



VERMONT

Department of Public Safety

DIVISION OF FIRE SAFETY

firesafety.vermont.gov

Report of the **STATE FIRE MARSHAL**

2019



100 Years

KEEPING PEOPLE SAFE WHERE THEY LIVE, WORK AND PLAY

Michael Schirling

Commissioner
Department of Public Safety



Michael Desrochers

Executive Director
Division of Fire Safety

2019 Report of the State Fire Marshal



Division of Fire Safety Mission

The Division of Fire Safety's mission is to protect the public and fire service through coordinated efforts in Code Enforcement, Fire Service Training, Public Education, Hazardous Materials Response, Fire Investigation and Urban Search and Rescue. These efforts maximize life safety and property conservation and minimize environmental impacts due to fire, natural disasters and other emergencies in the State of Vermont.

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Cautions on Interpretation

The main data source for this report is the National Fire Incident Reporting system (NFIRS). While Vermont fire departments are required by state law to report to the Division, NFIRS is a voluntary system, and it includes data from only incidents reported and entered in the system by fire departments that participate.

Additionally, not all fire departments that report to NFIRS provide complete data or report all incidents. In addition, fire departments that report in one year may not report the following year or report all the months in the year. Thus, NFIRS may not be a complete representative of all incidents that occur statewide in a year.

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The Division thanks all the fire departments who participate in the NFIRS and others who provided information and data that make analysis possible. Their contributions allow us to estimate the size of the fire problem. We are also grateful to the US Fire Administration for its work in developing, coordinating, and maintaining the NFIRS.

Dedication



Deputy Director Joseph Benard

Joe Benard was hired by the Division of Fire Safety in 1999 and retired after 20 years of devoted service on December 20, 2019. Joe started his career as an Assistant Fire Marshal and a member of the Division's Hazardous Material Response Team. Joe was very well respected by the business community and completed a high volume of work with an attitude of helping people. Joe was promoted to Williston Regional Manager in 2011 and was promoted to the Division's Deputy Director position in 2014. Joe worked tirelessly while managing the Division's Fire Investigation Unit, Chairing the Access Board, Elevator Safety Board and promulgating all the rules for adoption through the legislative rulemaking process. Joe's unwavering devotion to the Department of Public Safety made Vermont a safer place. Good Luck Joe, thank you for your many contributions.

IN MEMORY OF



We will never forget

All emergency responders who answered their final alarm in 2019

Vermont had no line of duty Firefighter deaths in 2019.

LOCAL ASSISTANCE STATE TEAM

The Local Assistance State Team (LAST) Program is a collaborative effort between the Department of Justice, Bureau of Justice Assistance and the National Fallen Firefighters Foundation. The Foundation realized that to best assist families and departments who had lost a firefighter in the line of duty – they needed to have trained personnel on the ground and available to help when requested within six hours of death. This could only be accomplished by developing a team of trained responders in each state who could be deployed immediately upon notification of a line-of-duty death.

The National Fallen Firefighters Foundation began training personnel in these functions in October 2006 at the United States Fire Administration campus in Emmitsburg, Maryland, and has continued this training across the country wherever potential team members are available. Funds from the Department of Defense, Bureau of Justice Assistance grant make this vital program possible. No National Fallen Firefighters Foundation donation funds are used to perform any of the LAST functions.



Vermont

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<https://www.firehero.org/>

Photos from the Division of Fire Safety and the National Fallen Firefighters Foundation



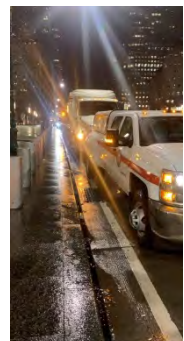
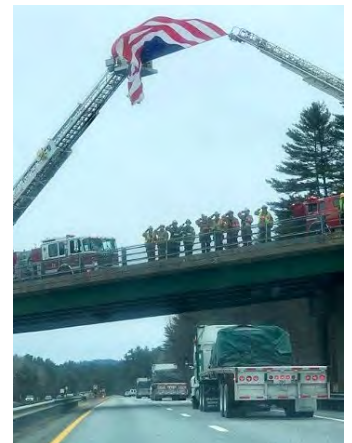
Division Highlighted Projects:

Vermont Firefighters and Fire Marshals Escort the Granite Monoliths for 9/11 Memorial Glade

Construction on the 9/11 Memorial Glade began in fall 2018 to create a dedicated space to honor the ongoing sacrifice of rescue, recovery and relief workers, and the survivors and members of the broader lower Manhattan community, who are sick or have died from exposure to toxins at the World Trade Center site in the aftermath of 9/11. The Glade recognizes the courage, selflessness and perseverance of the men and women of the rescue and recovery effort.

Large blocks of quarried granite were transformed by the Rock of Ages granite manufacturing company in Barre, Vt. into six monoliths, too be installed on the 9/11 Memorial Glade. The monoliths will travel six hours south on flatbed trucks and escorted by Vermont Firefighters and Marshals through the Green Mountains and the rolling hills of New England. When they arrive in lower Manhattan, they will meet a scene of workers assembling a 600-ton crane. This crane will safely swing the monoliths onto the site over the 30-foot oak trees on the plaza.

As the focal point of the 9/11 Memorial Glade, the monoliths' rough edges and large size will honor the challenges faced by those whom the Glade memorializes.



Photos from the Division of Fire Safety team members and the 9/11 Memorial & Museum



State of Vermont Department of Public Safety

The statutory purpose of the Department of Public Safety is to promote the detection and prevention of crime, to participate in searches for lost and missing persons, and to assist in cases of statewide or local disasters or emergencies.

Commissioner, Michael Schirling
Deputy Commissioner, Christopher Herrick

Commissioner's Message

Having served in a variety of roles in public safety, it is an honor to serve in this role as Commissioner. The men and women who serve our communities in the fire service, emergency medical services, and law enforcement help to ensure that the fabric of our State stays strong. Your service, bravery, and dedication are emblematic of the best that Vermont has to offer.

2020 has presented unprecedented challenges with the emergence of Covid-19. I want to take a moment to acknowledge all the work across Vermont in the ongoing pandemic response.

This year's Annual Report of the State Fire Marshal provides important information and data unique to Vermont that will benefit all firefighters. It also helps to inform our strategy as we move forward. Over the past few months and in the coming year we will continue to engage first responders and communities as we chart a path to modernizing public safety operations for the future. Collectively, we face a variety of challenges from recruiting the next generation of service-oriented staff, to training, to information technology. We are working hard to help move forward to address these challenges. Your thoughts and ideas are always welcome.

Finally, I want to extend a special thank you to the entire Division of Fire Safety for their unwavering support of and partnership with the fire service. I'm proud to work alongside them each day.

On behalf of Governor Phil Scott, thank you for the service you provide to our communities and for protecting all Vermonters. Stay safe.

Michael Schirling,
Commissioner, VT Department of Public Safety



Division Executive Director's Message

The Division of Fire Safety publishes the Report of the State Fire Marshal annually. The report is a statewide statistical analysis capturing fire and emergency incidents, fire prevention, code enforcement, fire investigation, fire service training, urban search and rescue, and hazardous material response. Information contained in the report is designed to provide the fire service, municipalities, and others with valuable insight and perspective on the impact fire has on the State of Vermont and the nation. Data collected is evaluated and may necessitate adjustments in our fire safety public education efforts, code enforcement, building inspection, licensing, certification, fire service training, fire investigation, resource allocation, establishing priorities and recognizing the need to modify our Vermont Fire and Building Safety Code.

In 2019, Michael Schirling was named Commissioner of Public Safety following the departure of Thomas Anderson, who relocated to Washington D.C. to pursue a teaching career. Commissioner Schirling has vast knowledge and experience and recognizes the many challenges facing first responders and has been extremely supportive. The Commissioner is focused on modernization so we can improve our delivery of services to our constituents in a more efficient and effective manner.

This report contains critical data from 41,660 individual emergency incident reports submitted by local fire departments throughout Vermont using the National Fire Incident Reporting System (NFIRS). In 2019, 68% of the fire departments in Vermont participated in NFIRS reporting, Vermont fire departments respond to an average of 3,000 emergency calls a month. The report provides a summary of fire loss, civilian fire injuries, fire fatalities, causes of fire, fire investigations, fire facts, fire service training programs, hazardous material response activities, public education and an overview of the Division of Fire Safety's code enforcement program.

Based on evaluating fire loss information and identifying specific trends, the Division of Fire Safety will reallocate resources and implement changes to existing programs to better protect those whom we serve, while still maintaining programs and services that continue to be extremely effective.

Division staff continue to work hard at accomplishing our mission of protecting the public and the fire service with coordinated efforts in code enforcement, fire service training, fire investigation, public education, hazardous materials response, urban search and rescue, and incident investigation, thereby reducing the loss of life and property due to fire and other emergencies in the State of Vermont.

Through legislation in 2019, we gained authority to permit and inspect Hemp Extraction Processes in a building in which two or more persons are employed, or occasionally enter as part of their employment, and where the associated extraction of plant botanicals utilizing flammable, volatile, or otherwise unstable liquids, pressurized gases, or other substances capable of combusting or whose properties would readily support combustion or pose a deflagration hazard.

The significant gains we have made would not be possible without the hard work and devotion of our staff and support from the Commissioner, Administration, the Legislature and most importantly, the Vermont Fire Service. On behalf of the staff, I would like to thank all of those involved in supporting the mission of the Division of Fire Safety, Department of Public Safety

Michael Desrochers,
Division of Fire Safety, Executive Director

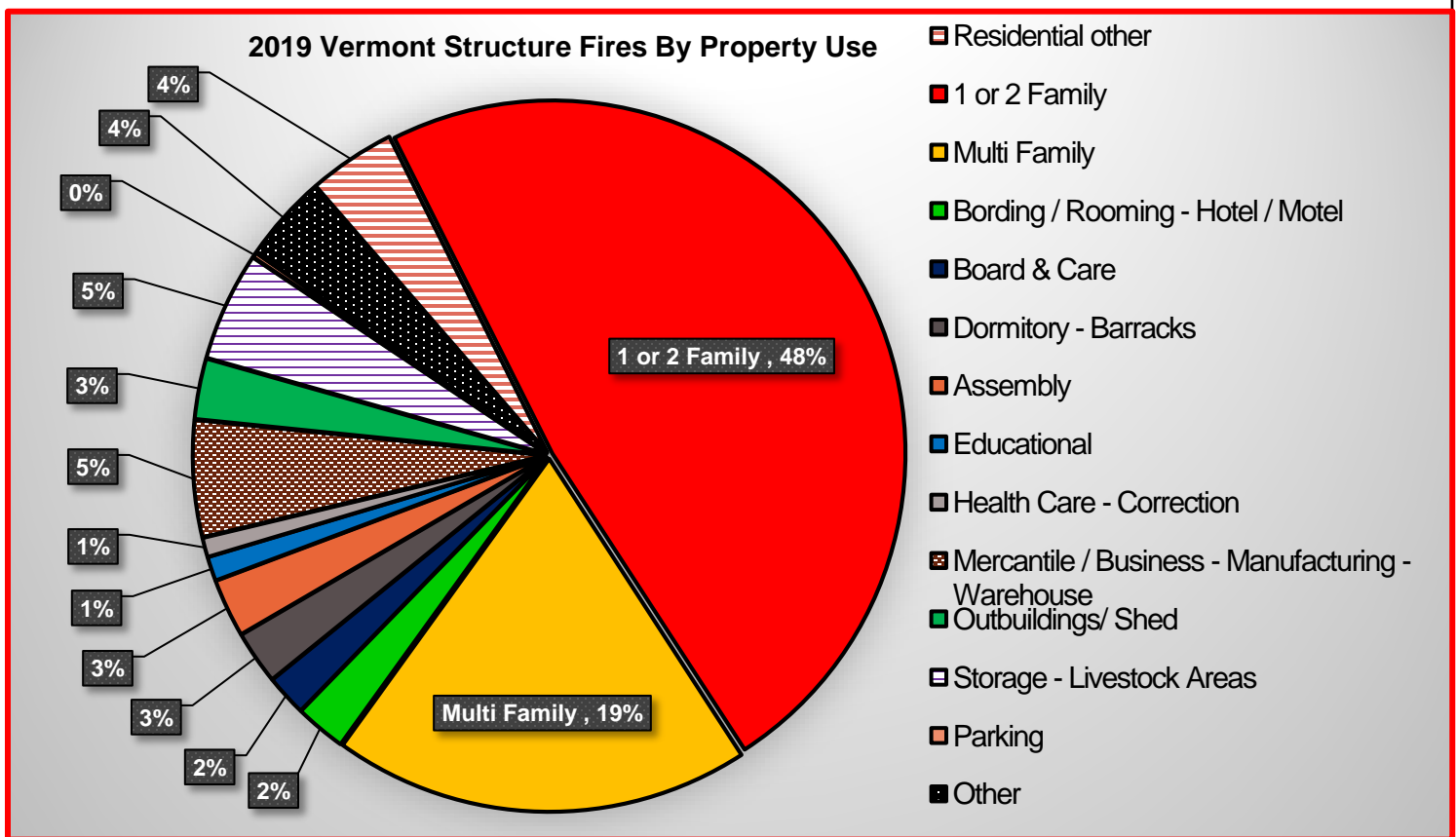


The Impact of Fire in Vermont

During 2019, VT fire departments reported responses to over 41,660 emergency incidents. Residential properties account for most Vermont structure fires and civilian fatalities.

While the fire problem varies across the country, there are several common contributing factors such as poverty, climate, education, code enforcement, demographics and other factors that influence the statistics. Cooking fires and heating appliances continue to be the leading causes of structure fires in Vermont. Unattended cooking was the leading cause of cooking fires and casualties. Almost one-third of the people killed by cooking fires were asleep when the fire started. More than half of the non-fatal injuries occurred when people tried to control the fire themselves.

A leading factor contributing to home heating fires is failure to clean creosote from solid-fueled heating equipment chimneys. The long cold Vermont winters put added stress on heating systems. Furthermore, fluctuating fuel prices can force people to use alternative heating sources that may not be safe. An improperly installed and maintained heating appliance is dangerous and can result in carbon monoxide poisoning or be the source of a fire.

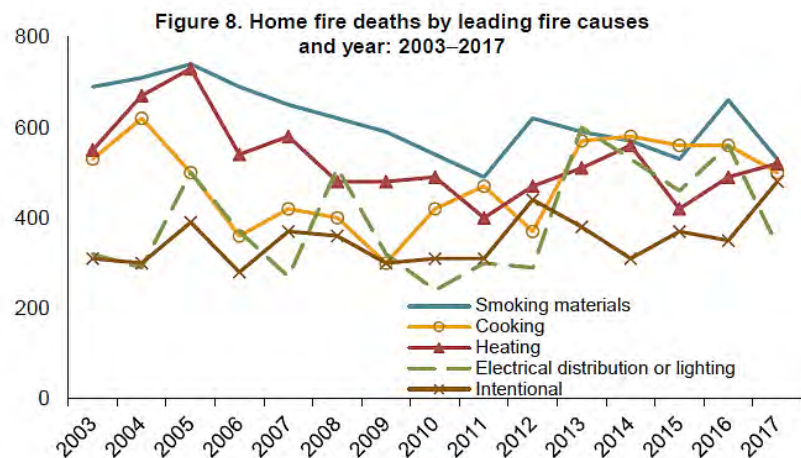


NATIONAL DATA



RESEARCH

National Data Sources – NFPA RESEARCH
Reports: Home Structure Fires / Home Cooking
Fires - Marty Ahrens, 2019

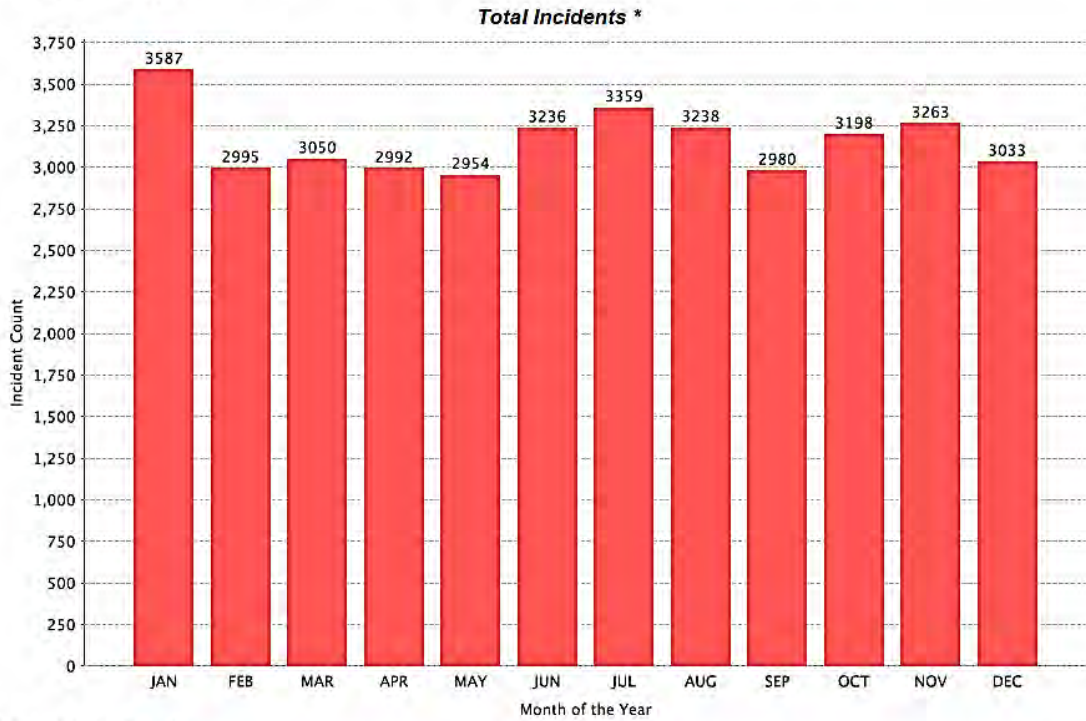


2019 Vermont Incident Data

Incident By Time Series: Month of the Year

Report Period: From 01/01/2019 to 12/31/2019

Incident Total: 37,885



* - No Activity Incidents Excluded.

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NFIRS 5.0 National Reporting System

Mon Mar 30 13:35:53 GMT 2020

Incident By Time Series: Day of the Week

Report Period: From 01/01/2019 to 12/31/2019

Incident Total: 37,885



* - No Activity Incidents Excluded.

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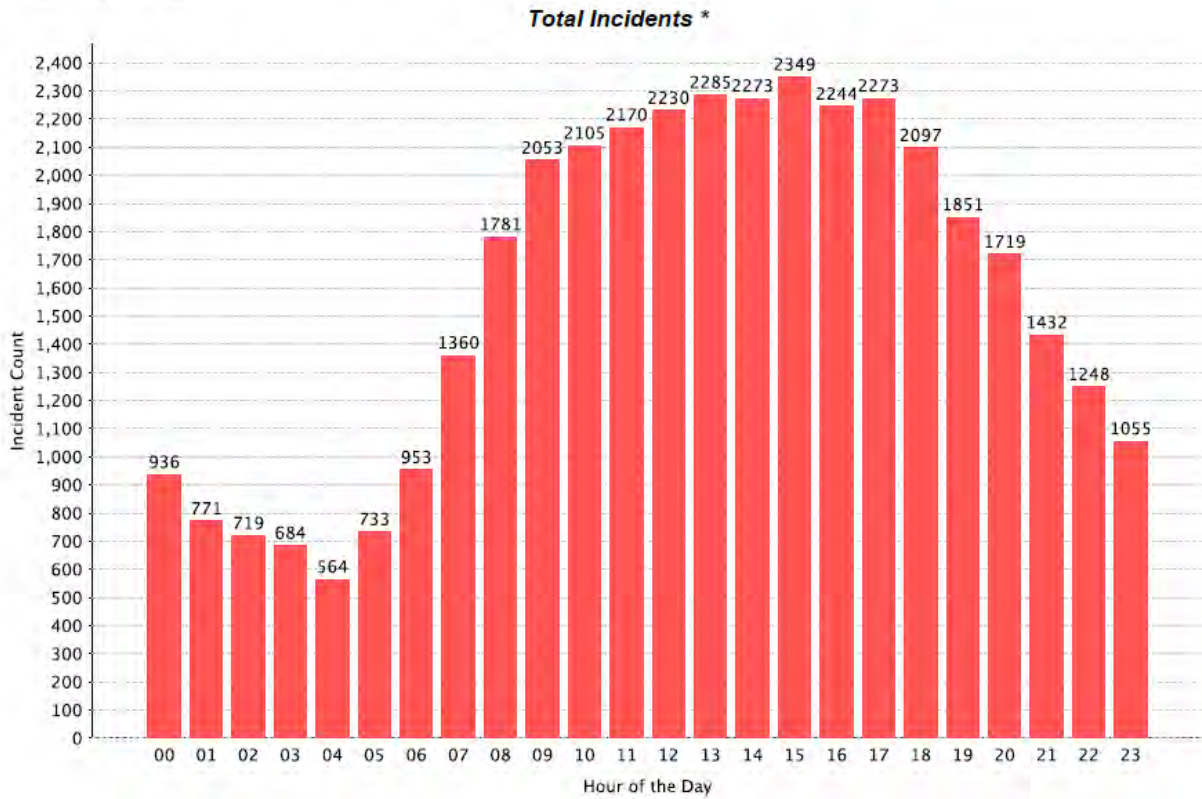
NFIRS 5.0 National Reporting System

Mon Mar 30 13:33:37 GMT 2020

Incident By Time Series: Hour of the Day

Report Period: From 01/01/2019 to 12/31/2019

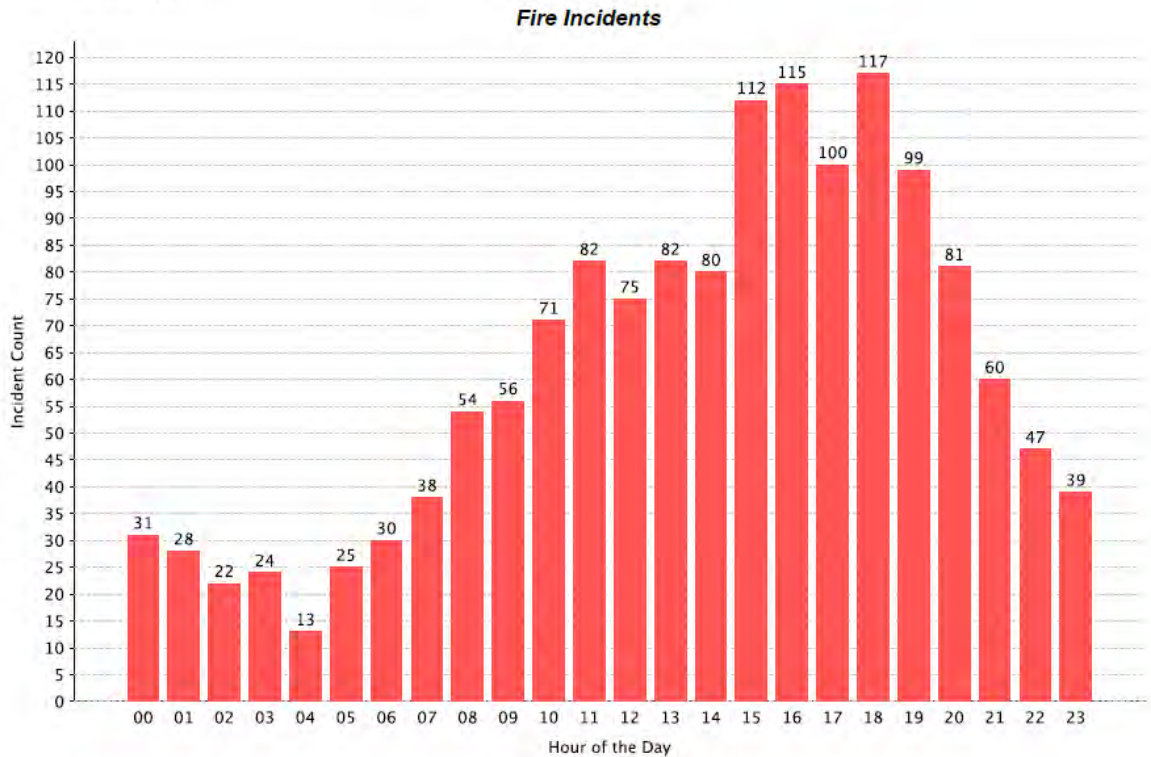
Incident Total: 37,885



Incident By Time Series: Hour of the Day

Report Period: From 01/01/2019 to 12/31/2019

Incident Total: 1,481



Common Statewide Emergency Incident Types

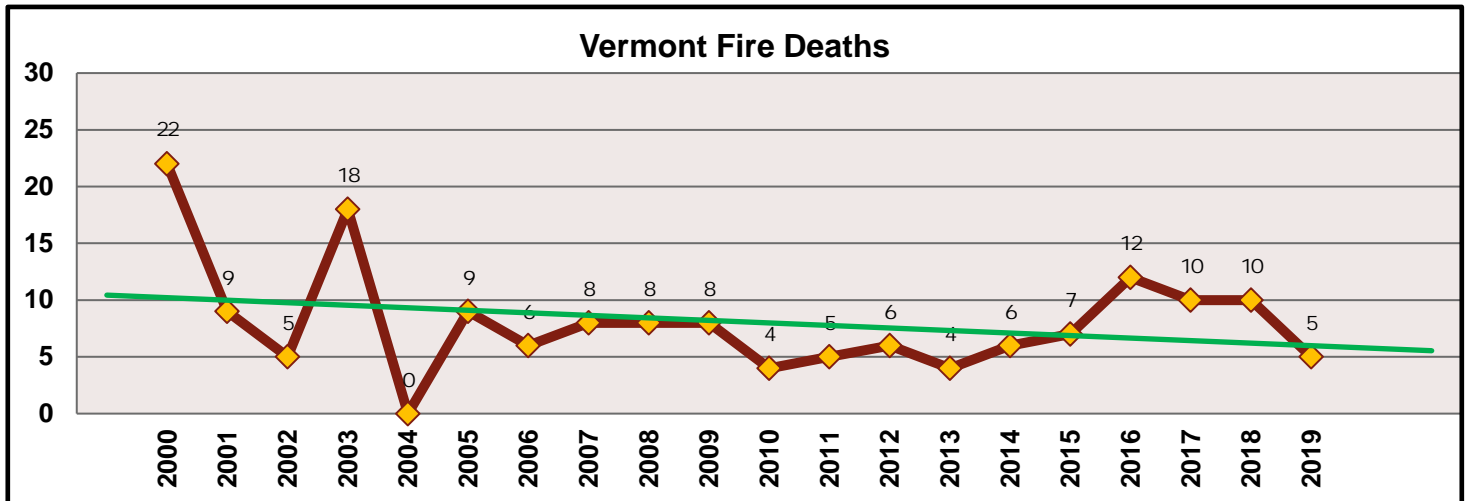
Code	Incident types / Description	2018 Statewide Total	2019 Statewide Total	+ / - From Last year
321	EMS call, excluding vehicle accident with injury	17,638	15,386	-
311	Medical assist, assist EMS crew	1,740	1,785	+
324	Motor vehicle accident with no injuries	1,695	1,743	+
743	Smoke detector activation, no fire – unintended	1,354	1,370	+
322	Vehicle accident with injuries	1,066	1,069	+
745	Alarm system sounded; no fire unintentional	927	1,019	+
611	Dispatched & canceled in-route	972	986	+
733	Smoke detector activation due to malfunction	975	835	-
735	Alarm system sounded due to malfunction	648	756	+
554	Assist invalid	647	735	+
661	EMS call, party transported by non-fire agency	515	533	+
300	Rescue, emergency medical call (EMS) call, other	592	512	-
444	Power line down	604	507	-
463	Vehicle accident, general cleanup	533	485	-
600	Good intent call, other	630	484	-
553	Public service	344	427	+
500	Service Call, other	600	315	-
561	Unauthorized burning	288	308	+
111	Building fires	327	296	-
424	Carbon monoxide incident	352	293	-
700	False alarm or false call, other	331	290	-
113	Cooking fire, confined to container	326	277	-
114	Chimney or flue fire, confined to chimney or flue	222	200	-
353	Removal of victim (s) from stalled elevator	157	153	
911	Citizen complaint	104	102	-
812	Flood assessment	63	92	
142	Brush, or brush and grass mixture fire	126	74	-
900	Special type of incident, other	90	74	-
813	Windstorm, tornado/hurricane assessment	79	39	-
341	Search for person on land	38	42	
542	Animal rescue	34	37	
800	Severe weather or natural disaster, other	45	35	
360	Water & ice related rescue, other	14	20	
351	Extrication of victim (s) from building/structure	24	14	
342	Search for person in water	10	8	
122	Fire in motor home, camper, recreational vehicle.	5	6	
356	High angle rescue	9	4	

VERMONT Fire Deaths

Historically, Vermont has had a disproportionately high per capita fire fatality rate. The chart below shows the number of fire deaths spanning 19 years. Fire safety officials, fire departments and other safety advocates can directly link the overall reduction in fire deaths to numerous prevention efforts.

Although the National and State fire death rate has decreased, the elderly and young children are still the most vulnerable populations. Older adults have a greater risk of fire death than the overall population. In the past 5 years, 51.2% all of Vermont's fire deaths have been seniors over the age of 65.

Although young children are at greater risk of home fire death nationally, it is important to note that in the 13 years before 2017 Vermont did not have a single child fire death.



Incident Date	Age	Gender	Building type	Town
Jan 30	39	M	commercial building housing 30 storage units	WINOOSKI
Oct 19	5	M	single-family home	NORTH HERO
Oct 19	1	M	single-family home	NORTH HERO
Nov. 11	62	F	Apartment.	WINOOSKI
Dec 27	53	M	Roadway	THETFORD

Vermont Fire Deaths by Type of Fire - 5 years

	2015	2016	2017	2018	2019	5 - year Total
Heating Equipment	2	3	0	4	0	9
Cooking	0	0	1	0	0	1
Smoking Materials	0	1	1	1	1	4
Open Flame	1	1	2	0	1	5
Explosion	1	0	0	2	0	3
Electrical	0	1	1	0	0	2
OTHER equipment	0	0	0	0	3	3
Undetermined	2	6	5	2	0	15
Homicide	1	0	0	1	0	2
Totals	7	12	10	10	5	44

Vermont Fire Deaths by Age Fire - 5 years

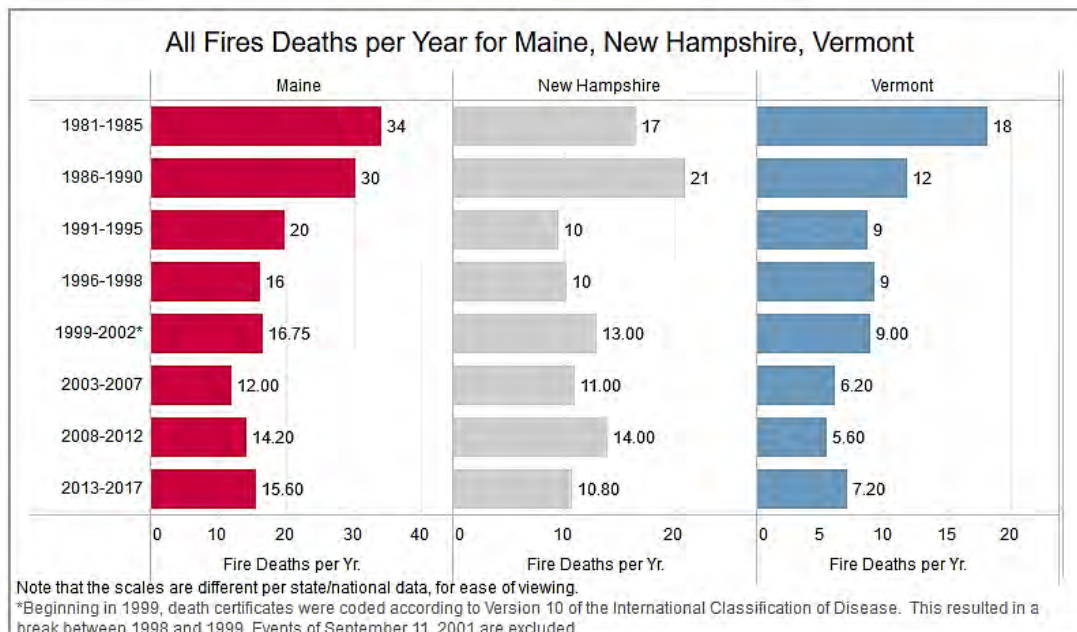
Age group	Age	Deaths	%
Childhood (0 - 12)	Neonatal (0 - 1 mo)	0	0%
	Infancy (2 - 23 mo)	1	2.3%
	Preschool Age (2 - 5)	1	2.3%
	School Age (6 - 12)	1	2.3%
Teen	Adolescence (13 - 17)	0	0
Adulthood (18 +)	Young Adulthood (18 - 29)	1	2.3%
	Thirties (30 - 39)	4	9%
	Middle Age (40 -50)	4	9%
	Middle Age (51- 65)	16	36%
Senior	Aged (66 - 84)	8	18.1%
	Very Old (85+)	4	9%
	Unknown	4	9%
		44	
Male		20	45.4%
Female		22	50%
Unknown		2	4.5%

Common Factors associated with fire death rates

Fire death rates vary considerably by state, with 2012-2016 average death rates per million population ranging from a low of 3.9 to a high of 24.4. The U.S. average was 9.7 deaths per million population.

Higher state fire death rates are correlated with larger percentages of population who:

- ▶ Have incomes below the poverty line;
- ▶ Are adults without a high school diploma or equivalent;
- ▶ Are current smokers;
- ▶ Live in rural areas; and
- ▶ Are either African American or Black, or are Native American or Alaskan Native



RESEARCH

"Compare Fire Death Rates by State" tool nfpa.org

VERMONT CHARACTERISTICS and FIRE FACTS

- Vermont has 230 active fire departments
- Vermont is one of the states that has the largest amount of firefighters and fire departments per capita.
- 68% of all of Vermont Fire Departments reported incidents to the NFIRS in 2019
- Vermont is considered one of the most rural of the United States due to a large percentage of its residents live in communities of less than 2,500.
- Vermont is the second least-populated state in the USA.
- Vermont's housing stock is dominated by older, owner-occupied homes. It is the second oldest in the nation behind Maine. About 44% of the housing stock is comprised of year-round, owner occupied homes built before 1950. A third of all rental and owned homes in the state were built before 1950
- Heat from a fire rises at 90 feet per second or approximately 60 mph and doubles in size every minute.
- Fire has killed more Americans than all natural disasters combined.
- Vermont has the 2nd oldest median age in the nation. 42.6 years
% of Population Over 65: 16.4%
% of Population Under 18: 20.1%
- Vermont is the seventh coldest State in the United States.
- Vermont ranks first in the nation for its per-capita use of wood for heat, with at least one in six Vermont households now using wood products as their primary heating source.
- Over 41,660 Vermont emergency incidents were reported in 2019
- Vermont has almost one half of the total dairy farms in all of New England.
- Chances your household will have a reported home fire in an average lifetime: 1 in 4
- Chances that someone in your household will suffer a fire injury in an average lifetime: 1 in 10
- Households can expect to average a home fire every 15 years or five fires in an average lifetime.

HIGHLIGHTED ISSUE ~ Carbon Monoxide

The Vermont Legislature passed carbon monoxide (CO) alarm legislation in 2005. The law required CO alarms in all buildings where people sleep.

Carbon monoxide (CO) is a deadly, colorless, odorless, poisonous gas. CO is a by-product of incomplete combustion of fuels such as, propane, oil, kerosene, gasoline, charcoal, diesel, and wood. Improperly maintained and installed heating appliances contribute to the risk of CO production in the home.

Carbon monoxide poisoning can mimic flu symptoms such as headaches, dizziness, nausea and fatigue. Higher levels of exposure result in disorientation, drowsiness, unconsciousness and death.

WHEN THE POWER'S OUT, DON'T LET CARBON MONOXIDE SNEAK IN.

CARBON MONOXIDE (CO) POISONING

When the power goes out, the back-up generators kick on—and produce carbon monoxide (CO). CO is an odorless, colorless gas that kills without warning. Keep your family safe by following these steps:

- install battery-operated CO detectors near every sleeping area;
- check CO detectors regularly to be sure they are functioning properly;
- never use portable generators inside a home or garage, even if doors and windows are open; and
- only use portable generators outside, more than 20 feet away from the home, doors and windows.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CARBON MONOXIDE EDUCATIONAL SAFETY MESSAGES

Carbon monoxide (CO) is a gas you cannot see, taste, or smell. It is often called “the invisible killer.” It is created when fossil fuels, such as kerosene, gasoline, coal, natural gas, propane, methane, or wood do not burn completely. CO gas can kill people and pets.

Carbon monoxide (CO) poisoning can result from malfunctioning or improperly vented furnaces or other heating appliances, portable generators, water heaters, clothes dryers, or cars left running in garages.

Choose a carbon monoxide (CO) alarm that is listed by a qualified testing laboratory.

Install and maintain carbon monoxide alarms (CO) outside each separate sleeping area, on every level of the home, and in other locations as required by laws, codes, or standards. Follow the manufacturer's instructions for placement and mounting height.

If you have combination smoke/carbon monoxide (CO) alarms, follow the directions for smoke alarm installation.

Carbon monoxide (CO) alarms are not substitutes for smoke alarms and vice versa. Know the difference between the sound of smoke alarms and the sound of CO alarms.

Test carbon monoxide (CO) alarms at least once a month and replace them if they fail to respond when tested. The sensors in CO alarms have a limited life. Replace the CO alarm according to manufacturer's instructions or when the end-of-life signal sounds

Have fuel-burning heating equipment (fireplaces, furnaces, water heaters, wood stoves, coal stoves, space heaters, and portable heaters) and chimneys inspected by a professional every year.

Vent the exhaust from fuel-burning equipment to the outside to avoid carbon monoxide (CO) poisoning. Keep the venting clear and unblocked.

Never run a vehicle or other fueled engine or motor in a garage, even if garage doors are open. The carbon monoxide (CO) gas can kill people and pets.

If Your Carbon Monoxide (CO) Alarm Sounds Immediately move to a fresh air location outdoors. Make sure everyone is accounted for.

Call 9-1-1 or the fire department from the fresh air location. Remain there until emergency personnel declare that it is safe to re-enter the home.

Excerpts from National Fire Protection Association EDUCATIONAL MESSAGES DESK REFERENCE 2018 Edition



If you need a smoke or CO alarm and can't afford it, or need help installing one, contact your local fire department. The Vermont Division of Fire Safety Fire Safe 802 program and the American Red Cross can also help.

HIGHLIGHTED ISSUE ~ Smoke Alarms and Smoke Detectors

Using Correct Terms for the Different Devices

Excerpt from the January 2019 All Hands Herald published by the Massachusetts Department of Fire Services. www.mass.gov/dfs

The terms “alarm” and “detector” are used interchangeably in discussions and written materials about residential fire protection devices. However, the two terms are not interchangeable. Incorrect references are everywhere: in the laws, the building and fire codes, and even educational materials.

The terms are used incorrectly by the fire service, design professionals, installers and the general public. The terms are also used incorrectly in discussions of carbon monoxide (CO) and heat protection.

What is a Smoke Alarm?

A smoke alarm includes both detection and notification components in a single housing.

Smoke alarms have been a backbone of residential fire protection since they were first mass produced in the mid-1970s. Popular brands of smoke alarms include First Alert, Kidde, NEST, and BRK.

Smoke alarms can be powered by: an integral battery (9 volt, AA, or long life battery), an external AC power supply (AC hard-wired), or both (hard-wired with battery back-up). Smoke alarms can be either single-station (stand-alone) or multiple-station (interconnected with other alarms). All smoke alarms must be tested, and listed, to ANSI/UL 217.

What is a Smoke Detector?

A smoke detector senses the particles of combustion. The detector sends a signal to a household fire alarm system.

A household fire alarm system includes a fire alarm control panel that notifies building occupants of a fire. More popular companies/brands of smoke detectors include ADT, Honeywell, System Sensor, Brinks, and Protection1. All smoke detectors must be tested, and listed, to ANSI/UL 268.

SMOKE ALARM EDUCATIONAL SAFETY MESSAGES

Working smoke alarms save lives, cutting the risk of dying in a home fire in half.

Smoke alarms should be installed and maintained in every home.

Install smoke alarms in every sleeping room, outside each separate sleeping area, and on every level of the home.

Install alarms in the basement. Larger homes may require additional smoke alarms to provide a minimum level of protection.

Install smoke alarms away from the kitchen to prevent nuisance alarms. They should be at least 10 feet (3 meters) from a cooking appliance.

In Vermont Any single-family dwelling when built new or transferred by sale or exchange shall contain photoelectric-only-type smoke detectors

Test smoke alarms at least once a month using the test button.

Make sure everyone in the home understands the sound of the smoke alarm and knows how to respond.

Follow the manufacturer’s instructions for cleaning to keep smoke alarms working. The instructions are included in the package or can be found on the internet.

Smoke alarms with non-replaceable (long-life) batteries are designed to remain effective for up to 10 years. If the alarm chirps, warning that the battery is low, replace the entire smoke alarm right away.

For smoke alarms that do not have non-replaceable (long-life) batteries, replace batteries at least once a year.

If the alarm chirps, replace only the battery

Replace all smoke alarms when they are 10 years old. Replace any smoke alarm that does not respond after a new battery has been installed.

Be sure smoke alarms are installed in all rental housing. Contact your landlord, property manager, or fire department for help.

HIGHLIGHTED ISSUES ~ New Fire Safety Technology

Select the links for additional information



Smoke Alarm Technology - ENHANCED UL SAFETY STANDARDS: UL 217, UL 268

New editions of UL safety standards for smoke alarms and smoke detectors have performance-based technology requirements, enabling products to better distinguish between cooking smoke and that of a potentially life-threatening fire. These enhancements help minimize cooking nuisance alarms, the top reason why people disable their devices.

The next generation of smoke alarms and smoke detector systems that comply with the Enhanced Standards may be equipped with more advanced sensors or use several sensors (multi-criteria) and algorithms that will be capable of distinguishing the difference between a smoldering or flaming fire and cooking smoke. This can be accomplished based on the differences in smoke particle size, quantity, gas concentrations and color between fires and cooking aerosols. Advancements in detector sensor design and software algorithms have made this possible. While it is difficult to eliminate all nuisance alarms, it is anticipated that the next generation products will greatly reduce nuisance alarms due to cooking.



Safe Cooking Technology - ENHANCED UL SAFETY STANDARD: UL 858

Given the nature of fire injuries associated with range top fires, the best way to eliminate these injuries and range top fires is to prevent ignition from occurring in the first place. One way to reduce the frequency of ignition is to design the range top so it will not readily ignite oils, greases and cooking materials. This can be done by limiting range top temperatures, including automatic shut off timers on heating elements that require manual intervention to reset, or other similar means.

For several years now, there has been growing interest in technology that limits the high-end temperature of electric-coil elements. One after-market product has proven to be so effective that it has been installed in more than 250,000 homes and apartment buildings without a single reported cooking fire. It's one reason that appliance manufacturers have been required to meet a new UL standard for all new electric-coil stoves; UL 858 60A requires that all new electric coil stoves meet a minimum cooking oil ignition test.



Home Fire Sprinklers - Fire Sprinklers Protect Your Home and Your Family

Water Mist Systems - Home fire sprinkler systems help to reduce the risk of civilian and firefighter fatalities and injuries, homeowner insurance premiums, and uninsured property losses. Yet—many homes aren't equipped with automatic sprinkler systems often seen in hotels and businesses.

Water mist fire safety technology improves on typical sprinkler systems and is a major part of the future of firefighting. Water simply works, and it's the most common agent used to fight fires today. Instead of large droplets of water, water mist systems send out a fine mist that smothers a fire. Since the droplets are smaller, the mist systems create more of them. The larger surface area of droplets converts water to steam faster. The steam absorbs more heat from the flame, lowering the temperature of the fire, suffocating the fire faster than regular old water.

General Technology - Latest Products and Technologies

At an increasing rate, the fire service is learning to put to use existing technologies such as thermal imaging and positive pressure ventilation techniques, and is anticipating the integration of new innovative technologies, such as tactical decision aids, training simulators, and improved protective clothing.

A new way of looking at things - The NFPA Fire & Life Safety Ecosystem

When it comes to fire prevention and protection, safety is not something we can take for granted. The NFPA Fire & Life Safety Ecosystem™ is a framework that identifies the components that must work together to minimize risk and help prevent loss, injuries, and death from fire, electrical, and other hazards.

There are eight key components in the Fire & Life Safety Ecosystem™. These components are interdependent. When they work together, the Ecosystem protects everyone. If any component is missing or broken, the Ecosystem can collapse, often resulting in tragedy. Almost always we can trace the cause of injurious life safety incidents and tragedies back to the breakdown of one or more components.



Firefighter Deaths and Injuries

Vermont had no line of duty fire fighter deaths in 2019

Firefighter fatalities in the United States

Report: NFPA's "Firefighter Fatalities in the United States - 2018"

Author: Rita F. Fahy and Joseph L. Molis

Issued: June 2019



Firefighter Fatalities in the US - 2018

Rita F. Fahy and Joseph L. Molis
June 2019

Each year, NFPA collects data on all firefighter fatalities in the U.S. that res occurred while the victims were on-duty. The NFPA produces a report of the information. This report analyzes the types of duty associated with firefighter deaths, the cause and nature of fatal injuries to firefighters, and the ages of the firefighters who died.

Report highlights

- The 64 on-duty firefighter deaths in 2018 represents the eighth time in the last 10 years that the total has been below 70.
- There were 25 deaths at fires in 2018, with the largest share in structure fires (13), followed by wildland (10), a vehicle fire and a gas main explosion.
- Sudden cardiac death accounted for about 40% of the on-duty fatalities.
- The number of firefighters struck and killed by vehicles dropped from 10 in 2017 to three in 2018.
- There was one murder of a firefighter on responding to a fire call.

Figure 4
Firefighter Deaths by Nature of Injury - 2018

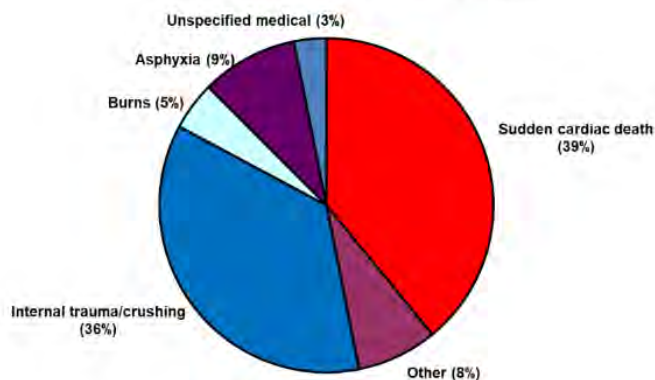
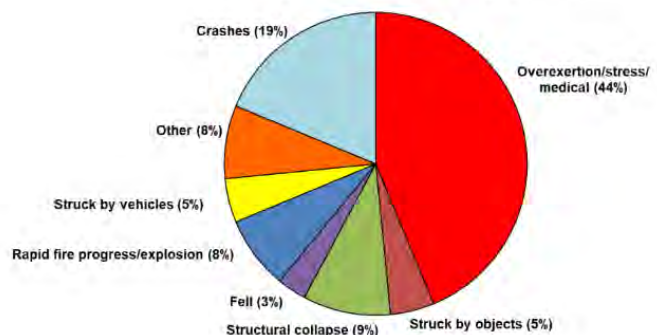


Figure 3
Firefighter Deaths by Cause of Injury - 2018



The [National Fire Protection Association](https://www.nfpa.org) (NFPA) publishes several reports and standards, as well as providing a great deal of information related to firefighter safety issues. Additional details and this full report is available at [NFPA Research, Data and Analytics Division 1 Batterymarch Park Quincy, MA 02169-7471](https://www.nfpa.org)
www.nfpa.org

Firefighter injuries in the United States

Report: NFPA's "United States Firefighter Injuries in 2018"
Author: Richard Campbell, Ben Evarts, and Joseph L. Molis
Issued: December 2019

Firefighters work in varied and complex environments that expose them to a number of potential hazards. Each year, the NFPA studies firefighter deaths and injuries to provide national statistics on their frequency, extent, and characteristics.



Report Highlights

An estimated 58,250 firefighter injuries occurred in the line of duty in 2018, a decrease of one percent from the 2017 injury total.

In addition to injuries, there were 6,175 documented exposures to infectious diseases and 47,150 exposures to hazardous conditions.

Firefighters were more likely to be injured at fireground operations than other types of duties. In 2018, 22,975 injuries, or 39 percent of all reported firefighter injuries, occurred at the fireground.

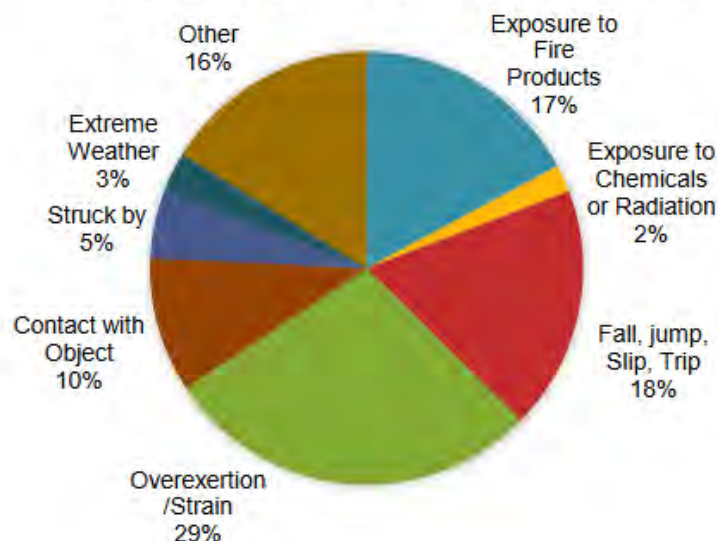
The leading cause of fireground injuries was overexertion or strain (28 percent).

Strain, sprain, or muscular pain injuries accounted for nearly two of five (38 percent) injuries on the fireground.

Non-fireground injuries included 4,150 injuries while responding or returning from an incident; 8,175 injuries incurred during training activities, 11,625 injuries at non-fire emergency incidents, and 11,325 injuries during other on duty activities.

In 2018, an estimated 14,425 collisions involved fire department emergency vehicles responding to or returning from incidents.

Figure 5. Fireground injuries by cause, 2018



The [National Fire Protection Association](https://www.nfpa.org) (NFPA) publishes several reports and standards, as well as providing a great deal of information related to firefighter safety issues. Additional details and this full report is available at [NFPA Research, Data and Analytics Division 1 Batterymarch Park Quincy, MA 02169-7471](https://www.nfpa.org)
www.nfpa.org

Insurance Companies Reported

Dollar Loss from Fire

Dollar Loss from Fire -

The National Fire Incident Reporting System (NFIRS) provides a large amount of information on fires and other types of incidents fire departments respond to, including causes of fire, property loss, injuries and death. NFIRS provides the big picture however, more specific information on property loss is obtained separately through a survey of insurance companies.

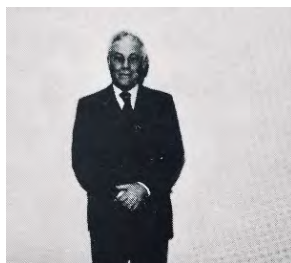
The NFIRS and insurance company data compiled in the table is for 2012 through 2019 and reflects the significant impact of the property loss in Vermont. What the figures don't show is the additional loss in wages to employees who are out of a job after a fire, the loss in tax revenues to municipalities when a building is burned, the loss of business in a community when a business is forced to close after a fire or the cost of health care for the treatment of fire and burn injuries.

Year	Fire Departments Reporting	Fires Reported	Estimated Dollar Loss by Fire Departments	Insurance Companies Reporting/ Total	Fire Claims Reported	Reported Dollar Loss by Insurance Companies
2012	194	2,233	\$ 17,840,192	860	839	44,510,095
2013	194	2,116	\$ 26,485,951	615	878	50,911,724
2014	228	2,114	\$ 30,412,139	615	1,130	50,589,356
2015	230	2,198	\$ 25,112,224	606	939	45,574,673
2016	228	3,138	\$16,919,906	644	706	57,098,292
2017	172	2,458	\$ 21,029,493	615	1,104	54,359,205
2018	170	1,708	\$ 22,628,798	611	844	57,204,711
2019	157	2,302	\$ 21,511,729	Data not currently available		

2.



PUBLIC FIRE EDUCATION COMMITTEE
Ted Hopkins, Joan Schermerhorn, Chairman; Robert Howe, Larry Wade, George Gibby



DEPT. OF LABOR AND INDUSTRY
Director Richard Jones
Fire Prevention Division



FIRE PREVENTION FIELD STAFF
Front row: Robert Patterson, Michael Schmitz, Glenn Smith, Mark Smith, Frederick Myers. Back row: Robert Howe, Field Supervisor; Philip Allaire, Bruce Martin, Robert Mackin. Missing: Richard Baldwin, Gordon Greene, Richard Jones, Fire Prevention Director.



FIRE PREVENTION PLAN REVIEW STAFF
Front row: John Vergin, Plan Review Supervisor; Howard Hill. Back row: Stanley Baranowski, Jeffrey Limoge.



1947 - Governor Ernest W. Gibson - Created the Dept. of Public Safety. He wrote "Since this improvement is desperately needed; it just seems common sense to go one more step--enlarge the powers of these officers"

The first public safety Headquarters was established February 9, 1948 at Redstone building in Montpelier.

1950 - 377,747 people in Vermont

1955, the steamboat Ticonderoga, was moved two miles overland from Lake Champlain to Shelburne Museum in a remarkable engineering effort that stands as one of the great feats of maritime preservation.

1960- The state starts to adopt national standards

1962 - Essex Junction - VT - One of first "known" Haz-mats incidents in the state occurred. Truck carrying Vinyl Acetate rolled and caught fire on route 2A. Fire fighter Ralf Preston of the Essex Junction fire dept and 1 Civilian were badly burned in the incident when the truck exploded.

1964- Last towns in Vermont received electricity - Victory, Granby and Jamaica

1967- The Vermont legislature created the Department of Labor and Industry, which succeeded the Department of Industrial Relations and assumed enforcement responsibilities for occupational health and safety building inspections and boiler inspection programs.

1969 - The state efforts to establish a statewide electrical code and license electricians

1970 - The Fire Prevention Division in Public Safety was abolished, and its functions transferred to the Department of Labor and Industry. initially the fire and building codes enforcement was under the division of occupational safety and health. Investigation of suspicious fires in the State was keep in the department of public safety. Richard Jones is appointed as director of fire prevention division.

1972 - 1970 NFPA 101 Life Safety Code & 1967 American Insurance Association National Building Code adopted

1974 - The U.S. Fire Administration and its National Fire Academy are created by the National Fire Prevention and Control Act.

1975 - 1973 NFPA 101 Life Safety Code & 1967 American Insurance Association National Building Code adopted

1977 a state police fire investigation unit organized in the state police

1977 Vermont law has required new construction, additions and alterations in public buildings be accessible to people with disabilities.



1976- Robert Howe joins the department after 7 years with AOT. He serves as field supervisor, fire prevention director, chief fire prevention officer, and deputy director of the division of fire safety. Bob retired in 2010 with 44 years of state service





L-R: Paul Cerutti, Fire Prevention Safety Officer; Brad Charron, Fire Prevention Safety Officer; Robert Mackin, Regional Manager; Esther Meyer, Secretary; Ken Pease, Fire Prevention Safety Officer; Joe Rutledge, Electrical Inspector; Bruce DeForge, Electrical Inspector. Missing: Robert Howe, Director; Glenn Smith, Assistant Director; Robert Hood, Plumbing Inspector; Linda Kemp, Secretary; Bruce Martin, Fire Prevention Safety Officer.



Front Row L-R: Richard Schlieder, Chief Electrical Inspector; Walter Lanzelin, Fire Prevention Safety Officer; D. Kirk Israel, Regional Manager. Back Row L-R: Robert Kilpeck, Fire Prevention Safety Officer; Leslie Jones, Senior Electrical Inspector; Christina Tuzzo, Secretary; Robert Schlachter, Senior Fire Inspector.



1981 - Construction starts on the training center in Pittsford with the setting of the poles for a training tower. The work is performed by countless volunteers and the 368th Engineers Co. an US Army Reserve unit from Rutland.

In 1982, Vermont had a fire death rate of 48 per million of population and in 1983 a fire death rate of 57 per million; both years were the worst in the nation.

1983- The State of Vermont established fire department reporting in Vermont using the NFIRS program by the US Fire Admin.

1983 - The 1981 BOCA building and fire prevention codes are adopted

1984 - Walter B. Read retires as training supervisor after 26 years of service. Ray Davison is appointed as interim supervisor of fire service training program. Gorge Gibby serves as the asst supervisor

1984 The Vermont Arson Tip Award Program was formed by the insurance and banking industry as a nonprofit association. The main objective was to solicit public feedback and identify fire setters.

1984 Cpl. Thomas Mailhot of the dept of public safety fire investigation unit presents the "magic of fire safety" show to audiences around the state

1985 A hazmat committee is formed

October 9, 1986- the Vermont Fire and Burn Prevention Council Established by Executive Order.

1987 A field office is established in Pittsford

1987- The first annual Vermont Fire and Burn Conference held in Rutland

On May 3, 1988 Governor Madeleine M. Kunin signed into law S-83 creating the Vermont Fire Service Training Council.

1990 the fire prevention has 44 fulltime employees

1991-Vermont was one of the first states to require technical training for people working in the gas industry

1991 - The fire safety calendar program established by Robert Howe

1993- The creation of an official state Hazmat team with a full time chief. Chris Herrick is appointed as chief

1993 - Smoke Detector law adopted requiring smoke detectors to be installed in single-family dwellings.

1994 -The first Vermont fire safety house is purchased with the assistance of REM Development Company, Vermont Domestic Insurance Association and Vermont Fire Service groups.



Front Row L-R: Michael Desrochers, Fire Prevention Safety Officer; Teresa Wells, Secretary. Back Row: John Vergin, Chief of Plans Review; Robert Patterson, Regional Manager; Richard Baldwin, Fire Prevention Safety Officer



Front Row L-R: Michael Schmitz, Regional Manager; Deveney Clifford, Secretary; Charles Frank, Fire Prevention Safety Officer; David Luce, Electrical Inspector; David LaPlante, Fire Prevention Safety Officer. Back Row L-R: Frank Garaffa, Fire Prevention Safety Officer; Patricia Waring, Apprenticeship Division; Rene Garceau, Boiler Inspector; Raymond "Mark" Hickey.



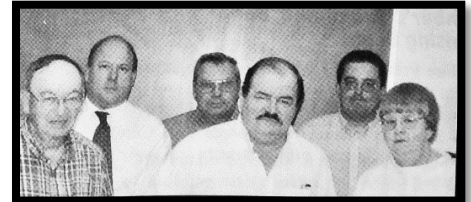
PUBLIC FIRE EDUCATION COMMITTEE

Joan Schermerhorn, Charles Taylor, Randy Cary, Jeanne VanVlandren - Commissioner, Dept. of Labor & Industry; Larry Wade, Teresa Deen and Robert Schlachter. Missing: George Gibby



VERMONT ARSON TIP AWARD PROGRAM
1 800-32-ARSON





1994 National Fire Protection Association (NFPA) 1 fire prevention code first adopted

1997 Fire Prevention and Building Code Compliance for Historic Buildings: A Field Guide was published

1998 Jan 8-9, The US Northeast and Canada were hit with a severe ice storm and at least 16 people were reported killed. Millions of people were left without power.

2000 -Wayne Babcock Executive Director of Vermont Fire Service Training retires after 13 years of service. James Litevich is hired as training director.

2001 - Benefits for The Survivors of Emergency Personnel law adopted

2001 Apr 9, A train derailed over the Connecticut River and some 2,000 gallons of diesel fuel were released.

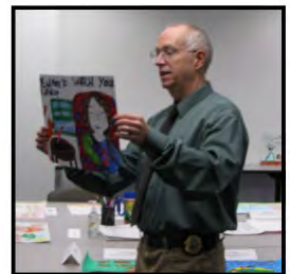
2001-The Fire Prevention Division received a 2nd FIRE SAFETY HOUSE

2003 - Accessibility Standards for Public Buildings and Parking adopted

2003 - The Public Safety Memorial located at the Vermont Police Academy in Pittsford was dedicated

2003 - The population of Vermont is 610,000.

On June 1, 2004, Governor Douglas signed Act 141 (House bill 754) into law creating a new division of fire safety within the Department of Public Safety. The staff and programs of the Fire Prevention Division, Department of Labor & Industry, including the electrical and boiler inspectors, will be combined with the people and programs currently under the Fire Service Training Council, to make up the new Fire Safety Division Retired Hartford Fire Chief John Wood is appointed director of the new division.



Executive Director Chief John G. Wood Jr. was appointed Executive Director in 2004 and was tasked with forming a new fire safety division.

Wood had a long honorable fire service career before coming to the division he was the Chief of Hartford Fire Department. Over the years he served in several positions including Char of the state hazmat committee and was the driving force behind forming the Vermont Fire and Rescue Coalition.

He also served many years as a state instructor and Secretary/Treasurer of the New England Division of the International Association of Fire Chiefs. Director Wood was promoted to Deputy Commissioner of the department of Public Safety in March of 2011.



2005 – Carbon Monoxide alarm law adopted

2006-Vermont became the second state in the country to require that all cigarettes sold in Vermont meet the criteria for fire standard compliant (FSC) cigarettes, also called fire-safe cigarettes.

2008- the Vermont legislature improved public safety by requiring photoelectric smoke alarms be installed in new single-family dwellings, and dwellings that are sold or transferred,

2006- Aug 24, In Essex, Vermont, Christopher Williams (26) shot and killed 2 people after breaking up with his girlfriend he then went to Essex Elementary School where he killed teacher Mary Shanks (56) and wounded 2 others.

2009- The construction of the new administration / classroom building in Pittsford

2010 – A live fire training burn building, at the Vermont Technical College in Randolph is built

2010 –A new fire investigation team is formed that brings together the strengths of both the Division of Fire Safety and the Vermont State Police to address the issues identified in fire investigation.

2011 - Vermont witnessed a series of natural disasters of historic magnitude, ranging from heavy snow to severe flooding to high winds. The first significant severe weather outbreak of the season occurred in May with devastating flash flooding across portions of northern Vermont. It also led to historic flooding along Lake Champlain that turned into a long duration event. In August Hurricane/Tropical Storm Irene moved across the Connecticut River Valley of Vermont Irene delivered copious amounts of rainfall which produced deadly record flooding resulting in several deaths and historical road, home, and infrastructure damage. flooding isolated entire towns in Vermont and New York, some communities warily watched swollen rivers and more than a million people from Virginia to Maine lacked electricity, three days. Aug 31, Vermont emergency airlift operations brought ready-to-eat meals and water to residents left isolated from Hurricane Irene.

2012 - The division is recognized for the work performed during Hurricane Irene

2012 - Vermont Fire & Building Safety Code is updated. The primary codes adopted include: The Uniform Fire Code, NFPA 1, the 2012 edition, The Life Safety Code, NFPA 101, the 2012 edition The International Building Code, IBC, the 2012 edition

2013 – John Vergin is honored for his 50 years of service to the state of Vermont

2014- Dec 13, In Vermont over 10,000 utility customers were without power for three days after a storm pounded the state with heavy snow.

2015, the Division of Fire Safety created a new USAR response capability including the consolidation of urban search and rescue assets and the hiring of USAR Response Technicians

2015 NFPA reports: Vermont fire departments responded to over 45,763 incidents as reported in NFIRS.

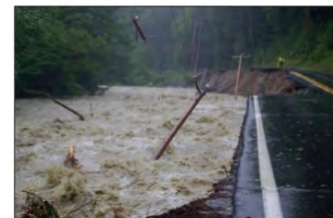
- Fires caused an average of 5 Vermont deaths per year in 2011-2015.
- Vermont sees a 70% decrease of fire deaths from the 18 per year in 1981-1985.
- Over the last 4 years 68% of Vermont's fire deaths have been seniors over the age of 60.

The reduction in fire deaths is contributed to the prevention work of the division and fire departments around the state.



Executive Director Chief Michael O'Neil was appointed Executive Director in 2011 after John Wood was promoted to Deputy Commissioner of Public Safety.

Before coming to the division O'Neil, served as the director for Vermont Emergency Management, the Burlington City Fire Chief, the Chief of South Burlington Fire and Emergency Management Director. He also served as a state instructor and President of the of the New England Division of International Association of Fire Chiefs



Road 100 in Warrenton during Tropical Storm Irene—VEM—Photo by Duane Tompkins



Flooding in Beecher falls—Courtesy of Karen Harrigan the News and Sentinel Colebrook NH





Executive Director Michael Desrochers was appointed Executive Director in 2012. Michael joined the division in 1990. He served on the hazmat team, as fire prevention officer, inspector, regional manager and deputy director. He also served in various positions in the National Association of State Fire Marshals.



In 2015 we marked the 25th year of the State Fire Safety Poster Contest and the State fire safety calendar program. The Division of Fire Safety made special presentations in honor of the 25th Anniversary:



Retired Deputy Director, Robert Howe was honored for his creation and dedication to the calendar program. the program was renamed in his honor. Larry Brown, from L Brown & Sons Printing, Inc., was also honored for years of support and dedication to the program. Larry was presented a plaque of appreciation and a special edition Vermont Teddy Bear.

2015 - Three of the six full time staff members at the Vermont Fire Academy retired during the first six months of the year. Chief James Litevich, Daniel Zimmer, and Eileen McGee, all of whom were senior employees. Michael Skaza, the Program and Training Coordinator was assigned the responsibilities of leading the Fire Academy during the three months that there was no Chief of Training. Peter Lynch is hired as the new Chief of Training.



2015- The 2015 Vermont Fire & Building Safety Code incorporates editions of the NFPA & ICC codes and standards adopted.

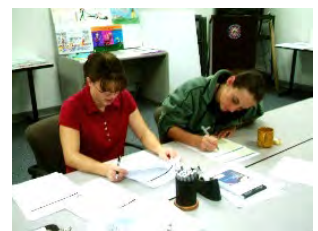
2016- Christopher Herrick becomes the Deputy Commissioner of The Department of Public Safety.

2016- we worked with a team to produce a fire safety video for Vermont farmers.

2017- To meet the operational and resource needs of Vermont's emergency services and to support local governments, the division established special operation response team and its own Fire Safety Emergency Operation Center.

2017 - The USAR Team for the first-time deployed swift water assets out of State. On August 31, 2017, 15 members of the Vermont Task Force One led by Michael Cannon, responded to Texas driving 36 straight hours through shifts. The team arrived back home 11 days later without injury.

2017- The Vermont and New Hampshire Fire Marshal's offices, National Fire Protection Association (NFPA) and the VT/NH Carbon Monoxide Alliance, join forces to present the first ever two-day Fire Safety and Carbon Monoxide Summit.





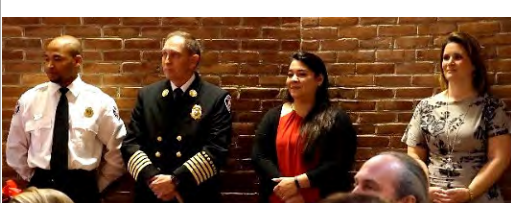
2017 - Fire Academy made two big changes to the Pittsford Campus First, they combined the IT and storage rooms, which allowed space to add a second classroom. The second project was the replacement of the Burn Building. The construction of the twenty-five hundred square foot building began in July and was finalized in November.

2017 - In August 2017, the Federal Emergency Management Agency Assistance to Firefighters Grant Program announced that the Vermont Department of Public Safety - Division of Fire Safety was awarded a 2016 Fire Prevention and Firefighter Safety Grant to develop a new statewide rural home fire prevention and safety assistance program named Fire Safe 802.

2017 - In September, the NH/VT region of the American Red Cross, numerous local partners and community volunteers protected families from home fires through Sound the Alarm events held in Rutland and Williamstown.

2017 - the Vermont rural fire protection task force dry hydrant program celebrates 20 years. Over the period 214 towns were awarded 884 dry hydrant grants.

2018 - In the fall of 2018, the Urban Search and Rescue Team moved into warehouse space in Milton with the division's Hazardous Material Response Team.



Photos from the Division of Fire Safety archives

Division Highlighted Projects:

The Vermont and New Hampshire Carbon Monoxide Alliance

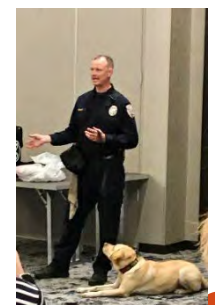
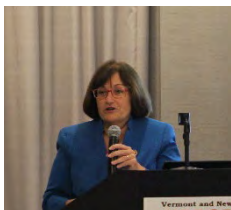


Due to a number of fatal fire and CO incidents in Vermont and New Hampshire, the VT/NH Alliance for Prevention of Carbon Monoxide Incidents (VT/NH Alliance) was established in 2015. The VT/NH Alliance is a unique organization, established to provide a venue for collaborative efforts to address CO issues within fire safety activities in VT and NH. The Alliance is located within the Department of Community & Family Medicine at Dartmouth Geisel School of Medicine with the support of the VT Division of Fire Safety and NH Department of Safety, Office of the State Fire Marshal.

The Carbon Monoxide Alliance is a collaborative effort of many key stakeholders in the VT / NH region. The mission of the VT/NH Alliance is to understand the preventable structural and personal causes of CO and fire incidents in the bi-state region and take actions to prevent future devastating occurrences. The division of fire safety has had numerous personnel actively involved in the work of the alliance.

2019 Fire Safety and Carbon Monoxide Summit

In November, the Vermont and New Hampshire Fire Marshal's offices, National Fire Protection Association (NFPA) and the VT/NH Carbon Monoxide Alliance, hosted the annual two-day Fire Safety and CO Summit with the help of various sponsors. Both days were designed to enhance community risk reduction education and provide information on research and national projects. Effective teaching methods and resources were also covered.





Rules, Codes and Standards

Since 1962 the State of Vermont Division of Fire Safety has adopted nationally recognized safety standards to protect the public. Through this process, Vermont benefits from the research and advanced fire safety experience of experts from across the nation.

The existing 2015 Vermont Fire & Building Safety Code incorporates editions of the NFPA & ICC codes and standards. The Division of Fire Safety amends the national standards only when necessary to address conditions specific to Vermont. Currently the division is in process of reviewing revised editions of the codes for adoption.

Primary Adopted Codes and Standards		
2012 Vermont Fire and Building Safety Code		2015 edition
NFPA 101	Life Safety Code - National Fire Protection Association	2015 edition
NFPA 1	Fire Code - National Fire Protection Association	2015 edition
IBC	International Building Code – International Code Council	2015 edition
NBIC	National Board Inspection Code , - National Board of Boiler & Pressure Vessel Inspectors	2015 edition
Vermont Electrical Safety Rules		2017 edition
NFPA 70	National Electrical Code - National Fire Protection Association	2017 edition
ADA	Americans with Disability Act Accessibility Standards	2012 edition
Vermont Access Rules		2012 edition
ASME A17.1	Safety Code for Elevators and Escalators	2013 edition
ASME A17.3	Safety Code for Existing Elevators and Escalators	2011 edition
ASME A18.1	Safety Standard for Platform Lifts and Stairway Chairlifts	2011 edition
Vermont Plumbing Rules		2015 edition
IPC	International Plumbing Code – International Code Council	2015 edition

If you have any code questions, please contact:

The Regional Office in your area

visit

firesafety.vermont.gov/ContactUS

for contact information

Barre Regional Office 1311 US Rte 302, Ste 500 Barre, VT 05641 Phone: (802) 479-4434	Rutland Regional Office 56 Howe St, Bldg A, Ste 200 Rutland, VT 05701 Phone: (802) 786-5867	Springfield Regional Office 100 Mineral St, Ste 307 Springfield, VT 05156 Phone: (802) 885-8883	Williston Regional Office 380 Hurricane Lane, Ste 101 Williston, VT 05495 Phone: (802) 879-2300
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Licensing, Variance Boards and Committees

Licensed and certified trade professionals play a significant role in protecting Vermonters by following adopted rules and standards and ensuring building equipment and systems are safe. Over the years professionals in the trades have contributed to the reduction of fire related fatalities and injuries throughout the State.

The Division of Fire Safety administers the program for the licensing and certification of construction trade groups to maintain professionals at a high level of technical knowledge.

Trade professionals are required to meet minimum qualifications in their respective field for licenses and or certification renewal including, obtaining continuing education to keep current with code changes and emerging technology.

The Division furnishes administrative and technical support to numerous licensing boards as well as several emergency services committees. Division staff works regularly with representatives of the trade's community and fire and rescue services on current issues, education and licensing matters.

If you have any questions about the program, contact:

The Division of Fire Safety Main Office
1311 U.S. Route 302, Barre, VT 05641-2351
802-479-7561 or 1-800-640-2106



Fire Incident Reporting and Data Management

Fighting Fire with Facts

The National Fire Incident Reporting System (NFIRS) program was adopted in Vermont in 1983.

The NFIRS provides a large amount of information on fires and other types of incidents reported by fire departments. The reports provide the big picture and helps us provide information to decision makers and it helps to justify grants and fire service funding. We call this fighting fire with facts.

Fire reporting by fire departments is required by state law. It is recommended that fire departments submit their data at monthly intervals. If no runs were made during the month, a report of "no activity" should be submitted to the state for the reporting period. Do not wait to send all your reports at the end of the year.

To meet FEMA security requirements for protection of the system. NFIRS includes an automatic user account deactivation and new requirements for passwords. Accounts not accessed in a 60-day period are locked. To be reactivated, you must contact one of the State Program Managers. It is recommended that users' login to the system at least once a month.

Program Contacts

REQUESTS TO RESET AN ACCOUNT

Your VFIRS account will become inactive if you don't use it regularly. To request a re-set please send an e-mail. **contact**

Maurice VanDemark
Maurice.Vandemark@vermont.gov
Phone: 802-479-7565

Technical Assistance & Training

The state program managers provide technical assistance, user training

Stanley Baranowski
802-479-7575 stanley.baranowski@vermont.gov

Michael D. Greenia
802-479-7587 micheal.greenia@vermont.gov



Fire and Building Safety Services

Code Enforcement & Plan Review

Most Vermont towns do not have a fire marshal/building inspector to conduct life safety building inspections in public buildings. The Division of Fire Safety reviews plans and issues State building permits. Every attempt is made to issue permits in a timely manner (within 30 days). We work collaboratively with the business community and try to find ways to ensure the plans we receive have adequate information to assist us in expediting our plan review process.

Inspections and code enforcement activities help us validate that structures have been built in compliance with nationally adopted building standards. Pre-construction meetings are often held to ensure the proposed project is on the right track for permitting and errors are caught in the design phase avoiding costly mistakes or delays in permitting.



Statistics		
	2018	2019
Construction Permits issued	2,846	2,615
Electrical Inspections	5,550	5,969
Plumbing Inspections	1,166	1,857
Field Reviews	1,130	1,248
Fire/Building Inspections	6,169	6,401
Total	16,861	18,090

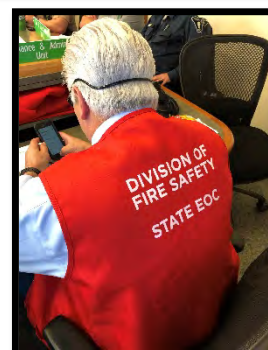
Division of Fire Safety Special Operations

To meet the operational and resource needs of Vermont's emergency services and to support local governments, the division established special operation response teams to assist in rapid building inspections to evaluate buildings for structural integrity.

The Division's Special Operations section works in support of Vermont Emergency Management with emergency/disaster response. The Division is currently reviewing and updating its State Emergency Response Plan to enhance our efforts in responding to emergencies and supporting VEM and our local first responders.

The Division has established its own Emergency Operation Center that will play an integral role in future responses. Creating our own EOC has allowed us to effectively communicate and assemble response resources quickly. The Division is also active in community-based outreach programs aimed at educating our municipal partners about our resource capabilities. This new initiative was tested and proven to be very successful.

The Division looks forward to working with and assisting our state and municipal partners in the future. Being better prepared and planning for emergencies makes Vermont a safer place.



To request DFS special operations response or other assistance after hours contact the VT Emergency Management Watch Officer at 1-800-347-0488

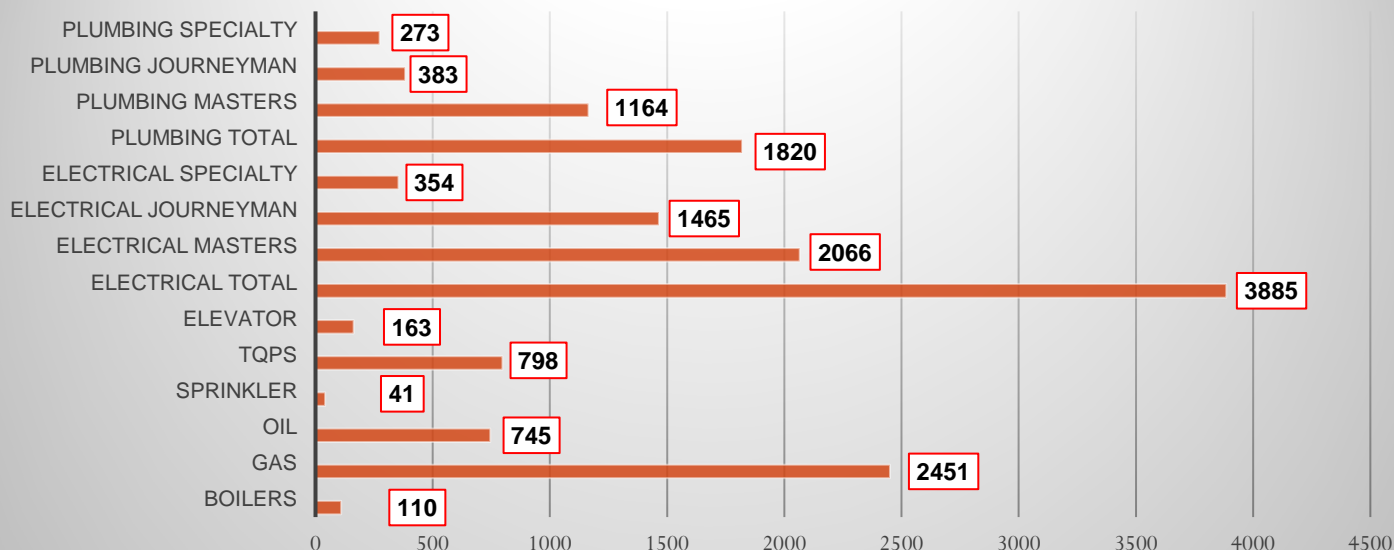


Licensing and Certification

Licensed and certified trade professionals play a significant role in protecting Vermonters by following adopted rules and standards and ensuring building equipment and systems are safe.

Vermont Licenses and Certification Types		
Electrical	Master, Journeyman, Specialist	Certified Professionals / Technically Qualified Person (TQP) T 1 Fire Alarm T 2 Fire Suppression T 3 Fire Sprinkler I 3 Fire Sprinkler Designer I 4 Fire Sprinkler Designer T 4 Chimney Sweeps T 6 Emergency Generators T 8 Domestic Fire Sprinkler Systems O B NORA Oil Bronze Cert O S NORA Oil Silver Cert G N Natural Gas L P Propane Gas G B Natural / Propane Gas
Plumbing	Master, Journeyman, Specialist	
Elevator	Inspector, Mechanic, Lift Mechanic	
Boiler	Commissioned Inspector	

Vermont Licenses and Certification 2018



For Assistance With :
All Electrical, Plumbing, Elevator Licenses
T1, T3, I3, I4, T8 TQPs
 Please Contact

My-Lanh Graves
 Central Office - Licensing Specialist
 802-479-7564 My-Lanh.Graves@vermont.gov

For Assistance With :
T2, T4, T6, TQPs
OB, OS All Gas Certifications
 Please Contact

Debbie Moulton
 Springfield - Regional Assistant
 802-885-8883 debra.moulton@vermont.gov



Annual Report from Fire Academy

Peter Lynch Vermont Fire Academy - Chief of Training

It is the mission of the Fire Academy to meet the educational needs of Vermont fire service responders through training and professional development, with the intent of reducing loss of life and property due to fire and other emergencies. We strive to incorporate the latest developments in fire science and emergency operations to all training. As the demands of the fire service grow and the number of available firefighters shrink, it is critically important that we take care of Vermont's firefighters through proper training and fitness. To that end, safety, health, and wellness of the fire service took center stage at the Fire Academy in 2019.



Firefighters have a 14% higher risk of dying from cancer than the general U.S. population. Our social media platform featured cancer control tips throughout the month of April to educate firefighters on the steps they can take to mitigate the risks of cancer. These are either simple steps that can be taken individually or suggested policy and procedure changes that can be implemented on a department level. The response from the fire service was very positive with one post receiving 16,000 views.

The Vermont Fire Academy is further reinforcing the importance of firefighter cancer prevention by launching a new program to be used at all live fire exercises. Each student participating in a live fire exercise is provided a distinct orange plastic bag. Following their participation in live fire exercises, all contaminated personal protective equipment is to be sealed in the plastic bag to prevent the spread of contaminants while transporting their equipment in their vehicles after training. Each student is also provided an information card to attach to the plastic bag which provides valuable information on the importance of performing gross decontamination of their gear, keeping contaminated gear isolated, and properly washing their gear after each exposure. Additionally, we will be providing decontamination wipes to all of our students and instructors at live fire exercises to reduce the absorption of contaminants through the skin during the training exercise. Our hope is that this message and these simple practices will be carried back to their home departments and benefit many other firefighters as we educate them on how to decrease their risk of cancer.

To further support cancer awareness, the Vermont Fire Academy has been awarded a "Fire Service Occupational Cancer Regional Seminar" by the First Responder Center for Excellence, which is a National Fallen Firefighters Foundation Affiliate. We were selected as one of only nine venues where this seminar will be delivered nationwide and we are proud to have been selected as a regional host. This event will be held at the Vermont Fire Academy on June 20, 2020 and be delivered by nationally recognized experts in firefighter health and safety.

Hypertension is a significant contributing risk factor to sudden cardiac death in firefighters, which is the leading cause of line of duty deaths. To take a proactive approach to firefighter health and wellness, we have started a blood pressure screening program in all our Firefighter Programs where students have their blood pressure checked by one of our qualified rehabilitation officers. Near the start of a program students who are found to have high blood pressure are given educational information on how to control their blood pressure and where necessary, we recommend that they seek medical care from their primary care provider. Our first screenings clearly showed evidence that there is a need for testing and continued education.

Other examples of our commitment to firefighter health and safety include the revision of training ground rehabilitation and medical monitoring guidelines. We have also purchased additional medical monitoring equipment, weather stations to measure temperature and humidity, and other equipment to support body cooling and warming. Our instructors have also attended Exertional Heat Awareness training and for the first time in memory the Fire Academy postponed a live fire training because of the extreme heat and humidity.

Often forgotten in firefighter fitness discussions is the need for mental health wellness. Last year there was an incredible amount of work completed at the Fire Academy and throughout the state to address mental health awareness, responder mental health training, and access to treatment. A responder wellness group was established to tackle these topics. The group held a responder wellness conference that more than 200 people attended.

There is now a responder wellness bill that is being considered by the Legislature to support the mental health and wellness of all responders in the State. The Fire Academy will continue to enhance our trainings to address this important issue.

In addition to responder health and safety initiatives the Fire Academy Staff and Instructors have been working to stay in line with our Strategic Plan. We have developed and initiated a five-year work plan that is based on the Strategic Plan. Some of the items in that work plan that were completed in 2019 are, Rapid Intervention Crew course development and delivery, Rope Operations program updates and Pro Board certification, Entry Level Exterior Firefighter course development and handoff to local departments, Training Council Rules updates, formal instructor development training, the development of instructor performance evaluations, securement of funding for curriculum development, and increased course delivery through grant awards.

The Fire Academy Staff and Instructor group will continue to provide the training that you expect, and to find new ways through training to keep firefighters safe and healthy. We will never know how many line of duty deaths have been prevented or how much life expectancy has been extended through these initiatives. However, we will see great benefit from uninterrupted emergency scenes due to healthy firefighters performing the appropriate skills that were received in solid foundational trainings provided or sponsored by the Vermont Fire Academy.

While great work was accomplished in 2018 by the Fire Academy Staff and Instructors, there is much more to be done. We will continue to look at ways to improve and look forward to feedback from you in order to make this happen in a way that positively effects the entire Vermont Fire Service.



2019 Statistics		
Course Name	Courses Held	Student Completion
Firefighter I	4	62
Firefighter II	1	12
Firefighter I/II	3	56
Modern Fire Behavior	9	149
Hazardous Materials	14	241
Technical Rescue	0	0
National Fire Academy	7	79

Total Number Firefighters Certified	
Level	Total
Firefighter I	3,654
Firefighter II	1131
Fire Officer I	87
Fire Officer II	178
Fire Instructor I	343
Fire Inspector I/II	9
Driver Operator - Aerial	43
Driver Operation - Pumper	133

2019 Report of the State Fire Marshal



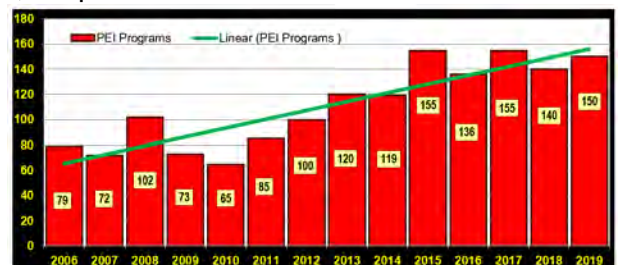
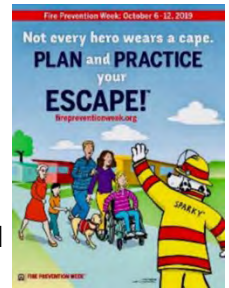
Public Education Activity Report

Micheal Greenia - Public Education Section Chief



The DFS Public Fire Safety Education and Information Section is responsible for enhancing statewide public fire prevention education, information, and outreach services. The section provides support services to fire departments, fire and life safety educators and community organizations by providing technical assistance, educational equipment and coordinates national and State resources to help with efforts to reduce the fire problem in their communities.

During 2019, a combination of new and established programs helped us meet the educational needs of Vermonters of all ages. With the support of part time Fire Safety Education Specialists: Nicole English, Chris Brown and other division staff, we presented over 150 local education programs at various events around the State.



We continue to work on Community Risk Reduction programs, which provide an identification and prioritization of risks, followed by the coordinated application of resources to minimize the probability of occurrence and/or the impact of unfortunate events. One area that needs more attention is providing home fire safety surveys and fire safety education to older age groups. We are hopeful that the new FIRESAFE 802 program will help to minimize the incidence of death and injuries caused by fire and fire-related hazards.

Our continued involvement in the NFPA public education network, Vision 2020, US Fire Admiration, Safe Kids worldwide American Red Cross and the Vermont/New Hampshire Carbon Monoxide Alliance all help us to facilitate and share national cutting-edge fire prevention education programs and materials to fire and life safety educators in Vermont.



Photos from Micheal Greenia, and the DFS public education Facebook Page



2019 Public Education Programs and Events Overview			
#	Program type	Primary Audience	Amount
1	K-12 School Programs	School Children	17
2	College Student Programs	College Students	8
3	Senior Adult Programs	Senior Adults	2
4	Community Events / Regional Fairs	General Public - All ages	32
5	Adult Education	Adults	7
6	Workplace Safety Talks / Training	Workers - Business Owners	7
7	FD Events, Programs and Open Houses	General Public - All ages	35
8	Special Programs	General Public - All ages	4
9	Program Development / Meetings / Event prep	Project Committee Members	2
10	Other - Displays		3
11	DFS Special Opps. / Emergency Management	SEOC & DFS Response Personnel	25
12	Ect. Division Personal Training	DFS Response Personnel	6
13	FD Training programs NFIRS / FLSE	Fire Department Personnel	4
14	NFPA / Vision 2020 Programs / Meetings/ Training	State Representatives	15
15	Fire Safe 802 / Red Cross Sound the Alarm events	General Public - All ages(home)	13
16	CO Alliance Meetings / Summit Planning		15
17	Grants Prep and Management		8
Total Events		150	
(Not including meetings development, event prep or Personal Training)			

Liza L. Comiskey of the Highgate Fire Department Receives the 2019 NFPA Rising and Shining Star Award



Liza L. Comiskey of the Highgate Fire Department has been selected by the National Fire Protection Association (NFPA) to receive a Rising and Shining Star Scholarship Award for her outstanding work in Fire and Life Safety education.

As an award recipient, Liza joined Vermont's NFPA Public Education Network member Micheal Greenia as well as fire and life safety educators from around the country at NFPA's Conference & Expo in Taxes in June, where she will participate in training sessions, conference events, and a networking reception. NFPA's Conference & Expo serves as the premier annual event for fire, electrical, and building safety.

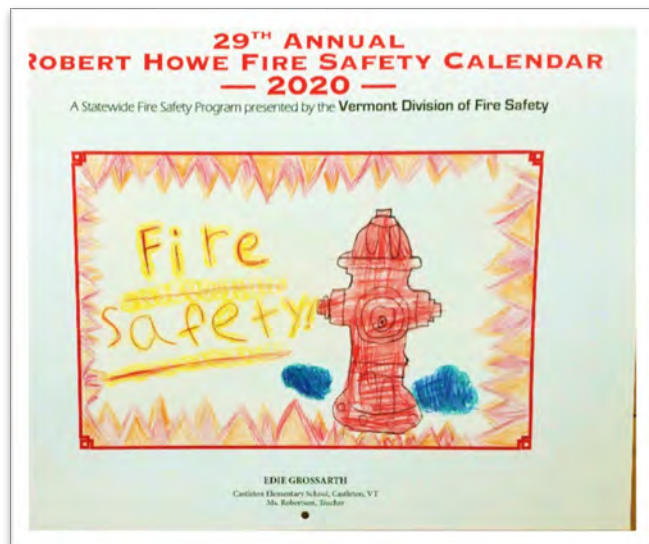
"Liza and husband Ralf have consistently demonstrated a strong commitment to reducing residents' risk to fire and related hazards," said Kelly Ransdell, regional education specialist for NFPA's Public Education Division. "she is truly deserving of this award, and we're thrilled to have her attend this year's conference."

NFPA selected 12 scholarship recipients from the United States and Canada who provide consistent and innovative outreach to their community, actively use and implement NFPA resources and programs, and/or are enthusiastic, fire and life safety educators interested in learning about NFPA programs and materials.



Highlighted Projects

The Robert Howe Fire Safety Calendar



This program is an annual event that produces a calendar featuring the artwork of 3rd grade students from around the State.

Each year the Division of Fire Safety reaches out to the schools across the State of Vermont, as a collaborative effort to spread the word of Fire Safety.

Third grade Students submit their artwork detailing a Fire Safety message. The artwork is judged and winners are selected and invited to the State House to receive recognition for the artwork. Each month of the calendar represents a Fire Safety message that is appropriate for that time of year.

Go to <http://firesafety.vermont.gov/Pubed/calendar> to find out how you can get involved or have your students take part in the next calendar.



*Thank You to Our
Honorable Mention Artists*
(pictured below are artists of pictures on this page and previous)



This calendar was made possible through the generosity of the following contributors:

L. Brown and Sons Printing, Inc.
Vermont Department of Public Safety
Division of Fire Safety
American Fire Sprinkler Association
 Northern New England Chapter
 Advanced Sprinkler Systems Inc.
 Alpine Sprinkler
 American Sprinkler
 Bushner Alarm System Consulting
 FireTech Sprinkler Corporation
 G. Tim Stone Consulting, LLC
 Mountain Valley
 Sawyer Sprinkler Service, LLC
 Summit Fire & Security, LLC
 VT Alarm and Signal Association

FireProtec
 Union Mutual
 Vermont Career Fire Chiefs
 Vermont Elevator Inspection Services

Vermont Professional Fire Fighters Association
Vermont State Fire Fighters Association
Vermont Fire Chiefs

Thank You for Your Support!

**Thank You to Our
Honorable Mention Artists**
(pictured below are artists of pictures on this page and previous)

January CONOR SHEA DELUZZA Candler Elementary School	February AYA BROSKA Johnson School	February HANNA HUNBLE Johnson School
March WATER WHOLE YOU MAE GORDON Johnson School	April DEL CARRONE ELISE MATTHEWS Johnson School	May DELTA PARK Johnson School
June LOVE JOEY RICE, JR. Johnson School	July MAXTON SMITH Johnson School	August EMMA STEIN Johnson School
September THE WENCHSTER LYNDA WORTHEN Johnson School	October HENRY BENCHAMP Johnson School	November SARAH ZELENKA Johnson School



Highlighted Projects

The FIRE SAFE 802 Program

Vermont families and the homes we live in, face numerous high fire risks. Residential properties account for most of the structure fires and civilian fatalities in Vermont.

Our research has found that home safety visits and working alarms play a powerful role in enhanced rural fire safety. This project builds on past statewide fire prevention efforts and enhances our current efforts to reach high-risk Vermonters and mitigate the incidence of death and injuries caused by fire.



FIRE SAFE 802 is a comprehensive statewide community risk reduction program that brings fire departments and community groups together to install FREE smoke and CO alarms in neighborhoods at greatest risk for home fires.

With financial assistance from the AFG Fire Prevention & Safety (FP&S) Grant program, the division is continuing to work with local fire departments, the American Red Cross and other community volunteers to equip teams to help educate the public and make sure smoke and carbon monoxide alarms are installed and working in people's homes. Teams also provide free home safety surveys and provide fire prevention education.

2019

Program Highlights

<ul style="list-style-type: none"> 18 local CRR / install teams established in fire departments. Supported 5 other teams. 7 On-site training sessions provided. 5 Safety Saturday events held. Over 500 program volunteers. 2,848 hours of volunteer time worth over \$70,060 	<ul style="list-style-type: none"> 1,390 Smoke Alarms Installed. 630 CO Alarms installed. 40 Hard of Hearing devices installed. 600 fire hazards and home safety issues noted and suggestions given for corrections. 502 homes made safer so far
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What's Next ?

We have come a long way with this project. But we have more we want to do.

We want to continue building the program and teams that are visiting homes.

The grant funding ends in march however, the director would like to see the efforts of this program continue.

If you or your fire department or group would like to become a partner in making the community safer, please contact us

The Division of Fire Safety Public Education Section
 Henry Knott
 Fire Safe 802 Program Coordinator Henry.knott@vermont.gov
 Michael D. Greenia
 Asst. State Fire Marshal - Public Education Section Chief
 1311 US Route 302 Barre VT 05641 Phone 802-479-7587 * Fax 802-479-7562 * Cell 802-829-6561
mike@vermontfire.com





Department of Public Safety

Fire & Explosion Investigation Unit



The Department of Public Safety Fire & Explosion Investigation Unit brings together the strengths of both the Division of Fire Safety and the Vermont State Police, to address the issues identified in fire investigation. Fire Departments are reminded that when calling for assistance from the fire investigation unit the Fire Chief must call the nearest State Police Barracks. The dispatchers have a call out list for the fire investigators.

The Department of Public Safety is committed to working with and assisting the fire service in its goal of protecting life and property in Vermont.

The Division of Fire Safety Investigators were directly involved in 131 fire investigations. These fires resulted in ten civilian deaths and fifteen civilian injuries. There were no fatalities from carbon monoxide exposure in 2019.

During 2019, the Division investigated 20 incendiary fires, 42 accidental fires, 69 undetermined and 7 fires from other causes. The Unit investigated fires in 60 single-family homes, 17 in multi-family complexes, 14 in Commercial, 7 Camps and 28 All others.

The one factor that has been consistent in the loss of life each year in Vermont is they are mostly in single-family homes where there was a lack of smoke alarms or smoke alarms that did not function because the batteries had been removed. It is important that we and Vermont's Fire Service continue to encourage the use of smoke and carbon monoxide alarms to help reduce the loss of life from fires or carbon monoxide. One life lost is too many.



1-800-32-ARSON

(1-800-322-7766)

We Want Your Information Not Your Name!

State Hazardous Materials Response Team

Todd J. Cosgrove **Vermont Haz-Mat Team Chief**



The Vermont HAZMAT Response Team (VHMRT) continues to offer a high level of technical response and assistance to all fire departments dealing with hazardous materials incidents. With 24 years and numerous incidents the team remains dedicated to continuous improvement and stands ready to respond to any HAZMAT challenge which may occur in Vermont.

The goal of the hazmat response system has always been to provide the appropriate level of response to cope with the magnitude of the incident and to do so rapidly. In 2019, the Team responded to 167 incidents. These breakdown to 35 Responses, 72 Notifications, and 60 Phone Consultations, which equates to 57% requires team action (response or teleconference with the Incident Commander)

Classified as a FEMA Type I HAZMAT Team, VHMRT has the highest rating given to HAZMAT teams and is capable of managing any type of incident including chemical, biological and radiological. The thirty (31) Technicians are led by a Chief, two Deputy Chiefs and three Crew Chiefs. The team has a fleet of four HAZMAT Response Vehicles. Three of the vehicles carry everything the team needs to perform at any incident, including specialized protective suits, chemical sampling and identification instruments, spill and leak containment devices and communications equipment. The team has three response trailers, a LP Gas Trailer, a Spill Response Trailer and a Decontamination Trailer to assist with various hazardous materials incidents.



The Team provided refresher training to 2,251 responders for a total of 199.5 hours, throughout the state. Classes included Air Monitoring, HazMat Awareness, Hazmat Operations Hazmat Decon, Compressed Natural Gas, and Ethanol & Foam. The team also assists Vt. State Police, when requested with instruction of Traffic Incident Management and Clandestine Lab Awareness.

In 2019, the team and the Vt. Guard 15th Civil support Team worked together to continue our goal to strengthen our interagency training/response and both teams are a compliment to each other.

Chief Cosgrove, collects and disseminates over 2,654 Tier II reports (2019) required under the Community Right to Know Act, working with the State Emergency Response Commission (SERC) and Local Emergency Planning Committees.



To request the state HAZ MAT TEAM for an emergency call the Hazmat hotline

800-641-5005



If you have any questions about the program, contact:

Todd J. Cosgrove
Vermont Haz-Mat Team Chief

1311 U.S. Route 302, Suite 600 Barre, VT 05641
Phone: 802-479-7586. Email: todd.cosgrove@vermont.gov

The Hazmat Team has offered our services to Canadian Fire Departments along the border. The picture above is our first response to assist them at their Highgate Border Crossing for a potential Fentanyl exposure.



2019 Statistics

In 2019, the Team responded to 167 incidents. These breakdown to 35 Responses, 72 Notifications, and 60 Phone Consultations. Breakdown by Type of incident is Clan Lab-7, Motor Vehicle/Boat Spill-56, Above/below ground tank spill-12, Chemical spill-41, Special Event Support-2, Other Asst.-26, LPG/CNG/NG-3, White Powder-18, RAD-2. Classes Taught to Local Agencies - 2,251, for 199.5 hours of training, such as Meth Lab Awareness, Air Monitoring, Hazmat, Refresher, Decontamination, Foam Operations, First Receiver Training for Hospitals.



Urban Search and Rescue Team

VT Task Force 1

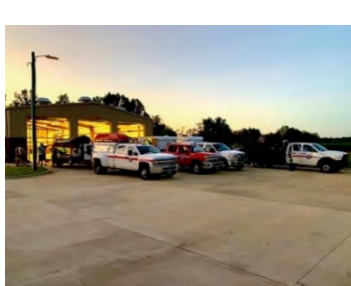
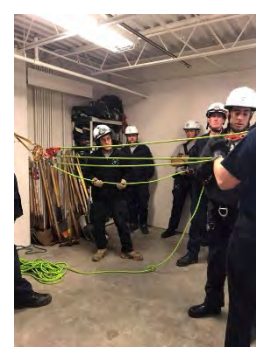
Mike Cannon - Urban Search and Rescue Program Coordinator



Vermont Urban Search and Rescue Task Force One (VT TF-1) is a National Incident Management System (NIMS) Type III Urban Search and Rescue Team (USAR) capable of operating in difficult technical rescue incidents for up to 72 hours. The 90-person Task Force trains in advanced rope rescue and search and rescue for persons trapped in collapsed heavy concrete structures. The Task Force can respond with boats and rescue swimmers to assist communities during flood and moving water incidents.

The Task Force responds with approximately 35-90 members trained in mission specific specialties within the Team. These include Rescue, Search, Medical, HazMat, Logistics and Planning. Each group is responsible for carrying out important mission specific job functions such as concrete cutting, breaching, shoring, operating search cameras and listening devices or searching with specially trained canine resources.

In 2019 The Task Force responded to 7 calls for assistance as well as responding to Florida and North Carolina for Hurricane Dorian under a State-to-State Emergency Management Assistance Compact request. The team participated in a large-scale disaster exercise in Vermont as well as a mobilization drill with partner State Team Connecticut Task Force One.





VERMONT RURAL FIRE PROTECTION TASK FORCE

Rural Fire Protection Program

In the event of a fire, having water available in area streams, ponds and cisterns gives an advantage to a fire department only if the water is readily accessible. Soft or obstructed ground limits access. Or the needed water may be located so far away from where it is needed that a fire department's ability to do its job of fire control is impaired.

Mobile water supply vehicles can move water from distant sources, but the critical factor is whether or not the fire department can maintain an uninterrupted supply of a predictable rate of water at the fire scene. Installation of RFP systems in rural water sources improves direct attack and long-distance water shuttle operations for fire suppression. This allows quicker, easier, and safer access to water sources from a roadway instead of having to work on soft ground immediately adjacent to the pond or stream.

A RFP system can provide a simple, cost-effective solution to the need for access to water sources without delay in rural areas of a community, as well as help supplement an old or inadequate municipal system in more urban village areas. An RFP system consists of an arrangement of piping with one end in the water and the other end extending to dry land and available for connection to a pump/tanker truck. RFP systems have the following features:

- The typical Dry Hydrant configuration uses relatively inexpensive piping materials ("wet", pressurized, hydrant system materials can be more expensive).
- Are permanently installed in existing lakes, ponds, streams and cisterns.
- Provide a means of access whenever needed, regardless of weather.
- Allow years of simple operation with a minimum of maintenance.
- May help to reduce fire insurance premiums if the needed fire flow is met and certified for 2% drought conditions by a licensed engineer or certified hydrologist.
- Save time through operational efficiencies. Multiple lengths of hard suction hose may not be necessary; usually one section to the dry hydrant is enough. The strainer is also permanently attached, saving more time. Fewer people are needed to make a hookup compared to making a conventional direct drafting hookup.



Troy Dare

Program Manager, Rural Fire Protection Program

The mission of the Vermont Rural Fire Protection Task Force is to improve the safety and welfare of Vermont communities by assisting local fire departments in reducing the risk of injury, loss of life, and damage to property and natural resources.

The Rural Fire Protection Program is led by the Vermont Association of Conservation Districts (VACD) and funded through the Vermont Department of Public Safety, town appropriations, and the Vermont Department of Forest, Parks, and Recreation. The program gives grants directly to towns and fire departments while working one-on-one with landowners to install and service dry hydrants.

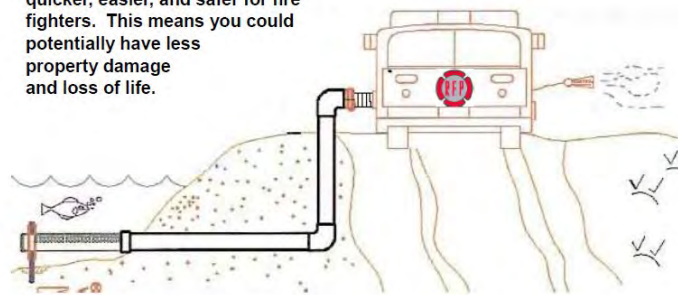


For more information on dry hydrants and other types of rural water supply systems, please contact Troy Dare, Rural Fire Protection Program Manager at (802) 828-4582 or dryhydrantguy@yahoo.com.

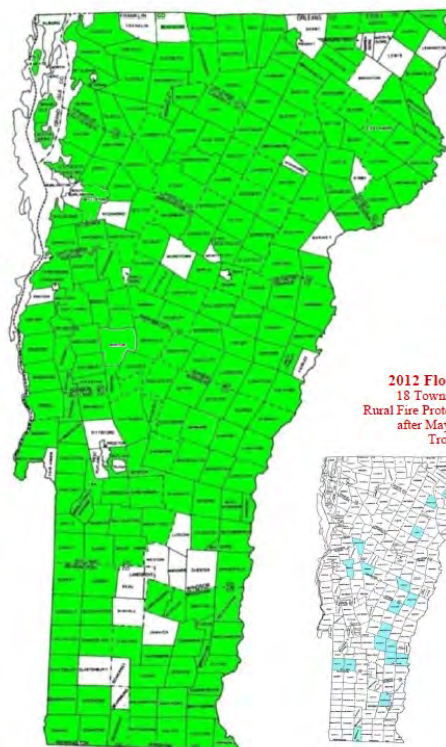
The mission of the Vermont Rural Fire Protection Task Force is to improve the safety and welfare of Vermont communities by assisting local fire departments in reducing the risk of injury, loss of life, and damage to property and natural resources.



Dry hydrants make rural firefighting quicker, easier, and safer for fire fighters. This means you could potentially have less property damage and loss of life.



1998-2019 Rural Fire Protection Grant Program Recipients
215 Towns were awarded 948 dry hydrant grants up to \$5,000 totaling nearly \$1.94M funded by Vermont Legislative Appropriations through the Department of Public Safety



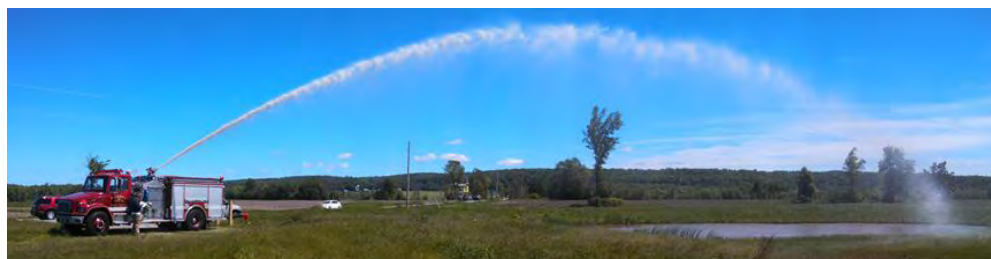
2012 Flood Recovery Grants
18 Towns received 28 grants for Rural Fire Protection Repair & Replacement after May 2011 flood damage & Tropical Storm Irene



Bridgewater - (3)	\$3,139
Bristol - (2)	\$3,150
Cabot - (1)	\$2,800
Cavendish - (1)	\$1,500
Chelsea - (1)	\$300
Danby - (2)	\$7,310
Huntington - (1)	\$3,166
Newark - (2)	\$5,948
West Pawlet - (2)	\$2,831
Plymouth - (2)	\$2,972
Reading - (3)	\$6,992
Readsboro - (1)	\$1,250
Royalton - (1)	\$7,860
Sheffield - (1)	\$1,437
Strafford - (1)	\$2,491
Townshend - (1)	\$2,014
Warren - (2)	\$8,984
Weathersfield - (1)	\$483
Total	\$64,627

Rural Fire Protection Task Force Members:

Tom Maclay, Chair, Marshfield VFD
Bill Sanborn, Vice-Chair, Town of Maidstone
Tyler Hermanson, VT Enhanced 9-1-1
Hayley Pero, Senator Bernie Sanders Office
Mike Greenia, Vermont Division of Fire Safety
Christine Kaiser, Kaiser Farm, Stowe VT
Lars Lund, VT Forest Parks & Recreation



George "Rip" Richards
Task Force Chairman - 1998-2010



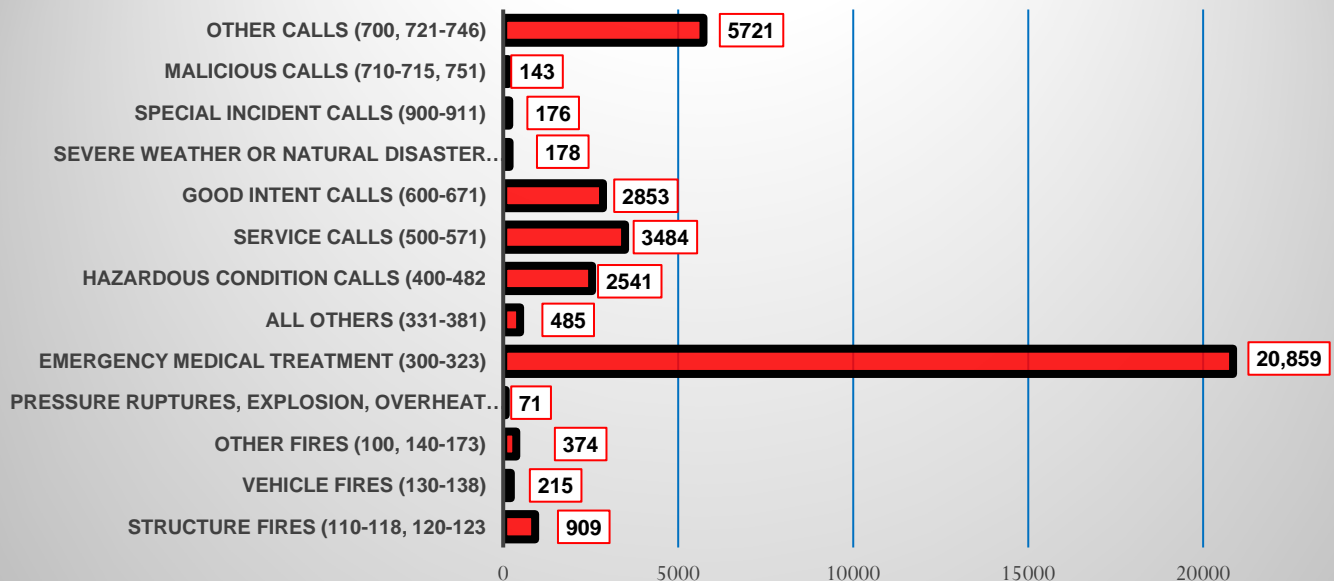
Thanks to our partners: Vermont Association of Conservation Districts (VACD), VT Dept. of Public Safety, Division of Fire Safety, VT Dept. of Forest Parks & Rec., and US Forest Service

Photos by Troy Dare

2019 Statewide Emergency Incident Data



Statewide 2019 Incident Type Summary



NOTE - The following list is from a NFIRS reports run on March 30, 2020 and based on data from entered incidents by fire departments that participate. It provides an overview of selected incident types and may not be a full account of fire department calls.

- Some departments may not have reported during all months of the year.
- Departments marked in gray had no incident reports submitted in 2019. Some may have corrected this since the date the report was run.

State: VT

FDID	Fire Departments	Fire	Overpressure Rupture, Explosion, Overheat (No Ensuing Fire)	Rescue and Emergency Medical Service (EMS) Incidents	Hazardous Condition (No Fire)	Service Call	Good Intent Call	False Alarm and False Call	Severe Weather and Natural Disaster	Special Incident Type	N/A	Total
01003	ADDISON	10		86	1	1	2	5	1			106
10006	ALBANY											
07009	ALBURGH											
02015	ARLINGTON											
14016	ASCUTNEY			1								1
06024	BAKERSFIELD	6		26	4	1	3		1			41
14030	BARNARD	9		49	4	1	2	11	1			75
03033	BARNET			5			1	1				7
12036	BARRE CITY	2		90	9	4	7	4				116
12039	BARRE TOWN	27		20	64	13	33	47				204
10042	BARTON											
05044	BEECHER FALLS											
13045	BELLOWS FALLS			2								2
02051	BENNINGTON RURAL	23		56	21	109	19	83				311
02451	BENNINGTON	5		14	4	18	11	14				66
11054	BENSON	6		20		3	1	1				31
06057	BERKSHIRE	3		12	2				2		7	26
12060	BERLIN											
14063	BETHEL	10		22	30	3	3	12	1			81
04069	BOLTON	10		41	15	1	16	13	1			97
09072	BRADFORD	17		44	15	17	24	40		2	1	160
11078	BRANDON	16		60	14	6	13	35				144
13080	BRATTLEBORO	66	5	1,540	149	394	205	365	4	4		2,732
14084	BRIDGEWATER	7		11	6	3	2	16			3	48
01087	BRIDPORT	8		60		2						70
05090	BRIGHTON											
01093	BRISTOL	28		46	32	6	11	26	2		1	152
09096	BROOKFIELD											
04114	BURLINGTON	105	10	5,345	155	619	818	1,236	6	32		8,326
12117	CABOT							1				1
08123	CAMBRIDGE	22		62	12	7	90	28				221
11129	CASTLETON	17		48	12	10	14	51	2	1	1	167
14132	CAVENDISH	1		3								4
13548	CHAMPION											
10135	CHARLESTON	5		18	1	5		9				38
04138	CHARLOTTE	21		57	15	2	3	8		1		167
09141	CHELSEA	9		15	15	2	3	8		1	1	54
14144	CHESTER	23		44	39	16	20	37	2	2		183

State: VT

FDID	Fire Departments	Fire 100	Overpres sure Rupture, Explosion , Overheat (No Ensuing Fire) 200	Rescue and Emergency Medical Service (EMS) Incidents 300	Hazardous Condition (No Fire) 400	Service Call 500	Good Intent Call 600	False Alarm and False Call 700	Severe Weather and Natural Disaster 800	Special Incident Type 900	N/A	Total
11147	CHITTENDEN											
11150	CLARENDON	10		13	3	1		8				35
04153	COLCHESTER	42	1	101	34	8	86	97	1	1		371
05156	CONCORD	16		73	10	3	3	4				109
09206	CORINTH	15		17	5	4	14	5				60
01162	CORNWALL	4		15	1	5	1	11	1		54	92
10168	CRAFTSBURY	9		59	3		3	13			1	88
11171	DANBY /MT TABOR	13		20	5	5	1	9				53
03174	DANVILLE											
10177	DERBY LINE	14		3	6		3	19			5	50
02180	DORSET	19		9	9	25	5	35	3			105
03199	EAST BURKE	3		12	1	2	1	9			23	51
02193	EAST DORSET	24		27	9	19	6	41	2		1	129
13191	EAST DOVER	15		36	10	3	16	9				89
05192	EAST HAVEN											
12195	EAST MONTPELIER	17		489	54	13	38	21	11			634
09209	EAST RANDOLPH	9		3	2	1		5			1	21
08201	ELMORE	8		12	4	2	2	10				38
06205	ENOSBURGH	14	1	30	3	1	27	17				93
04208	ESSEX JCT.											
04207	ESSEX TOWN	5	1	61		4	9	17				97
11216	FAIR HAVEN	15		43	11	5	13	17			5	109
06210	FAIRFAX	19		70	23	85	12	27	3	2		241
06213	FAIRFIELD											
09219	FAIRLEE											
01421	FERRISBURG	5		16	22	4	14	6		1		68
06234	FRANKLIN	4		5		1	8				1	19
10801	GOSHEN											
06237	GEORGIA											
10243	GLOVER											
13249	GRAFTON	11		55	9	10	3	18				106
07255	GRAND ISLE	8		24	10	11	44	17	3		9	126
01261	GRANVILLE	1		5			1					7
10264	GREENSBORO	5		5	13	6	6	8				43
03267	GROTON	9		6	6	1	2	1				25

State: VT

FDID	Fire Departments	Fire 100	Overpressure Rupture, Explosion, Overheat (No Ensuing Fire) 200	Rescue and Emergency Medical Service (EMS) Incidents 300	Hazardous Condition (No Fire) 400	Service Call 500	Good Intent Call 600	False Alarm and False Call 700	Severe Weather and Natural Disaster 800	Special Incident Type 900	N/A	Total
13273	GUILFORD	4		27		5	2	6				44
13276	HALIFAX											
01179	HANDCOCK											
03282	HARDWICK											
14285	HARTFORD	38	6	1647	42	255	129	181	2	11		2311
14288	HARTLAND	17		34	13	6	3	9			1	83
06291	HIGHGATE											
04294	HINESBURG	7	1	120	3		5	13	3			152
11300	HUBBARDTON	7		3	3	3		2				18
04303	HUNTINGTON	1		4	9	1		4	2			21
08306	HYDE PARK	16		33	13	24	6	24	4			120
04806	IBM / Global Foundries	1		2	1	3	3					10
11309	IRA	6		12	5	1	2	1			2	29
10312	IRASBURG	16		2	6			1		1	4	30
07318	ISLE LA MOTTE	18		34	4	2	2	8				68
13324	JAMAICA	15		120	11	5	5	13	1		1	171
10327	JAY											
08336	JOHNSON	14		41	12	9	29	17	3		1	126
11588	KILLINGTON	14		138	11	4	34	121				322
01354	LINCOLN	4		22	3	1	57	5	2			94
10360	LOWELL											
13357	LONDONDERY / PHOENEX											
14363	LUDLOW	22		14	30	20	16	98	2			202
05366	LUNEBURG	12		12	7	1		2		1	1	36
03371	LYNDONVILLE	20	1	10	85	22	10	32	2			182
04808	MALLETTS BAY	22		150	33	47	111	54				417
02373	MANCHESTER	25		36	28	19	9	103	2		6	228
13378	MARLBORO											
12381	MARSHFIELD	13		21	7	1	3	13		1	18	77
01387	MIDDLEBURY	24		20	36	12	25	82	4	6		209
12390	MIDDLESEX											
11393	MIDDLETOWN SPRINGS	1										1
04396	MILTON											
01399	MONKTON											
06402	MONTGOMERY	9		31	3	2		9	2			56
12405	MONTPELIER											
12408	MORETOWN											
08414	MORRISVILLE											

State: VT

FDID	Fire Departments	Fire 100	Overpressure Rupture, Explosion, Overheat (No Ensuing Fire) 200	Rescue and Emergency Medical Service (EMS) Incidents 300	Hazardous Condition (No Fire) 400	Service Call 500	Good Intent Call 600	False Alarm and False Call 700	Severe Weather and Natural Disaster 800	Special Incident Type 900	N/A	Total
11470	MT HOLLY			1				1			1	3
01432	NEW HAVEN											
03423	NEWARK											
13429	NEWBROOK -Newfane / Brookline	18		107	26	19	26	12				208
09426	NEWBURY	10		7	2	1	3	3				26
10438	NEWPORT	35		36	18	20	10	42				161
10436	NEWPORT Center	8		8	1	6	2	3	3			26
02443	NORTH BENNINGTON	11		3	8	14	3	20				59
07444	NORTH HERO											
08448	NORTH HYDE PARK / EDEN	15		37	8	5	1	18	2			86
10445	NORTH TROY											
12440	NORTHFIELD	3		13	8	2	1	5				32
14450	NORWICH											
10456	ORLEANS	8		5	12	2	1	6			19	53
1459	ORWELL	8		11	5	3	3	6			2	38
11465	PAWLET	11		10	3	12	4	9	3			52
03468	PEACHAM											
02474	PERU	7	1	9	8	2	2	9				38
11477	PITTSFIELD	4		16	4	6	4	1	1			36
11480	PITTSFORD	20	1	31	7	15	5	19	1	1	1	101
12483	PLAINFIELD	16		20	15	3	4	20		1	4	83
14486	PLYMOUTH	6		6	4	1	6	19				42
11492	POULTNEY	27	2	81	20	7	7	46	8			198
02495	POWNA											
02813	POWNA VALLEY	16		14	10	10	5	14		1		70
11498	PROCTOR											
14501	PROCTORSVILLE	27		77	16	14	2	8	3		6	153
13504	PUTNEY											
09509	RANDOLPH CENTER	11		29	7	1	5	15			2	70
09507	RANDOLPH VILLAGE	14		11	26	9	5	34			2	101
14510	READING	8		10	4	4	30			1	1	58
2513	READSBORO	6		51	12	9	10	5				93
06516	RICHFORD	9		31	9	2	2	24			14	91
04519	RICHMOND	14		88	28	6	12	21	1			170
01522	RIPTON			30	8	1	8	3	1		1	43
14525	ROCHESTER	7		3	10		4	7	2	1		34
13528	ROCKINGHAM	8		141	12	24	13	3	1	1		203
12531	ROXBURY											

State: VT

FDID	Fire Departments	100	200	300	400	500	600	700	800	900	N/A	Total
02537	RUPERT											
11540	RUTLAND CITY	98	5	164	156	137	63	308	38	1		970
11543	RUTLAND TOWN	20		57	29	31	22	57				216
03544	RYGATE	8		9	1		3	2				23
01561	SALISBURY											
13567	SAXTONS RIVER	5		83	11	10	1	12				122
02573	SHAFTSBURY	22	1	6	33	2	5	22				91
14576	SHARON	3		12	5	1	1				2	24
03579	SHEFFIELD / WHELOCK											
04582	SHELBURNE											
06585	SHELDON	15		47	11	3	1	8	1		4	90
01591	SHOREHAM											
11594	SHREWSBURY	10		7	5			3	1			26
04600	SOUTH BURLINGTON	61	14	2,615	118	410	168	331	1	9		3727
07603	SOUTH HERO	8		119	7	3	45	22				205
13590	SOUTH NEWFANE											
14604	SO ROYALTON BROAD BROOK											
14605	SOUTH WOODSTOCK											
14606	SPRINGFIELD	43	1	1866	66	213	89	86		58		2,422
06549	ST. ALBANS CITY	11	10	17	62	41	10	102				253
06552	ST. ALBANS TOWN	31	1	67	70	29	14	79	1	9		301
03608	ST. JOHNSBURY	63	1	763	92	145	61	163		1		1289
04810	ST. MICHEALS COLLAGE	Reports with Colchester Center - FDID 04153										
02609	STAMFORD	9		41	7	14	4	7	2		2	86
01615	STARKSBORO	5		13	6	1		5			10	40
14618	STOCKBRIDGE											
08621	STOWE	23	3	32	25	8	24	215	1	1	1	333
09624	STRAFFORD	3		19	2			1			77	102
13627	STRATTON MTN											
03636	SUTTON											
06339	SWANTON	18	1	96	20	43	14	26	2	6		226
14595	TEAGO - POMFRET											
09462	THETFORD	12		67	17	9	8	14	2			129
11645	TINMOUTH											
13652	TOWSHEND											
09730	TRI- VILLAGE	2		1	1						1	5
10654	TROY	5		16	1	4		3		1	1	31

09657	TUNBRIDGE	11		15	10	3	1	3	11		4	48
State: VT		Fire	Overpressure Rupture, Explosion, Overheat (No Ensuing Fire)	Rescue and Emergency Medical Service (EMS) Incidents	Hazardous Condition (No Fire)	Service Call	Good Intent Call	False Alarm and False Call	Severe Weather and Natural Disaster	Special Incident Type		
FDID	Fire Departments	100	200	300	400	500	600	700	800	900	N/A	Total
04660	UNDERHILL-JERICO	15		284	22	27	19	41	1			409
01663	VERGENNES	12		17	11	54	15	20	3	2		134
88888	VERMONT HAZ-MAT	3		5	112	17	6	1		11	12	167
13666	VERNON											
09669	VERSHIRE											
12675	WAITSFIELD / FAYSTON	11		19	16	6	12	31			1	96
03678	WALDEN											
11681	WALLINGFORD											
13687	WARDSBORO											
12690	WARREN	10		5	6	1	8	21			1	52
09693	WASHINGTON	14		13	3	4	4	6				44
12698	WATERBURY	12		26	17	6	16	23		1		101
12698	WATERFORD	11		74	7	5	2	8				107
11708	WELLS			10		1					5	16
09711	WELLS RIVER	14		21	6	1	10	2				54
03713	WEST BURKE	10		7	3	1		4				25
13721	WEST DOVER											
13722	WEST DUMMERSTON											
11723	WEST HAVEN											
09714	WEST NEWBURY	4		4	1	1	2	2				14
09725	WEST PAWLET											
11735	WEST RUTLAND	7		17	1	1	8	1	10			44
14705	WEST WEATHERSFIELD	17		100	15	13	44	8			2	199
14738	WEST WINDSOR	4		3	1		3	3				14
04720	WESTFORD			10	5	1	1	4			1	22
13726	WESTMINISTER	13		242	17	85	29	26	16			428
10670	WESTMORE											
14732	WESTON											
01741	WEYBRIDGE	4		8	2	1	2	7			2	26
01750	WHITING	9		10	6	1		1				27
13753	WHITINGHAM											
09756	WILLIAMSTOWN	21		60	9	8	1	19	10			128
04759	WILLISTON	33		1136	41	157	182	328		6		1983
13762	WILMINGTON											
14768	WINDHAM											
14768	WINDSOR	27	3	1658	24	91	73	35				1911

State: VT

FDID	Fire Departments	100	200	300	400	500	600	700	800	900	N/A	Total
02771	WINHALL											
8777	WOLCOTT											
04774	WINOOSKI	77	1	34	44	35	41	130	3	1		366
12780	WOODBURY	9	3	57	13	11	10	9	7	1		120
14786	WOODSTOCK	24	1	46	25	14	38	75				223
12789	WORCHESTER											

TOTAL INCIDENTS REPORTED – 2019

ACTIVE VT FIRE DEPTs	Fire	Overpressure Rupture, Explosion, Overheat (No Ensuing Fire)	Rescue and Emergency Medical Service (EMS) Incidents	Hazardous Condition (No Fire)	Service Call	Good Intent Call	False Alarm and False Call	Severe Weather and Natural Disaster	Special Incident Type	Undetermined incident type	N/A
230	100	200	300	400	500	600	700	800	900	UUU	
Totals	2,274	75	22,439	2,693	3,881	3,299	5,996	184	181	334	304
Totals										41,660	

FIRE DEPT.S WITH OUT ANY 2019
REPORTS SUBMITTED
(As of April 2020)

73

68.2%

VERMONT FIRE DEPT.S WHOSUBMITTED REPORTS IN 2019

Important Contact Information

Division Central Office:

1311 U.S. Rte. 302, Suite 600,
Barre, VT 05641-2351
Phone: (800) 640-2106, or 802-479-7561
Fax: (802) 479-7562

Vermont Fire Academy

93 Davison Drive
Pittsford, VT 05763
Phone: 800-615-3473 or 802-483-2755
Fax: 802-483-2464



Barre Regional Office

1311 U.S. Rte. 302, Suite 500
Barre, VT 05641-4271
Phone: (888) 870-7888, or 802-479-4434
Fax: 479-4446

Rutland Regional Office

56 Howe Street Building A, Suite 200
Rutland, VT 05701-3449
Phone: (888) 370-4834, or 802-786-5867
Fax: (802) 786-5872



Springfield Regional Office

100 Mineral Street, Suite 307
Springfield, VT 05156-3168
Phone: (866) 404-8883, or 802-885-8883
Fax: (802) 885-8885

Williston Regional Office

3380 Hurricane Lane, Suite 101
Williston, VT 05495
Phone: (800) 366-8325, or 802-879-2300
Fax: (802) 879-2312

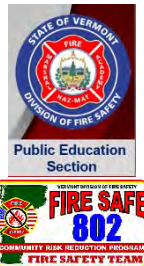
FOR GENERAL CODE QUESTIONS CONTACT THE REGIONAL OFFICE FOR YOUR AREA

**To request DFS special operations response or other assistance after hours
contact the VT Emergency Management Watch Officer at
1-800-347-0488 (24hrs)**



Vermont Haz-Mat Hotline - 1-800-641-5005 (24hrs)

DFS PUBLIC FIRE EDUCATION - To schedule the VT Fire Safety House trailers or to acquire other fire safety education resources or assistance contact the Public Fire Safety Education and information section at **(802)-479-7587**



To report a developing emergency disaster or an unusual event that requires additional assistance or resources. Call the Vermont State Emergency Operations Center. Duty Watch Officer Contact number: 800-347-0488

**To contact a fire investigator please call your nearest
State Police barracks (24 hrs)**



Notes

Notes



Vermont Department of Public Safety

DIVISION OF FIRE SAFETY

Central Office

1311 US Route 302—Suite 600

Barre VT 05641-2351

Firesafety.vermont.gov



Make Everyday a Fire Safe Day