Seattle Fire Department
2021 ANNUAL REPORT

INTEGRITY  •  TEAMWORK  •  COMPASSION  •  COURAGE  •  DIVERSITY
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MESSAGE FROM THE FIRE CHIEF
MESSAGE FROM THE FIRE CHIEF

2021 was a challenging year on many fronts.

We began with high hopes that the pandemic might fade by summer as Moderna and Pfizer rolled out emergency-authorized vaccines. After gaining early access for our EMS personnel, Seattle Fire mobilized to bring the vaccine to as many of our vulnerable residents as possible. We established mobile vaccination teams, staffed dozens of pop-up clinics and combined testing and vaccinations at community hubs. Our teams persevered through February’s heavy snowfall and the hottest days ever recorded in Seattle, all while continuing to serve in our traditional firefighting and EMS role.

Sixteen months into the pandemic and with COVID-19 cases going in the wrong direction, elected leaders decided to implement a vaccine mandate that led to some of our valued colleagues leaving. As we ended the year, we also grieved the untimely and tragic deaths of several active duty firefighters. Each of these losses was painful, and we miss our friends.

All of this while our fire and EMS call volumes rebounded to pre-pandemic levels. In spite of the circumstances, Seattle Fire delivered on our mission.

In this annual report, you’ll have an opportunity to see some of our most significant responses and how we have invested in our employees’ readiness and continually refine our tactics and strategies to keep Seattle safe.

Among our accomplishments: completing the purchase of ballistic sets for every on-duty firefighter/EMT and paramedic; helping businesses stay open while also keeping the community safe during the pandemic through new regulations and permits; and establishing a new fire science degree program with North Seattle Community College to develop more home-grown firefighters.

If we have learned anything in the last 22 months, it’s that we can do hard things. I continue to have optimism that our community will emerge from these challenges stronger, as long as we work together.

Sincerely,

Fire Chief Harold D. Scoggins
Seattle Fire Department

"It always seems impossible until it’s done."
- Nelson Mandela

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 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 was 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
- 12 Ladder Trucks
  * (One ladder truck is part of the Rescue 1 Unit)
- 5 Aid Units
  (Basic Life Support)
- 2 Peak-time Aid Units
- 8 Medic Units
  (Advanced Life Support)
- 1 Health One Unit
- 2 Air Trucks
- 2 Hose Wagons
- 4 Fire Boats
- Additional specialized apparatus

*Fire Station 31 reopened in October 2021 at an interim site in their response district and will remain there until the new station is built.

*An additional ladder truck (Ladder 13) and medic unit (Medic 26) remain in West Seattle to serve residents while the West Seattle Bridge undergoes repairs.
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, in 2021 the department had 963 uniformed personnel and 81 civilian personnel. Uniformed personnel includes 897 firefighter/EMTs (including chiefs) and 66 firefighter/paramedics. Every day, there are 216 members responding to emergencies across the city (220 with upstaffing for two 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), Health One services 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 eight 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.

2021 Busiest Units

- Aid 25 (located at Station 25) responded to 5,272 incidents.
- Medic 1 (located at Harborview) responded to 3,209 incidents.
- Engine 2 (located at Station 2) responded to 4,029 incidents.
- Ladder 4 (located at Station 2) responded to 2,810 incidents.
- Battalion 2 (located at Station 25) responded to 1,180 incidents.
MODERNIZATION EFFORTS

Seattle Fire employees worked alongside Seattle IT on several projects to improve our internal communications and maximize the use of technology to do work previously done by hand, creating greater efficiency.

In 2021, the department launched a new SharePoint-based intranet. The project consolidated the legacy SharePoint and HTML environments into one cloud-based intranet to improve internal communications and information sharing. The project also introduced the use of Microsoft Teams, which will help work groups, committees and divisions collaborate more effectively.

Online dashboards for Captains and Chiefs were created to generate monthly reports of key performance measures such as inspections, unit response times and other reporting requirements. Each uses Power BI to pull information from various databases into a report format, saving time at every step of the process from initial data entry to final review and creating greater access to the information Captains and Chiefs need to monitor regularly.

Adobe Sign has helped transform other paper-based processes for administrative and uniformed staff alike. New firefighters and new officers have various requirements to meet while in their probationary period. Previously all done on paper and routed through intra-office mail, fax or scan to email, these probationary reports are now online forms with workflows that route and save electronically. Administrative professional staff who worked remotely have also benefited from using the software to complete work and sign off on forms and documents.

SEATTLE MARINERS HOMETOWN HEROS

In 2021, the Seattle Mariners implemented a “Hometown Heroes” program, a season-long tribute to the first responders, health care professionals, grocery workers and other frontline workers who helped the community through the COVID-19 pandemic. The Mariners honored a Hometown Hero during the fourth inning of every home game and selected Lt. Brian Wallace and Firefighter Joshua Materi for two separate games. This was an honor to the department and to the families of these two SFD members (Lt. Brian Wallace pictured on the left; Firefighter Joshua Materi pictured on the right).
Due to the ongoing pandemic, the SFD Annual Awards Ceremony - which honors employees for their exemplary service and dedication - was held virtually again in 2021. Many hazardous and non-hazardous commendations, unit and admin citations and annual awards were presented with hundreds in attendance online to celebrate each individual's accomplishments. The department is proud of these members for their contributions in serving the Seattle community.

KING COUNTY FIRE CHIEFS ASSOCIATION ANNUAL AWARDS

Firefighter Roger Webber was awarded "Firefighter of the Year" and Lt. Brian Wallace was awarded "Officer of the Year" by the King County Fire Chiefs Association for 2020. This is an incredible honor as these two individuals were selected among their peers from more than 30 fire departments in King County.
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:

- 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.
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.

## RESPONSE TOTALS

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<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Number of Responses</strong></td>
<td>91,716</td>
<td>80,316</td>
<td>93,233</td>
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<tr>
<td>Basic Life Support</td>
<td>56,631</td>
<td>50,900</td>
<td>56,208</td>
</tr>
<tr>
<td>Advanced Life Support</td>
<td>16,349</td>
<td>10,817</td>
<td>12,356</td>
</tr>
<tr>
<td>Fire</td>
<td>18,088</td>
<td>18,094</td>
<td>24,255</td>
</tr>
<tr>
<td>Special Operations</td>
<td>-</td>
<td>-</td>
<td>361</td>
</tr>
<tr>
<td>Mutual Aid</td>
<td>648</td>
<td>505</td>
<td>53</td>
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</table>

For 2021 "Other Responses" transitioned to "Mutual Aid" responses. "Special Operations" responses were previously included in "Fire" in 2019 and 2020 and were added as separate category in 2021.

## CALL VOLUME

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Number of Calls</strong></td>
<td>169,153</td>
<td>165,846</td>
<td>186,571</td>
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<tr>
<td>Emergency Calls</td>
<td>134,277</td>
<td>139,498</td>
<td>158,664</td>
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<tr>
<td>Admin Calls</td>
<td>34,876</td>
<td>26,348</td>
<td>27,907</td>
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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.

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. The call processing standard is guided by National Fire Protection Association Standard 1221(2019).
### EMERGENCY MEDICAL SERVICES

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<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td><em>Percent EMS turnout time is &lt;= 60 seconds</em></td>
<td>57%</td>
<td>48%</td>
<td>59%</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Percent arrival of first BLS unit is &lt;= 4 minutes</em></td>
<td>76%</td>
<td>73%</td>
<td>73%</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Percent arrival of first ALS unit is &lt;= 8 minutes</em></td>
<td>86%</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Daily average number of responses per medic unit</strong></td>
<td>7.4</td>
<td>5.2</td>
<td><strong>4.72</strong></td>
</tr>
<tr>
<td>2020 number does not include Medic 26, as it went in service in late Q2.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Total Advanced Life Support transports by medics</strong></td>
<td>5,569</td>
<td>4,414</td>
<td><strong>5,936</strong></td>
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### CALL PROCESSING

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Percent Call Processing Time is &lt;= 60 seconds</em></td>
<td>64%</td>
<td>66%</td>
<td><strong>59%</strong></td>
</tr>
<tr>
<td>NFPA 1221 (2019) states that 90% of the time dispatch centers should process high acuity fire and EMS calls within 60 seconds. This is the time from when the phone is first picked up to a unit assigned.</td>
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### FIREFIGHTING

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<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Percent fire turnout time is &lt;= 80 seconds</em></td>
<td>59%</td>
<td>55%</td>
<td>58%</td>
</tr>
<tr>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td><em>Percent arrival of first engine is &lt;= 4 minutes</em></td>
<td>75%</td>
<td>78%</td>
<td>75%</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Percent arrival of first Full Alarm is &lt;= 8 minutes</em></td>
<td>94%</td>
<td>92%</td>
<td>91%</td>
</tr>
<tr>
<td>SFD response time standard for the arrival of a full first alarm assignment (15 firefighters) when responding to a fire is eight minutes, 90% of the time. This is the time span between a unit being en route to on-scene.</td>
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OPERATIONS
**MOVE INTO FIRE STATION 31 INTERIM SITE**

In October, firefighters assigned to Fire Station 31 moved into a temporary facility at 10503 Interlake Ave. N. after spending two years responding from neighboring fire stations. The interim Fire Station 31 features modular structures and tents to house firefighters and apparatus for the next few years as a new permanent station is constructed at 11302 Meridian Ave. N.

**INCIDENT REPORTS**

Seattle Fire formally reviews a number of incidents each year to improve future operations, increase firefighter safety and enhance the ability for the department to achieve its mission. Those selected are either reviewed through a high-level Deputy 1 Significant Incident Report or extensive Post Incident Analysis. Both are written reports that describe the actions taken on scene and compare those to the department or nationally-recognized standards. Each provides lessons learned and reinforce the effective actions taken. In 2021, the department published five Post Incident Analyses and 65 Deputy 1 Significant Incident Reports.

**ENHANCED SAFETY FOR FIREFIGHTERS**

The department completed in 2021 the purchase of ballistic sets for every on-duty firefighter/EMT, paramedic and chief. The Seattle Fire Foundation provided the initial funding for the protective vests, helmets and supplies, which were designed by a Seattle Fire paramedic specifically for firefighter/EMT needs. Additional grant and city funding in 2021 allowed the department to ensure our responders are properly outfitted for scenes requiring this equipment.

**STANDARD OPERATING GUIDELINES**

Standard Operating Guidelines provide firefighter/EMTs a playbook for specific incident types. These are developed by a department committee and updated periodically as best practices and tactics evolve. In 2021, Seattle Fire issued one new SOG for fires in low-rise buildings and revised another, for fires in derelict buildings.

**RESPONSE IN WEST SEATTLE WITH BRIDGE CLOSURE**

The West Seattle Bridge remained closed in 2021, and the City continued its commitment to fund an additional ladder truck and medic unit to serve this rapidly growing area of Seattle.

**TASKBOOKS FOR BATTALION CHIEFS**

The department has created and implemented position-specific task books to expose future and newly promoted members for the position of Battalion Chief. Captains on the Battalion register complete a week-long task book during a promotional ride-along to increase exposure to their future responsibilities. The book for newly promoted Battalion Chiefs is completed during their one-year probationary period.
THERAPY DOG PILOT PROGRAM

First responders face tremendously stressful and dangerous environments as part of their job. In recognition of the benefits that therapy animals can provide to reduce stress and improve mental health, the department approved the addition of three therapy dog teams to its Peer Support program for a one-year pilot.

Each team consists of a trained Seattle Fire Peer Support firefighter/handler and their registered therapy dog. The dogs are welcome at fire stations when their handler is on duty. Upon request, they respond to peer support sessions when off duty. In the first few months of the pilot, the teams had a combined 450 contact hours and helped Seattle Fire staff process their grief through several unexpected losses in late 2021.

NEW APPARATUS

21 new apparatus placed in-service in 2021

3 Aid Units (A2, A31, A25)

8 Medic Units (M1, M10, M32, M26, M28, M17, M18, M31)

2 Fire Engines (E11, E39)

1 Ladder Trucks (L1)

7 Specialty Units (1 Chief, 3 Asst. Chiefs, M44, M45, HEALTH1)
SIGNIFICANT INCIDENTS

Jan. 22  ▶ **Beacon Hill residential fire:**
Firefighters responded to a fire in a two-story residence at the 9300 block of 39th Ave. S. When crews first arrived on scene, they confirmed flames coming out of a window near the main entrance to the home. Four occupants were able to evacuate on their own, and a fifth occupant was rescued by firefighters from the second floor. He was an approximately 14-year-old male transported via medics in critical condition to the hospital.

April 3  ▶ **Mt. Baker 2-alarm fire:**
The Fire Alarm Center received a 9-1-1 call reporting smoke and flames visible from a mid-rise new construction building at the 2300 block of S. Plum St. Crews initially fought the fire defensively from the exterior before transitioning to interior operations. Two 5-6 story buildings were connected through a U-shape design, and the fire had spread throughout the building on the lower floors. Fire investigators determined the fire was intentionally set.

April 3  ▶ **West Seattle 2-alarm fire:**
After already responding to two building fires earlier in the day, firefighters responded to a third major fire in West Seattle at the 3200 block of SW Avalon Way. When firefighters arrived on scene, they saw flames from the rooftop deck of a six-story building and put a strategy in place to get water on the fire. Ten units on the sixth-floor sustained water damage and were unable to be reoccupied. Fire investigators were unable to determine a cause due to multiple ignition sources.

Summer made an emphatic arrival between June 26-29. The historic heatwave not only set records for the hottest temperatures ever in Seattle and the most consecutive days over 100, but also the number of Seattle Fire responses. June 27 set a new record for Seattle Fire responses, which was shattered the next day with 563 calls. Between June 26 and 28, the initial ESO reports indicate we responded to at least 118 calls for heat-related medical emergencies.
April 7

Central District fatality fire:
Crews responded to a fire in a two-story residence at the 1600 block of 18th Ave. Neighbors informed firefighters that one person occupied the home and was unaccounted for. Firefighters conducted a search of the home and unfortunately found an adult male with injuries incompatible with life in the room where the fire started. Fire investigators determined the fire was “accidental” and caused by a portable space heater placed too close to combustible materials.

April 21

Aurora Ave. 2-alarm fire:
Engine 31 was driving their district when they spotted black smoke coming from a structure that housed multiple “hobby” vehicles at the 10700 block of Aurora Ave. N. The response was eventually upgraded to a 2-alarm, and ladder pipes were put in place to put water on the fire from above. Approximately 80% of the roof had burned through, causing structural instability. Fire investigators were unable to determine a cause.

May 14

West Seattle apartment fire:
A nearby off-duty firefighter saw flames coming out of windows from a unit on the top floor of an apartment complex at the 4400 block of 44th Ave. SW. He located an adult female collapsed in the fire room but was unable to bring her to safety due to heavy black smoke filling the area. When the full response of firefighters arrived on scene, they rescued the elderly female, and she was transported in critical condition to Harborview via medics. Fire was determined to be “accidental” and caused by an electrical failure.

June 9

Uptown 2-alarm fire:
Multiple calls were received at the Fire Alarm Center reporting heavy smoke from a vacant building at the 500 block of Harrison St. Initial witness reports were that someone may be trapped inside, but after a search with thermal imaging cameras, no persons were found. Firefighters spent hours putting water on the fire to get the flames under control. Fire investigators were unable to determine a cause due to structure instability and inability to enter the building.
**Mt. Baker double fatality at encampment fire**  
Firefighters were dispatched to the 3000 block of 25th Ave. S. for a fire at a homeless encampment. When crews arrived on scene, they saw flames 50-feet high coming from an encampment structure made of pallets and tarps that was fully engulfed in flames. The fire also consumed nearby brush and trees. Once the fire was extinguished, crews unfortunately discovered two adults deceased inside.

**U-District 2-alarm fire**  
Heavy flames were visible upon arrival from a vacant building at the 5200 block of University Way NE. When crews arrived, they were able to confirm that an adult male and female were able to safely evacuate. Firefighters initially went interior before the roof partially collapsed and then transitioned to a defensive posture to get the fire under control. No injuries were reported.

**SODO 2-alarm fire**  
Firefighters discovered an exterior fire on the west side of a commercial warehouse at the 700 block of Lander St. A primary search of the structure was conducted while engine companies worked to get water on the fire. The response was upgraded to a 2-alarm to have more resources to assist with protection of nearby structures. Fire investigators determined the fire was “accidental” and caused by improperly discarded oily rags.

**Queen Anne 2-alarm fire**  
Heavy smoke and flames were coming from a 2.5-story home at the 500 block of W. Highland Dr. The majority of the fire was located in the attic space but had extended through the roof. Gusts of wind hitting the north side of the home escalated the intensity of the fire which led to upgrading the response to a 2-alarm. Fire investigators determined the fire was accidental.

**South Park residential fire**  
Firefighters saw flames coming from a second-story window of a residence at the 800 block of S. Southern St. As they approached the home they encountered an adult male who had jumped out of the second story window to escape the fire, who relayed two additional occupants were still inside. Firefighters conducted a targeted search and rescued two adult males, one in serious condition and one who was stable. Both were transported to the hospital for further medical care.

**Interbay 2-alarm fire**  
A three-story townhome under construction caught fire at the 1300 block of W. Newton St. Firefighters rushed to get water on the fire but were forced to fight in a defensive posture due to the risk of exterior scaffolding collapsing and unknown conditions on floors inside the structure. Fire investigators were unable to determine the cause.

Wildland fires we deployed to in 2021: Cedar Cree, Lick Creek, Bootleg, Fire Creek, Joseph Canyon and Summit Trail.
MEDIC 2/BYSTANDER
CPR TURNS 50

Fifty years ago, CPR was primarily taught to health care professionals. After seeing the early success of Seattle Fire’s Medic One program, paramedic Clyde Neaville and his wife Merle suggested to then-Seattle Fire Chief Gordon Vickery that community members be taught how to perform CPR. The reason being, trained bystanders could employ this life-saving technique until paramedics arrived to take over care.

Medic 2 launched on Oct. 8, 1971, co-sponsored by the Downtown Rotary Club #4 and Seattle Fire and endorsed by the King County Medical Society and the local chapter of the American Heart Association.

They set out the lofty goal to train 100,000 Seattle residents in three years.

The program became so successful that the goal was revised to make CPR a household word.

In 1973, Seattle Fire worked through the United Way of King County to expand CPR training to the other fire districts and fire departments, who modeled their classes after Medic 2. News coverage helped grow awareness and seed more training programs nationwide.

Among Medic 2’s accomplishments in its 50 years: helping implement mandatory CPR instruction in Seattle Public Schools, which eventually became a statewide high school graduation requirement; training countless international guests how to establish their own bystander CPR programs; helping implement PulsePoint in Seattle/King County; expanding our classes to include AEDs and hands-only CPR instruction; adding multi-lingual instructors to teach in-language; and holding live classes via Facebook to continue teaching during the pandemic.

Over the course of 50 years, Seattle Fire’s Medic 2 program has trained and retrained more than 900,000 Seattle/King County residents and inspired countless CPR programs worldwide. Its greatest measure of success however, is in every life saved because a bystander recognized what to do. If you’d like to learn CPR or refresh your skills, please contact the Medic 2 program: medic2@seattle.gov.

CPR INSTRUCTION

<table>
<thead>
<tr>
<th>37</th>
<th>Bystander CPR instruction engagements</th>
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<tbody>
<tr>
<td>13</td>
<td>Virtual community classes</td>
</tr>
<tr>
<td>10</td>
<td>In-person community classes</td>
</tr>
<tr>
<td>8</td>
<td>School classes</td>
</tr>
<tr>
<td>6</td>
<td>Facebook live classes</td>
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<tr>
<td>2</td>
<td>Health fairs</td>
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</tbody>
</table>
MEDIC ONE PROGRAM

Each year, the Seattle Fire Department responds to more emergency medical calls than fires. In 2021, 72% 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, 66 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.

In 2021, SFD paramedics provided clinical teaching for 23 paramedic students, including seven from Seattle Fire. Paramedic Class 47 graduated in summer 2021.

MOBILE INTEGRATED HEALTH

2021 was a banner year for the Health One program. In spite of the ongoing COVID-19 pandemic, the program continued its rapid growth and expansion, further cementing it as a key resource offered by the Seattle Fire alongside firefighting, rescue, emergency medical care and fire prevention. In a short period of time, Health One has become a widely-utilized resource for Operations members and continues to develop its connections and partnerships in the community.

The program in 2021 added a new full-time unit (HEALTH2), a new case manager and more specially trained firefighters. Placing the new unit in a working fire station (Station 2, Belltown) further enhanced integration with the Operations division and allowed an expanded focus on Belltown, the U-District, Ballard and South Seattle. Two units provide more flexibility, more representation with partners and more capacity to accept referrals.

These referrals have only grown since the program launched, with Health One responding to every district of the city in 2021. The team’s proficiency with field response has grown as well, particularly in the realms of crisis response, de-escalation, homeless services and other aspects of system navigation.

Number of patients SFD personnel and medics attempted to resuscitate, an increase of 20% above typical year.
Seattle Fire became the first fire/EMS agency in Washington to be approved as a vaccinator at the end of 2020. Like early pandemic testing efforts, the department launched two mobile vaccination teams in January to reach the highly vulnerable residents and staff of affordable and supportive housing communities, adult family homes and nursing facilities. With vaccine supply very limited, Seattle Fire staffed pop-up clinics dedicated for the most at-risk workers. Each week, the City would learn how much vaccine it might receive, and Seattle Fire was asked to ensure no dose went unused. This even meant emergency distribution of vaccine late one evening when a special cooling unit failed.

Because COVID-19 had disproportionately affected seniors and persons of color, the City focused its distribution of vaccine to vulnerable residents and frontline workers most at risk from COVID-19 until a more reliable supply was available. In March, Seattle Fire began offering referral-only appointments at its Rainier Beach and West Seattle sites. Seattle Fire partnered with more than 50 different community and faith based organizations to register people for these slots. Any remaining doses at the days end were distributed to a stand-by list.

Pop-up clinics led to creative partnerships with businesses and organizations to bring the vaccine directly to where people were dining, recreating and gathering. Seattle was one of the first cities to partner with sports teams to provide vaccinations. The Seattle Mariners welcomed Seattle Fire at its home stands and was one of the first locations where youth could be vaccinated. The Seattle Sounders also invited Seattle Fire vaccination teams to their matches.

As the spread of the virus began to slow and vaccine was widely available through health care settings, the City transitioned testing and vaccine work to the University of Washington and Curative. Seattle Fire closed the Rainier Beach and West Seattle sites by mid-summer. This allowed Seattle Fire mobile vaccination teams to provide boosters to vulnerable residents through the fall as the Delta variant pushed infections up again.
COVID-19 PHOTO GALLERY
PREPARING FOR OUR FUTURE & FIRE ALARM CENTER
Restructure the Training Division
The department re-envisioned its Training Division in 2021 with an equal emphasis between recruit training and Operations training. To support this move, an Operations Training battalion chief and Operations Training lieutenant, four Operations Training firefighters and additional professional staff member were added to the Training Division. This increase in staffing to support Operations training allowed the movement of most training from the Joint Training Facility to acquired structures within the community.

Enhancing acquired structure training
The Seattle Fire Department has created working relationships with several locally operating construction companies, which has created a constant stream of buildings available for live fire training, destructive training and for single and multi-unit training. All on duty members attended at least one session at an acquired structure. Seattle Fire’s access to these acquired structures resulted in:

- 18 Buildings used for 84 days of Operations training
- 9 Days of live-fire training for 236 members
- 13 Buildings used for construction/destructive training for 75 days

If you have a building scheduled for demolition, consider donating it to SFD for training by contacting SFD_inservicetraining@seattle.gov.

Recruit Training
Recruit Training, utilizing the two assigned recruit instructors and firefighter guest instructors, conducted two recruit classes of 39, resulting in 56 probationary firefighters entering Operations companies in 2021.

Driver/Operator certification
With IAFF Local 27’s support, Seattle Fire implemented a driver/operator certification training program to raise the bar for all frontline and backup drivers. Knowledge that had previously been passed down from driver to driver was quantified into study material and a course book. In 2021, 188 engine and ladder truck driver-operators and 242 back-up driver-operators received the new training.

UW-SFD leadership academies
The successful collaboration between the University of Washington and Seattle Fire for developing the current and next generation of fire services leaders grew in fall 2021 to include two new programs. The inaugural Emerging Leaders Academy welcomed fire service employees from departments statewide into a one-year program of workshops and self-paced learning. To build on leadership interest at all levels, the virtual town halls featured speakers discussing a range of issues affecting leaders.

Training hours
The combination of acquired structure training and other department-driven training resulted in 215,800 training hours in 2021 as compared to the 156,000 logged in 2020. This equates to a 72% increase in training hours, year over year.
Though the rewards and benefits of a fire service career are many, some members may not see themselves in the role of firefighter/EMT or feel there are too many barriers to pursuing this career. With an eye for the future, Seattle Fire took several steps to prepare for its entry-level firefighter hiring period in 2022.

**Recruitment and outreach**

Seattle Fire established a workgroup to build an expansive recruitment and outreach plan to increase the number of local applicants during the upcoming recruitment cycle while also increasing the number of female, BIPOC, LGBTQIA+ and multi-lingual candidates.

**Diversity workshops**

In partnership with the King County Fire Chiefs Association, Seattle Fire helped plan the first Diversity and Recruitment Workshop program. Held in December 2021, the first workshop helped 70 potential firefighter applicants learn about navigating the hiring process and was geared towards improving the diversity of our applicant pool and workforce.

**Fire Science Associate degree program**

Fire Chief Scoggins helped announce a new Fire Science Associate degree program through North Seattle Community College, with the first classes in fall 2021. This program is the only one of its kind in King County to prepare individuals for a future position in the fire service and support current firefighters wanting to strengthen their profession-specific skills. The degree program is mostly online and takes approximately two years for a full-time student to complete. The courses are based on the National Fire Academy and Emergency Services Higher Education model curriculum for fire science.

The Seattle Fire Foundation also established an annual scholarship to support students in the degree program.
2021 dispatcher training class
In 2021, the Fire Alarm Center welcomed four new dispatchers. These firefighter/EMTs completed six months of rigorous training to be able to receive 911 calls and dispatch appropriate resources. One dispatcher from this class was assigned full time to the FAC and three of them became pool members who will continue improving their call taking skills on their debit shifts.

Call taking peer review
In December 2021, the Fire Alarm Center began a program through the Emergency Medical Dispatch protocols vendor, Corti, that enabled dispatchers to peer review calls for quality control and feedback. This program allows the dispatchers to both give and receive comments on their performance for call taking improvement.

Hired new Quality Assurance Coordinator and Communications Training Coordinator
As an ongoing commitment to quality assurance for 911 call taking, the Fire Alarm Center hired a Quality Assurance Coordinator. Central to this commitment is also the hire of a full time Communications Training Coordinator who will compile essential training topics to deliver regularly to the dispatchers.

186,571
Emergency and administrative calls answered by dispatchers
FIRE PREVENTION & INVESTIGATION

Photo Credit: John Odegard
The Fire Prevention Division (FPD) 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 information to the public, small and large business owners, event promoters, developers, architects and contractors. The FPD also coordinates Seattle Fire inspections when residents notify us of possible fire code violations they have spotted in their neighborhood. The FPD investigates the cause and origin of fires, including fires caused by arson and natural causes.

**Special events and Annual Assembly permits**
Large special events were canceled for several months of 2021 due to the pandemic, but smaller events and permitting for food trucks and tents continued year-round. During 2021, the inspectors on this team played a critical role in opening safe spaces for the unsheltered population and setting up vaccination and testing sites related to Seattle’s pandemic response. The team also partnered with departments throughout the City to provide flexible permitting for restaurants and other establishments providing outdoor services due to public health restrictions indoors.

**Fire Investigation Unit**
In 2021, the FIU investigated the origin and cause of 479 fire incidents. The FIU has been unusually busy throughout the pandemic, largely due to non-structure fires occurring in outdoor areas such as dumpsters and portable restrooms, resulting in a 47% increase in incendiary fire investigations on average compared to pre-pandemic years.

- **479** Fires investigated by FIU
- **137** Accidental
- **203** Incendiary/arson
- **137** Undetermined
- **2** Other causes

**Special hazards**
Fire Prevention Division staff issued a total of 5,756 HazMat permits for a variety of hazardous operations, ranging from the storage of combustible liquids, to welding on marine vessels, to the use of industrial and commercial chemicals. Seattle has one of the most comprehensive and complex sets of permits in the nation, reflecting our diverse economy with a traditional industrial sector, port, medical institutions and newer industries such as biotech.

**Inspections conducted for special events**
- **505**

**Permits issued for temporary events**
- **640**

**Permits issued for annual places of assembly (e.g. restaurants)**
- **812**
Systems testing
Fire inspectors provided oversight to ongoing testing and repairs of 27,645 fire protection systems in 14,412 premises in the city. The team coordinated with building owners to provide more flexibility in testing timelines during the pandemic while prioritizing the repair and restoration of nonworking or deficient systems.

Repairing of deficient systems has an important impact on preserving lives and protecting property.

Deficient systems repaired (including fire alarms and sprinklers)

2,886

At the end of 2021, there were 3,853 systems with deficiencies in Seattle, so a high volume of work remains. The Fire Prevention Division also led a partnership with surrounding jurisdictions and industry stakeholders to develop regionally standard test forms, including a new form for fire alarm acceptance testing. The standard forms are currently in place in 15 jurisdictions locally.

Inspections for new construction and remodels
SFD construction-related inspections focus on the installation and inspection of fire protection systems such as fire alarms, sprinklers, smoke control systems and fire pumps. Seattle Fire experienced staffing challenges during the pandemic that impacted our turnaround time commitments in this line of business. To help with the challenges, the department introduced a new online inspection request process in 2021 to better track the order in which inspection requests were received and ensure timely follow-up with customers.

Inspections for buildings undergoing construction or remodels

3,100
**Compliance**
Seattle Fire Operations companies inspect all buildings in Seattle, except one- and two-family residences, as part of our annual Company Inspection program that provides no-cost fire safety inspections by on-duty firefighters. When on-duty firefighters observe fire code violations that are not quickly resolved, the violation is referred to FPD for follow up, allowing the on-duty firefighters to focus on fire and medical response.

![Image of firefighters and office personnel]

**Plan review**
In 2021, fire protection engineers reviewed 1,260 architectural plans, completing 37% on average within three weeks and 1,175 fire alarm/fire sprinkler shop drawings, completing 55% on average within four weeks. The timeliness of reviews improved in every category during 2021 compared to 2020.

**Language access**
The Business Systems and Analysis team increased the number of materials translated into Seattle’s seven top-tier languages to provide language-accessible resources for the public, including a guide on free Seattle Fire permits for tents and outdoor heaters during COVID; a checklist and informational sheet for regional food truck inspections; seven Client Assistance Memos and the Report of Impaired Systems - resulting in a total of roughly 77 translated documents. These and many other translated materials can be found under the “Fire Safety in Multiple Languages” section of the Fire Prevention website.

1,030 Inspections conducted related to violations in buildings throughout Seattle

Roughly half of these were related to violations referred by Operations and the public, and the remaining inspections support permit issuance, night club safety and changing use of structures such as additional shelter options and facilities for vaccinations.
IN THE COMMUNITY

The ongoing spread of COVID-19 continued to influence the ways Seattle Fire engaged in education, outreach and community relationships in 2021.

Seattle Fire Day
On June 5, the department held its second virtual Seattle Fire Day. Traditionally an in-person fire safety event at the Museum of History and Industry, Seattle Fire instead conducted a livestream from Fireboat Leschi to showcase the special skills, equipment and training to ensure maritime firefighting readiness. The educational day culminated with an in-water rescue drill led by the rescue swimmer team and on-shore paramedics. More than 700 viewers participated that day alone, with another 2,000 views afterwards.

20th anniversary of 9/11
Just before 9 a.m. on Thursday, Sept. 11, 2001, the first hijacked plane hit the north World Trade Center tower in New York City, forever changing the lives of Americans and our first responder community. Nearly 3,000 lives were lost that day, including 343 FDNY firefighters, 60 police officers and 55 members of the military. Seattle Fire remembered this somber anniversary by raising the U.S. flag on the Space Needle, holding a livestreamed service at the Seattle Center’s Memorial Garden and participating in on-field events at Seattle Sounders and Seattle Mariners games.

Toys for Tots
A long-standing tradition, Seattle Fire collected toys at three community events in November and December to benefit the U.S. Marine Corps Toys for Tots drive and families in Seattle/King County. Volunteers from the Seattle Fire Foundation, Aetna and members of the Marine Corps joined firefighters at the University Village QFC, Westwood Village QFC and in front of SFD HQ. In addition to boxes of toys, games and stuffed animals, the Seattle Fire Foundation collected $4,000 in cash and a $5,000 donation from Aetna to ensure more children and teens in our area had a gift to open during the holiday season.

FEMA grant
The education and outreach team developed a multi-faceted program to increase the number of smoke alarms installed in some of the city’s most at-risk neighborhoods. With the federal funding, the project also includes the creation of eight fire safety videos and supporting social media graphics, messages and flyers to spread the word about steps one can take to reduce fire risk in the home. These are being translated into 14 languages, including ASL, to ensure a broad reach for these important messages.

Community based partners have been trained in basic fire safety education, smoke/co alarm installation and how to conduct an in-home assessment for fire hazards. The grant funded outreach work will continue through 2022 and more homes reached as COVID-19’s impacts lessen.
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.