ERRC, including two-way radio repeaters, or using the building's wired emergency service communication systems (FD phones).

Many design professionals are not aware of the ERRC requirements. If ERRC is not referenced on a building submittal, the fire official should immediately notify the building official and design professional, in writing, that the ERRC must be evaluated; and if the existing radio coverage has not been maintained, then ERRC must be provided.

Here are several helpful hints regarding common ERRC issues that have transpired across the state:

1. The ERRC requirement does not mean that every new building needs a communication system. It requires that all buildings be evaluated to ensure that proper radio coverage can be maintained throughout the building. [2010 NFPA 72: 24.5.2.2]
2. ERRC cannot be accurately determined until a building is

almost finished. This uncertainty makes it difficult for design professionals to design and project total costs. To reduce the uncertainty, some design professionals pre-wire the building assuming that ERRC will be required, others have the building prematurely evaluated during construction to see if it fails.

3. An evaluation to determine if ERRC is required in a building is performed by measuring the inbound/outbound signal strength in decibels-milliwatts (dBm) by special measuring devices. These evaluations can be done by specialized third-party communication companies and some fire department radio companies. Simply calling back and forth between dispatch and fire department personnel inside a building to see if the radio transmissions are clear is not a proper evaluation method.
4. ERRC is specifically required for the protection of responders during an emergency. The local building official and/or design professional cannot waive this requirement for any reason. The local fire official can waive the ERRC if it is not needed, but considerable thought should be given before doing so.
5. The threshold requirements, design, testing and monitoring of the ERRC must be in accordance with the 2010 NFPA 72: Chapter 24.
6. The ERRC must be monitored by the fire alarm system to ensure that the communication enhancement system is functioning properly.

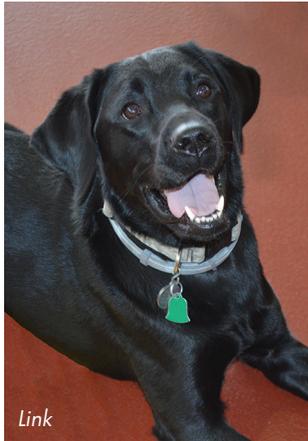
With the anticipated adoption of a 9th Edition of 780 CMR, the ERRC requirement is expected to change very little. Minor changes to aid design professionals may be included.

If you have any concerns, questions, or need further information please contact the Division of Fire Safety's fire protection specialists. Communities north of the Turnpike, contact Chris Melite at 978-567-3376 or christopher.melite@state.ma.us. Communities south of, or on the Massachusetts Turnpike, contact Jake Nunnemacher at 978-567-3377 or jacob.nunnemacher@state.ma.us.

K-9 News

K-9 Memorial in Planning Stages

In 1989, Sgt. Hulk, the first accelerant detection canine, joined the Fire & Explosion Investigation Unit (F&EIU) in the Office of the State Fire Marshal. The unit currently has 13 accelerant and explosive detection canines who work on a food-reward system and live with their handlers. Over the decades, 43 dogs have served with the F&EIU. Five are currently retired and continue to live with their handlers and families with whom they have a close bond, and



finally get to eat out of a bowl. Sadly, 25 of the dogs have passed on. The State Police Association of Massachusetts Benevolent Fund is collecting donations to build a K-9 Memorial at the Department of Fire Services' Stow campus to honor their service to public safety. Stones have been donated, and the names of each dog will be etched into one of the bricks.

Changes in K-9 Units

The Fire & Explosion Investigation Unit has two new explosion detection canines (EK-9s) Link and Kayak. They replace Banjo and Diana who have retired. Sierra will also be retiring soon. Two accelerant detection dogs (AK-9s) have also retired in the past year, Vic and Damian from the South Team.



Nightclub Fire Safety Update

The Department of Fire Services (DFS), through the Federal Emergency Management Agency's (FEMA) FY14 Fire Prevention and Safety Grant, is working to promote nightclub fire safety in Massachusetts through training, education and enforcement.

The final piece of the grant is a short educational video for college-aged students on the importance of nightclub

fire safety. The goal of the video is to educate young people attending nightclubs and bars throughout the state about how to recognize and react to the first signs of fire danger. The film was shot in early June and should be ready for distribution by the end of summer. DFS will partner with the campus safety officers and organizations to share on both DFS and college social media platforms.

Facilities, *continued from page 10*

prepare, ignite and clean up fires in the burn buildings. Special SCBA (self-contained breathing apparatus) technicians do fit testing, repair regulators, replace masks and head gear, and fill air bottles. Crib room staff also deliver and pick-up program materials and props for off-site training that the MFA conducts around the state. On graduation days, (and for a while there was a graduation every three weeks!) crib room staff clean the fire station, set up the room, and make a splendid backdrop for the ceremony which is enjoyed by recruits, their friends and families, and the fire service.

Administrative Staff

Facilities staff includes a director, a deputy director who manages the warehouse, print shop, crib room, engineering and fleet management, a development planning and administrative coordinator who manages the budget and purchasing, an administrative assistant who keeps them all on task, and a receptionist who provides the first contact for guests at DFS.

Fire Investigation Unit News

Charging Tablet Cause of Holyoke Fire

A July 3, 2016 fire in Holyoke was ignited by a tablet that overheated during charging. The building was a combination commercial/residential building and the fire started in a third floor apartment. The tablet was charging, using an after-market cord plugged into an extension cord. The tablet was on top of a pile of clothes in a rubber tub at the foot of a bed. Whether the tablet or the charging cord failed is uncertain due to the damage. Over 40 people were displaced from 14 apartments and three businesses were damaged. The loss is estimated at \$200,000.

The fire was jointly investigated by the Holyoke Fire Department's Fire Investigation Unit, the Holyoke Police Department, and State Police assigned to the Office of the State Fire Marshal.

Youth and Juvenile-Set Fires

4-Alarm Peabody Fire Started by a Child with a Lighter

The June 17, 2016 fire at 17 Little's Lane in Peabody was ignited by a young child using a lighter. No one was injured in the 3-story, 3-family home. Working smoke alarms alerted the third floor tenant who helped get other tenants out safely. The child was referred to the Lynn Juvenile Firesetting Intervention Program. The fire was jointly investigated by the Peabody Fire and Police Departments, and State Police assigned to the Office of the State Fire Marshal.

3 Youths Arrested for Springfield Arson

In early July, three youths were arrested for setting a June 27, 2016 fire in the closed Massachusetts Career Development building at 140 Wilbraham Avenue in Springfield. The three were already on supervised probation from the Department of Youth Services (DYS). It appears they had broken into the building and ignited combustible materials on the carpet of a second floor office. Investigators believe that the fire smoldered for some time before erupting into flames. Video surveillance from June 26, captured the youths breaking and entering into the building next door. Items stolen from that business were recovered in the suspects' homes. The three were charged with two counts of burning a building, two counts of breaking and entering a building in the daytime with intent to commit a felony, two counts of larceny of a building, two counts of malicious damage and one count of breaking a window. The fire was jointly investigated by the Springfield Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal.

Teen Ignited Westfield Fire with Flare

At 1:40 am, on June 24, 2016 an intentionally-set fire at 24 Meadow Street in Westfield destroyed a shed and a house,

and damaged another shed and a metal frame shelter. The fire started at the shed, was fueled by propane tanks and spread to the home. One person was in the house when the fire started, but they got out safely. On June 27, a 17-year old boy was arrested for using flares to ignite the fire and charged with one count of burning of a dwelling and three counts of burning a building; he was released on bail on July 6. The next day, he was arrested and charged with intimidation of a witness. The witness' mother had captured threats made through Snapchat.

The fire was jointly investigated by the West Springfield Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal.

Cooking Was Cause of Athol Fire

Cooking was the cause of the early morning fire at 190 Main Street in Athol on June 7, 2016. One person was taken to the hospital for smoke inhalation and later released. Four people were displaced by the fire in the 2-family home. The home will be torn down. Damage is estimated at \$160,000. Neighboring homes were evacuated as a precaution.

Residents Lucky to Be Alive: No Working Smoke Alarms

"The residents of this home are extremely lucky to be alive because the fire occurred in the middle of the night and there were no working smoke alarms," said Athol Fire Chief John Duguay.

The fire was jointly investigated by the Athol Fire and Police Departments and State Police assigned to the Office of the State Fire Marshal.

Outdoor Burning Extends to Homes

Fire Pit Is Cause of Groton Fire

The most probable cause of the June 1, 2016 4-alarm fire at 293 Old Dunstable Road in Groton was an outdoor fire pit. No one was home at the time of the fire and no was injured. Investigators determined the fire started in the pit, spread to the nearby woods, then to the garage and ultimately to the house. Over three acres of woodland burned. The homeowner had been cooking in the makeshift pit recently.

The fire department was called for an odor of smoke by a resident some three-quarters of a mile away from the fire. The fire department quickly located the actual fire. When they arrived, the woods and the garage were already on fire. They prevented the fire from engulfing the entire home. This was the second fire this summer in Groton where outdoor burning spread to a building.

The fire was jointly investigated by the Groton Fire Department, the Groton Police Department, State Police

assigned to the Office of the State Fire Marshal and the Massachusetts District 7 Fire Warden.

Townsend Fire

On June 24, 2016, in Townsend, a neighboring town to Groton, a man left a makeshift fire pit burning unattended. It was made from a 50-gallon drum. It started a brush fire that extended to the barn, a shed, a camper and melted the vinyl siding of a neighbor's house.

Smoking Cause of Several Fatal Fires

No Working Smoke Alarms In Double Northbridge Fatal

The cause of the May 14, 2016 double fatal fire at 73 Border Street in Northbridge was the improper disposal of smoking materials. The fire took the lives of two young women who lived in the two-family duplex home.

Fire Started in the Front Left Corner

The fire started on the couch in the first floor living room in the front left corner of the house. Neighbors who first saw the flames attempted to rescue the victims but were unsuccessful as the fire spread too quickly. One victim was found on the first floor and the other victim was found in a second floor bedroom. The occupants of the other side of the duplex managed to escape safely.

No Evidence of Working Smoke Alarms in the Home

Chief Nestor said, "Sadly, there were no signs that the home had working smoke or carbon monoxide alarms. Working smoke alarms can double your chances of surviving a fire, where time is your enemy."

The fire was jointly investigated by the Northbridge Fire and Police Departments and State Police assigned to both the Office of the State Fire Marshal and to the Office of Worcester District Attorney Joseph Early Jr. Assistance was received from the Code Compliance Unit in the Department of Fire Services.

Hudson Fatal Fire

Smoking was the cause of the June 23, 2016 fatal fire at 15 Baben Road in Hudson. The fire took the life of a 76-year old woman.

A home health aide discovered the fire when she visited the woman at 10:30 a.m. The exterior of the building showed little sign of the extreme heat and fire damage inside the building. Chief Blood said, "The fire consumed all the oxygen in the airtight home and eventually self-extinguished. Sadly, it appears the resident was overcome by the heat and toxic gases." Exactly when the fire started is not known; the last time someone spoke to the victim was 7 p.m on June 22.

The woman used a walker and was found next to the couch where the fire started. There was evidence of smoking materials, and the woman was known to be a smoker.

Carbon monoxide alarms were sounding in the basement of the one-family home. The smoke alarms were completely melted and whether or not they functioned is undetermined.

The fire was jointly investigated by the Hudson Fire and Police Departments, State Police assigned to the Office of the Middlesex District Attorney and to the Office of the State Fire Marshal and the Fire District 14 Fire Investigation Team. Assistance was received from the Code Compliance Unit in the Department of Fire Services.

Fall River

A fatal fire on May 7, 2016 at 212 Covell Street, Fall River was caused by the improper disposal of smoking materials. The early morning fire took the life Emile Saucier, age 61. The fire started in the third floor apartment where the victim lived. Investigators determined that the fire started in a reclining chair in the kitchen. The victim was known to be a heavy smoker who rolled his own cigarettes and there was ample evidence of smoking materials where the fire started. Investigators believe the fire smoldered for a long time before being discovered. Other tenants of the building first heard smoke alarms for a few minutes around midnight and found no smoke in the hall or basement. They were awakened again at 5:30 a.m. by smoke alarms in the hallway and saw the doorway of the third floor apartment in flames. Building damage is estimated at \$150,000.

Chief Lynch said, "This building was scheduled for a smoke alarm inspection later this week where we would have learned that some of the smoke alarms needed to be replaced because they were more than ten years old, and that the third floor tenant did not have a safe second way out." The second exit from the third floor apartment was a hatch with ladder.

The fire was jointly investigated by the Fall River Fire and Police Departments and State Police assigned to both the Office of the State Fire Marshal and to the Office of Bristol District Attorney Thomas M. Quinn III. Assistance was received from the Code Compliance Unit in the Department of Fire Services.

No Working Smoke Alarms in Bondsville Fatal Fire

The most probable cause of a Bondsville fatal fire on April 8, 2016 is the improper use or disposal of smoking materials. The early morning fire took the life of 69-year old Curtis Penoyer. His wife was injured and another resident managed to escape the fire.

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Carbon Monoxide: The Invisible Killer

Since March 2006, carbon monoxide alarms have been required in all Massachusetts homes (Nicole's Law). These alarms last between 5 and 7 years depending on their make and model and need to be replaced when they reach the end of their expected life. Some newer models come with 10-year sealed batteries and last 10 years.

Since 2005, fire departments have responded to thousands of CO calls at homes, schools and businesses. Since Nicole's law was enacted, CO calls have increased dramatically, because more people have alarms to alert them to this silent killer.

Yet CO, a colorless, odorless, tasteless gas which is a byproduct of burning fuel, continues to poison Massachusetts residents. Symptoms of CO poisoning mimic the flu (headaches, nausea, lightheadedness and tiredness). CO poisons the body by removing oxygen from the blood

stream, causing people to slowly suffocate. Exposure to high levels of CO makes it hard to think clearly. Many people dismiss the symptoms or attribute them to the flu. CO poisoning indicators can impair the ability to discern the difference between the flu and another cause, and can result in dire consequences. Two people died in Milford on Christmas Day 2015 from carbon monoxide poisoning. There were no CO alarms in their apartment and they had been complaining about feeling poorly for a few days.

Firefighters must strive to educate all community members, including landlords, about having and maintaining working CO alarms so that all citizens are protected from carbon monoxide poisoning. Five days after the Milford incident, a 10-year old Douglas boy saved himself and his sleeping teenage brother from CO poisoning by responding correctly to the sound of his CO alarm. The 10-year old

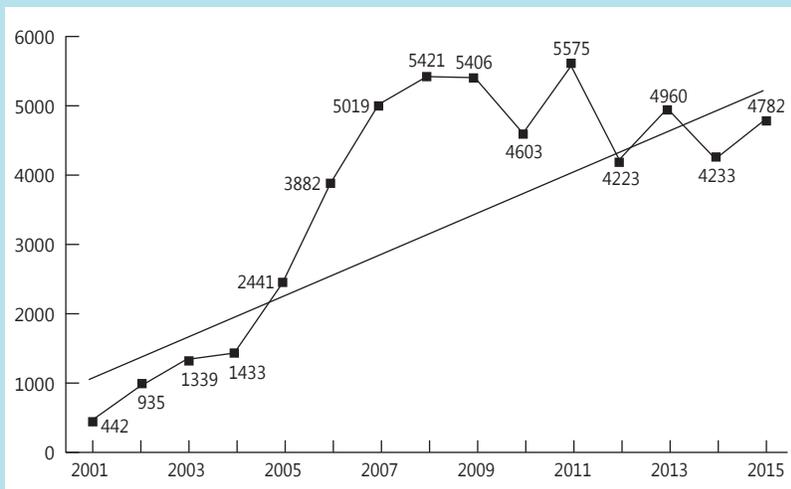
had listened to his Student Awareness of Fire Education (S.A.F.E.) educator and was able to react quickly to the alarm. We know that education works.

According to the Comprehensive Fire Safety Code, "Every homeowner, superintendent, or landlord shall, at a minimum, maintain, test, repair, or replace, if necessary, every carbon monoxide alarm upon renewal of any lease term for any dwelling unit or on an annual basis, whichever is more frequent (527 CMR 1:00: 13.7.6 Carbon Monoxide Detection)." It is possible that not all landlords are aware of this provision of the fire code. Everyone needs to be educated about the law, their responsibilities, symptoms of CO poisoning, and the consequences of not having working CO alarms.

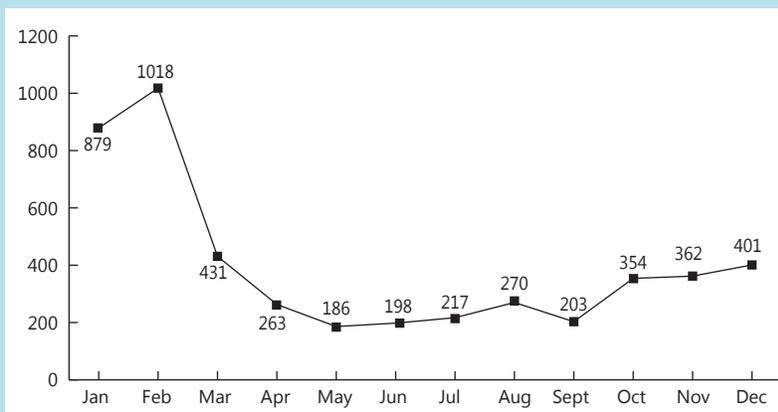
While not all schools are required to have CO alarms, sometimes they are required with the installation of new cooking and heating equipment. Legislation has been proposed several times that would require CO alarms in schools, but it has not passed. On January 5, 2016, at 8 a.m., a Waltham elementary school was evacuated due to high levels of CO. No children were in the building. Fortunately, a maintenance worker called the fire department to report an odor of natural gas, but

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Number of Carbon Monoxide Incidents in Massachusetts



Carbon Monoxide Found Calls in Massachusetts, 2015



The fire was caused by smoking materials on the upholstered loveseat in the living room. The victim was found nearby. The fire appeared to have smoldered for some time before erupting into flames. The Bondsville Fire Department, Palmer Police Department, State Police assigned of the Office of the State Fire Marshal and to the Office of the Hampden District Attorney jointly investigated the fire. The Code Compliance Unit of the Department of Fire Services provided assistance.

Arson Convictions

Lynn Woman Guilty in 2015 Arson

On July 25, 2016, Susan Brown, 52, of Lynn, was found guilty of arson in connection with a 2015 house fire that displaced two families for five months and destroyed nearly everything they owned. Brown intentionally set fire to a couch in the living room of the first floor apartment at 25 Huss Court in Lynn on June 29, 2015. One firefighter was injured. A woman staying with the tenants of the apartment reported the fire. Fire investigators ruled out all accidental causes of the fire and determined that the defendant intentionally set the fire. Brown was sentenced to 5-7 years. The Fire Investigation Unit's North Team assisted with this investigation.

Beverly Man Sentenced for Arson

On June 1, 2016, a Beverly man was sentenced to five years in the House of Corrections, with three years to be served and the balance suspended for seven years. Zackary Pavia, 20, pled guilty to three counts of arson and 10 counts of wanton destruction of property for a July 13, 2014 fire that caused an estimated \$3 million in damage to several homes on Folger Avenue in Beverly. Upon release, Pavia will spend his first year under house arrest. He was also ordered to remain drug and alcohol free with random screens, attend four Alcoholics Anonymous meetings a week, undergo mental health counseling, and to be employed. He was also ordered to pay restitution.

Pavia and two juveniles started the 3-alarm fire in a second floor bedroom of 36 Folger Avenue by lighting a large cardboard box with a torch. The fire quickly spread to another home under construction next door. A home at 40 Folger Avenue sustained heavy fire damage and seven other buildings suffered lesser damage. One vehicle, a porta-potty, and a construction dumpster were also damaged by the fire. The teens watched the fire from a nearby restaurant. The Fire Investigation Unit's North Team assisted with this investigation. Tips on the statewide Arson Hotline (1-800-682-9229) were helpful in solving this case.

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Carbon Monoxide, *continued from previous page*

most CO incidents have no odor. When firefighters arrived, they detected a carbon monoxide reading of 135, which is dangerous. Had the worker not been present that day, many teachers and students would have been affected.

Heating is the leading source of CO in the home. Calls for the presence of CO peak during the coldest months of the year when heating systems are working constantly.

But heating season is not the only time CO is found. Fuel burning/CO producing tools used in the summer include boats, lawnmowers, grills, hot water heaters, gas stoves and gas dryers. Generators used inappropriately can also cause CO emissions. In July 2015, four young people from Massachusetts died from CO poisoning just a few hours after their arrival at a cabin in Maine. A generator that powered the refrigerator had been left running in the basement.

It is imperative that carbon monoxide alarms are present and working wherever and whenever burning fuel is used.

- Nicole's law requires that carbon monoxide alarms be installed on every level of the home, including habitable portions of the basement and attics.
- Carbon monoxide alarms should be installed within

10-feet of bedroom doors on every level of a home with sleeping areas.

- Nicole's law requires landlords to install and maintain CO alarms in every dwelling unit that has a source of carbon monoxide.
- Large apartment buildings, where there is no source of CO inside individual apartments, may use an alternative method to detect CO near the furnace, boiler rooms or garage.
- When purchasing a CO alarm, be sure to look for the approval label of an independent testing company, such as Underwriter's Laboratory (UL) or International Approval Service/Canadian Standards Association (IAS/CSA). Most CO alarms sold in Massachusetts meet these standards, but it is a good idea to check before buying one, especially if purchased online.

Home heating season will be here soon. Take advantage of every opportunity to educate people about the dangers from exposure to carbon monoxide and the need to install and maintain CO alarms in all dwellings.



Fireworks in Massachusetts

July 4th Weekend



The Massachusetts Comprehensive Fire Safety Code, based on NFPA 1, has some of the strongest regulations on public fireworks displays. The code is backed up with training of local fire departments, and assistance from the Fire Safety Division's Code Compliance Unit to ensure show sites meet the regulations and pass inspection. Even with these safeguards, there were two fireworks barge fires on the Fourth of July in Massachusetts. One was in Salisbury, caused by debris left on the barge. The second was in Plymouth Harbor and occurred when a fireworks shell detonated inside a mortar tube. The Plymouth fire is a reminder of just how dangerous fireworks can be, even in the hands of trained, licensed professionals.

Fortunately, there were no injuries among the professional fireworks shooters in either fire due in large part to state fire code requirements that fireworks be ignited electronically instead of being manually lit with flares. In the Plymouth case, the shooter was actually in a separate boat and not on the barge, which provided an added level of safety.

On July 5, the Plymouth Fire Department supervised the dismantling of the two Atlas Fireworks barges. Atlas was also responsible for collecting fireworks debris that continued to wash ashore after their first light search. A State Police investigator and a code compliance officer examined the fire scene, data from the Pyro digital field control unit, and interviewed witnesses and the shooter. They determined that the shell that misfired was most likely a 6-inch shell of specific brand. Atlas Fireworks removed all similar shells from subsequent shows and contacted both the manufacturer and the American Pyrotechnics Association about the issue.

The Salisbury barge fire was due to trash left on the barge which ignited. On July 5, a DFS code compliance officer conducted an inspection and discovered opened and unopened electronic initiators on the barge with some scattered around the deck. The State Police Bomb Squad responded and took custody of the product for disposal. Also found was an unexploded 3-inch shell still inside one of the tubes. The Bomb Squad removed it and counter-charged in a safe location.

Injuries

Massachusetts adopted the Model Fireworks Law decades ago. As a result, the Commonwealth experiences fewer

injuries than in states where fireworks are legal. However, fireworks are readily available in neighboring states, and there were still several injuries from fireworks in Massachusetts this year.

On July 9, a 10-year old Boston boy lost several fingers when he lit a firework inside his apartment. A 9-year old Boston boy also lost several fingers in a similar fireworks incident in 2015. In the 2015 incident, the victim sustained burns on 15% of his body and lost one of his hands when the firework he was holding exploded. His 5-year old friend was also injured in the incident.

On July 4, the Plymouth Fire Department responded to a 22-year old man who injured himself when an illegal Roman Candle tipped over and hit him in the groin.

There were three fireworks injuries in Lawrence over the holiday weekend. On July 3, an 8-year old boy received burns to his chest when he was hit by fireworks while watching the fireworks being set off at a neighbor's house. On July 4, 2016, a 4-year old boy received burns to his forehead and chin from fireworks when fireworks hit him in the face. On July 4, 2016, a 34-year old man received burns to his chest and right hand when the fireworks he was holding exploded in his hand.

On the afternoon of July 15, 2016, the Plymouth Fire Department responded to a 15-year old boy who was lighting consumer grade fireworks. The boy received a puncture wound to his abdomen as well as burns to an eye and both hands.

Confiscation

The State Police Bomb Squad was busy during the holiday with dismantling illegal fireworks shows, taking possession of fireworks confiscated by other law enforcement agencies, and assisting with disposal of fireworks that washed ashore after shows. In New Bedford, they assisted the local police with disposal of a live 1.3 commercial grade firework from an illegal show that had happened in a parking lot. They examined 12 mortar tubes and found one with an exploded fireworks shell stuck inside. There had been no legal shows anywhere in the New Bedford area. The Bomb Squad also assisted State Police in Sturbridge who arrested a N.Y. man on several motor vehicle charges as well as for the sale of fireworks. His trunk was full of fireworks, he had thousands of dollars in cash, was driving a car he didn't have permission to use, had no valid

Continued on next page

2016 License Examination Schedule

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, special hazard systems, portable fire extinguishers, marine fueling facilities and above ground tanks.

To see the licensing status of an individual or company, visit the *DFS License Look Up* at http://elicense.chs.state.ma.us/DFS_Verification/Search.aspx or go to www.mass.gov/dfs and click on *Licensing* and *DFS License Look-Up*.

The schedule of testing dates below is subject to change because testing procedures are being updated.

For information about licensing issues, contact the Licensing Desk by phone at 978-567-3700 or by email at dfs.licensing@dfs.state.ma.us.

License Exam Schedule

- Applicants must be pre-registered to sit for exams. Completed applications must be received by 5:00 p.m. on the deadline date listed below. Application forms are available at www.mass.gov/dfs then click on *Licensing*. If your application is received after the deadline, you will not be allowed to take the exam.
- All exams start promptly at 10:00 a.m. unless otherwise noted.
- License exams are given at DFS in Stow at 1 State Road, and at DFS in Springfield at 100 Grochmal Avenue. In Stow, please park in the remote lot at the top of the hill. Directions: www.mass.gov/dfs.

Licensing News

DFS is in the process of converting its paper-based testing system for licensing exams into a computer-based system. When the system is complete, we plan to offer licensing exams on a more regular basis to enhance opportunities for our customers to schedule, test, and receive test feedback instantaneously. More information will be forthcoming as the project progresses.

Examinations	Examination Dates All exams start at 10:00 a.m. unless noted	Deadlines for Applications
Fire Suppression, 10:00 a.m., Commercial Hood Cleaning, 2:00 p.m.	September 21, 2016 (Wednesday)	September 2, 2016 (Friday)
Cannon/Mortar, Fireworks, Special Effects, Blasting, Blasting R & D	October 26, 2016 (Wednesday)	October 7, 2016 (Friday)

Fire Investigation Unit News, *continued from page 17*

Amesbury Man Convicted of Setting Home on Fire

John Singleton pled guilty to setting fire to his home at Spindle Tree Lane, Amesbury with his wife and dog inside. He was sentenced to 2 ½ years in the House of Corrections for arson and two years probation for animal cruelty for the January 1, 2015 fire. Singleton burned himself and was

in critical condition after the fire. His wife escaped the home unharmed but the dog perished. Attempted murder charges were dropped, but in May of 2016, he was charged with intimidating a witness. The Fire Investigation Unit's North Team assisted with this investigation.

Fireworks, *continued from previous page*

license and was driving without headlights at night. The Bomb Squad also assisted State Police in Cheshire who confiscated fireworks.

Influence of Past Fire Marshal

Former State Fire Marshal Joseph A. O'Keefe Sr. was a sitting Salem City Councilor running for re-election when he died last fall. Salem Mayor Kim Driscoll knew him well,

and her city's proactive education on, and strict enforcement of the fireworks laws this year were not only a continuing effort to make her city family-friendly, but likely a lingering effect of Joe's mentoring. Salem had special fireworks patrols which led to confiscations, and the Mayor used her personal social media accounts to educate the public about the danger of fireworks and the planned enforcement in advance.

Massachusetts Firefighting Academy *Graduations*

Class #502



Career Recruit Firefighter Training

The Career Recruit Firefighter Training program has been 45 days long. Upon successful completion of the 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. The training is held at both the Stow headquarters of DFS and at the new DFS Springfield campus. Starting with Class #247, the training program has expanded to 50 days.

Class #243



Springfield

Class #502

On June 7, 2016, members of the Career Recruit Firefighter Class #502 graduated in Springfield. The 22 graduates, all men, represent the nine fire departments of: Agawam, Amherst, Easthampton, Holyoke, Ludlow, Northampton, Springfield, West Springfield, and Westfield. The guest speaker was Agawam Fire Chief Alan Sirois.

Stow

Class #243

On April 29, 2016, members of Class #243 of the Career Recruit Firefighter Training program graduated. The 24 graduates, 23 men and one woman, represent the seven fire departments of: Arlington, Hingham, Hudson, Lowell, Seekonk, Tewksbury, and Weymouth. The guest speaker was Lowell Fire Chief Jeffrey Winward.

Class #244



Class #244

On May 20, 2016 members of Class #244 of the Career Recruit Firefighter Training program graduated. The 24 graduates, 22 men and 2 women, represent the 20 fire departments of: Amesbury, Bedford, Cambridge, Clinton, Concord, Dighton, Franklin, Leominster, Littleton, Lowell, Marlborough, Middleborough, Nantucket, North Andover, Norton, Norwood, Somerville, Wayland, West Bridgewater, and Woburn. Wayland Fire Chief David Houghton was the guest speaker

Class #245



Class #245

On June 10, 2016, members of Class #245 of the Career Recruit Firefighter Training program graduated. The 23 graduates, 21 men and two women, represent the 13 fire departments of: Abington, Auburn, Braintree, Cambridge, Chelmsford, Everett, Framingham, Leominster, Lexington, Natick, North Attleboro, Stoneham, and Westport.

The guest speaker was Everett Fire Chief David Butler, a 39-year veteran of the department who is now retired.

Class #246

On July 1, 2016, members of Class #246 of the Career Recruit Firefighter Training program graduated. The 25 graduates, 24 men and one woman, represent the 14 fire departments of: Beverly, Bourne, Falmouth, Foxborough, Hanover, Harwich, Haverhill, Maynard, Medway, Methuen, North Attleboro, Somerville, Southborough, and Stoughton. The guest speaker was Haverhill Interim Fire Chief John “Jack” Parow.

Call/Volunteer Recruit Firefighter 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 320 hours of training. Bringing the training closer to the firefighters often means more firefighters can participate. In 2014, an online eBlended format was implemented 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 #58

On June 28, 2016, in Stow, Massachusetts, members of Class #58 of the Call/Volunteer Recruit Firefighter Training program graduated having completed 240 hours of training on nights and weekends. The 35 graduates, 33 men and two women, represent the 19 fire departments of: Berlin, Bolton, Boylston, Carlisle, Douglas, Grafton, Groton, Holden, Hopedale, Lancaster, Leicester, Littleton, Pepperell, Sherborn, Shirley, Shrewsbury, Sterling, Townsend and Weston.

Class #59

On June 23, 2016, in Fall River Massachusetts, members of Class #59 of the Call/Volunteer Recruit Firefighter Training program graduated having completed 240 hours of training on nights and weekends. The 34 graduates, 32 men and two women, represent the 14 fire departments of: Acushnet, Berkley, Dartmouth Dist.3, Fairhaven, Free-town, Lakeville, Mattapoisett, Raynham, Rehoboth, Rochester, Swansea, Wareham, West Bridgewater, and Westport.

Class #246



Class #58



Class #59



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.



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

www.mass.gov/dfs



Fall 2016 Senior Fire Officer Forums

Senior Fire Officer Forums (SFOF) give Massachusetts chief officers the opportunity to learn directly from national fire service experts without the time and expense of traveling to national conferences. The fall forums focus on firefighter safety and addressing occupational cancer. Any Massachusetts fire officer can attend the programs. Forums include an opportunity to interact with the presenter during lunch. These programs are pending credit for Fire Chief Credentialing.

The New Firefight - Top 20 Tactical Considerations from UL/NIST Firefighter Safety Research

Course Code: 200-014-SOK-2016-FA-A

Date and Time: October 17, 2016, 1000-1500

Location: Massachusetts Firefighting Academy, One State Road, Stow, MA

In Honor of The Charleston 9, A Study of Change Following Tragedy

Course Code: 200-014-SOL-2016-FA-A

Date and Time: November 10, 2016, 1000-1500

Location: Massachusetts Firefighting Academy, One State Road, Stow, MA

Firefighter Safety Symposium II

Course Code: 200-014-SOM-2016-FA-A

Date: December 5, 2016, 0900-1500

Location: Massachusetts Firefighting Academy, One State Road, Stow, MA

Firefighter Safety Symposium II

Course Code: 200-014-SOM-2016-FA-B

Date and Time: December 7, 2016, 0900-1500

Location: DFS Springfield, 100 Grochmal Ave, Springfield, MA

Registration

Register at List of Current MFA Courses by completing a standard DFS/MFA Student Application and mail with the \$20.00 course fee payment to: Registrar, Massachusetts Firefighting Academy, P.O. Box 1025, State Road, Stow, MA, 01775.

Future Senior Fire Officer Programs

DFS is proud to present the Senior Fire Officer Forum series to the Commonwealth's fire service leadership. We continually search for new and exciting topics to enhance the knowledge of chief fire officers. Please contact Robert Loomer at Robert.Loomer@state.ma.us with your ideas and suggestions for future programs.