



Here to Serve

Seattle Fire Department 2018 ANNUAL REPORT

INTEGRITY ♦ TEAMWORK ♦ COMPASSION ♦ COURAGE ♦ DIVERSITY



Photo Credit: John Odegard

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MESSAGE FROM FIRE CHIEF

I have accepted fear as part of life – specifically the fear of change...

I have gone ahead despite the pounding in the heart that says: turn back...

- Erica Jong

MESSAGE FROM THE CHIEF

I am pleased to share the Seattle Fire Department's annual report for 2018. As we reflected on all that has happened, it is no wonder the year seemed to move so quickly.

The year began with an arsonist starting nearly two dozen fires in dumpsters and recycling bins in Ballard. This led to an outreach campaign to help businesses take steps to reduce the risk of additional fire setting. In December, our ambulance provider experience - and thankfully settled a labor dispute that threatened to disrupt the hospital transport service they provide.

In all, we responded to 94,780 incidents. As busy as we were, this was the second year in a row that we had a two percent decline in the number of responses. We attribute some of that decrease to the Low Acuity Program's work with individuals and facilities that divert non-emergency situations away from 911 and to appropriate services. We also believe the work to refine dispatch protocols that ensure calls that don't require our presence are properly routed is also helping reduce the actual response count.

Seattle continues to grow rapidly and is experiencing many of the same issues as other metropolitan cities. Issues around homelessness create challenging situations our firefighters must address, including responding to outdoor fires in difficult-to-access areas. Fires in vacant and derelict buildings present many unknowns, from questions about structural integrity and hazardous contents, to the possibility of people sheltering inside.

We instituted several changes in 2018 related to the safety of our members at incident scenes. We implemented new protocols with Seattle Police for responding in tandem to specific areas. In response to national standards, we deployed ballistic vests and helmets for firefighters and paramedics who are called to a scene with police activity underway.

We also accomplished a number of exciting initiatives: formalized a dedicated electrical vault response firefighting team in partnership with Seattle City Light; graduated 53 new firefighters and eight new paramedics; introduced young adults to the fire service through the city's Seattle Youth Employment Program; developed and trained on response plans for the new SR 99 tunnel; and established, with the University of Washington's Foster School of Business, an executive leadership academy for civilian and uniform staff.

We also enjoyed meeting many of the firefighters who came to Seattle for the IAFF's centennial celebration and conference. I know many of us were deeply honored to have been invited to participate with athletes and their families in the week-long Special Olympics 2018 Summer Games activities. The competitors' spirit and athletic prowess provided much inspiration to us all.

On behalf of all the personnel working for the Seattle Fire Department, I want to express my appreciation for your support. Whether it's at a community event or during a response, we are grateful for the high level of trust you have in your fire department. It is something we do not take lightly and will always strive to deserve.

Sincerely,



Fire Chief Harold D. Scoggins
Seattle Fire Department



Here to Serve



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 has existed as a fire department within the State of Washington since October 17, 1889, when the Seattle City Council passed Ordinance No. 1212. The services provided by the Seattle Fire Department include:

- Critical fire suppression services 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

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.

OUR VALUES

Integrity—We are honest, trustworthy and accountable. Honor guides our actions.

Teamwork—We each bring our own skills and experience, yet we recognize that we are better together. We support and depend on each other to achieve our goals.

Compassion—Caring is part of our job. We could not do what we do without a deep and motivating empathy for those we serve.

Courage—We show fortitude and determination in a crisis.

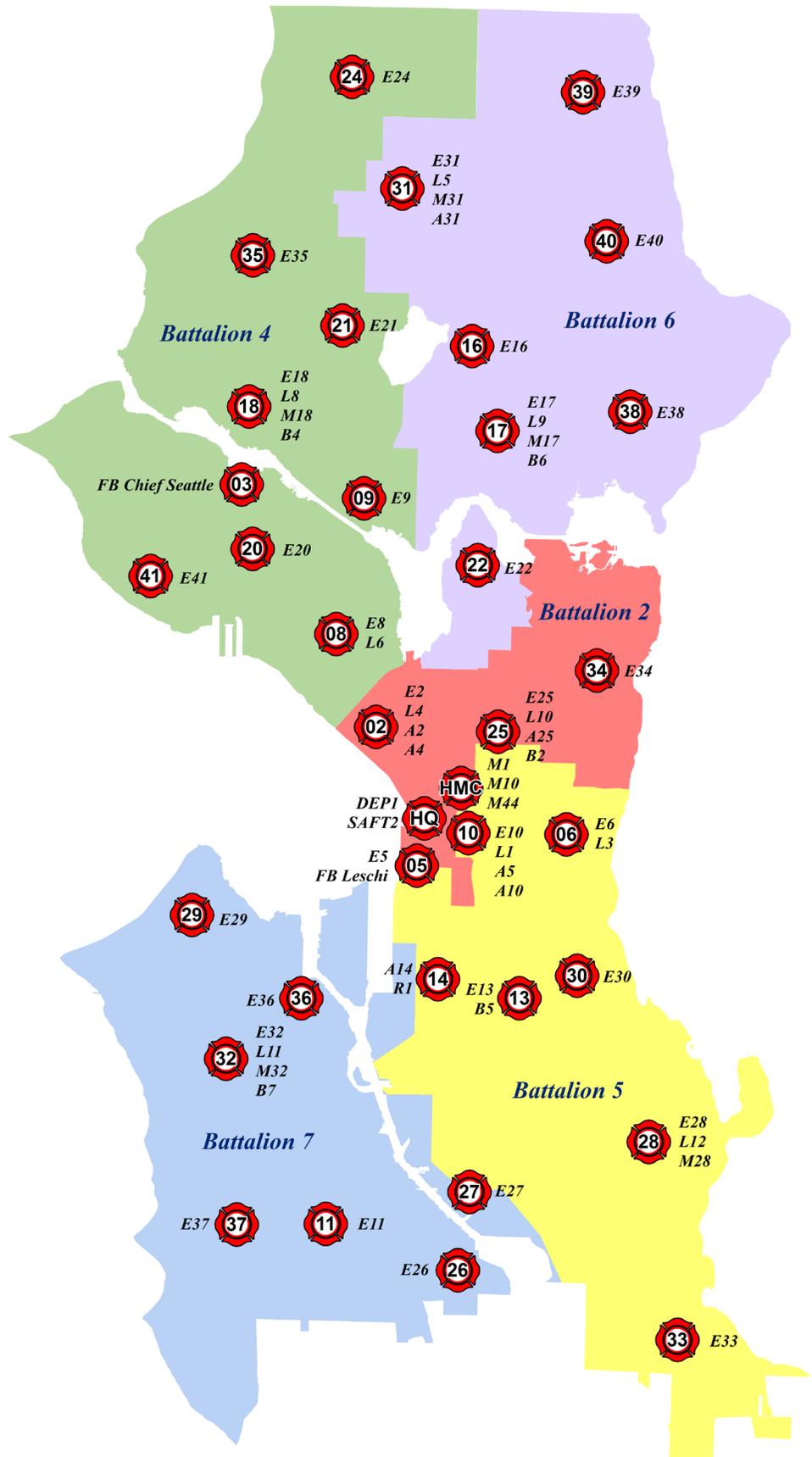
Diversity— We respect the different identities, experiences, and perspectives of those that we work with and the community we serve.



Photo Credit: FireDogPhotos

STATION, MAP AND APPARATUS PROFILE

- 33 Fire Stations
- Medic One at Harborview Medical Center
- 33 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)
- 2 Air Trucks
- 2 Hose Wagons
- 4 Fire Boats
- Additional specialized apparatus



TIERED RESPONSE SYSTEM

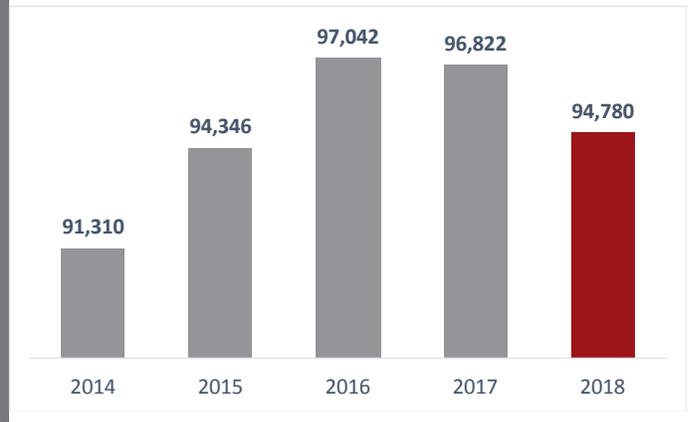
The Seattle Fire Department provides emergency response through five battalions, consisting of 33 fire stations (plus Battalion 3/Medic One at Harborview Medical Center) strategically placed around the city in order to maximize coverage and minimize response time.

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 1007 uniformed personnel, 37 department chiefs, 935 firefighter/EMTs, 72 firefighter/paramedics and 73 civilian personnel.

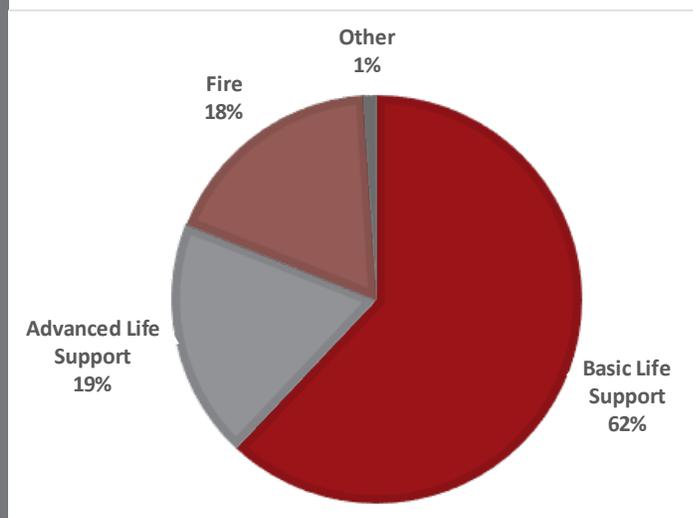
Every day, there are 210 members responding to emergencies across the city (214 with upstaffing for daytime aid cars). Depending on the type of emergency, the Fire Alarm Center will dispatch the appropriate resources to provide fire suppression, Basic Life Support (BLS), Advanced Life Support (ALS) and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



2018 Response Types



2018 Quick Facts

- Aid 25 (located at Station 25) responded to a total of 6,252 incidents.
- Medic 10 (located at Harborview) responded to a total of 4,483 incidents.
- Engine 10 (located at Station 10) responded to a total of 3,383 incidents.
- Ladder 1 (located at Station 10) responded to a total of 2,662 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.



FIRE ALARM CENTER

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

The FAC dispatched resources to 94,780 incidents in 2018. Total calls coming into the FAC, emergency and administrative, have increased by 17% since 2014. In 2018, the FAC received 191,112 calls.

FAC personnel are working to increase the efficiency of the Emergency Medical Dispatch program by revisiting medical protocols and exploring how the application itself could be changed. Improvements will result in better dispatcher workflow, decreasing the amount of time taken to dispatch appropriate resources to incidents. Dispatchers continue to use the Quality Enhancement Program which allows them to review each other's calls to learn best practices and make necessary adjustments to more effectively process calls.

CALL PROCESSING TIME

Phone pickup to first unit assigned

Seattle Fire Department call processing time standard is 60 seconds, 80% of the time.

Year	% of time call processing standard met
2018	81%
2017	84%
2016	85%
2015	81%
2014	79%

CALL VOLUME

Seattle Fire Department calls come from two sources: emergency 911 dispatch and administrative phone lines.

Year	Emergency Calls	% Change	Administrative Calls	Total Calls Received	% Change
2018	149,844	-0.07%	41,268	191,112	-0.1%
2017	150,919	-0.6%	40,557	191,476	6.5%
2016	151,912	0.9%	27,727	179,639	-1.3%
2015	150,537	13.6%	31,578	182,115	14%
2014	132,543	4.5%	27,185	159,728	6.3%



Photo Credit: John Odegard

RESPONSE STANDARDS

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.

EMS TURNOUT TIME

Time span between unit being assigned to being en route

Seattle Fire Department turnout time standard is 60 seconds, 90% of the time.

Year	% turnout time met
2018	48%
2017	48%
2016	50%
2015	54%
2014	51%

FIRE TURNOUT TIME

Time span between unit being assigned to being en route

Seattle Fire Department turnout time standard is 80 seconds, 90% of the time.

Year	% turnout time met
2018	44%
2017	42%
2016	46%
2015	52%
2014	51%



Photo Credit: Bob Lukas



Photo Credit: Bob Lukas

FIRST ARRIVING ENGINE AT FIRE

En route to on-scene

Seattle Fire Department response time standard for the first arriving engine at a fire response is 4 minutes, 90% of the time.

Year	% of response time objective met
2018	76%
2017	77%
2016	84%
2015	83%
2014	86%



Photo Credits: John Odegard

FULL FIRST ALARM ASSIGNMENT AT FIRE

Enroute to on-scene

Seattle Fire Department response time standard for full first alarm assignment (15 firefighters) when responding to a fire is 8 minutes, 90% of the time.

Year	% turnout time met
2018	78%
2017	71%
2016	86%
2015	86%
2014	89%



BASIC LIFE SUPPORT UNIT

En route to on-scene

Seattle Fire Department response time standard for the arrival of the first unit is 4 minutes, 90% of the time.

Year	% of response time objective met
2018	79%
2017	79%
2016	84%
2015	84%
2014	84%

ADVANCED LIFE SUPPORT UNIT

En route to on-scene

Seattle Fire Department response time standard for the arrival of an advanced life support unit with two firefighter/paramedics is 8 minutes, 90% of the time.

Year	% turnout time met
2018	86%
2017	86%
2016	89%
2015	89%
2014	87%





Photo Credit: John Odegard

FIREFIGHTING

Significant Incidents

SIGNIFICANT INCIDENTS

May 11

2-Alarm House Fire with SWAT Team

This incident initially began as an eviction of the home's occupant by the King County Sherriff's Office. Firefighters were called to the scene when SWAT team members who had entered the residence saw it was on fire. Department members worked alongside law enforcement SWAT teams to fight the fire from safe, defensive positions. The fire was kept from spreading to adjacent homes. Unfortunately there was one fatality.

June 26

Duwamish River Barge Fire

Dark black smoke was visible for miles around as a large barge piled high with metal scrap from a car recycler caught fire on the Duwamish River. Crews arrived to a large amount of fire with explosions, likely caused by discarded propane tanks within the scrap pile. Hundreds of gallons of foam were required to control the fire, and heavy equipment was needed to offload the barge for final extinguishment. Responders placed booms around the vessel.

Oct. 13

Century Terrace Apartment Fire

Crews responded to a rapidly spreading fire on the fifth floor of a large apartment building on lower Queen Anne. Water application from outside at ground level controlled the fire while interior teams stretched hoselines up five flights of stairs to extinguish the fire and keep it from spreading to adjacent apartments.

Nov. 10

4-Alarm Lumber Warehouse Fire

The first four-alarm fire fought by the Seattle Fire Department since 2010 started in a lumber warehouse and spread to four additional structures before being brought under control by multiple large streams, including a master stream from the Fireboat. The warehouse was fully engulfed with flames up to 100 feet in the air when crews first arrived. Under mutual aid, neighboring fire departments sent units into the city to cover stations while Seattle units fought the blaze. Investigators determined the fire an arson, leaving an estimated \$4 million in damages.

Dec. 31

Marijuana Grow Operation Fire

A well-involved fire in a single-family residence resulted in two fatalities. The fire had to initially be attacked from the exterior. As crews fought their way inside, difficult conditions continued to be encountered. A firefighter partially fell through a hole that had burned in the living room floor. The firefighter was extricated without injury. The home was found to contain a marijuana grow operation and the cause of the fire was determined to be accidental involving a grow light.

FIRE INCIDENTS

Year	Total # of fire responses
2018	17,080
2017	16,548
2016	15,787
2015	15,079
2014	14,254





MEDIC ONE/ PARAMEDICS

MEDIC ONE

Established in 1970 as a joint effort between Seattle Fire Department, Harborview Medical Center and the University of Washington, the Medic One program combines rigorous training and innovative medical techniques in a two-tiered emergency response system.

Firefighter/paramedics provide direct Advanced Life Support (ALS) services to the residents of Seattle, which previously could only be performed by a licensed physician.

Unparalleled cardiac arrest survival rates have given Medic One a world class reputation, attracting representatives from public safety agencies around the world to study and attempt to replicate the program's success in their jurisdiction.

EMS RESPONSES

Total number of Basic Life Support (BLS) and Advanced Life Support (ALS) responses by year.

Year	Total # of BLS responses	Total # of ALS responses
2018	58,694	17,970
2017	60,168	18,590
2016	60,152	19,303
2015	57,876	19,897
2014	56,442	19,247

BATTALION 3 - PARAMEDICS

Seattle Fire employs 72 firefighter/paramedics who comprise the department's Battalion 3. Medic units are stationed at key locations around the city to provide rapid response to cardiac arrest patients and others with traumatic injuries.

Paramedic School

The department graduated eight new paramedics in July 2018 from the MK Copass MD, Paramedic Training Program at Harborview Medical Center. They join the ranks of firefighter/paramedics assigned to the department's Battalion 3. Five additional firefighter/EMTs began training in the fall of 2018 to become paramedics.

Members from Battalion 3 participated in a Recruitment and Retention Task Force to recruit a larger number of students for the 2019 class. The work of the taskforce focused on the selection process and creating a department-wide recruitment campaign.

SNOCAT

In 2018, Battalion 3 started participating in Phase 2 of a first-of-its-kind drug trial. Sodium Nitrite Out of Hospital Cardiac Arrest Trial (SNOCAT) is evaluating Sodium Nitrite Dosing and Safety in Out of Hospital Cardiac Arrest. Enrollment in the trial is expected to continue into 2021.

Fellowship

In 2018, the second physician graduated from the two-year Emergency Medical Services Medicine Medical Director Fellowship through the University of Washington and Medic One. A third entered her second year with the program, and two new first-year fellows started.

Academy Participation

Battalion 3 participated in the Seattle Resuscitation Academies in March and October and were represented at several other regional and international Academies.

Visitors

In 2018, Battalion 3 had visitors from Australia, Denmark, England, Ireland, Italy, Japan, New Zealand, Norway, Singapore and Taiwan, as well as from across the United States.

8.1

Daily average number of responses per medic unit

5,634

Number of Advanced Life Support transports.



FLEETS & FACILITIES



FLEET

In April, Mayor Durkan issued an Executive Order directing city departments, where possible, to accelerate the adoption of electric fleet vehicles and phase out fossil fuel use vehicles by 2030. Seattle Fire has been looking for ways to go electric where a cost-effective option exists to fulfill our mission.

As part of Seattle Fire's vehicle renewal process, the department has:

- Put in service eight all-electric sedans for the Fire Prevention Division and installed charging units at Fire Station 14
- Installed charging stations at headquarters in preparation for replacement hybrid electric SUV's expected in 2019

Other fleet changes:

- A new Hazmat 1 apparatus in service at Station 10
- Reassigned a Medic One unit to serve as a second peak-time aid car (A31) based at Station 31
- Two flatbed trucks for the Commissary and Joint Training Facility use
- Replaced the van used by Public Affairs for education and outreach

FIRE FACILITIES & EMERGENCY RESPONSE LEVY

Stations 5 and 22 welcomed in community members to see firsthand the updates and changes made possible by the 2003 Fire Facilities and Emergency Response levy. These were the last two levy construction-related open houses.





Photo Credit: John Odegard

FIRESTAT

FIRESTAT

Innovation drives service

Seattle Fire has a long history of leveraging innovation to improve its service to the community and drive better patient outcomes. In 2018, the department adopted a new platform that has the potential to revolutionize how Seattle Fire uses its fire and EMS data to level up its operational performance.

Like many large organizations, Seattle Fire data has been managed in different systems and across different formats. The reporting tools in

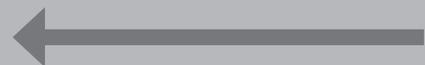
place were not well understood by all users, nor did they allow someone to drill down to metrics important to a specific battalion or unit. Those limitations have been frustrating to department leaders who want to use historic and real-time data to drive changes and inform strategy.

Inspired by the Seattle Police Department's SeaSTAT platform, Seattle Fire staff worked closely with the Mayor's Office of Innovation and Performance team on the project to take key data sets and develop dashboards with the capability to analyze operational and performance data, by unit, station, battalion and department wide.

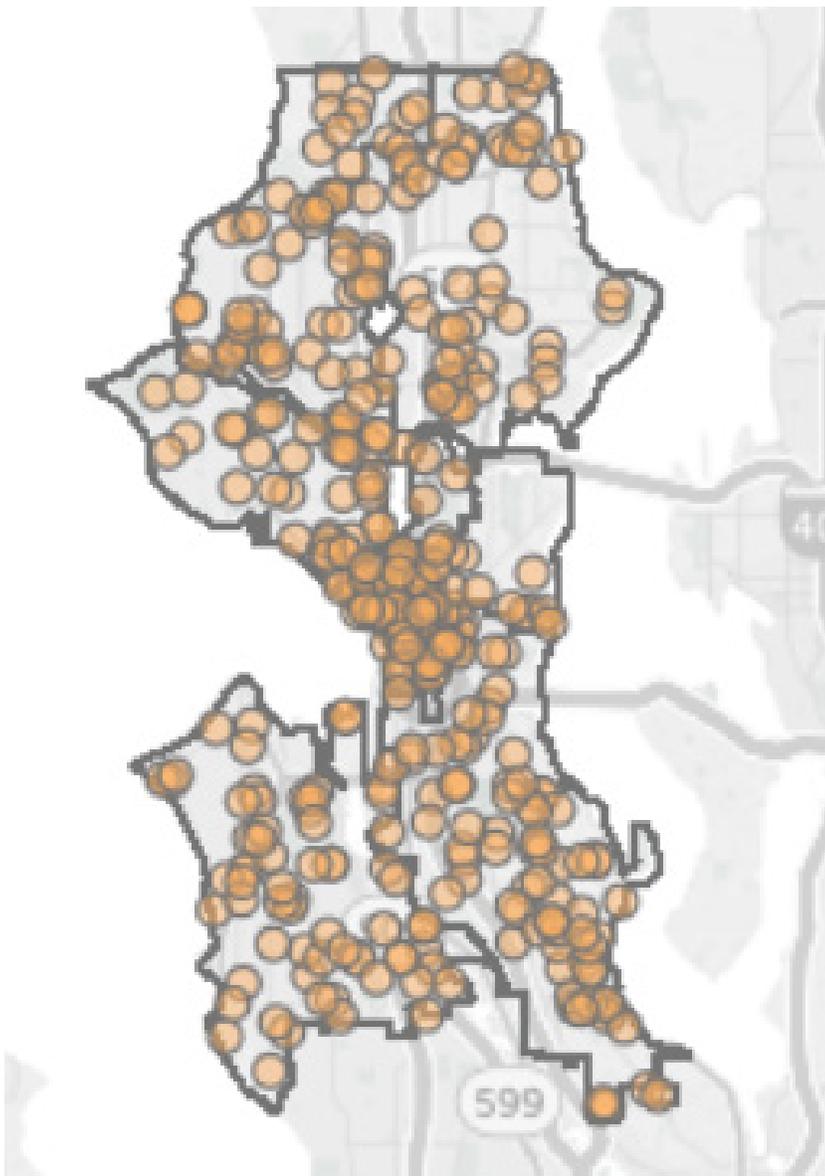
The results

The department has already seen benefit in its early use of FireSTAT. Department leaders are able to more easily and quickly identify trends in call types and locations and monitor response times. By integrating data sets into this visualization tool, key performance indicators are more easily tracked and emerging trends identified.

Plans in 2019 include adding more data sets to the platform, all of which help the department achieve its mission critical work.



The map to the left is an example of the type of data that can be shown through the FireSTAT program. This map shows the number and locations of residential fires, building fires and marine fires in 2018. Each orange dot represents an occurrence of a fire.





TECHNICAL OPERATIONS & SPECIALTY TEAMS

Seattle Fire has established several teams that can respond to specific incident types that present a higher-risk environment for responders.

Technical Teams

- Hazardous Materials Team
- Decontamination Team
- Technical Rescue Team
- Marine Emergency Response Team
- Fireboat
- Vault Response Team

Specialty Teams

- Rescue Boat 5
- Rescue Swimmer
- Wildland Team
- Aviation Team
- Tunnel Rescue Team
- Urban Search & Rescue Team

VAULT RESPONSE TEAM

Officially formed in June 2018 from an innovative partnership between the fire department and Seattle City Light, the Vault Response Team responds to manhole and vault fires occurring inside of Seattle City Light's network electrical distribution grid. It is Seattle Fire's newest technical team and the only one of its kind in the nation with this specific responsibility.

Firefighters, armed with carbon dioxide canisters, mount an offensive approach to snuffing the fire and preventing it from spreading throughout the entire vault system. Once the fire is out and the vault is cleared of smoke and carbon dioxide, City Light can de-energize electrical equipment, making the area safe for crews to begin repairs.

All members assigned to Station 25 receive ongoing training and specialized equipment and information needed to address the public safety needs resulting from network vault fire incidents.





Photo Credit: John Odegard



FIREBOATS

Surrounded by several water bodies, the Seattle Fire Department employs fireboats as part of its response and rescue strategy. The fireboat unit's mission is to train, maintain and deploy a water side resource in an effective, rapid response, to fire, rescue and all calls for assistance. This includes all areas and population of the city and region.

There are four fireboats deployed from two stations: FB Leschi (108') and FB Two (50') are moored at Station 5 on salt water, and FB Chief Seattle (96') and FB One are moored at Station 3 on fresh water. The Fireboat Leschi is equipped with a boat mounted radiation/nuclear detector and is part of the Regional Area Maritime Security Response System.

In 2018, the fireboat unit responded to 229 emergency calls.

RESCUE SWIMMERS

The Rescue Swimmer team is poised to send highly-skilled surface water rescue swimmers to incidents in any body of water in the city. Their tactical objectives are to:

- Rapidly extricate accessible victims from the water
- Efficiently search priority areas
- Perform pre-dive rescue tactics needed to identify a "last seen" point and conduct a search of that area

The Rescue Swimmer Group responded to 58 emergency incidents in 2018. One example: during the Seafair hydroplane races, two rescue swimmers – already assigned to the water protection group – responded to and rescued an adult and two children who were drowning.

They entered the water a number of additional times throughout the year to assist tired swimmers, extricate dive rescue victims as well as search around overturned boats and piers.

WILDLAND TEAM

In 2018, Seattle Wildland Team members were deployed on seven different mobilizations in Washington, either as part of a Strike Team for structural protection or as leading firefighters from around the state. Due to extreme fire conditions in 2018, many of the assignments were in fast moving, wind driven fire conditions where wildland firefighters did all they could to stay ahead of the fire and protect lives and property.

The fire season started in early June for Seattle Fire team members and ended with a final mobilization to the Woolsey Fire near Camarillo and Santa Monica, California, which burned almost 100,000 acres and destroyed over 1,500 homes, with an estimated \$4-6 billion dollar property loss.

A few of the significant mobilizations:

- **Chelan Hills Fire**—Approximately 20 structures were lost in this 1,842 acre fire. During the seven-day deployment, SFD firefighters were involved with initial attack and structure protection on two new wind-driven fires.
- **Grass Valley Fire (Coulee City)**—Affecting approximately 75,000 acres, Squad 40 was involved with the fast-moving fire attack. One firefighter was caught in a burnover and suffered severe burns to his head, arms and hands.
- **Cougar Creek Fire (Entiat Valley)**—This 42,712 acre fire burned for over a month. Many different Seattle Fire members worked structure protection and a few in incident management positions. During one significant wind event, with sustained 60 mph down-canyon winds, Seattle Fire and firefighters from neighboring King County departments saved many homes from loss.

URBAN SEARCH AND RESCUE TEAM (USAR)

Washington Task Force 1 is a specialized team of individuals trained to respond to large scale, state and multi-state wide disasters. Specialties include medical, plans, logistics, technical search to include K9, hazardous materials, swift water rescue teams, structural collapse and others. In 2018, there were approximately 60 Seattle Fire Department members as part of Washington Task Force 1.

In 2018, members responded to multiple hurricanes: Hurricanes Lane and Olivia on the island of Maui, Hurricane Michael in Florida and Hurricane Florence, which significantly impacted the states of Georgia, South and North Carolina, Tennessee and Virginia. They were also on alert to respond to Alaska following an earthquake.





LOW ACUITY ALARM PROGRAM

The Low Acuity Alarm Program asks the question: "Can the Seattle Fire Department divert non-emergent callers away from the 9-1-1 system and toward more appropriate services and destinations?" We believe the answer is yes.

MOBILE CRISIS TEAM

This two-person clinical team, run by the Downtown Emergency Service Center, can be called out by police or fire to assist someone in behavioral or substance abuse crisis. They offer services such as on-scene counseling, follow-up appointments and transport to the Crisis Solutions Center and other non-hospital locations.

MOBILE INTEGRATED HEALTH

With advocacy from the Mayor and City Council, a pilot program was funded for the department to field a Mobile Integrated Health unit. This vehicle and staff will focus solely on low acuity alarms and callers, with the goal of providing them appropriate services and reducing the impact of these calls on front-line fire units.

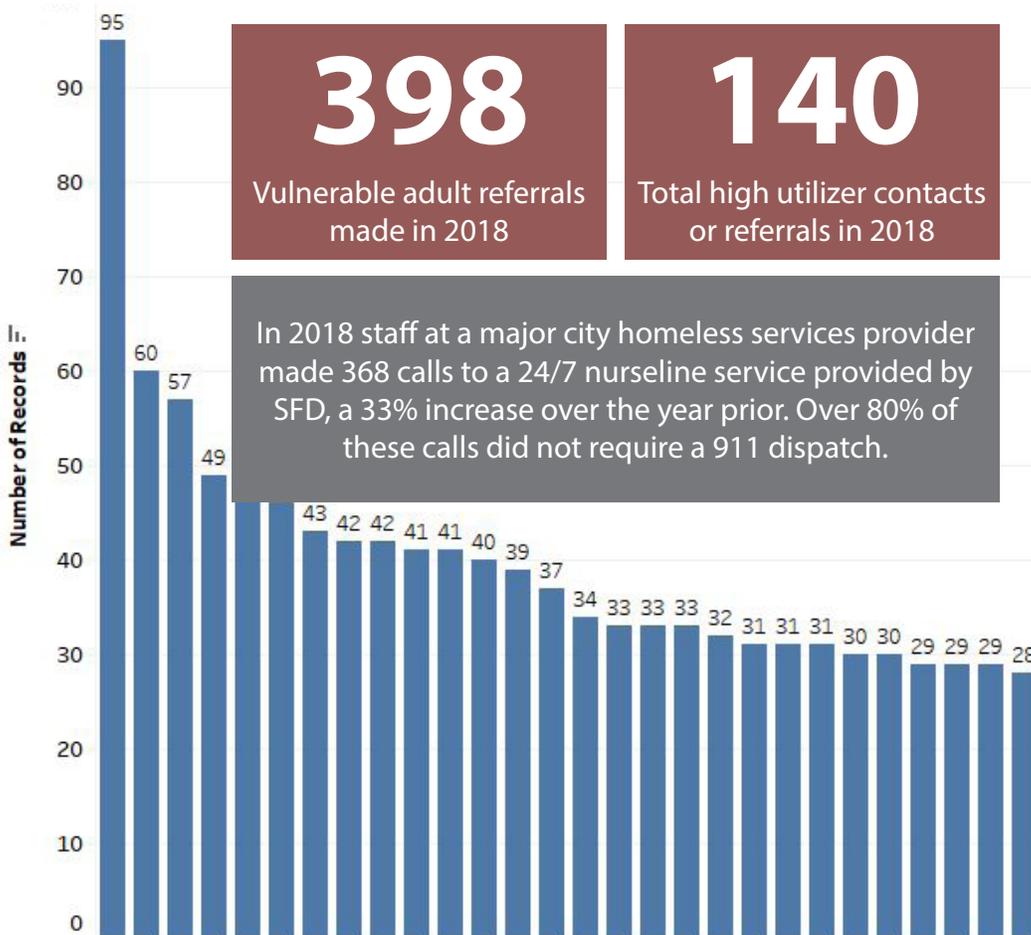
400

Total referrals made by SFD operations in 2018 to the Mobile Crisis Team, a 42% increase over the prior year.

45

Number of outreach, training and education sessions held with high-utilizing locations city-wide

HIGH UTILIZER PROGRAM



398
Vulnerable adult referrals made in 2018

140
Total high utilizer contacts or referrals in 2018

In 2018 staff at a major city homeless services provider made 368 calls to a 24/7 nurseline service provided by SFD, a 33% increase over the year prior. Over 80% of these calls did not require a 911 dispatch.

In partnership with Seattle Aging and Disability Services, the department identifies high utilizers through data analysis and from firefighter referrals. The case manager then offers a wide range of services to redirect care to appropriate services. Program staff coordinate closely with the department's Vulnerable Adult program.

← The graph to the left shows the top high-utilizers for 2018 and the number of SFD responses to each patient.



TRAINING

PREPARING FOR OUR FUTURE

Beyond what is required by law, Seattle Fire has grounded its firefighter training program in practicing the tactical skills needed to effectively respond to the city's changing skyline, challenging geography and evolving community needs.

This year saw some changes in the philosophy of how training is planned, developed and conducted, and where it is happening. By making these adjustments, members are taking nearly 40 department-sponsored classes each year.

The department increased the overall amount of training by delivering it in different formats and locations and using weekends to train several companies together in Multi-Company Operations (MCOs). Seven units could be in training at one time.

Another shift was in where training has been offered. Seattle Fire is one of several agencies that uses the Joint Training Facility (JTF) in South Seattle. Due to traffic and the time it takes for companies located in the north and central areas to travel to the JTF, there was an effort to have battalion chiefs lead classes within their districts. Keeping companies closer to their district minimizes drive time and lessens the time they are out of service.



2
Recruit Academies



53
Recruits successfully completed academy



21,952
Hours of use at Joint Training Facility

Companies underwent training for live fire, hazardous materials and competency-based training for emergency medical service calls.

An additional training module was added to work on skills such as move and flow of large hose, auto extrication and rope rescue.



SCENES OF VIOLENCE

In the years since the tragic Columbine High School shooting, it has become more evident in the first responder community that waiting to secure an active incident scene could result in lives lost that might otherwise have been saved had a different approach been used.

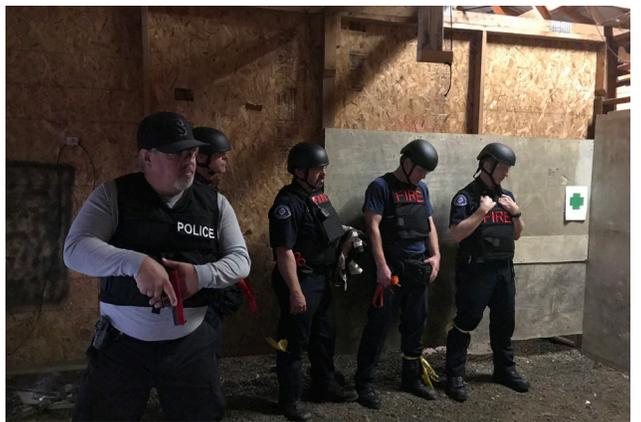
To practice their capabilities to safely enter and provide patient care in these types of situations, around 275 Seattle firefighters and 500 Seattle police officers trained together last summer on their shared active shooter protocol. This training took place over two months at the Seattle Police Department's shooting range.

In a well-planned exercise, this integrated Rescue Task Force practiced entering what is known as the warm zone of an active incident. While the warm zone is defined as an area with no anticipated direct threat, firefighters and law enforcement must practice safely moving in unison in a potentially dangerous situation.

The scenario allowed law enforcement to practice providing protection to firefighters, locate victims and communicate with command while Seattle firefighters triaged patients, provided life-saving treatment and extracted patients to a safe location. Seattle firefighters also practiced the use of ballistic wear, which the department was in the process of deploying.

Since the initial round of Rescue Task Force training, the department has implemented widescale training on warm zone operations and purchased, trained and implemented new equipment and procedures to enhance its warm zone treatment capabilities.

The joint training provided insight into areas for further practice. Seattle Fire and Seattle Police continue to meet to streamline responses and actively develop future plans for additional warm zone training.



VIADUCT CLOSURE & TUNNEL OPENING

Period of Maximum Constraint

The fire department worked closely with regional partners to prepare for the closure of the viaduct and associated traffic congestion. The department focused its resources on responding to emergencies, and took steps to minimize impacts to emergency services, including the activation of the department's Resource Management Center. Additionally, the department temporarily suspended scheduling community events, identified emergency helispots and designated specific emergency response routes for firefighter use when responding to incidents.



New SR-99 Tunnel

The new, two-mile long, SR99 Tunnel is one of the most sophisticated in the world. The state-of-the-art design and life safety systems presented unique opportunities and challenges to the fire department. In addition to working with our regional partners, we needed a deep understanding of the tunnel systems in order to establish effective ways to respond to emergencies in the tunnel.

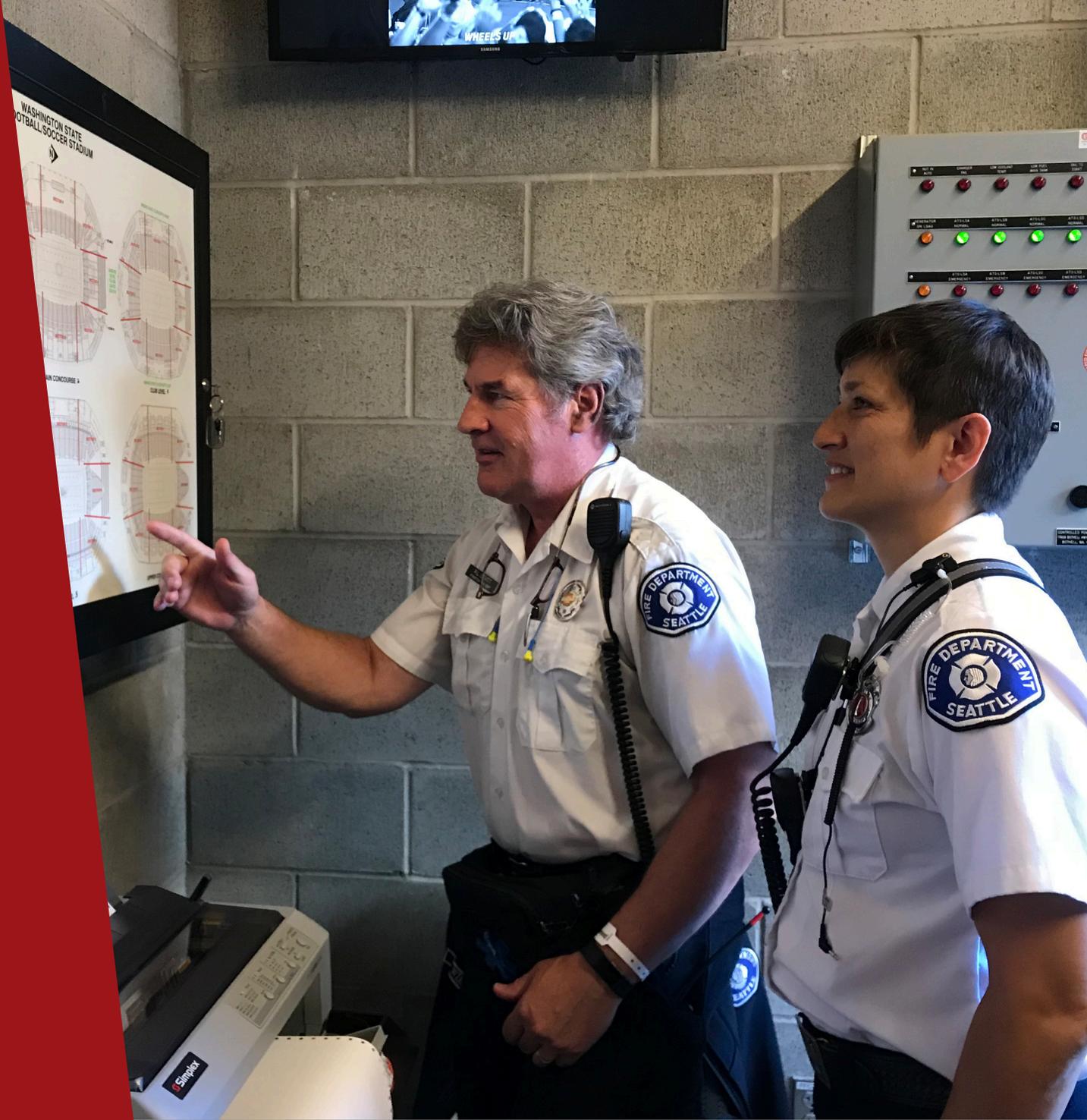
The department partnered with local, state, federal, and private sector stakeholders to conduct a full-scale exercise (FSE) inside the tunnel before its opening. This exercise allowed responding agencies to demonstrate the ability to work together to manage a complex emergency in the tunnel. The exercise involved

a car crash and fire with a significant amount of smoke, the need to extricate several trapped victims, and triaging, treating and transporting several patients. Included in the exercise was the activation of the ventilation system, the deluge (sprinkler) system, the egress corridors and the regional hospital system.

Federal evaluators praised Seattle Fire's performance in several areas as "worthy of sharing with industry partners due to its positive impacts within that industry."

Response Plans

The department put into place and tested several plans for responding to a variety of incidents inside the tunnel, including vehicle collisions, aid and medical responses, fires, hazardous materials and multi-casualty incidents. Once the policy and procedures were established, the department could train all of its members using a combination of walk through tours, class room training sessions and eight large, live, online training sessions.



FIRE PREVENTION DIVISION

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, helping to protect people and property from the hazards of fire, explosion or dangerous conditions in new and existing buildings as well as ensure firefighter and emergency responder safety during emergency operations.

The division is service-oriented and provides technical information to developers, architects, contractors and other city departments.



PLAN REVIEW

Fire protection engineers received and reviewed 1,365 architectural plans, completing 9% within 2 days; and 1,540 Fire alarm/Fire sprinkler systems, completing 25% of these within four weeks.



FIRE INVESTIGATION UNIT

In 2018, the FIU investigated the origin and cause of 474 incidents; of these investigations 260 were determined to be accidental, 138 incendiary/arson and 74 were left undetermined.



SPECIAL HAZARDS

A total of 6,023 hazmat permits were issued for hazards from storage of combustible gases to welding on marine vessels to industrial and commercial chemicals.

SYSTEMS TESTING



Oversight to testing and repairs for all 27,000 fire protection systems. Over 4,000 deficient systems were reported and repaired.

ENGINEERING



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



SPECIAL EVENTS

Conducted approximately 2,907 inspections and issued 1,610 special event permits.



COMPLIANCE

Conducted 1,464 inspections.

SYSTEMS TESTING



14,924

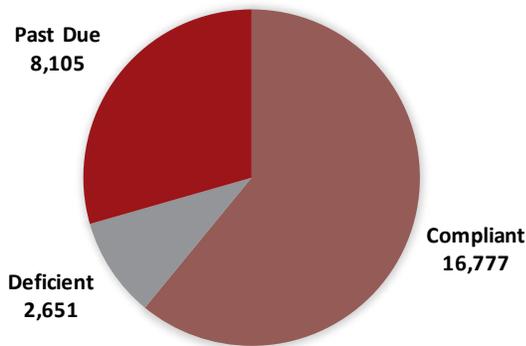
Premises Monitored



27,533

Systems Monitored

REPORTED SYSTEM STATUS



BUILDING INSPECTIONS

31,908

Total number of inspections conducted by FPD and Operations.

SYSTEMS TESTING

Fire and life safety systems, such as fire alarms and sprinklers, are an important component of preserving lives, suppressing fires and protecting responding firefighters. Building owners are required to conduct “confidence testing” on a regular basis.

Seattle Fire is in its second year of using an online tool to inventory those systems and track which ones have submitted their required inspection reports and have addressed any identified maintenance issues or repairs. Of the 27,533 systems identified in the tool in 2018, more than 16,000 had submitted required testing reports.

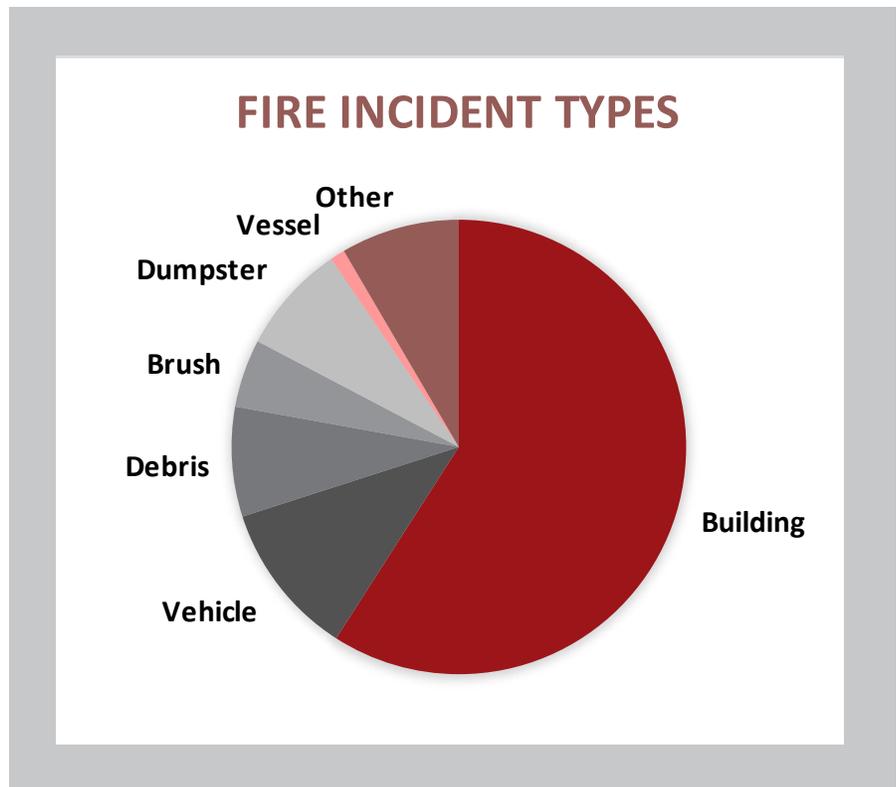
Over 4,000 deficient systems were reported and repaired. SFD continues to trend ahead of the national average for reporting compliance in the first years of online oversight for the confidence testing program. In the last six months of 2018, compliance increased from 47.1% to 59.1%. This is great progress towards the department’s goal that 100% of fire and life safety systems undergo the required confidence testing.



CAUSES OF FIRES

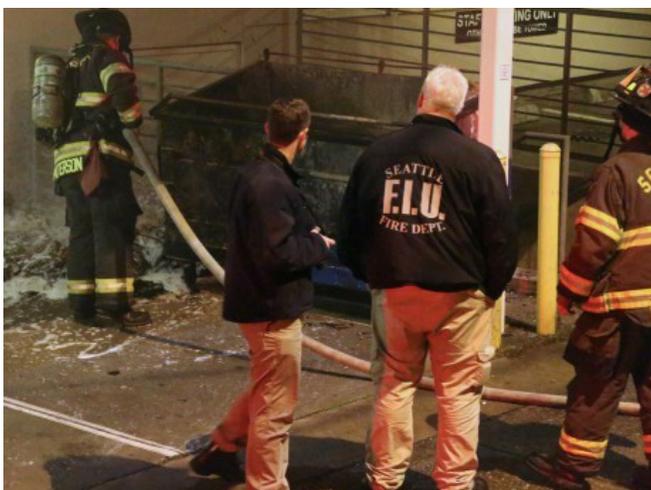
The Fire Investigation Unit investigated the origin and cause of 474 incidents. Four of the fires in 2018 resulted in a total of five fatalities. Another 14 fires resulted in serious injury to 18 patients.

Fires determined to be caused by arson are turned over to the Seattle Police Department's Arson and Bomb Squad for further investigation and potential criminal charges. The November fire at Gascoigne Lumber was one such case this year that led to an arrest and charges against the suspected arsonist.



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.





PUBLIC AFFAIRS

Public Affairs is the public information, education and outreach arm of the Seattle Fire Department. The team leads a number of programs and communication efforts to improve the fire and life safety of all Seattle residents and makes a deliberate effort to include the city's most vulnerable community members. The division manages the department's social media channels and handles thousands of media inquiries about the fire and EMS incidents happening citywide.

PROGRAMS AND CAMPAIGNS

A community risk reduction approach helps the division conduct focused outreach to specific communities with information they need about reducing the risk of fire and injury. Children, seniors, people with disabilities, immigrants and refugees, and those on lower incomes or with limited English proficiency are key audiences for these programs and outreach efforts. To further improve racial and social equity, the division recently evaluated two of its educational programs: children's school programs and CPR/AED instruction.

CPR/AED INSTRUCTION

Survival rates for sudden cardiac arrest are highest in the nation in Seattle and King County, in large part due to the large number of people who know how to do "bystander" CPR. The Medic II/ CPR program, part of the Public Affairs Division, provided 9,200 Seattle residents with CPR instruction. The program provides two levels of CPR/AED instruction: formal certification for adult and infant CPR/AED and "hands-only" instruction. Attendees also learn the signs of choking and how to safely help a child or adult in danger. Public Affairs led the work to establish Seattle Fire Department as a certified training center for American Safety & Health Institute (ASHI) in 2018.

COMMUNITY FIRE SAFETY ADVOCATES (CFSAs)

This year, the CFSAs presented fire safety tips and education at a number of community events and fairs, reaching nearly 3,000 residents. Three new CFSAs joined the team in 2018. Altogether, they are able to present information in 11 different languages. The group also learned how to teach hands-only CPR, increasing awareness of this essential life-saving skill in the immigrant/refugee community.



FREE SMOKE/CO ALARMS

Public Affairs coordinated the installation of 145 smoke/carbon monoxide alarms as part of its program to distribute detectors to seniors, people with disabilities and those who live on a low income. Six of these were strobe alarms, which alert those who are deaf or hard-of-hearing.

SOCIAL MEDIA

Twitter, Facebook, Instagram and the Fireline blog remain key to communicating with media and the public about the department's fire and EMS responses. The team also used social media to reinforce seasonal safety messages - such as carbon monoxide poisoning and holiday fire prevention.



138k
Twitter Followers
@SeattleFire



17k
Facebook Followers
@SeattleFire



8k
Instagram Followers
@Seattle_Fire

ACCOMPLISHMENTS

FEMA Grant

Public Affairs received a federal grant to increase the number of smoke alarms installed in homes with school-aged children, with a focus on households in higher-risk neighborhoods. Seattle Fire will partner with Seattle Public Schools in 2019 to teach students in selected elementary and middle schools about fire safety and offer free alarms to families in those classrooms. Johns Hopkins University will measure the effectiveness of this type of school-fire department partnership in distributing free alarms.

Urban Fire and Life Safety Advisory Group (formerly Task Force)

This National Fire Protection Association advisory group has representatives from large urban fire departments whose roles encompass community risk reduction. As an advisory group member, Public Affairs co-developed three middle school lesson plans for fire departments in urban areas that were lacking programming for students age 10-14.

Outreach through the News Media

The department's team of public information officers (PIO) responded to many incidents in 2018 where they conducted media interviews on scene and distributed timely information to the media and public. Additionally, SFD hosted several media events, featuring the new Vault Response Team, Muscular Dystrophy Association Fill-the-Boot Campaign, the 4-alarm Queen Anne arson fire and more. Seattle Fire's PIO worked with other communicators in King County to form a sub-group of the King County Fire Chiefs Association, focusing on regional public information. The group hosted their first regional media event on Thanksgiving Cooking Safety and has plans to host events on a quarterly basis.

KEY COMMUNITY EVENTS

Harborview Holiday Party

Harborview and community partners like Seattle Fire held a festive holiday party for children who have been served at the hospital. Nearly 500 children and adults engaged in fun activities while learning about fire escape plans, dialing 911 and preventing fire and burn injuries. Firefighters stopped in as well and made a special visit to young ones who were hospitalized.



Firefighter Story Times at Seattle Public Library

Held at sixteen branches of the Seattle Public Library over the summer and in October for Fire Prevention Month, nearly 1,200 preschoolers learned how to quickly and safely respond to a house fire through a story read aloud by their local firefighters. Afterwards, children explored a fire engine, some firefighting tools and learned that firefighters are their friends – even in all that bulky gear! Equally important, children learned that matches and lighters are tools for adults, NOT toys for children!





509

Total community events, tours and visits firefighters participated in



28,256

Seattle youth were reached through children's programs



9,262

Individuals participated in community fire safety programs



145

Smoke/Carbon Monoxide Alarms were installed



9,223

People trained in CPR, AED, and first aid techniques for choking



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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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