

Celebrating  
**130**  
Years of Service



*Here to Serve*

Photo Credit: John Odegard

# Seattle Fire Department 2019 ANNUAL REPORT

INTEGRITY ♦ TEAMWORK ♦ COMPASSION ♦ COURAGE ♦ DIVERSITY



Photo Credit: Bob Lukas

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# MESSAGE FROM THE FIRE CHIEF

*The dogmas of the quiet past, are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew.*

*- Abraham Lincoln (Annual message to Congress, December 1, 1862)*

## MESSAGE FROM THE FIRE CHIEF

I am pleased to share our 2019 annual report. Inside, you'll find statistics about our response standards, number of EMS and fire incidents, significant events and community engagement. This report also gives insight into the initiatives and activities that allow us to sharpen our skills and mindset in how we serve this great city.

Around 2,000 residents called Seattle "home" when it incorporated in 1869. In 2019, as we celebrated the city's 150th birthday, that number had grown to 750,000 residents, with daytime population swelling to nearly 1 million. The region's strong economic growth in the last half of the decade has physically reshaped our city's skyline. This drives a greater demand for building inspections by the fire department, requires us to adapt our firefighting strategies for high rise structures and even challenges our ability to navigate congested and construction-narrowed streets.

It's not just the physical infrastructure changing. Our neighborhoods and people we serve are as well. Sadly, more and more members of the community struggle with homelessness, addiction and mental health issues, leading us to seek new approaches to offer assistance and more collaboration between the public, private and nonprofit sectors.

Amidst the rapidly changing environment, our personnel remain nimble, creative and resilient. When presented with a problem, we work to find solutions. This is why I am so proud of each member of the Seattle Fire Department and hope you enjoy this look back at all we accomplished in 2019.

Sincerely,



**Fire Chief Harold D. Scoggins**  
Seattle Fire Department



*Here to Serve*

### OUR VISION

The Seattle Fire Department: a national leader in responding to and preventing emergencies with a commitment to excellence and teamwork.

### OUR MISSION

The mission of the Seattle Fire Department is to save lives and protect property through emergency medical service, fire and rescue response and fire prevention. We respond immediately when any member of our community needs help with professional, effective and compassionate service.





# ABOUT SEATTLE FIRE

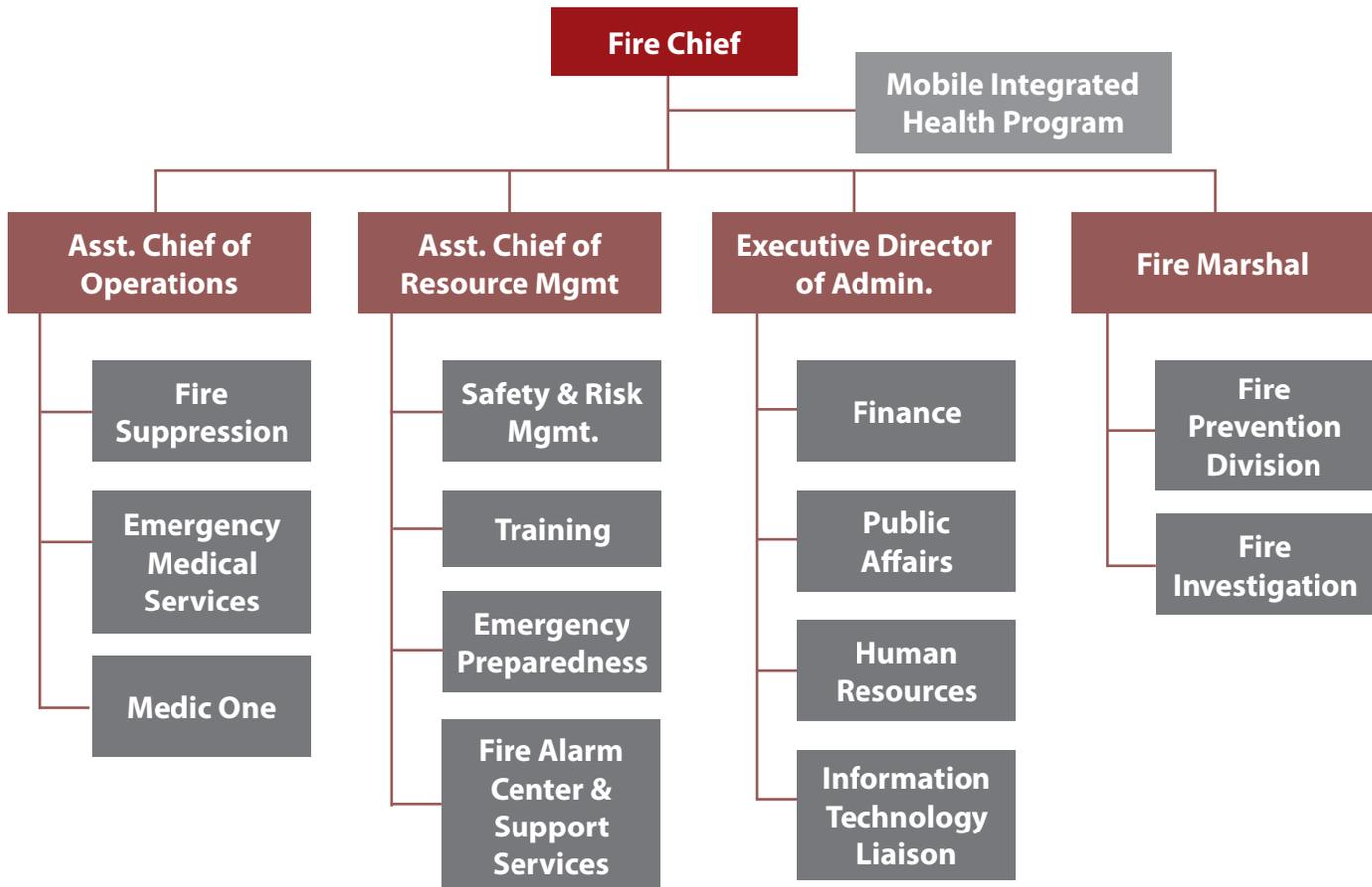
## ABOUT US

The Seattle Fire Department strives to provide the best service possible by putting the community and its needs first. It is the department's goal to actively engage Seattle's residents. The Seattle Fire Department values and respects diverse internal and external cultures, constantly working to improve service delivery to all community members. Through feedback and other cooperative communication processes, the department works to ensure the community is informed of and able to access programs and services.

The Seattle Fire Department celebrated 130 years in 2019, having been established by Seattle Ordinance No. 1212 on Oct. 17, 1889. The services provided by the Seattle Fire Department include:

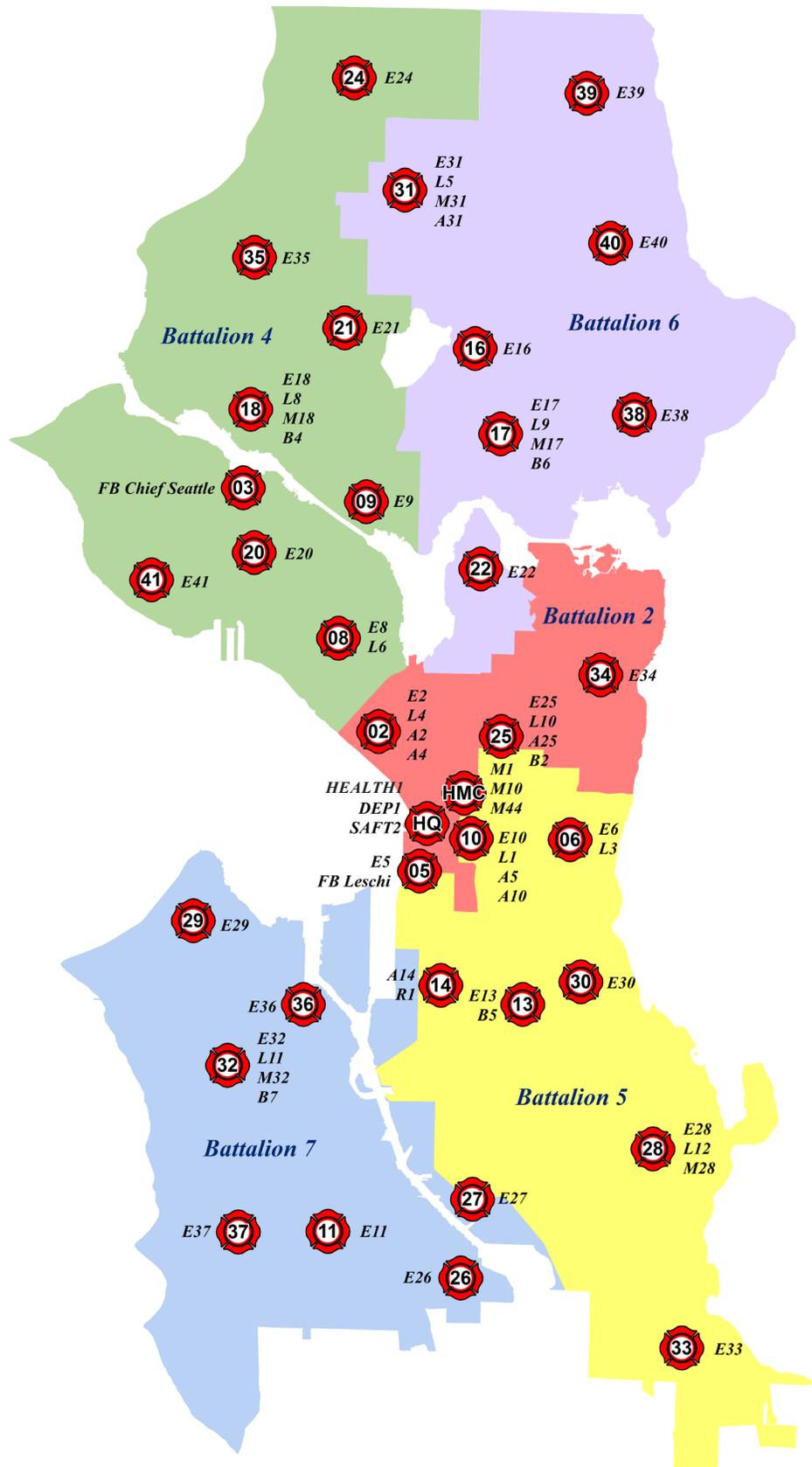
- Critical fire suppression and emergency medical care
- Technical teams, including technical and heavy rescue, dive rescue, tunnel rescue, marine fire response and hazardous materials (HazMat) response
- Fire prevention and public education
- Fire investigation
- Mutual aid response to neighboring jurisdictions

## ORGANIZATIONAL CHART



# STATION, MAP AND APPARATUS PROFILE

- 33 Fire Stations
- Medic One at Harborview Medical Center
- 32 Engines
- 11 Ladder Trucks
  - \* (One ladder truck is part of the Rescue 1 Unit)
- 5 Aid Units (Basic Life Support)
- 2 Peak-time Aid Units
- 7 Medic Units (Advanced Life Support)
- 1 Health One Unit
- 2 Air Trucks
- 2 Hose Wagons
- 4 Fire Boats
- Additional specialized apparatus



\*Firefighters at Station 31 were relocated to neighboring fire stations on June 18, 2019. Ladder 5 to Station 39, Medic 31 to Station 35, Aid 31 to Station 24 and Engine 31 to Station 17.

## TIERED RESPONSE SYSTEM

The Seattle Fire Department provides emergency response through five battalions, consisting of 33 fire stations (plus Battalion 3/Medic One at Harborview Medical Center) strategically placed around the city in order to maximize coverage and minimize response time.

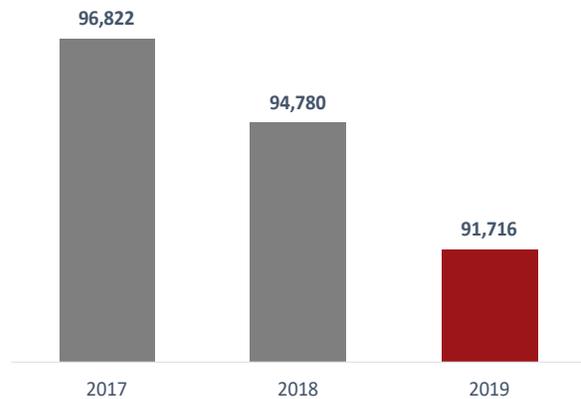
These stations are staffed 24 hours a day, seven days a week, by four separate shifts. To meet the needs of the city and provide emergency response services to the residents of Seattle, the department has 1005 uniformed personnel, 37 department chiefs, 932 firefighter/EMTs, 73 firefighter/paramedics and 81 civilian personnel.

Every day, there are 210 members responding to emergencies across the city (214 with upstaffing for daytime aid cars). Depending on the type of emergency, the Fire Alarm Center will dispatch the appropriate resources to provide fire suppression, Basic Life Support (BLS), Advanced Life Support (ALS) and technical operations.

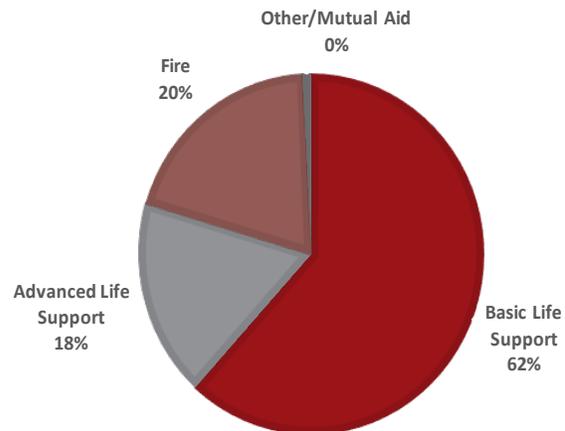
All Seattle firefighters are certified emergency medical technicians. In a BLS incident, a fire engine, aid car and/or ladder truck will be the first responders. If a medical emergency requires ALS, one of the seven medic units will also be dispatched to the scene. Certain type of emergencies require multiple units. For example, an individual experiencing sudden cardiac arrest will have three units come to their aid. Similarly for fires and other emergencies, the dispatcher will assign the appropriate resources to protect life and property.

## RESPONSES

### Response Totals



### 2019 Response Types



### 2019 Busiest Units

- Aid 25 (located at Station 25) responded to a total of 5,819 incidents.
- Medic 10 (located at Harborview) responded to a total of 4,087 incidents.
- Engine 2 (located at Station 2) responded to a total of 3,342 incidents.
- Ladder 4 (located at Station 2) responded to a total of 2,521 incidents.



Photo Credit: John Odegard

# EVERY SECOND COUNTS

## CASCADE OF EVENTS

The Commission on Fire Accreditation International (CFAI) has defined response time elements as a cascade of events. This cascade is similar to that used by the medical community to describe the events leading up to the initiation, mitigation and ultimate outcome of a cardiac arrest. It is imperative to keep in mind that certain intervals described, such as turnout and travel time, can be directly influenced by the fire service via station locations and design, staffing levels as well as local rules and procedures for response. Other factors, such as the alarm interval, can be influenced indirectly through public education and engineering initiatives. The fire service can also influence the call-processing interval through its ability to define standards and compel performance by its dispatch centers.

## TIME TEMPERATURE STANDARD

The “time-temperature curve” standard is based on data from the National Fire Protection Association (NFPA) and the Insurance Services Organization (ISO), which have established that a typical point source of ignition in a residential house will “flash over” at some time between five and 10 minutes after ignition, turning a typical “room and contents” fire into a structural fire of some magnitude.

## TIME TEMPERATURE CURVE

The utility of the time-temperature curve for fire station placement is limited to a number of factors including:

- It does not account for the time required for the existence of a fire to be “discovered” and reported to the fire department via the 911 system.

- The time from ignition to flashover varies widely (5-30 minutes depending on building characteristics); thus it cannot provide a valid basis for the allocation of resources.
- The curve is constantly shifting, given the numerous changes in building construction, built in suppression systems, the increased use of fire resistive materials for furniture and other items typically found in the interior of occupied buildings.

## CARDIAC ARREST SURVIVAL RATE

In communities where the fire service is the principal provider of Emergency Medical Services (EMS) first response, the goal is for basic life support (CPR and defibrillation) to be available to the victim of a cardiac arrest within four minutes of the event, and that advanced life support (paramedic service) should be available within eight minutes or less of the event. Early notification, distribution and concentration of emergency response services are thus paramount to successful resuscitation efforts.

## THE GOLDEN HOUR STANDARD

In trauma events, the golden hour is the historic benchmark applied to victims with significant critical traumatic injuries. The golden hour reflects the concept that survivability decreases significantly if the patient isn't in the operating room within one hour of receiving a critical traumatic injury.



# RESPONSE STANDARDS

These response standards measure the delivery of fire suppression, technical rescue response and emergency medical services. Guided by National Fire Protection Association Standard 1710, the standards protect the community and occupational health and safety of Seattle Fire employees.

<u>RESPONSE TOTALS</u>	2017	2018	2019
<b>Total Number of Incidents</b>	96,822	94,780	<b>91,716</b>
Basic Life Support	60,168	58,694	<b>56,631</b>
Advanced Life Support	18,590	17,790	<b>16,349</b>
Fire Incidents	16,548	17,080	<b>18,088</b>
Other Incidents	1,082	1,089	<b>595</b>
Mutual Aid	29	39	<b>53</b>

*"Other Incidents" include transfers to other agencies where a fire unit was also dispatched.*

<u>CALL VOLUME</u>	2017	2018	2019
<b>Total Number of Calls</b>	191,476	191,112	<b>169,153</b>
Emergency Calls	150,919	149,844	<b>134,277</b>
Admin Calls	40,557	41,268	<b>34,876</b>

*The Fire Alarm Center is staffed 24/7 by firefighter/EMTs who have completed more than 1,000 hours of additional training to become certified dispatchers.*

## CALL PROCESSING

2017 2018 2019

### **Percent Call Processing Time is <= 60 seconds**

*NFPA1221 (2016) states that 90% of the time dispatch centers should process fire calls within 64 seconds and EMS and technical team calls within 90 seconds. This is the time from when the phone is first picked up to a unit assigned.*

94% 92% **81%**

## EMERGENCY MEDICAL SERVICES

2017 2018 2019

### **Percent EMS turnout time is <= 60 seconds**

*SFD turnout time standard is 60 seconds, 90% of the time. This is the time span between a unit being assigned to being en route.*

48% 48% **45%**

### **Percent arrival of first BLS unit is <= 4 minutes**

*SFD response time standard for the arrival of the first Basic Life Support unit (aid car, fire engine, ladder truck) is 4 minutes, 90% of the time. This is the time span between a unit being en route to on-scene.*

79% 79% **76%**

### **Percent arrival of first ALS unit is <= 8 minutes**

*SFD response time standard for the arrival of an Advanced Life Support unit (medic Unit) two firefighter/paramedics is 8 minutes, 90% of the time. This is the time span between a unit being en route to on-scene.*

86% 86% **86%**

### **Daily average number of responses per medic unit**

8.4 8.1 **7.4**

### **Total Advanced Life Support transports by medics**

5,557 5,393 **5,569**

## FIREFIGHTING

2017 2018 2019

### **Percent fire turnout time is <= 80 seconds**

*SFD turnout time standard is 80 seconds, 90% of the time. This is the time span between a unit being assigned to being en route.*

42% 44% **45%**

### **Percent arrival of first engine is <= 4 minutes**

*SFD response time standard for the arrival of the first fire engine is 4 minutes, 90% of the time. This is the time span between a unit being en route to on-scene.*

77% 76% **75%**

### **\*Percent arrival of first Full Alarm is <= 8 minutes**

*SFD response time standard for the arrival of a full first alarm assignment (15 firefighters) when responding to a fire is 8 minutes, 90% of the time. This is the time span between a unit being en route to on-scene.*

96% 93% **94%**

*\*Data has been updated for previous years to reflect more accurate information from our system.*



# KEY INITIATIVES

## THE SEATTLE SQUEEZE

The state permanently closed Seattle's iconic Alaskan Way Viaduct in January 2019 and began a three-week process to ready the new SR 99 tunnel for opening. This left thousands of commuters to find other ways to navigate through the city. Anticipating traffic gridlock and increased response times to calls, Seattle Fire stood up its Resource Management Center (RMC) during the closure to monitor all aspects of response times and capabilities. RMC staff provided regular reports to the city's Fire Chief and Emergency Operations Center and was prepared to execute contingency plans. Thankfully, traffic congestion during Viaduct closure was far less than feared, but the department has proven protocols it can use for future traffic disruptions.

## HEALTH ONE

The growth in non-emergency calls to 911 led to the development of a low-acuity program several years back. That effort to reduce unnecessary runs by stations expanded in 2019 to include a new option for serving the public in the downtown core. The Health One team is a specially trained unit of two firefighters and civilian caseworkers focused on responding to non-emergency 911 calls for issues such as substance abuse, behavioral health and those who may need access to or connection with social services. The pilot began in November 2019 and aims to provide a more appropriate level of service to these individuals in the downtown core.

## SEATTLE FIRE FOUNDATION

Many fire departments nationwide are supported by a foundation. While it has lent invaluable support to Seattle Fire, the Medic One Foundation's mission is laser focused on providing training, equipment and research to improve pre-hospital care, and their support benefits multiple fire and EMS agencies in the Puget Sound.

Seeing the need to provide broad support for the department, a group of community and business leaders established the Seattle Fire Foundation in March 2019. Its mission is to raise supplemental funds for safety equipment, public education and other areas the city budget is unable to fully cover. Their initial effort is fundraising for 220 sets of ballistic gear, expanding youth CPR training through a partnership with the Boys & Girls Club and establishing fire safety education for students in all Seattle public and private schools.



## EMERGENCY MEDICAL DISPATCH UPDATE

Dispatchers follow a set of prescribed questions protocols to process the 911 calls that come into the Fire Alarm Center. These questions help determine the nature of the caller's issue and appropriate type of responding units that the department should send. Realizing the software behind the emergency medical dispatch protocols could become incompatible with other critical programs used in the Fire Alarm Center, Seattle Fire began exploring new options.

Seattle Fire's protocols had been created in-house in the late 1990s and took advantage of the fact that Seattle Fire dispatchers are also trained firefighter/EMTs. When it came to evaluating commercial products, most were designed for civilian dispatchers. After much research, the department selected Corti, who was able to build a custom program for Seattle using protocols newly revised by SFD's medical director in consultation with a dispatcher instructor and the FAC quality assurance coordinator. Input was also received from dispatchers and paramedics. The new system and protocols went live in June 2019.

The Corti product includes analytics that Seattle Fire can use to evaluate calls and confirm the resources sent met the needs of the incident. It allows the dispatchers to analyze each decision point of a call to continuously improve the speed of dispatch and most appropriate units.

## WHOLE BLOOD

Seattle Fire began in late 2019 giving whole blood transfusions to trauma patients before they get to the hospital, becoming one of the first fire and EMS agencies in the nation to do so. Several pints of O+ whole blood are carried in coolers by Seattle Fire's medical services officer when called to a scene involving a hemorrhaging patient. Whole blood appears to help the body's

own clotting factors increase, which can slow blood loss and decrease the amount of blood needed once at the hospital.

The practice of giving whole blood transfusions has been done for years in the theater of war, where carrying the different components of blood is challenging at best. Military studies of the practice have shown that doing so provides the best chance of a trauma patient's survival. Adapting this battlefield practice to the civilian setting could be a game-changing move for patient survival.

## STATION 31

In June, the department decided to vacate Fire Station 31 and temporarily relocate crew members and apparatus to four neighboring stations. This came after much discussion and evaluation of several issues facing the station, particularly newly documented issues with moisture and mold. The facility itself has been subject to other concerns over the years, including cancer rates for members assigned there and constrained physical space exacerbated by the addition of an aid unit in 2017.

In October, the city decided to pursue building a new station and used the opportunity to choose the best location to meet critical response times in light of the community's rapid growth. It began work on finding a new interim location to bring the units back into the response district while simultaneously searching for a new permanent site.



Photo taken at training exercise

## RECRUITMENT

Every two years, the department recruits new applicants interested in becoming a Seattle firefighter. After going through oral interviews and various tests, the city establishes a hiring register that is used to select future recruit classes.

Seattle Fire used a social media campaign to spread the word about the benefits of a firefighting career with the Seattle Fire Department. In all, more than 3,700 individuals applied and 1,554 were invited to oral boards in December. From those, the top quartile (25%) will be screened to make the register.

Recognizing retirements are outpacing new hires, the Mayor and City Council approved larger recruit classes for 2020 to help close the staffing gap. Recruit Class #113 will be the first to benefit from the increased staffing and hired from this new list.

## PURSUING RACIAL EQUITY IN THE WORKPLACE

The City of Seattle has a strong commitment to eliminating disparities and creating racial equity. Each department has a role in addressing institutional racism, which improves the outcomes for members of the public and creates a workplace where employees can be understood and accepted.

Seattle Fire has been working with Dr. Caprice Hollins, co-founder of Cultures Connecting, to understand the concepts of equity, white privilege and implicit bias and how those have affected the department's history and influences decisions made today. Dr. Hollins led four workshops in 2019 for department officers and civilian managers to lay the groundwork for training the rest of uniform and professional staff in 2020.



It's the best job  
you'll ever have...  
- Lieutenant Jon Gains

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FIRE DEPT.  
SEATTLE

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If you have a passion  
to serve, Seattle Fire  
is a place for you!  
- Fire Chief Harold D. Scoggins

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HIRING

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FIRE DEPT.  
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Photo Credit: John Odegard

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# OPERATIONS

# SIGNIFICANT INCIDENTS

Feb 6

## Capitol Hill 2-Alarm Fire

Well-involved house fire at the 600 block of 23rd Ave. E. that had spread to the attic space of the house next door. Fire investigators determined the fire started from an overheated baseboard heater. Total estimated loss: \$450,000.

March 13

## Beacon Hill 2-Alarm Fire

Well-involved fire in a carport at the 600 block of 19th Ave. S. that had spread to the attached residence and house to the north. The houses and four vehicles sustained heavy fire damage. Total estimated loss: \$350,000.

March 18

## Central District 2-Alarm Fire

Heavy smoke and flames from a four-story apartment building at the 100 block of 14th Ave. Unfortunately, a victim found in the second floor unit where the fire originated was pronounced dead at the scene. Total estimated loss: \$295,000.

March 27

## Lake City Shooting

Two men were killed and three others injured in the Sand Point neighborhood when a gunman opened fire on several vehicles, including a Metro bus. Medics worked quickly to treat the wounded patients and transport them to the hospital.

April 27

## Crane Collapse

A crane fell from the roof of a building at Fairview Ave. and Mercer St., killing four people and injuring four others. Fire crews and Rescue 1 worked quickly to stabilize the crane and involved vehicles while triaging the victims of the collapse.





May 2

**HazMat Response for Radioactive Material**

Thirteen people had to be decontaminated for radiation exposure after a breach of Cesium-137 — a radioactive substance — at the Harborview Medical Center Research and Training Building. The HazMat and Decontamination Units worked quickly to secure the isolation zone and transport eight of the exposed individuals to the hospital.



Photo Credit: John Odegard

July 10

**Fremont 2-Alarm Fire**

Fire and heavy smoke from a large metal warehouse building in the 600 block of NW 40th St. Fire investigators ruled the fire as accidental and determined it started from overheated electrical wiring. Total estimated loss: \$2.6 million.



Photo Credit: John Odegard

Aug. 2

**Mt. Baker 2-Alarm Fire**

Fire in a two-story residential home that quickly spread to the house to the north. Ladder companies searched the structures and found no one inside. Total estimated loss: \$650,000.

**VAULT RESPONSE TEAM WORKSHOP:**

Seattle Fire and Seattle City Light hosted in November a three-day workshop with partners in Seattle from FDNY, Boston Fire and Con Edison to learn together about the dangers of vault fires and how to minimize impacts when these incidents occur.



Aug. 19

### **Dump Truck Collision Downtown**

A dump truck experienced a mechanical failure while traveling downhill on James St., striking a pedestrian and colliding with three vehicles before crashing into a restaurant. Five patients were treated at the scene and transported to the hospital.



Photo Credit: John Odegard

Oct. 7

### **Ballard 3-Alarm Fire**

Five businesses located in a strip mall on NW Market St. sustained heavy fire damage when a massive fire broke out. Crews transitioned to a defensive attack when the building began showing signs of collapse. More than 150 firefighters were on scene fighting the fire. Fortunately, there were no injuries. Total estimated loss: \$3 million.



Photo Credit: Bob Lukas

Oct. 11  
& 14

### **North Seattle Natural Gas Leaks**

Firefighters responded to two major natural gas leaks in the same week. The first occurred on Midvale Ave. N., and resulted in a fire from an unknown ignition source, injuring three Puget Sound Energy workers. The second occurred in the University District, which required a large evacuation zone.



Nov. 25

### **Northgate 2-Alarm Fire**

Fire in a four-story apartment building in the 10500 block of 8th Ave. NE, which originated from a natural gas fireplace in one of the units. The flue heated up to the point of igniting nearby insulation and surrounding wood rafters in the ceiling and void space. Total estimated loss: \$110,000.



Photo Credit: John Odegard



# EMERGENCY MEDICAL SERVICES

Each year, the Seattle Fire Department responds to more emergency medical calls than fires. In 2019, 80% of department responses were medical in nature.

All Seattle firefighters are trained emergency medical technicians (EMTs) and take continuing education each year to build on their skills. Of those, 73 firefighters have chosen to further specialize their training and serve as paramedics for Seattle Fire.

To become a paramedic, candidates go through a rigorous 10-month program with the University of Washington and Harborview Medical Center, completing 2,750 hours of classroom training, clinical rotations and field training. All students in the program – regardless of the agency they work for – receive their field experience on Seattle Fire’s Medic units and are mentored by Seattle Fire paramedics.

## MEDIC ONE

The Medic One program began in late 1969, when the first group of Seattle firefighters were trained as paramedics in cooperation with Harborview Medical Center and the University of Washington. They took their first call on March 7, 1970.

Since then, the Medic One Program has gained notoriety due to the training, dedication and pre-hospital emergency patient care paramedics deliver within the community. Medic One provides the community with Advanced Life Support activities that, in the past, could only be performed by licensed physicians. In addition to responding to medical emergencies, medic units respond to all working fires, hazardous materials and rescue responses.

Seattle Fire’s Medic One program is currently led by medical director Dr. Michael Sayre and supported by team of fellows and faculty within the University of Washington Section of EMS. These individuals work on a number of quality improvement and research projects relating to out-of-hospital cardiac arrest, advanced airway management, hemorrhagic shock and opioid overdoses.

The program continues to be an innovator in out-of-hospital care. Seattle Fire became one of the first agencies in the nation to begin carrying whole blood on medic responses in the fall of 2019. Applying a lesson learned from war, by infusing trauma patients with whole blood before they reach the hospital, research shows clotting factors increase, which can help a patient’s chance at survival even before reaching an emergency room.



The Medic One program began in 1969.

## SURVIVING CARDIAC ARREST

Seattle and King County have one of the best survival rates in the world for sudden cardiac arrest. Much of that is credited to the exceptional EMS system and the high number of community members who have received CPR training.

### CPR Education

Early intervention by trained bystanders is part of the Chain of Survival that has been proven to increase the odds of surviving sudden cardiac arrest.

Seattle Fire's Medic 2 program has taught more than 850,000 community members how to give CPR since it began in 1971. Class participants can choose from AED/CPR classes, Pediatric CPR or hands-only CPR, which teaches chest compressions only.

Medic 2 instructors reached 8,300 residents of Seattle with CPR education last year. Of those, many are Seattle public and private school students. Thanks to city and state law, students in Seattle are required to receive CPR training in both middle and high school.

In 2019, the Medic 2 program began offering AED/CPR and hands-only CPR classes in a number of languages: Spanish, Chinese, Amharic, Tigrinya, Somali and Swahili. This equips immigrant and refugee residents with these life-saving skills.

### Outcomes

An in-depth analysis of each minute of CPR and the interventions administered during each out-of-hospital cardiac arrest provides information that can help Seattle firefighter/EMTs and paramedics be even more effective in their patient treatment.

For instance, research done by the Seattle Medic One program has shown that the rigorous commitment to decreasing pauses during CPR cut the median pause time in half. Results like this is what brings EMS agencies from across the nation and world to learn from Seattle.

It is also why the department has partnered with the University of Washington for more than 30 years to manage the emergency medical system's quality improvement and research initiatives.

469

# of out of hospital sudden cardiac arrest patients SFD attended

957,000

# of chest compressions delivered

145

# of hours of CPR that equates to



## FEATURE STORY

Kami was finishing a swim class at the West Seattle YMCA when she witnessed her fellow classmate, Bill, collapse immediately after getting out of the pool. He was experiencing sudden cardiac arrest. Kami quickly responded and performed CPR while others called 911 and fetched an AED. By the time Seattle Fire arrived she had already performed several shocks with the defibrillator. Her efforts saved Bill's life.

To learn CPR from Seattle Fire, email [medic2@seattle.gov](mailto:medic2@seattle.gov)



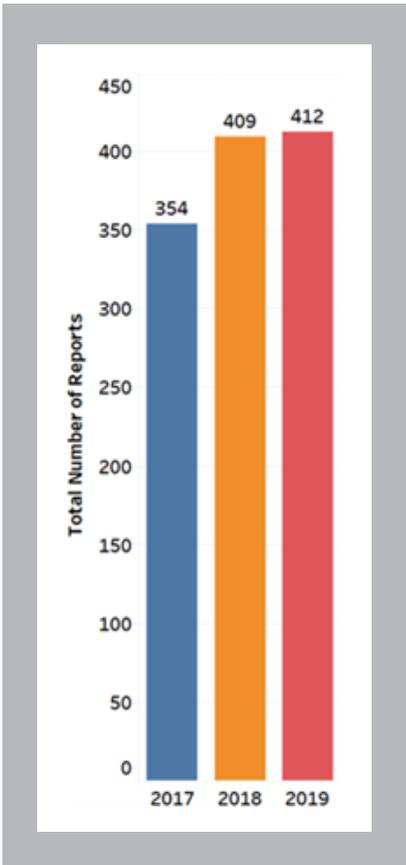
# MOBILE INTEGRATED HEALTH

In 2019, the Low Acuity Alarm program became known as Mobile Integrated Health – a name that better reflects the work encompassed by its three major programs: Vulnerable Adult Reporting, High Utilizer and Health One.

Mobile Integrated Health, or MIH, aims to reduce the burden of frequent, non-emergency callers on the department’s Operations division by addressing patients’ needs differently than the fire service has traditionally been structured to do.

Program staff can take the time needed to connect these low-acuity callers with appropriate in-community resources. MIH staff, several of whom are trained social workers, collaborate with facilities and providers as well as represent Seattle Fire in the social and behavioral health services sector. Firefighters also make referrals directly to Mobile Integrated Health.

*This chart shows an increase in the number vulnerable adult referrals to the Mobile Integrated Health Program.*



## HIGH UTILIZER AND VULNERABLE ADULT PROGRAMS

Both of Seattle Fire’s current referral and outreach case management programs — the High Utilizer and the Vulnerable Adult programs — grew and matured in 2019. Together, the two programs provide a comprehensive reporting mechanism for firefighters encountering patients who are reliant on the 911 system for basic needs, have complex medical and social needs, are unable to self-advocate or are experiencing abuse, neglect or exploitation.

Vulnerable adult referrals increased in 2019 as firefighter participation rose significantly, to 412 unique reports - a 16% increase from 2017. Every area of the city was represented, with top reporting stations in Broadview, Westwood, Lake City, Belltown and Rainier Valley. As in prior years, most vulnerable adults were not connected with any services prior to the report, demonstrating the crucial need this program fills.

In the High Utilizer program, MIH staff connect with patients through firefighter reports or healthcare records. Frequent callers continue to be over-represented among EMS responses. In 2019, the top 10 most frequent callers accounted for more than 400 responses, and more than 270 individuals had 10 or more responses. The program also provided direct management or care coordination service to 77 individuals.

## HEALTH ONE

In November, Seattle Fire expanded its ability to serve the public with the launch of Health One. For the first time in fire department history, in addition to fighting fires and providing basic and advanced emergency medical support, Seattle now has dispatchable resources dedicated to low acuity, non-emergent responses.

Health One is staffed 40 hours per week with two firefighters and a Human Services Department case manager. The Health One team receives special training and serves the downtown core, Pioneer Square, Chinatown/International District, Belltown and Capitol Hill neighborhoods. The Health One unit responds out of Seattle Fire's headquarters.

Health One encounters patients in one of three ways:

- Directly dispatched by the Fire Alarm Center
- Requested by an on-scene firefighter
- Through proactive outreach



Heatmap of Health 1 responses in 2019.



In addition, team members follow up with patients by phone, coordinate their care services and provide feedback to firefighters.

Common Health One responses include minor medical concerns, substance use, unsheltered individuals, behavioral emergencies and frequent callers. The rig is supplied with standard medical supplies; outreach items such as food, water and clothing; and can transport clients to service providers other than a hospital.

As part of the larger MIH program, Health One utilizes the same pool of case managers as the Vulnerable Adult and High Utilizer programs, allowing a seamless and integrated response to many of the city's most vulnerable and at-risk individuals.

**130** Responses by Health One, which is an average of 4.5 per shift.

**42 min.**

Average time spent on each call

**87%**

Responses diverted away from emergency rooms

## MOBILE CRISIS TEAM

Seattle Fire referrals to the countywide Mobile Crisis Team surged in 2019, from 387 in 2018 to 578 in 2019 — a 49% increase. Driven by expanded firefighter training and the Health One unit, these referrals connected patients in behavioral health or substance abuse crisis with a two-person team of outreach specialists and mental health professionals.



# PREPARING FOR OUR FUTURE

## RECRUIT PREPARATION

In 2019, Seattle Fire brought improved structure to the Recruit Preparation program to target areas that have been identified as challenging for recruits. This long-standing program has historically focused on fitness. Through the years, it has transformed into a basic skills training program. Twenty-eight recruits from Class 111 took part in seven different sessions.

## PREPARING CANDIDATES FOR A FIREFIGHTING CAREER

Being a firefighter can be a rewarding and exciting lifelong career. In 2019, the department took intentional steps to provide candidates with the basic knowledge and skills necessary to prepare them for them for a firefighting career with the Seattle Fire Department.

### SeaPrep

In February, the department launched SeaPrep, a program designed to prepare candidates for recruit academy. A total of 105 candidates learned basic skills necessary for firefighting through hands-on experience and training. Fifty-five in-person sessions were held. Additionally, 385 out-of-state candidates were reached by an email campaign to share communication beyond the in-person sessions about training as a tactical athlete.

### Career Expo

Before the open application period for new Seattle firefighters, the department hosted a Career Expo in September for individuals wanting to learn about the department and hiring process. The event was designed to provide hands-on interactive experiences that familiarized potential candidates with the tools and equipment firefighters use on a regular basis.



2

Recruit Academies



43

Recruits successfully completed academy



23,114

Hours of use at Joint Training Facility

### Future Women in EMS and Fire workshop

One way the department is pursuing increased gender diversity in its ranks is by supporting the King County EMS-sponsored Future Women in EMS/Fire workshops. In October, several of Seattle Fire's female chiefs and firefighters planned and hosted a two-day workshop, which rotates annually among fire departments in King County. Women 18 and older were invited to explore the world of EMS and firefighting through demonstrations, panel discussions and skills training. The Seattle-hosted workshop gave 39 women the opportunity to be mentored by women with successful firefighting careers and allowed them see themselves pursuing a fire service career.



Individuals seeking a career as a firefighter with the Seattle Fire Department can apply to one of the department's cadet programs:

### Fire Cadet Program

This program is open to youth who are 16-20 years of age and offers young adults an opportunity to explore a career in the fire service. In 2019, Seattle Fire held 54 sessions for this program, with participation from 15 cadets.

### Senior Fire Cadet Program

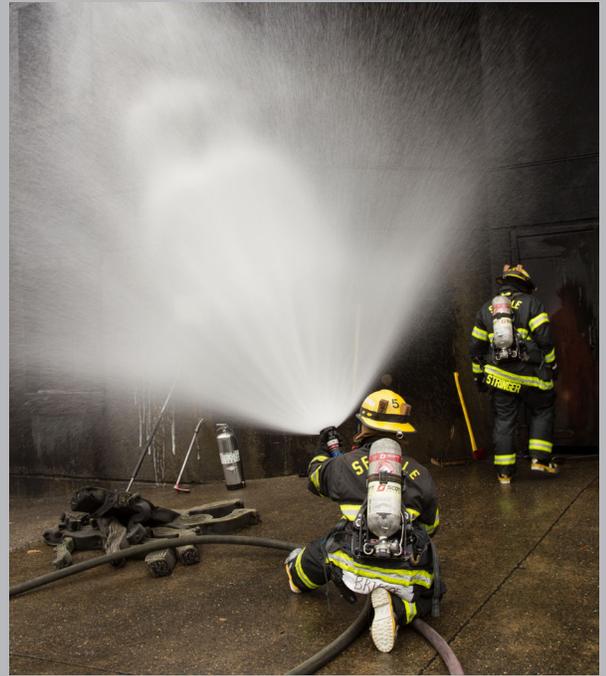
This program is open to adults who are at least 19-years-old and offers an opportunity to gain the skills necessary to become a firefighter and network with others who are pursuing a similar career path. In 2019, the department held 54 sessions for this program, with participation from 30 cadets.

### Fire Cadet Summer Youth Employment Program

This program helps young people (ages 16 to 24) from low-income households and communities that experience racial, social and economic disparities. The goal is to increase youth and young adults' ability to pursue careers that pay well and are meaningful to them. In 2019, Seattle Fire held 24 sessions for this program, with participation from five cadets.

8

Number of former cadets hired as probationary firefighters with SFD in 2019.



## INVESTING IN FUTURE LEADERS

Developing leaders who adapt, innovate and inspire others to embrace change is something the fire service needs to do as the world around it evolves.

### **Executive Leadership Academy**

In partnership with the University of Washington's Center for Leadership and Strategic Thinking at the Foster School of Business, Seattle Fire established an Executive Leadership Academy to challenge and grow local fire service leadership.

The first class of 37 included employees from Bothell Fire, Bellevue Fire, King County Medic One and Seattle Fire. Participants met between October 2018 and June 2019. Sessions were held at different locations, with opportunities to learn about leadership from executives with the Boeing Company, the Duwamish Tribe, Alaska Airlines, the UW Athletic Department and from Mayor Durkan, among others. Students have worked together on group projects aimed at improving a business practice or process that can be used at their sponsoring department.

They also worked one-on-one with a leadership coach to explore areas of professional growth. A second class started in October 2019 and will graduate in 2020.

### **Middle Eastern training from University of Washington**

As Seattle's diversity grows, so does the need for first responders to have the tools to understand how cultural differences might impact their EMS work. David Fenner, with the UW's Middle East Center, presented a high-level overview of Islam in the 21st Century to department leaders. Titled "Bridging Cultures," Fenner outlined the five pillars of Islam, how the Quran intersects with Christian and Jewish texts, and common questions he has encountered from firefighters. He discussed the range of perspectives and beliefs

within the Muslim community – from traditional to progressive – and how that mirrors the diversity of behaviors and beliefs in Western culture. This training extended to all Seattle Fire personnel in late summer.

### **Company officer development**

Seattle Fire's Employee Development and Leadership Committee continues to seek out a gold standard of training, knowledge, certifications and skills to be met for positions in the department from recruit firefighter to assistant chief. The committee has worked over the years with the Training division to design programs and processes to put in place to bring Seattle Fire members up to the standards that have been identified for each position. In 2019, the Training Division hosted three week-long academies to develop our members as leaders in the fire service:

- **Fire Officer 1:** This course prepares company officers or aspiring officers with the skills necessary for the role of Lieutenant. Fifteen members attended the course offered in January.
- **Fire Officer 2:** This is the second course in the fire officer series and helps prepare aspiring or current captains for their role. Seventeen members attended the course offered in December.
- **Lieutenant Officer Develop Academy:** This course was designed and conducted by Seattle Fire personnel to prepare aspiring or current lieutenants for their role through a week-long development academy. Twenty members attended the course offered in October.



# FIRE PREVENTION & INVESTIGATION

The Fire Prevention division is responsible for the implementation, administration and enforcement of the city's fire code. The code provides fire and life safety standards for buildings, activities and hazardous processes, helping to protect people and property from the hazards of fire, explosion or dangerous conditions where they live, recreate and do business. Fire code compliance also helps ensure firefighter and emergency responder safety during emergency operations.

The division, made up of full-time firefighters, fire officers, professional engineers and administrative staff, is service-oriented and provides technical information to small and large business owners, event promoters, developers, architects and contractors. The division provides information to the public, and customers can file complaints with the division for help resolving fire code violations they have spotted in their neighborhood.

### **SPECIAL EVENTS & ANNUAL ASSEMBLY PERMITS:**

Fire prevention officers conducted approximately 3,250 inspections for special events including fairs, festivals, major league football and concerts. They issued 1,652 permits for special events and 1,026 permits for annual assemblies.



#### **FIRE INVESTIGATION UNIT:**

In 2019, the FIU investigated the origin and cause of 432 incidents; of these investigations, 196 were determined to be accidental, 148 incendiary/arson, 10 had other causes and 78 were left undetermined.



#### **SPECIAL HAZARDS:**

Fire permit specialists issued a total of 6,041 hazmat permits for hazards from storage of combustible gases to welding on marine vessels to industrial and commercial chemicals.

### **SYSTEMS TESTING:**



Fire inspectors provided oversight to testing and repairs for all 27,580 fire protection systems in the city. More than 4,426 deficient systems were reported and repaired.

### **INSPECTIONS FOR NEW**

#### **CONSTRUCTION & REMODEL:**



Performed 5,660 inspections at construction sites, focusing on the installation and inspection of fire protection systems.

### **PLAN REVIEW:**



Fire protection engineers received and reviewed 1,356 architectural plans, completing 15% within 2 days; and 1,718 Fire alarm/Fire sprinkler systems, completing 62% of these within four weeks.



### **COMPLIANCE:**

Fire prevention officers conducted 1,663 inspections.

## SYSTEMS TESTING



14,770

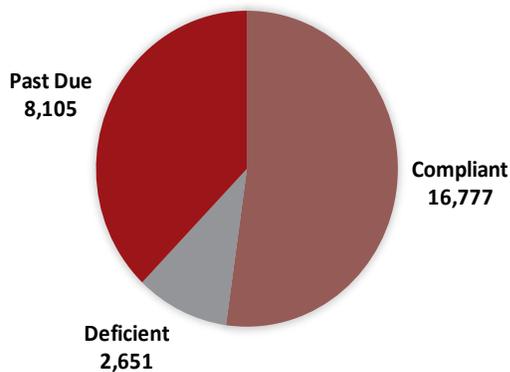
Premises Monitored



27,580

Systems Monitored

### REPORTED SYSTEM STATUS



## BUILDING INSPECTIONS

34,023

Total number of inspections conducted by FPD and Operations.

### Fire Prevention division plans for implementation of three new initiatives in 2020

To help prevent fires and keep people in Seattle safe, the department's Fire Prevention division prepared to launch three new initiatives to take effect on Jan. 1, 2020.

**Preventable Alarms 2020 Initiative:** Each year, the department responds to more than 5000 preventable or "false" alarms in Seattle. That's approximately one out of every three calls where units are sent. Preventable alarms take firefighters out of service, making them unavailable to respond to fire and emergency medical emergencies. The intent of this initiative is to encourage maintenance and needed modification of alarm systems and discourage acts that result in alarm activation when no fire is present.

**Systems Testing 2020 Initiative:** Sprinklers, fire alarms and suppression systems are among the most important components of any building for saving lives and protecting property in the event of a fire. However, too many buildings in Seattle have untested or unrepaired fire protection systems. This initiative is aimed at ensuring the "responsible party" of a building maintains their systems in good working condition and tests their systems annually.

**Nightlife Safety 2020 Initiative:** The Seattle Fire Department is part of a multi-departmental team of city and King County employees who inspect nightlife and event venues to promote an environment that is safe for employees and patrons. Some violations at nightclubs pose a significant and immediate threat to life safety. The intent of this initiative is to keep venues safer by writing citations for overcrowding, blocked exits and unsafe conditions at the time of inspection.



Photo Credits: John Odegard

## OUTDOOR FIRES

The fire code generally prohibits outdoor fires in Seattle. There are certain limited circumstances under which outdoor recreational fires may be allowed, provided that strict fire safety requirements are met and that air quality conditions allow outdoor burning. For instance, outdoor fires using charcoal or firewood that occur in designated areas or on private property for cooking, pleasure, ceremonial or similar purposes is allowed. The department may extinguish outdoor fires if these conditions are not met or when it creates unsafe conditions. The department has issued guidance on outdoor fires in a Client Assistance Memo 5022.



Photo Credit: John Odegard



Photo Credit: John Odegard



# PUBLIC AFFAIRS

## KEY COMMUNITY EVENTS

### Seattle Fire Days

In June, Seattle Fire and the Museum of History and Industry (MOHAI) marked the 130th anniversary of the Great Seattle Fire that destroyed 25 city blocks on June 6, 1889. Attendees of this free event explored different fire apparatus and watched demonstrations by FEMA-certified search and rescue dogs Kersee and Rojo. Inside the museum, children tried on firefighter gear, learned about safely escaping from a fire and toured the museum's permanent display about the Great Seattle Fire.

In late August, the department hosted a similar Fire Day at the Mt. Baker and Sailing Center. Seattle Children's Hospital and the Seattle Fire Foundation also joined the event. In addition to tours of a ladder truck, engine, aid unit and fire boat, members of the Seattle Fire Rescue Swimmer Program demonstrated water safety tips to the hundreds who attended. Educational activities, rescue dog demonstrations and Story Time with Fire Chief Scoggins rounded out the day.

### Remembering 9/11

September 11, 2001 was a day that forever changed the nation, and its impact is still felt by the first responder community. Seattle Fire and Seattle Police held a public remembrance at the Seattle Center Memorial Garden. Mayor Jenny Durkan, Fire Chief Harold Scoggins and Police Chief Carmen Best led the memorial, which featured various performances and speakers, and closed a moment of silence. Chief Scoggins and Chief Best had the honor of raising the U.S. flag atop the Space Needle, and while raising the U.S. flag at each station, Seattle firefighters read aloud the names of the firefighters who perished on 9/11.



 **145k**  
Twitter Followers  
@SeattleFire

 **24k**  
Facebook Followers  
@SeattleFire

 **12k**  
Instagram Followers  
@Seattle\_Fire

## Fallen Firefighter Memorial

Seattle Fire held its annual Fallen Firefighter Memorial in Occidental Park on October 5, honoring and remembering the lives of all Seattle firefighters who have died in the line of duty. This event is held the first Friday of October, and all are welcome.



## OUTREACH AND TRAINING

### Red v Blue Challenge

Seattle Fire and Seattle Police engaged in a friendly challenge in June, all to help ensure a strong, stable local blood supply. Donations tend to drop in the summer right as trauma units usually see an increase in patient usage. The public was invited to participate and notch their donation for either fire or police credit. Seattle Fire generated the most donors overall, but Seattle Police won the challenge by recruiting the most first-time donors. A rematch is planned for the summer of 2020.



### Community Fire Safety Advocates

The Community Fire Safety Advocates taught fire safety and promoted hands-only CPR on behalf of Seattle Fire at numerous community events and health fairs, reaching nearly 3,975 residents with these important messages. Several of the CFSAs also became certified to teach AED/CPR classes for the department in 2019, adding Spanish, Chinese, Amharic, Tigrinya, Somali and Swahili to the languages available for teaching this life-saving skill.



## Firefighter Story Times

In partnership with the Seattle Public Library, more than 1,000 preschool children and adults learned critical fire safety lessons from Seattle firefighters during the popular Firefighter Story Times series held at eight libraries citywide over the summer. Firefighters read the endearing story of a little girl who befriends a real, fire-breathing dragon in order to teach fire safety smarts. After each read-along, firefighters dress in their protective gear – one piece at a time – to teach the children not to be scared if they ever need to be rescued by a firefighter. The program ends with a tour of the crew’s apparatus parked outside.

## Free smoke/carbon monoxide alarms

Seattle Fire installs free smoke/carbon monoxide alarms to qualified homeowners in the city. The department joined with the American Red Cross in a door-to-door campaign in several South Seattle neighborhoods in October to increase awareness of the program and install new alarms where needed.

The department also continued a FEMA grant-funded project with select Seattle public schools. Seattle Fire developed an elementary school curriculum that empowers children to become junior fire inspectors. If they discover their home doesn’t have a working smoke alarm, an adult can call Seattle Fire for a free one.

## NEWS AND INFORMATION

### Seattle Responder

Each month, Seattle Fire publishes a newsletter with safety tips, significant incident recaps, updates from the department and a note from Fire Chief Scoggins. The user-friendly format allows readers to link to articles on the Fireline blog or department website. To subscribe, visit the publications and newsletter page on [seattle.gov/fire](http://seattle.gov/fire).

### Social media

New in 2019, Seattle Fire joined the NextDoor community as another way to connect and engage with Seattle residents.



## burning love

Dating App



### Seattle Fire, 28

Here to serve since 1889, Active now

Enjoys responding to emergencies quickly, putting out fires and long walks on the beach. Looking for a person who moves right for travelling lights and sirens.



Note: this is not a real dating app, but an effort to get you to move right for lights and sirens.

# PHOTO GALLERY







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Seattle, WA 98104

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fireinfo@seattle.gov

**Chapter 35.103 RCW:** Revised Code of Washington Chapter 35.103 was passed into law during the 2005 legislative session (House Bill 1756). This law mandated certain response criteria be established and measured by fire departments across the State of Washington beginning in 2007 with an analysis of responses in 2006. The requirement was passed and is now the law for all substantially career fire departments. The purpose of this law is to report to the Governing Body of each fire jurisdiction, as well as to the residents of any given area, how the fire department is doing in meeting its established emergency response standards. These standards take into consideration a number of response types: A) Fire Suppression, B) Emergency Medical Services - Basic Life Support (BLS), C) Emergency Medical Services - Advanced Life Support (ALS), D) Special Operations (i.e. Hazardous Materials response and Technical Rescue response), E) Aircraft rescue and firefighting, F) Marine rescue and firefighting, G) Wildland firefighting.

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