



FIRE DEPARTMENT

MONTHLY INFORMATION REPORT

May 2021

HIGHLIGHTING DATA METRICS
TO IDENTIFY OPERATIONAL TRENDS
AND
FACILITATE INFORMED DECISION-MAKING

70 E. MAIN STREET
LAKE ZURICH, IL 60047

OUR MISSION: To care for and protect our community.

OUR VISION: The Lake Zurich Fire Department is dedicated to meeting the ever changing needs of our community, while ensuring a safe and secure environment for all, through professional development, unity and teamwork.

OUR VALUES: Professionalism, Responsibility, Integrity, Dedication, Honor

Departmental Narrative - May 2021 Overview

The Department responded to **349 calls** for service in May, which averaged **11** calls per day and required **531 individual vehicle responses** to provide the necessary personnel for each incident.

Thirty-six percent (**36%**) of the responses occurred while another call was in progress. Eighteen percent (**18%**) of needs required a response from the non-primary engine, ambulance, or a mutual aid department due to multiple calls in progress.

Our current staffing model increases response times when simultaneous calls occur as the Department is only structured to handle a single response per station. We staff two vehicles with only three personnel using what is called a "jump company." If the call is for the ambulance, the personnel respond with the ambulance, and if it is a fire call, the staff responds with the engine. One of the vehicles remains in the station unstaffed on every incident we respond to due to the limited personnel we have on shift. Once a station commits on a call, the next call for service requires another station or mutual aid to handle the incident.



Lake Zurich Significant Calls

Residential Gas Leak & Fire – May 14, 2021



The Lake Zurich Fire Department responded to an outdoor natural gas leak in the 21000 block of Old Farm Road in Deer Park. While responding, the dispatch center informed units that the natural gas had ignited next to a home. Responding fire department units upgraded the response to a residential structure fire. Upon arrival, fire crews noted flames from an excavation hole with flame impingement to the side of the house. Fire crews deployed a hose line and applied water to the siding of the house. Fire crews also assisted NICOR with digging a trench to cut off the natural gas supply. Preliminary investigation indicates the homeowner was digging in the area of the natural gas line. Damage to the home was minimal, and there were no reports of any civilian or firefighter injuries. *(Pictured left)*

Trailer Fire – May 2, 2021

Engine 324 was called for a vehicle fire on May 2, 2021. While responding, dispatch notified that the vehicle was a trailer fire and battalion 32 was added to the call. Upon arrival, Engine 324 had a long setback and a very narrow road leading to a fully involved landscape trailer with fire impingement on a shipping container. Battalion 32 requested Engine 321 to the scene to assist. Engine 324 used a hoseline to to extinguish the fire around the shipping container and a log pile. Engine 321 arrived and assisted Engine 324 with the fire extinguishment. A dry chemical extinguisher was also used to extinguish a gasoline fire that kept igniting. Companies were able to extinguish the fire within 30-minutes. Post-fire investigation, foam was applied to prevent any re-ignition of the trailer and shipping container contents. Crews cleaned up their hose and equipment and returned to quarters for decontamination.

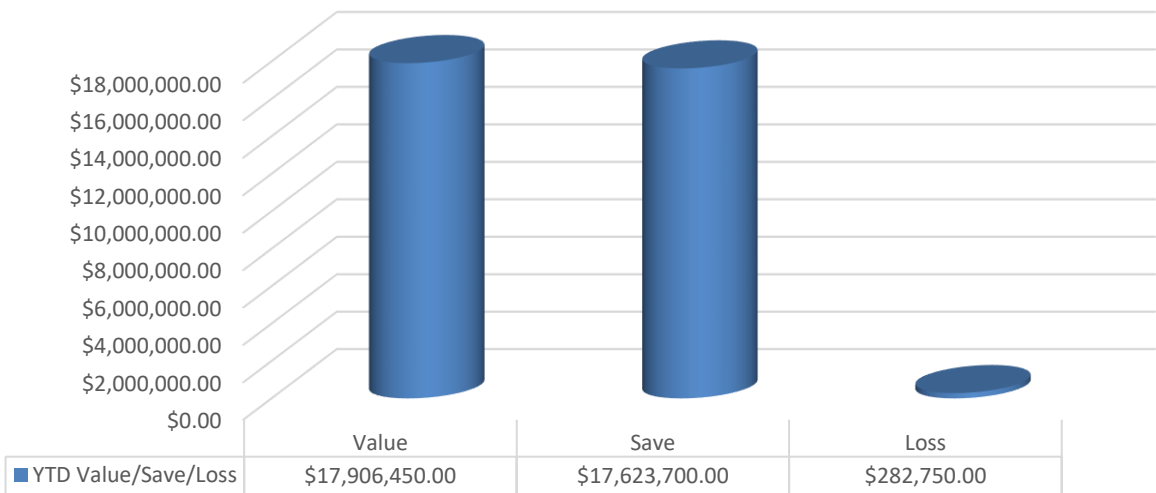
Hampton Inn – May 2, 2021

Engine 324 and Battalion 32 arrived for an activated fire alarm at The Hampton Inn, 21660 W. Lake Cook on May 2, 2021. When Engine 324 arrived, they noted audible horns and strobes alarming and no smoke or fire showing. Engine 324 investigated and found a small outside mulch fire tucked in by the front lobby entrance. The crew of Engine 324 started raking the mulch away from the building to remove any active burning while wetting it down with their water pump can. While in the lobby, the Engine 324 Officer used the Thermal Imaging Camera (TIC) and noted hot spots at the base of the floor with wisps of smoke coming from the tiled wall. Engine 324 found burnt insulation and browned drywall next to a ten-inch opening in the floor that leads to the outside. The crew then removed the drywall one stud space in each direction due to the hotspots noted on the TIC. The fire was contained to the initial opened stud space with only a few inches of extension in each for the surrounding stud spaces.



Lake Zurich Fire Department provided an ambulance standby for the Lake Zurich High School 2020/2021 graduation – pictured left.

Lake Zurich - Year To Date - Fire Value/Save/Loss



Mutual/Auto Aid Significant Fire Calls

Round Lake Fire Protection District – Engine 323 responded to Round Lake Fire Protection District on May 25, 2021 for a change of quarters assignment. Round Lake had activated MABAS Box Alarm 26-12 due to a structure fire, thus necessitating additional resources. While there, Engine 323 responded to a residential fire alarm.

Member Spotlights

Firefighter/Paramedic Jason Kraus – Pediatric First Aid Article in First Time Parents e-Magazine

Excellent job to Firefighter/Paramedic Jason Kraus with assisting with the Pediatric First Aid article published in First Time Parents e-Magazine. Please see the below excerpts from the article.



Full article can be viewed here:



"EMT Jason Kraus of the Lake Zurich Fire and Rescue Department teaches first aid courses to parents, teachers, and community leaders. He stresses being prepared with your first aid kit but also being prepared to call emergency services. Kraus says, "Hopefully when an injury happens, basic first aid including washing, antibiotic ointment, and bandaging the injury will be more than enough care. However, it is extremely important to realize when additional medical care is needed. Severe bleeding, airway obstructions, near drowning, and penetrating injuries are a few but not all examples. Don't wait to call 911 when time is a factor. "

"Young children are curious and will put anything into their mouth. Watch what your child eats and look for signs of distress. Kraus confirms that choking is a medical emergency."

"Wound care is also important. Try to avoid peeling back the bandage to check for bleeding. Kraus says, "Direct firm pressure to the injury site. If bleeding does not stop, do NOT remove dressing to look at the injury. Add additional dressings and more pressure to the injury site. If it is still bleeding, seek medical treatment."

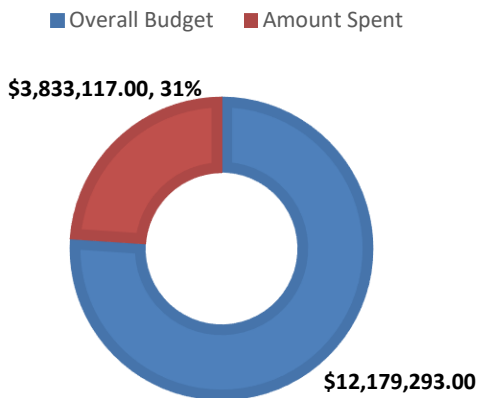
"What if you think your child has a broken bone? This likely requires a call to emergency services. "Broken bones need medical treatment from a physician," says Kraus. "Do not try and straighten any bent bones. Place a cold pack on the injury site for pain management and swelling. If movement is not possible, contact 911 for assistance."

"For new parents, talk to your doctor, be prepared, and try to stay calm and confident. "My advice to new parents regarding first aid is to be alert," Kraus says. "If an injury happens, do your best to calm both yourself and the child. If your basic first aid skills cannot control the situation, contact higher medical care for support."

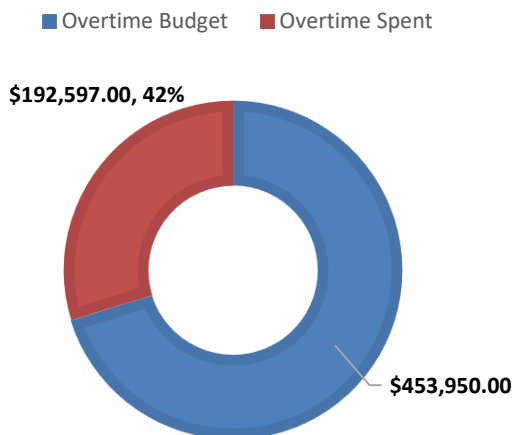
Administration Division

Budget Update

FIRE DEPARTMENT BUDGET



OVERTIME ACCOUNTS

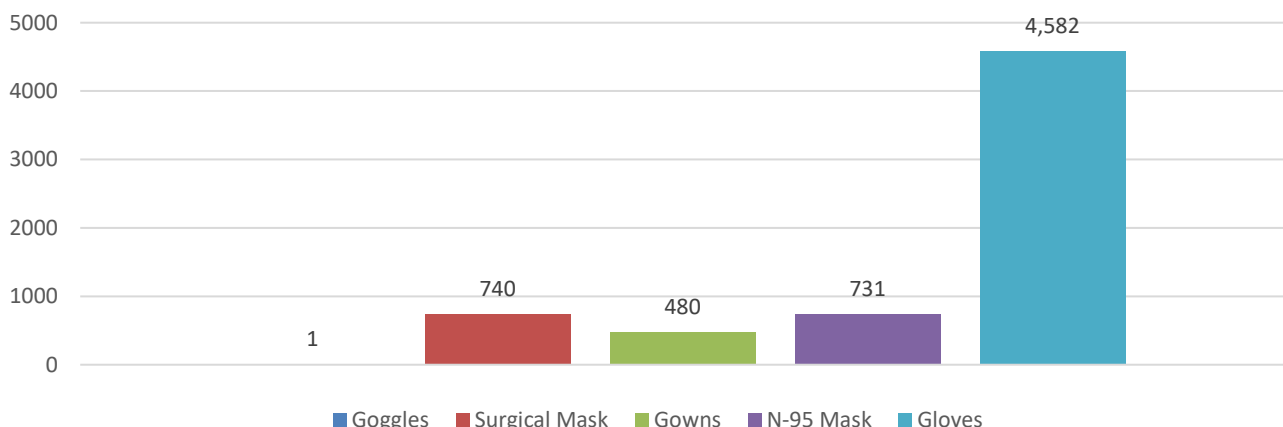


Congratulations to Lieutenant Terry Johnston on his 30 years of service with the Lake Zurich Fire Department!

COVID-19 Updates

We are currently tracking the Personal Protective Equipment (PPE) that members use and dispose of due to the COVID-19 pandemic. In May, we issued 0 pairs of safety goggles, used 81 surgical masks on patients, 95 - N95 respirators for our personnel, 23 gowns, and approximately 492 pairs of surgical gloves. The graph pictured below shows year-to-date.

PPE Utilized & Disposed 2021



Community Focus/Risk Reduction/Public Education

Examples of community focus/risk reduction/public education include but are not limited to; school talks and station tours where a safety message such as stop, drop, and roll is covered. We monitor fire and severe weather drills in schools and educate children about fire safety. Also, we teach exit drills in the home to middle school students as well as provide CPR/First-Aid training. So far in 2021, these have attended about 18 events and interacted with approximately 6,589 people in public education.

EMS Division

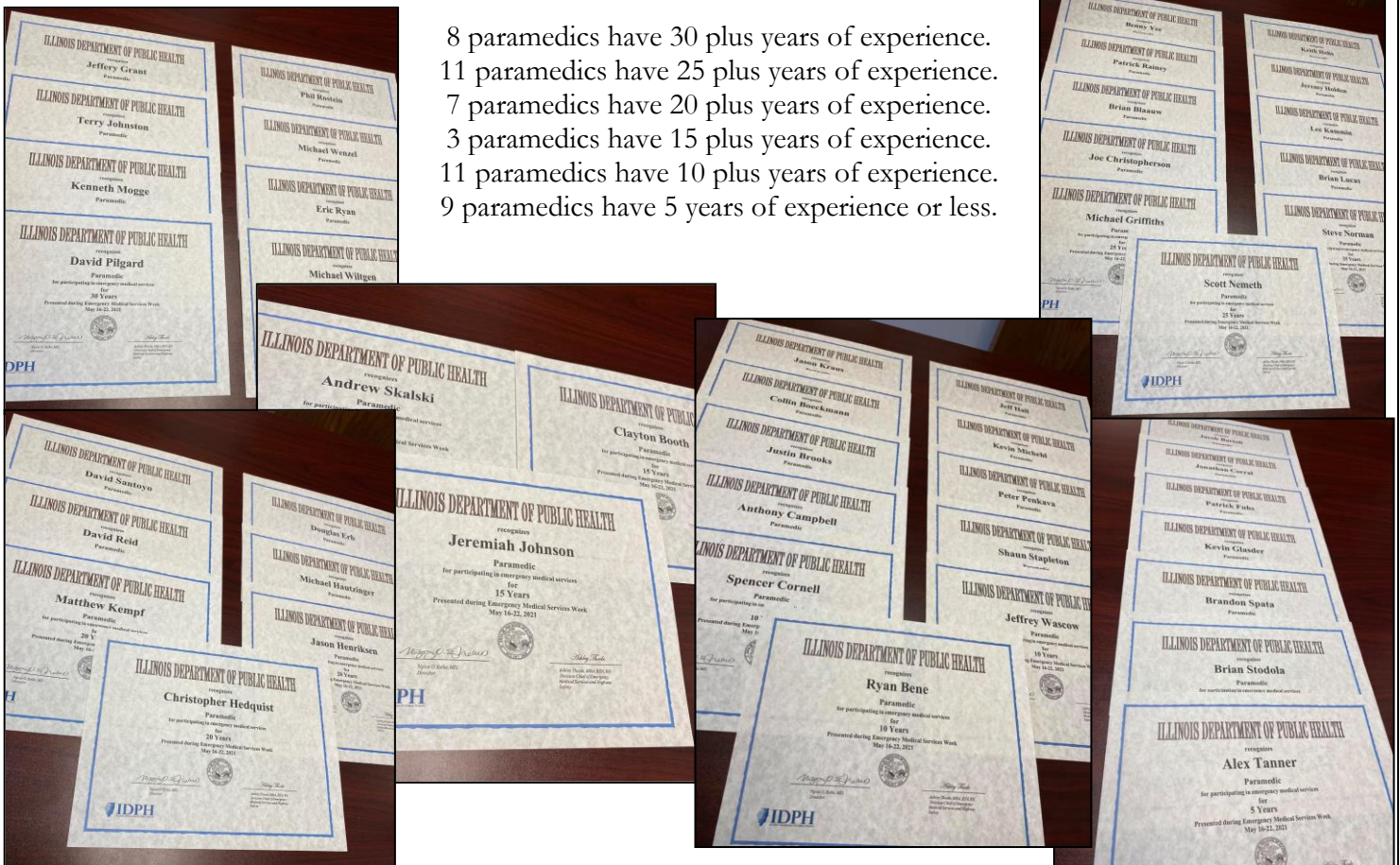
EMS STRONG

This Is EMS: Caring for Our Communities

EMS Week 2021 – May 16 – May 22

In honor of EMS Week - we would like to highlight and thank all of our paramedics at Lake Zurich Fire. We currently have 49 State licensed paramedics, which include 45 line personnel and 4 staff personnel. We are incredibly proud to showcase the years of experience that our paramedics possess.

- 8 paramedics have 30 plus years of experience.
- 11 paramedics have 25 plus years of experience.
- 7 paramedics have 20 plus years of experience.
- 3 paramedics have 15 plus years of experience.
- 11 paramedics have 10 plus years of experience.
- 9 paramedics have 5 years of experience or less.



EMS Action Grant Awarded – Laerdal Little Anne CPR Mannequin

The Fire Department recently applied for and was awarded an EMS Action Grant from Illinois Heart Rescue. The EMS Action Grant will provide the Fire Department with a Laerdal Little Anne CPR training mannequin that features CPR metric feedback and utilizes the Laerdal training application. The Fire Department will incorporate the new training mannequin in its community CPR program.

Illinois Heart Rescue is a state-funded nonprofit and their Heart Rescue Project aims to improve how out of hospital cardiac arrest (OHCA) is recognized, treated and measured in the State of Illinois. With a state population of over 12 million and the nation's third most populous city, Illinois Heart Rescue strives to make a significant public health impact in our nation by creating a model for improving cardiac arrest outcomes in both rural and large urban centers.

The grant was submitted and awarded to us by Teri Campbell, Executive Director of Illinois Heart Rescue. The mission of the EMS Action Grant was developed by the Illinois Heart Rescue EMS CPR Performance Program (ECPP) to provide financial assistance in the form of CPR training materials to EMS agencies within the State of Illinois to develop well-coordinated, high performance CPR resuscitative practices.

The Laerdal Little Anne CPR training mannequin provides a realistic CPR training experience via:

- Life-like anatomy - Perform nose-pinch, head tilt, chin lift and jaw thrust to see chest rise. Anatomically correct oral and nasal passages.
- Correct compression force - See and hear that compressions are done correctly. A built-in clicker signals when the correct compression depth is achieved.
- Quick & easy maintenance - Clean-up is easy with disposable lungs and removable faces. Made with Laerdal's patented design and materials; it's built to last.
- Guideline compliant - With objective feedback on compressions and ventilations, Little Anne QCPR is future proof. It teaches all the parameters of high-quality CPR as defined by the American Heart Association.
- Real-time CPR feedback - Check how every learner is performing with feedback on depth, release, rate and ventilations.
- Intelligent scoring and guidance - Give every learner tips on performance and improvements with intelligent scoring functionality. Motivate learners to go from "passed" to perfection. Performance scores and summaries are saved in the app.
- QCPR race competition - Finish every training session with an informal and fun QCPR race. Increase engagement using the thrill of competition.
- Rock solid connection - Connect every manikin to the instructor app with stable and reliable one-click Bluetooth Smart connection. Built-in tutorials and how-to videos.



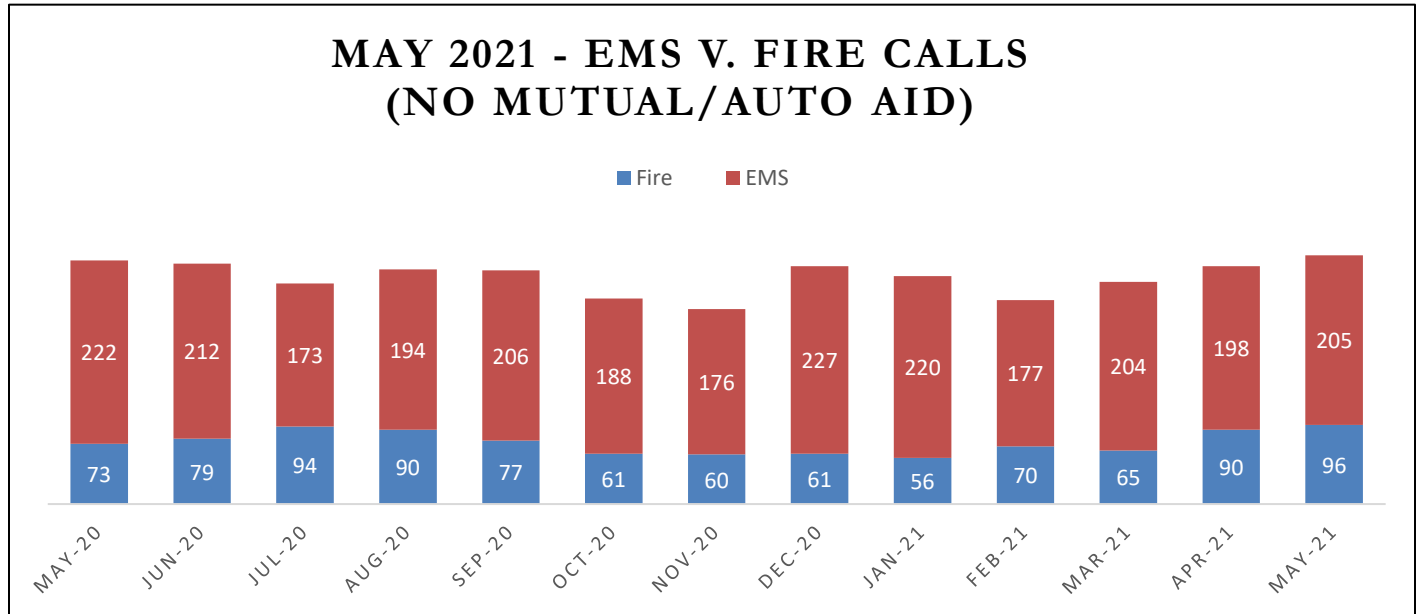
Operations Division

Vehicles Out of Service

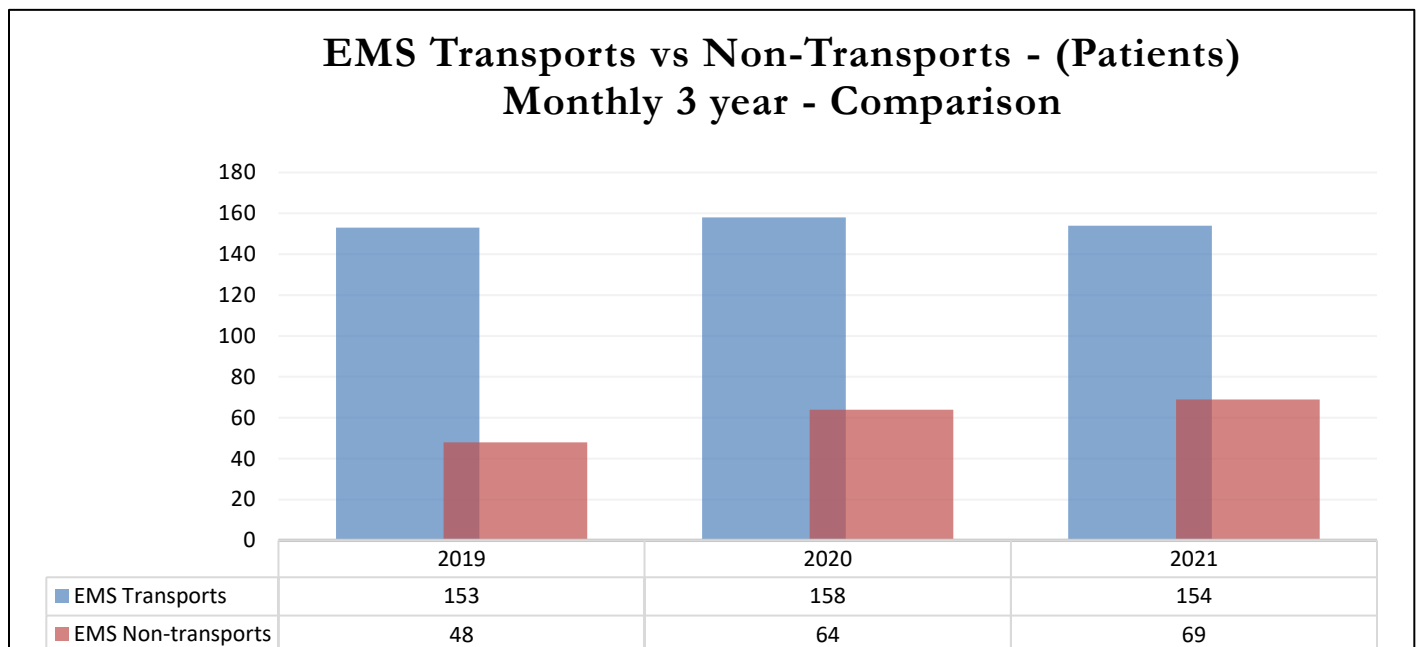
- During May, the following vehicles were out of service due to maintenance, repairs, or breakdowns:
 - Ambulances – 15 hours
 - Engines – 27.25 hours
 - Year-To-Date Hours:

Ambulances: **240.58 hours** | Engines: **658.78 hours**

Below is the breakdown of Fire versus EMS incidents in Lake Zurich – minus aid given. Our fire calls include structure fires, car fires, grass fires, dumpster fires, wires down, and other types of service calls.

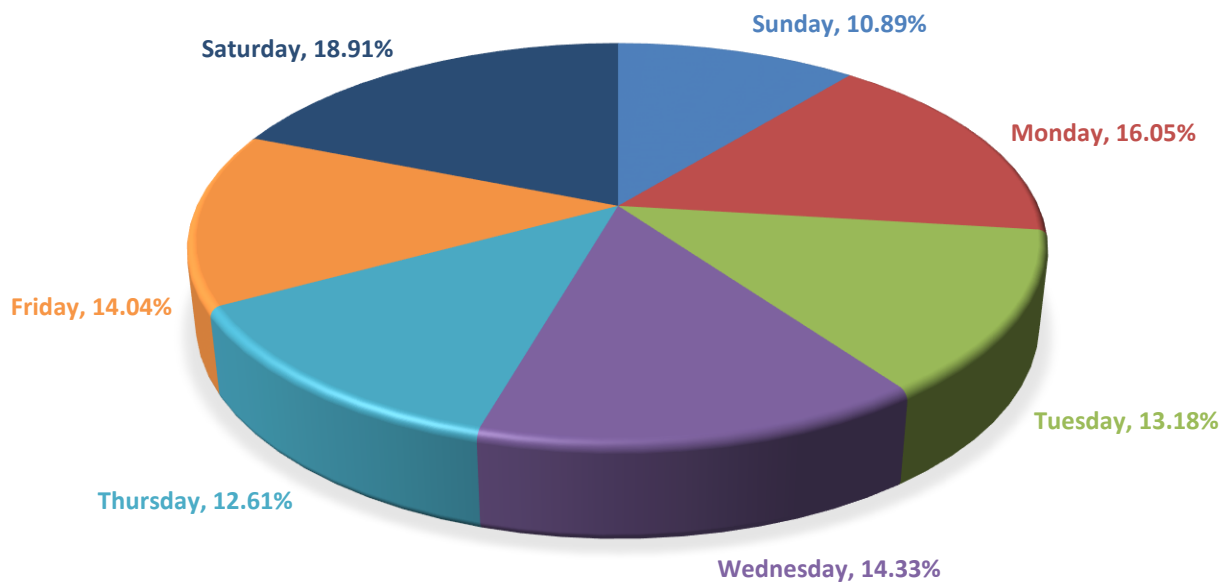


This next chart reflects activity related to emergency medical services, a core function of the fire department — not every EMS call results in transport. A prime example of this is an automobile accident where several victims refuse transport. EMS transports always outpace refusals. This chart compares the month of May across 3 years. The trend is consistent with the data period. These numbers represent the patients seen.

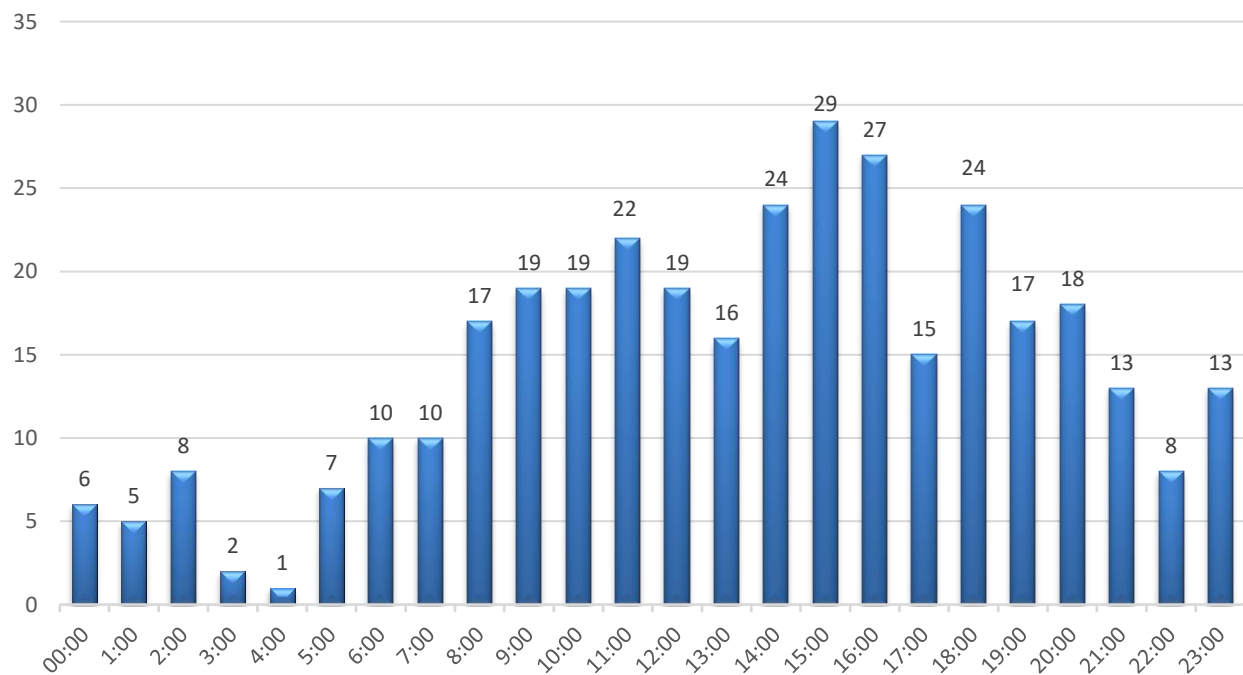


The following two charts break down calls by the day-of-week and hour-of-day.

RESPONSE BY DAY OF WEEK - MAY 2021



RESPONSE BY HOUR OF DAY - MAY 2021



STATION 1

321 S. Buesching Road
Lake Zurich, IL 60047

APPARATUS & STAFFING BATTALION 32



ENGINE 321
AMBULANCE 321



STATION 2

350 W. Highway 22
North Barrington, IL 60010

APPARATUS & STAFFING

ENGINE 322
AMBULANCE 322



STATION 3

1075 Old McHenry Road
Lake Zurich, IL 60047

APPARATUS & STAFFING

ENGINE 323
AMBULANCE 323



STATION 4

21970 Field Pkwy
Deer Park, IL 60010

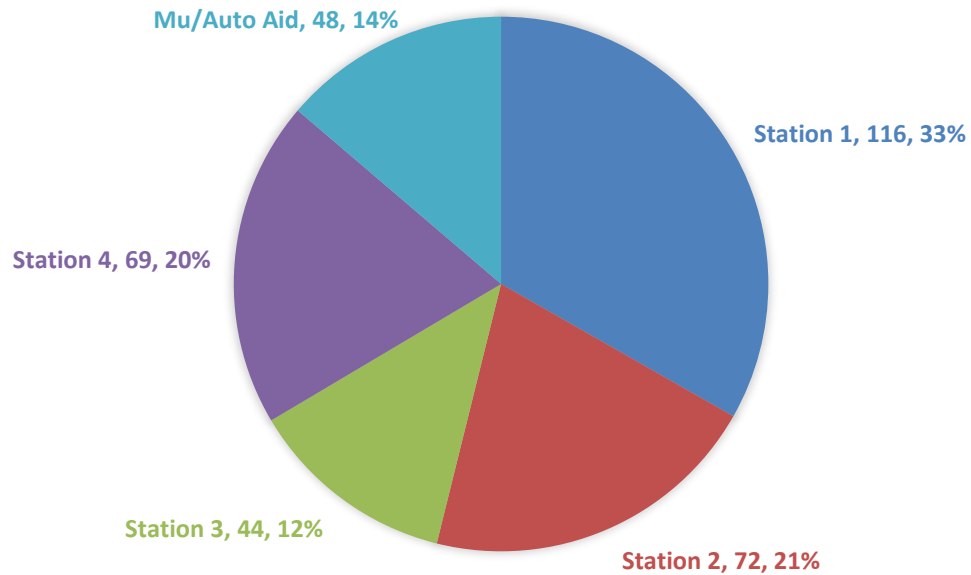
APPARATUS & STAFFING

ENGINE 324
AMBULANCE 324



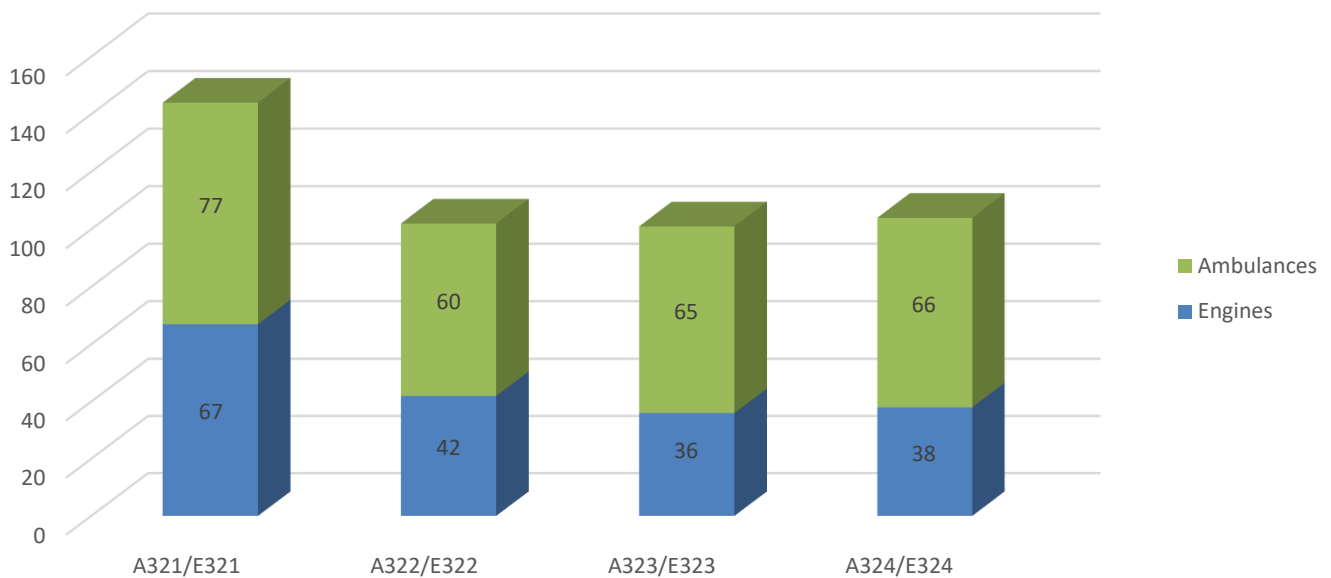
The graph below represents the percentage of calls by each station and mutual/auto aid for May 2021. The chart does **not** represent the station that responded as the primary resource to the area – it means where the call originated. Station 1 is historically the busiest district.

ORIGIN OF CALLS - MAY 2021

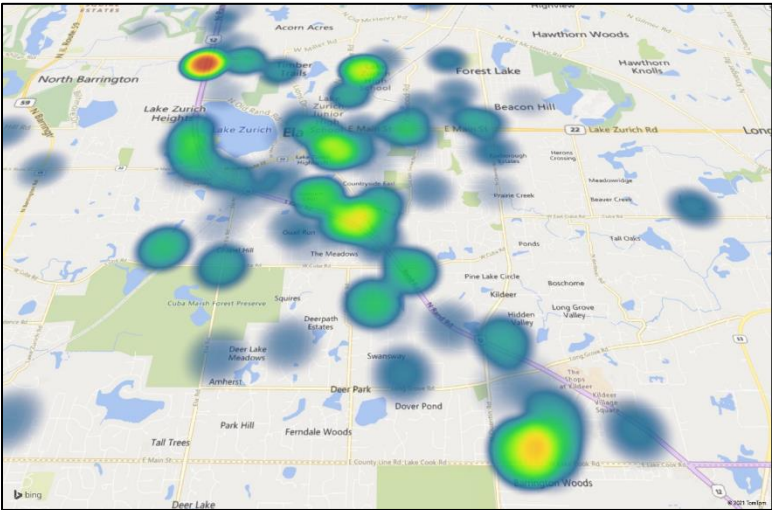


The graph below shows the responses by each unit – Ambulances & Engines – in May 2021.

Total Unit Responses - Ambulances & Engines



The next graphic is a visual representation of call distribution for May. As visually displayed, the assisted living/memory care facilities are a large portion of our department calls and are consistently within the top ten locations responded to each month. We frequently respond to doctor offices and health clinics, along with automobile accidents near the Route 12 corridor.

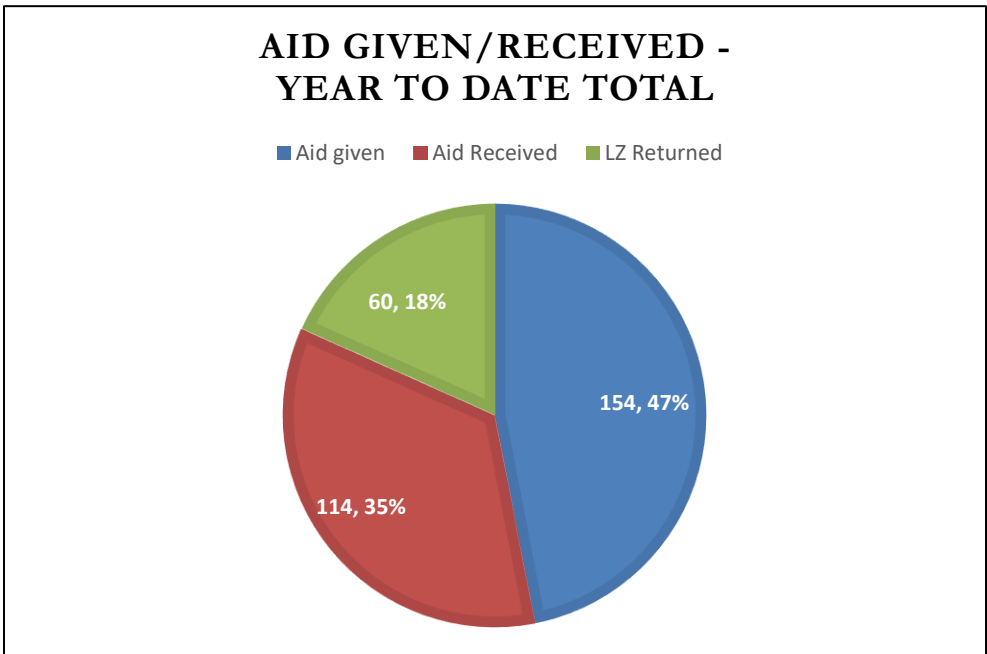


Frequent Call Locations:

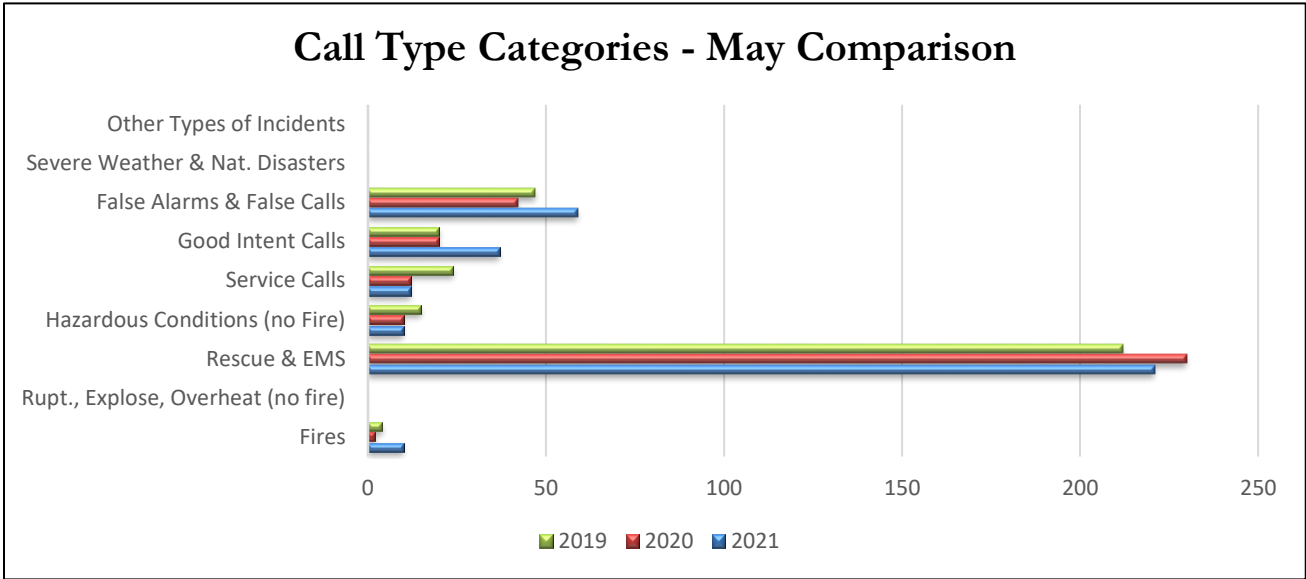
- 795 N. Rand Road – Azpira Place of Lake Zurich – 23 responses
- 21840 Lake Cook Road – Deer Park Village Senior Living – 13 responses
- 777 Church Street – Cedar Lake Assisted Living & Memory Care – 11 responses
- 900 S. Rand Road – Lexington Health Care Center of Lake Zurich – 8 responses
- 21481 N. Rand Road – Northwest Community Healthcare – 7 responses
- 555 America Court – The Auberge at Lake Zurich – 3 responses

Mutual/Auto Aid Response Year to Date –

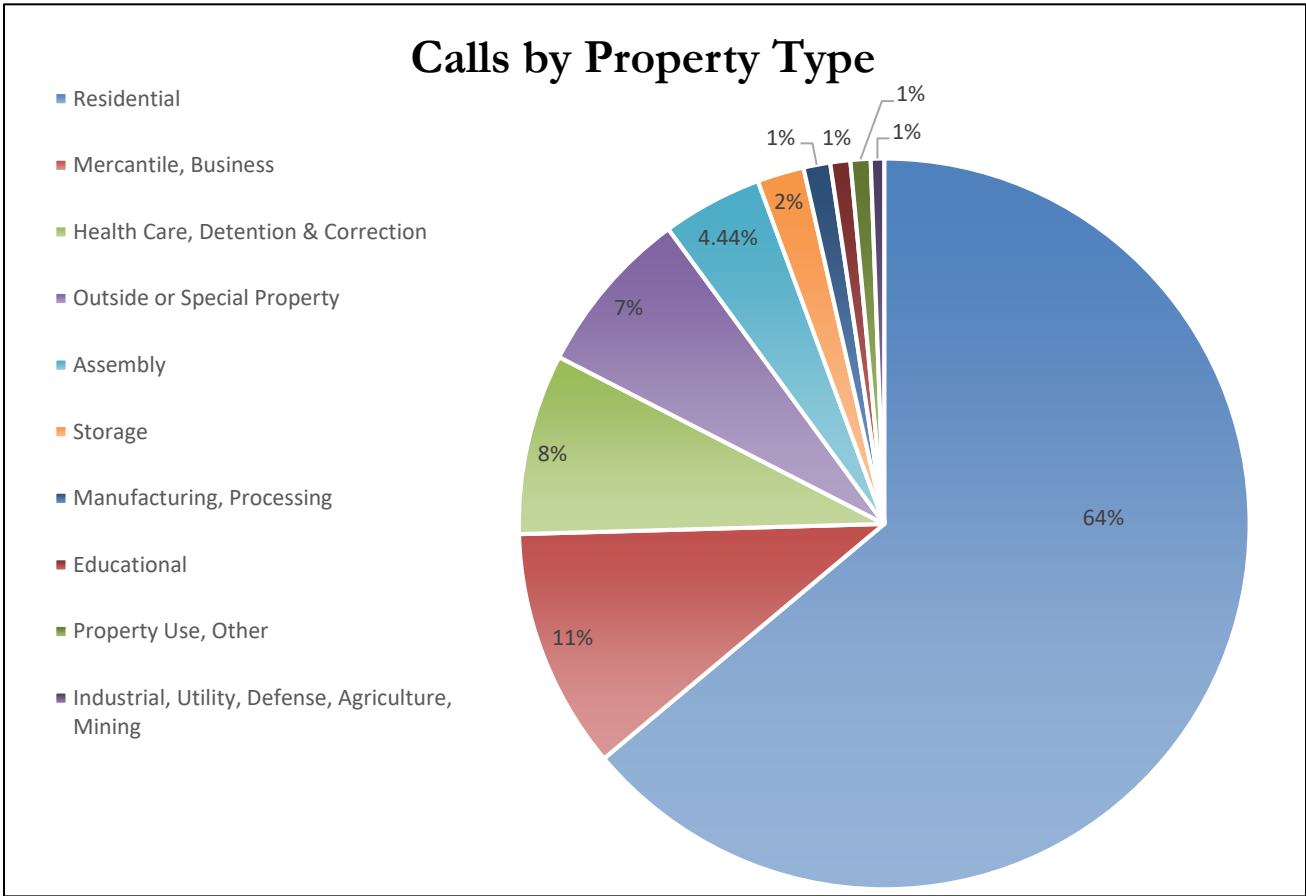
The mutual aid agreements are designed not to overburden any one agency and are looked at carefully for any necessary adjustments. Run cards for the Department have changed, and our partners are responding to assist us more often. In May, we responded to **48 calls** for mutual aid and were **returned 21 times** before our arrival. The chart to the right shows YTD Aid Given/Received and how many times LZ returned before their arrival. Many of our response incidents do not require intervention from the LZPD 911 center through automated dispatching and resource sharing. They are entirely handled by the agency requesting our response — direct cost savings to our budget and an added benefit of the automated dispatch system.



All calls we code as a department within the National Fire Incident Reporting System (NFIRS). The codes all relate to the text categories noted in the chart below. As indicated below, you will see across the three years that the trends remain mostly the same. Rescue and EMS incidents account for the majority of calls we respond to and continue to increase, as indicated below.

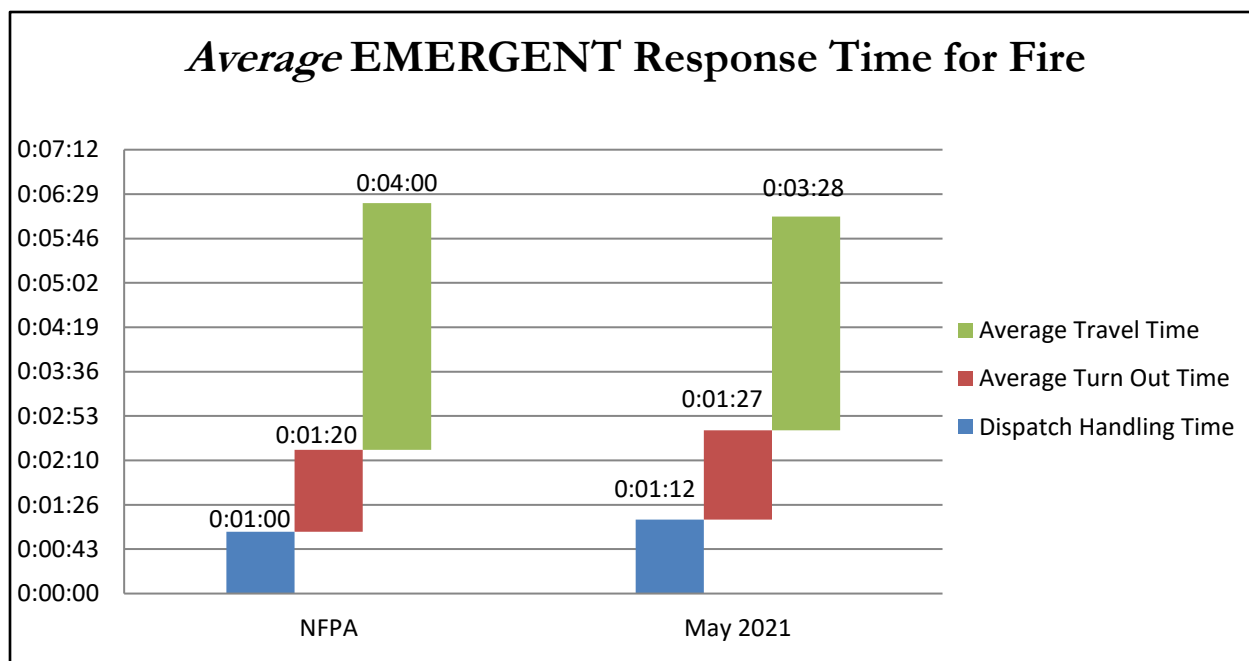
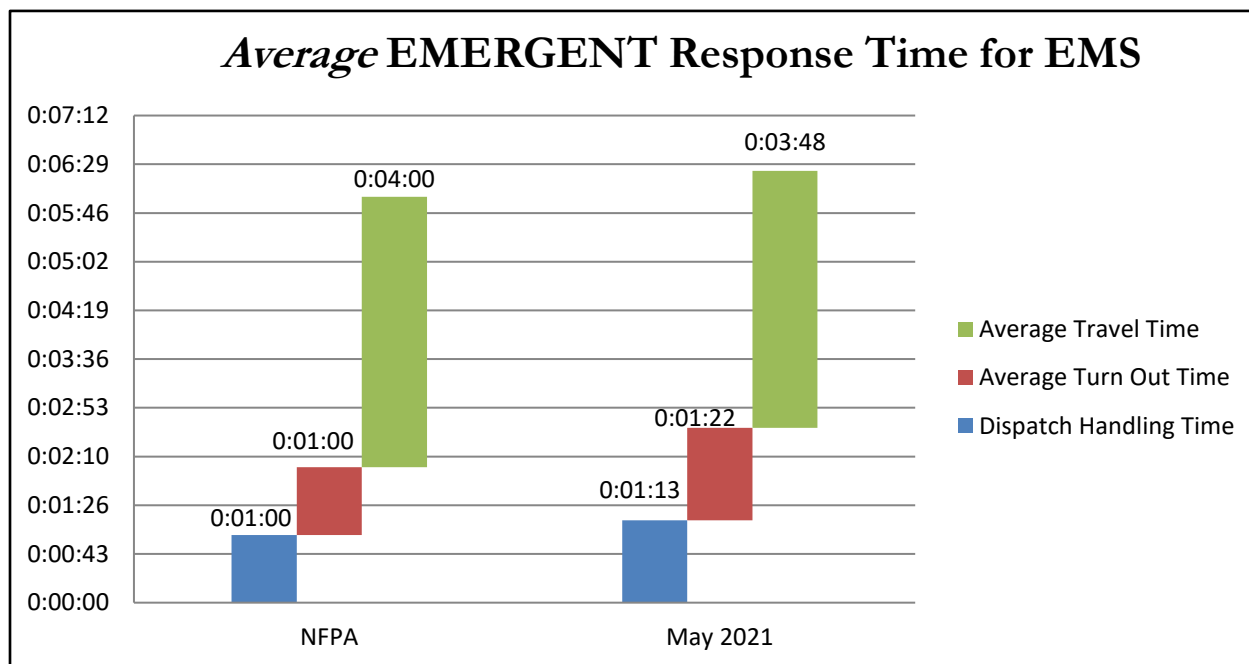


As previously mentioned, there is a national standard for coding the type of property use. How is this relevant? We see trends in various types of occupancies and use them to determine our service demand. For example, the healthcare category would increase if additional assisted living or nursing homes open. As shown below, we continue to respond to Residential Properties more than any other (64%), and Mercantile/Business was second with (11%) of all calls.



Response time includes three key factors: dispatch handling time, turnout time, and travel time. Dispatch handling time is the time for dispatch to take in information and then dispatch personnel. The turnout time is when the crews receive the call to the time they get into the vehicles and hit the en-route button. Travel time reflects the time from en route to the time they arrive at the incident scene. Construction, speed limits, weather, and train traffic can impact response times. The overall goal for arrival at an emergency fire call is a total of 6 minutes and 20 seconds from the time of notification until the first unit arrives on the scene. For a response to an EMS incident, this time is 6 minutes.

The following two graphs compare the average emergency response times for both Fire and EMS calls within our first arriving unit's primary response area. These times will vary based in part on the first responding unit's location, multiple calls, weather, time of day, and traffic conditions. *Dispatch handle times have increased after switching to the new CAD system and delays caused by processing an alarm. The ETSB and Infor continue to work on the issue.



Training Division

During May, we completed the following shift training:

EMS Continuing Education – During May, the department's paramedics trained on Cardiac Arrest Management using the Pit Crew method during the practical session. The training was led by a nurse educator.

Horizontal Ventilation – Crews practiced the different ways to use horizontal ventilation to clear smoke from a building.

Vertical Ventilation – Crews practiced cutting ventilation holes in our new roof simulator. The simulator was designed and built by Lt. Kammin with help from department members. It is also used to practice emergency bailout training

Multi-Company Fire Suppression – During this training, all companies and the shift commander trained together at the training tower to conduct a coordinated fire attack with ventilation and rescue.

Northwest Community Hospital EMS Code of Ethics – All paramedics reviewed the updated NCH EMS Code of Ethics.

Boat Operations/Dive Support – Crews reviewed the department's dive boat operation and practiced dive support skills. *(Pictured right)*

Department SOG Review – All members must review and acknowledge the Lexipol SOG's when they are released.

Mandatory Training Make-up – Members that needed to complete missed mandatory training worked on completing it.

Company-Specific Needs – Company officer-led training on skills/knowledge that they identified as a need of their crew.

Additional Training Classes attended during May:

Deputy Chief Kelly – Attended an FSLA webinar

FF/PM Mike Hautzinger – Attended an 8 hour Fire Sprinkler Seminar

FF/PM Jason Kraus, FF/PM Anthony Campbell, FF/PM Pete Penkava, Lieutenant Jeff Wascow & Lieutenant Clayton Booth – Attended the virtual Hazmat Conference. The conference was held over several days, and each member completed 16 hours of Hazmat continuing education.

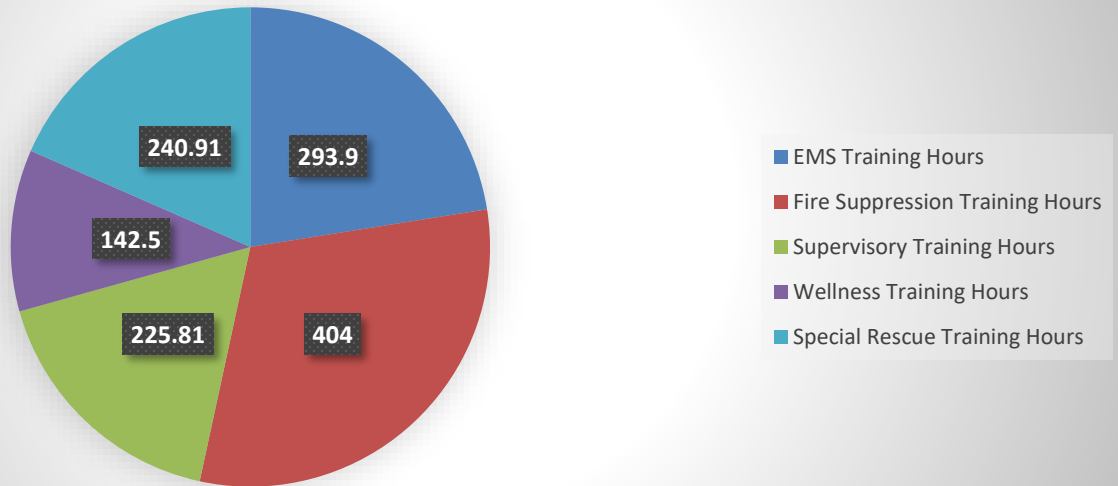
FF/PM Brandon Spata – Completed the 40-hour Advanced Technician Firefighter class

Deputy Chief Kelly – Attended the 3 day Community Risk Reduction Virtual Conference

FF/PM Ryan Bene – Attended a 3 day Swift Water Technician Class



May Training Hours - 1,307.12 Total

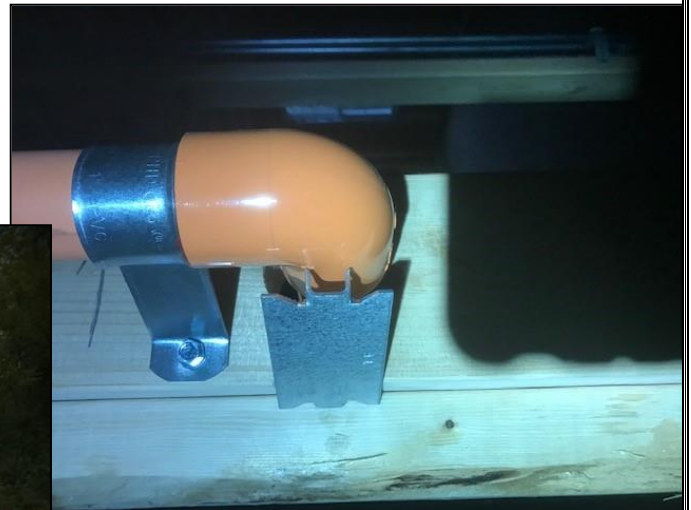


Fire Prevention Bureau Division

During May, the Lake Zurich Fire Prevention Bureau assisted District 95 with fire drills involving over 5,000 students and 900 staff from every District 95 school. As we had stated previously, every school had to complete multiple drills prior to June 1, 2021.

May also saw two more fires caused by discarded smoking materials and unattended open burning. The smoking material fire spread via mulch into the wall space at The Hampton Inn, causing the lobby to fill with smoke. The open burning spread into a landscaping storage yard, destroying thousands of dollars worth of equipment. Once again, we are using social media to remind people about the dry conditions.

The picture to the right is from a rough inspection of a residential sprinkler system. As you can see, the prongs were accidentally pressed into the plastic pipe. If this is not noticed, a damaged pipe might leak in the future.



The picture to the left is from a gas main fire in Deer Park. This picture showcases what is involved in setting up a water supply in a non-hydrated area.

The below picture is from a fire investigation class held by IFSI and hosted at Waukegan. We were asked to participate in helping the class with their final practical sessions.



The following summary sheet indicates the Fire Prevention Bureau activities during May.

- The final inspections and testing of all protection systems at the new May Whitney School were completed. We also provided operational tours to the Fire Department staff.
- We attended fireworks meetings with the Village of Hawthorn Woods each Wednesday during May and will continue to do so in June.
- Construction Meetings
 - Fire protection systems meeting with the general contractor and various companies at Life Time Fitness
 - New property owner meeting a 61-95 Oakwood
 - Sprinkler meeting at 300 Church Street
 - Sprinkler break at 650 Church Street
 - Numerous alarm and power issues due to high winds
 - Meeting with new General Manager at Regal
 - Weekly staff meeting

