



FIRE DEPARTMENT

MONTHLY INFORMATION REPORT

July 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 - July 2021 Overview

In July, the Department responded to 379 calls for service, which averaged **12** calls per day and required **615 individual vehicle responses** to provide the necessary personnel for each incident.

Forty-four percent (**44%**) of the responses occurred while another call was in progress. Eleven percent (**11%**) 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 - Year To Date - Fire Value/Save/Loss



Significant Calls

Change of Quarters to Crystal Lake

On July 17, 2021 Lake Zurich Engine 322 responded to Crystal Lake for a change of quarters at their Station 1. When enroute, Engine 322 was advised to take in an automatic fire alarm at 515 E. Crystal Lake Ave. (Beardsley Middle School). Engine 322, Barrington Countryside Ambulance, and Crystal Lake PD responded. Upon arrival, crews found a school with nothing showing and no way to access the building. Crews looked in the accessible windows and found nothing out of the ordinary. A Crystal Lake firefighter responded with a Knox box key for access. Crews investigated and noted an alarm panel showed water flow on the first floor. Crews investigated the area, found no problem, and a Crystal Lake firefighter advised for an alarm reset. Engine 322 continued to the Crystal Lake station for standby.

HazMat Incident – Wheeling

On July 31, 2021, the incident started at 3:20 pm in Wheeling for a packaging plant with an anhydrous ammonia leak. This incident went to a third alarm. FF/PM Peter Penkava arrived on the scene at the same time as HazMat 4/5, and he immediately began to pull out necessary equipment for the first-in team. He helped teams 1, and 2 get dressed, assisted a Northbrook Lieutenant with the decontamination, and helped decon teams as they exited the building. There were no major contamination issues to his knowledge.

Automobile Accident with Extrication – Wauconda

Engine 321 was requested for Mutual Aid to assist Wauconda Fire with an accident with extrication. Crews worked alongside S341 to extricate one patient through the driver-side door. Total extrication time was about 10-15 minutes. After extricating the patient, the command officer released Engine 321 from the scene.

Member Spotlights



We celebrated Fire Chief David Pilgard's Promotion on July 19, 2021.



Congratulations to Lieutenant Benny Yee on 20 years of service with the Lake Zurich Fire Department.
(Pictured above)

Congratulations to FF/PM Ryan Bene on his Watercraft Technician certification.
(Pictured right)

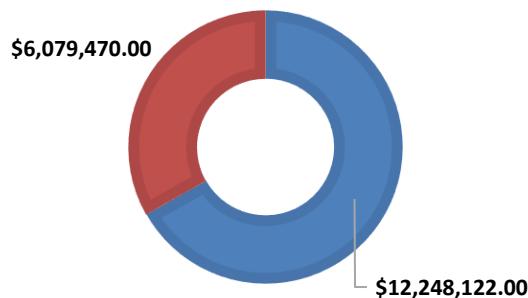


Administration Division

Budget Update – The administrative team is busy working toward the 2022 budget and looks forward to working with the Board to need our future needs.

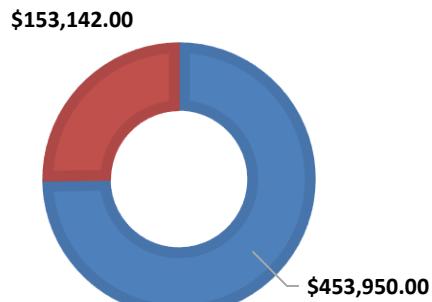
FIRE DEPARTMENT BUDGET

■ Overall Budget w/ Amendment ■ Available Balance



OVERTIME ACCOUNTS

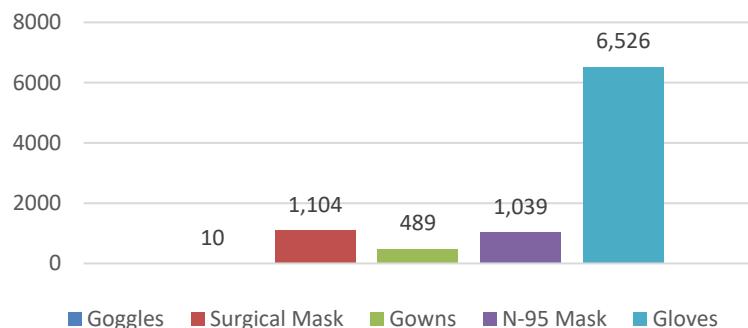
■ Overtime Budget ■ Available Balance



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 July, we issued **3 pairs of safety goggles** and used **73 surgical masks** on patients, **71 - N95 respirators** for our personnel, **3 gowns**, and approximately **434 surgical gloves**. The graph pictured right 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 also 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 and provide CPR/First-Aid training, such as the *CPR class with Diamond Dental pictured left*.

So far in 2021, we have attended about **35 events** and interacted with approximately **7,235 people** in public education.

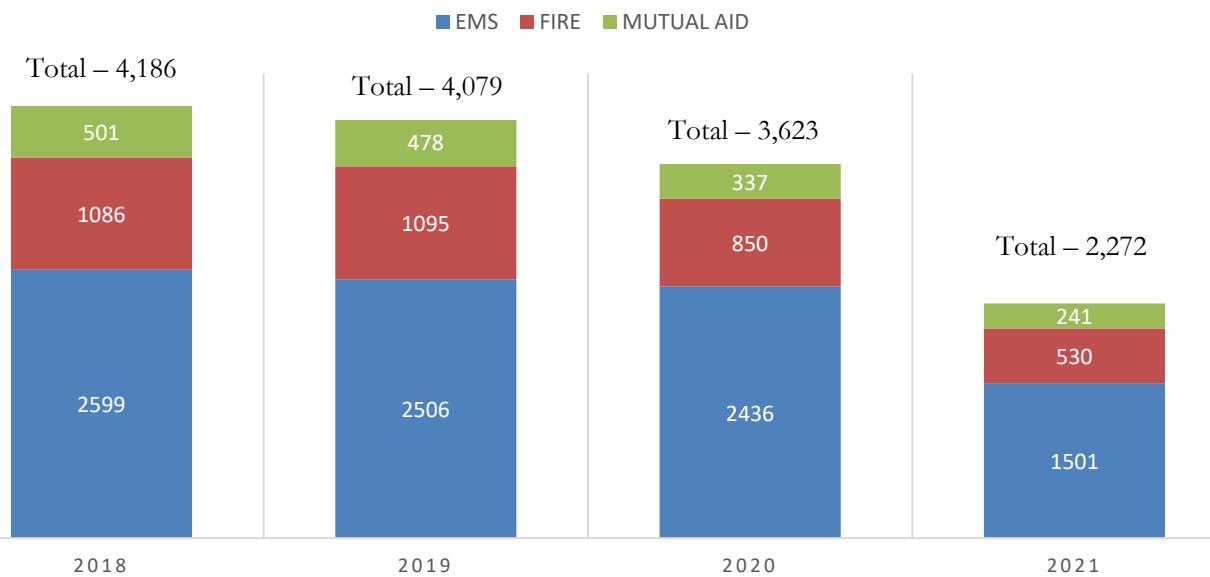
Operations Division

Vehicles Out of Service

- During July, the following vehicles were out of service due to maintenance, repairs, or breakdowns:
 - Ambulances – 243.50 hours
 - Engines – 233.50 hours
 - Year-To-Date Hours:

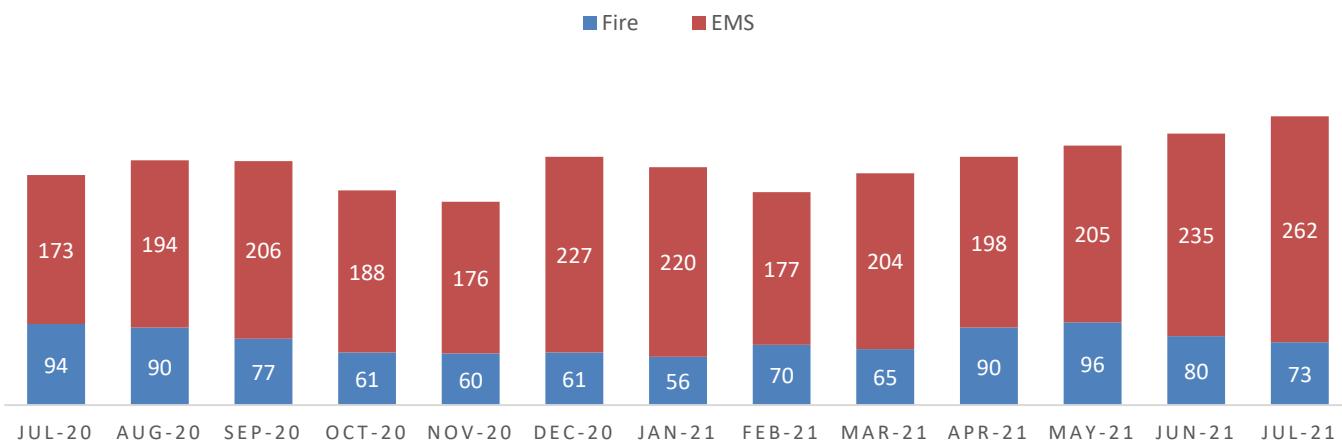
Ambulances: **589.58 hours** | Engines: **1,146.78 hours**

TOTAL CALLS - YTD (DATA WILL BE ADDED EACH MONTH TO 2021)



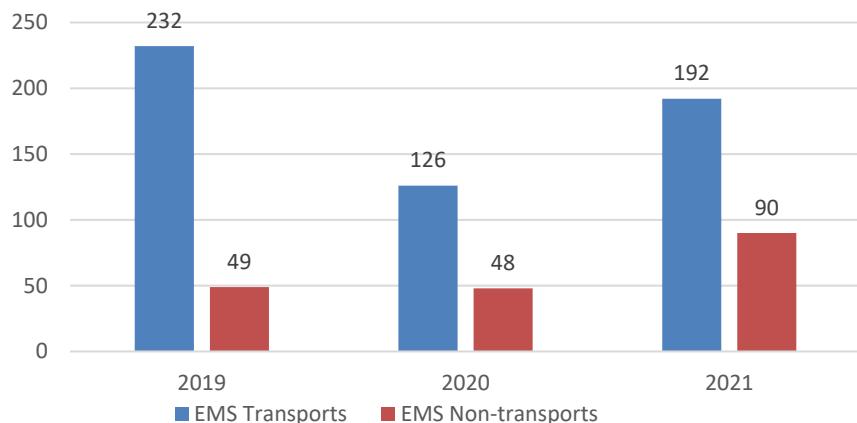
Below is the breakdown of Fire versus EMS incidents in Lake Zurich – minus aid given. Our fire calls include structure fires, car fires, grass fires, dumpster fires, wires down, and other types of service calls.

JULY 2021 - EMS V. FIRE CALLS (NO MUTUAL/AUTO AID)



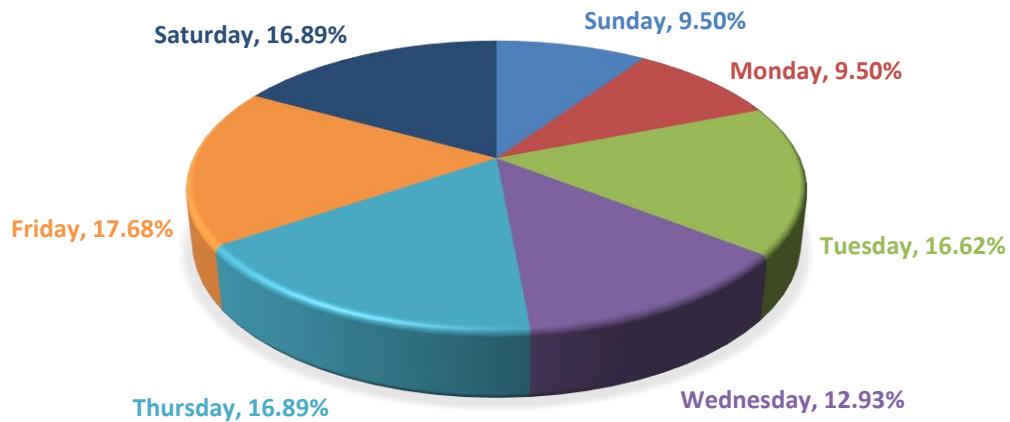
The following chart reflects activity related to emergency medical services, a core function of the fire department — not every EMS call result in transport. A prime example of this is an automobile accident where several victims refuse transport. EMS transports always outpace refusals. This chart compares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

EMS Transports vs Non-Transports - (Patients)
Monthly 3 year - Comparison

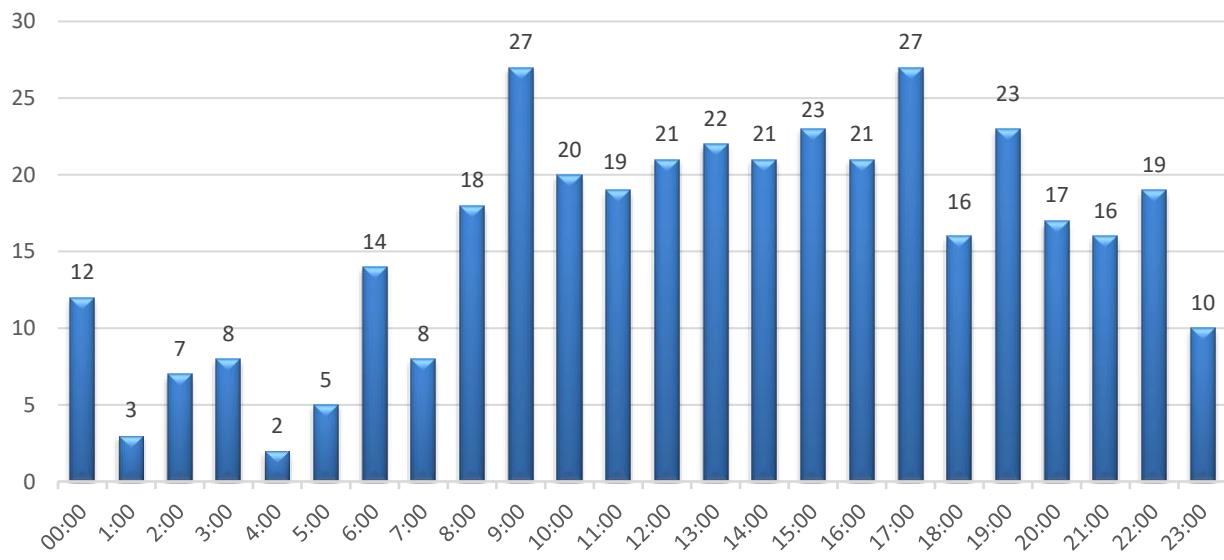


The following two charts break down calls by the day-of-week and hour-of-day.

RESPONSE BY DAY OF WEEK - JULY 2021



RESPONSE BY HOUR OF DAY - JULY 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

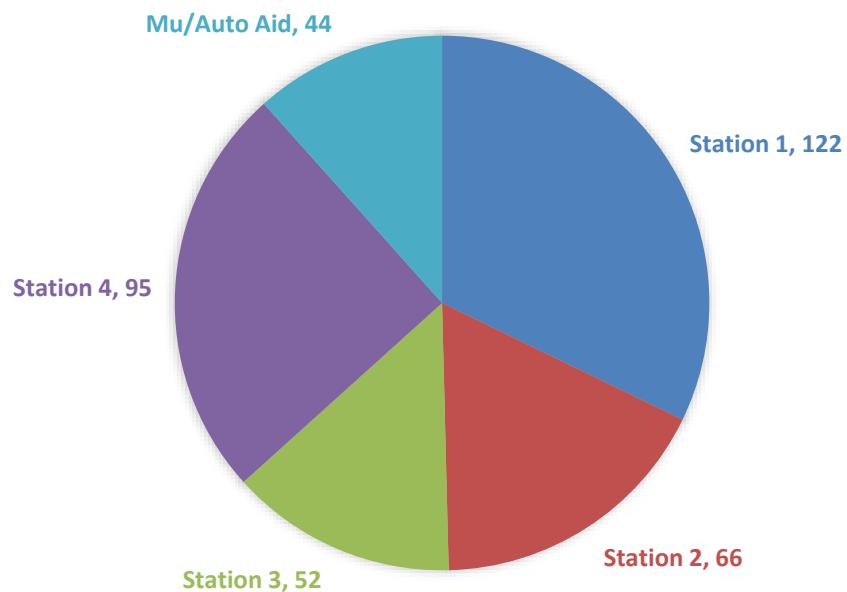
ENGINE 324

AMBULANCE 324



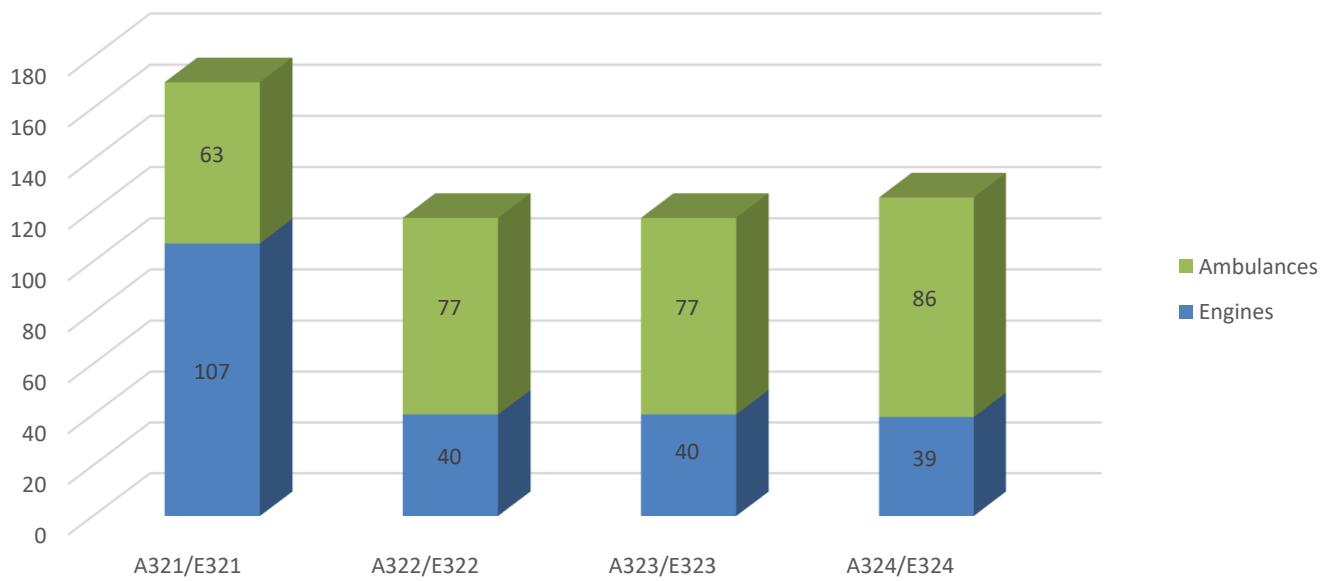
The graph below represents the percentage of calls by each station and mutual/auto aid for July 2021. The chart does **not** represent the station that responded as the primary resource to the area – it means where the call originated. Station 1 is historically the busiest district.

ORIGIN OF CALLS - JULY 2021

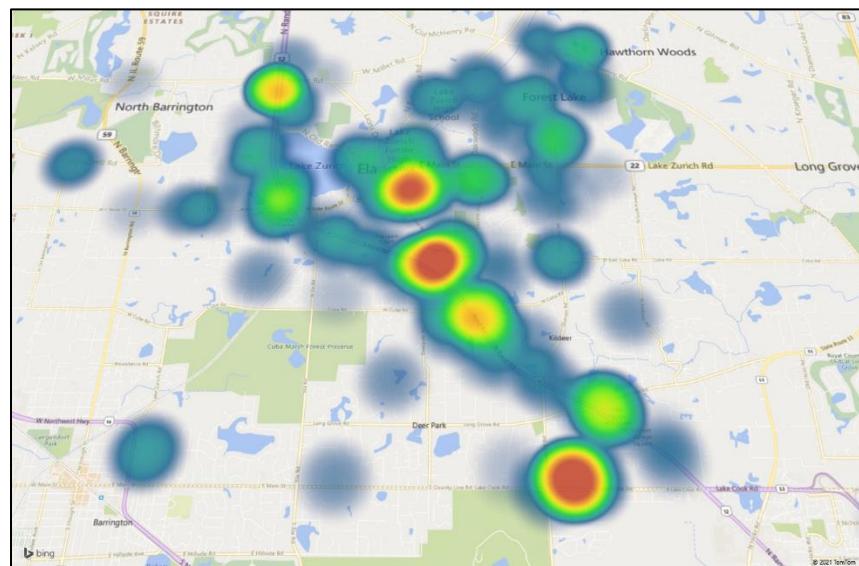


The graph below shows the responses by each unit – Ambulances & Engines – in July 2021.

Total Unit Responses - Ambulances & Engines



The following graphic is a visual representation of call distribution for July. 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.

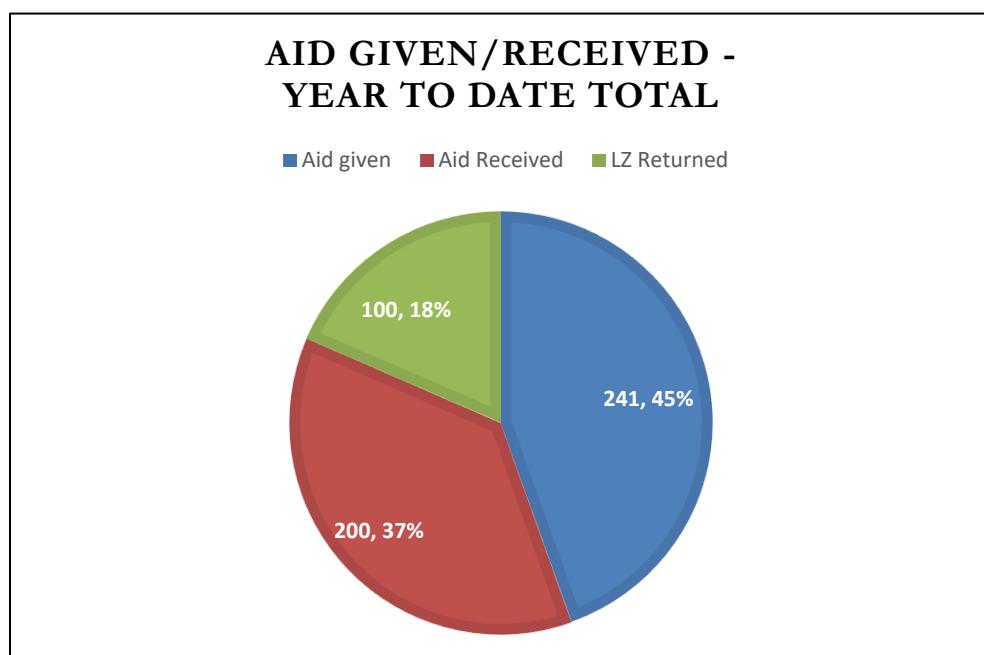


Frequent Call Locations:

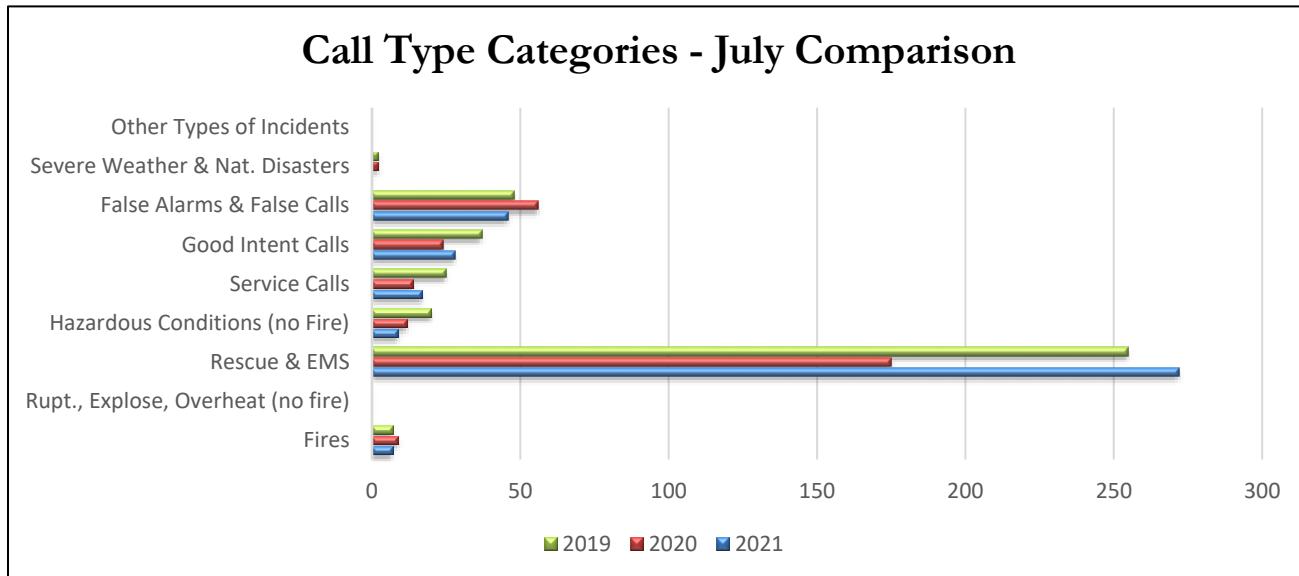
- 21840 Lake Cook Road – Deer Park Village Senior Living – 24 responses
- 795 N. Rand Road – Azpira Place of Lake Zurich – 20 responses
- 900 S. Rand Road – Lexington Health Care Center of Lake Zurich – 12 responses
- 21481 N. Rand Road – Northwest Community Healthcare – 11 responses
- 555 America Court – The Auberge at Lake Zurich – 4 responses

Mutual/Auto Aid Response Year to Date –

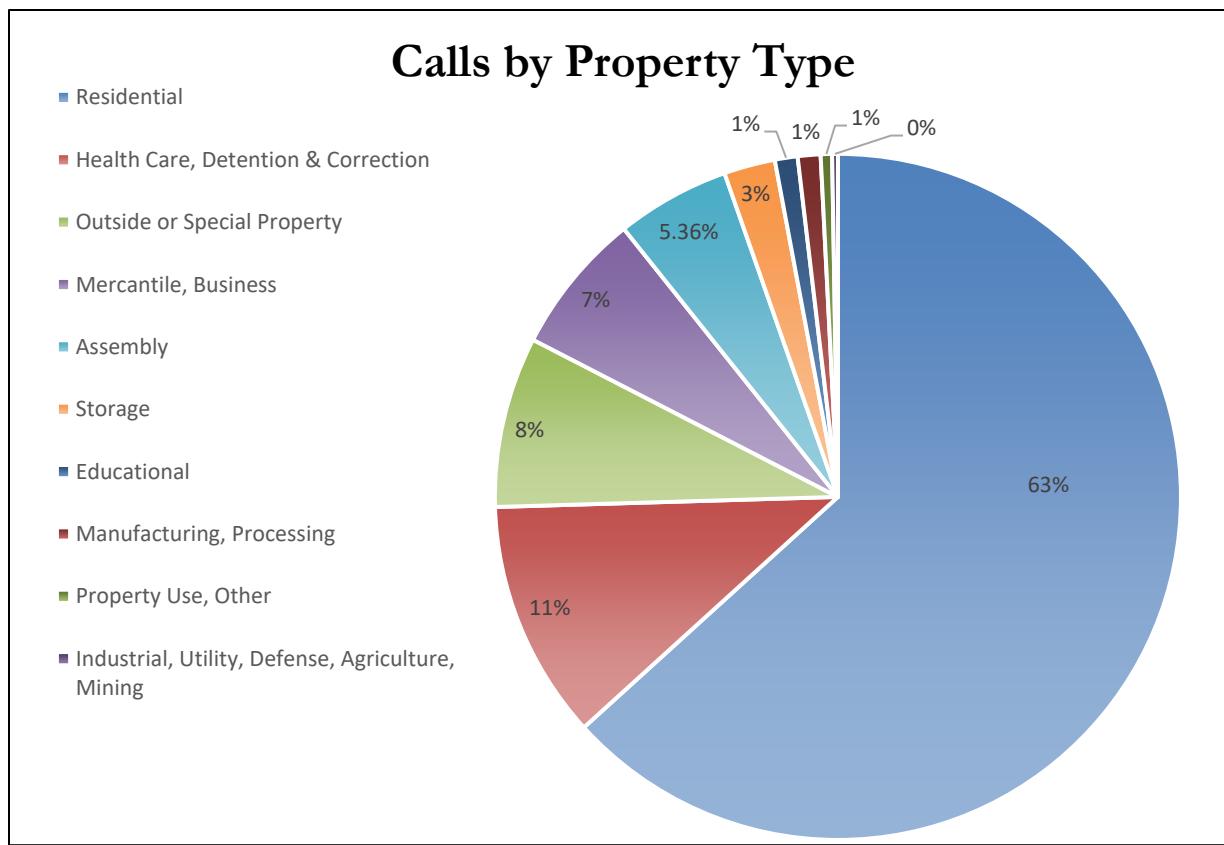
The mutual aid agreements are designed not to overburden any one agency and are looked at carefully for any necessary adjustments. Run cards for the Department have changed, and our partners are responding to assist us more often. In July, we responded to **44 mutual aid calls and returned 25 times** 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 most calls we respond to and continue to increase, as indicated below.

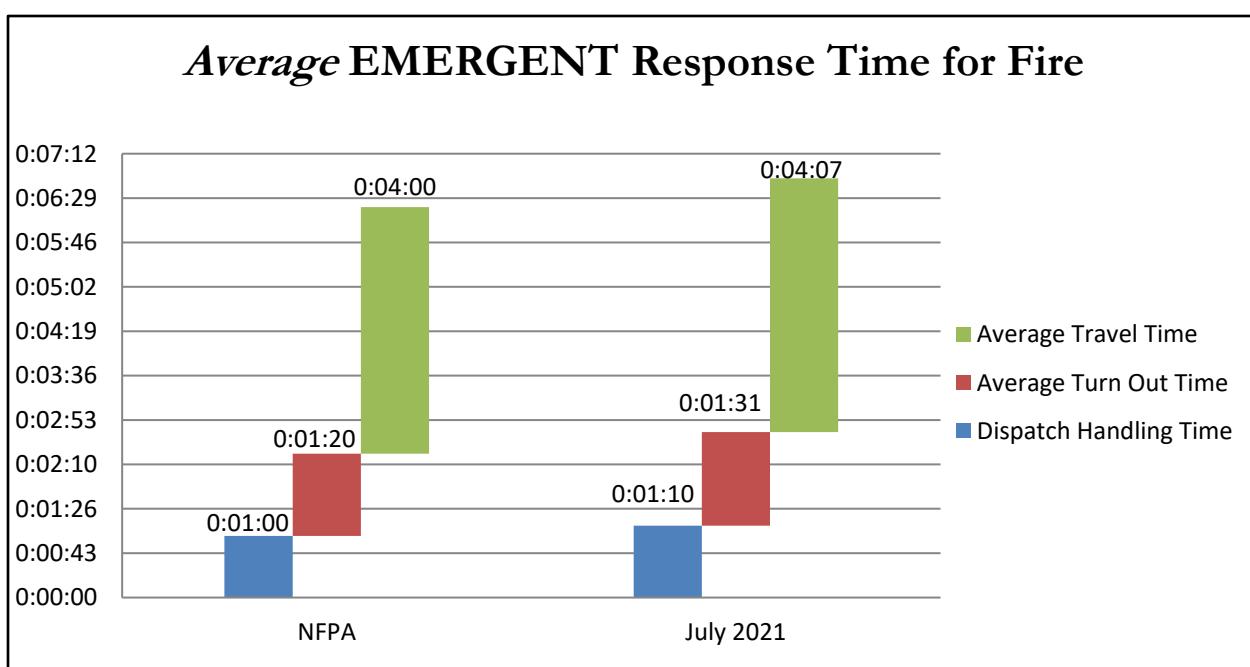
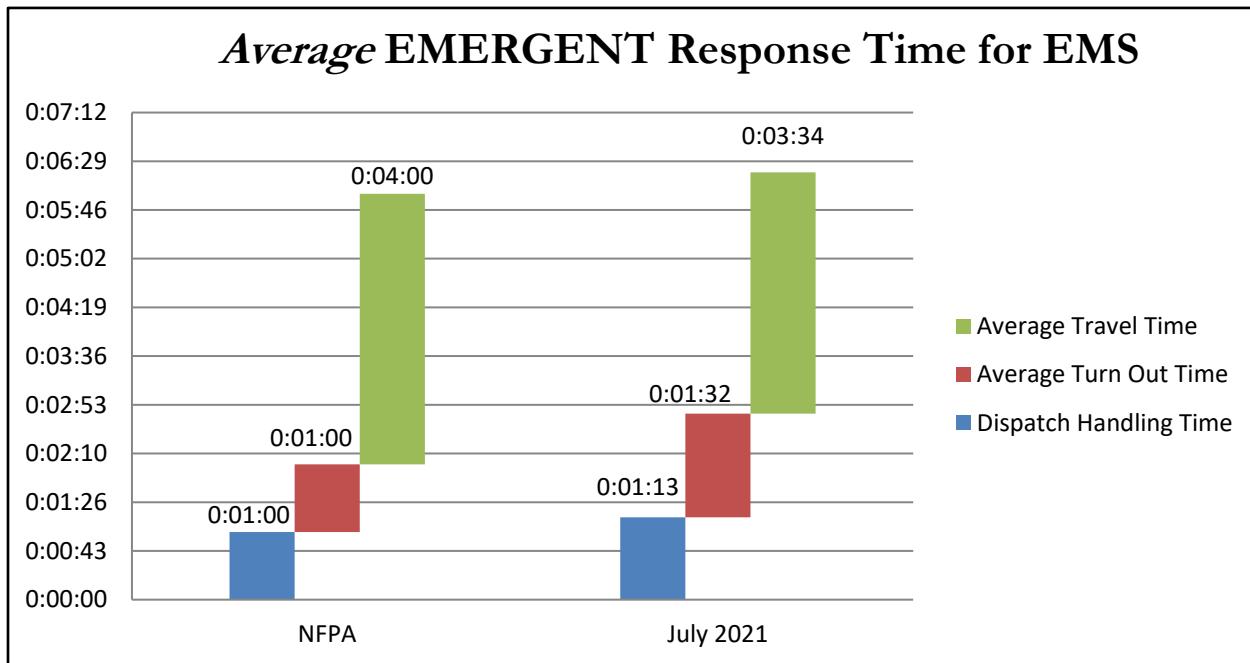


As previously mentioned, there is a national standard for coding the type of property use. How is this relevant? We see trends in various types of occupancies and use them to determine our service demand. For example, the healthcare category would increase if additional assisted living or nursing homes were open. As shown below, we continue to respond to Residential Properties more than any other (63%), and Health Care/Detention 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 enroute 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 July, we completed the following shift training:

1st Quarter Intubations – Quarterly, all paramedics are required by Northwest Community Hospital to training on advanced airways procedures.

EMS Continuing Education – Paramedics attended Ems continuing education covering Acute & Chronic Nero/Stroke.

EMS Refusals and Invalid Assists – Paramedics completed a mandatory review of Northwest Community EMS System Policy, Procedures, and Documentation for refusals and patient assists.

Solar System Fire Safety – Department members, completed training on the 6 steps to safely extinguish a fire involving solar energy systems.

After Action Review – We will review calls regularly to see what went right, what, if anything, needs improvement, and what changes we can make to improve the outcome. This month we reviewed a call involving a cardiac arrest response.

Capnography Review – Capnography is a tool we use on our cardiac monitors to determine O2 and CO2 levels in patients' blood. Paramedics complete a review of the procedures involved in obtaining a capnography reading and interpreting the reading for patient care.

Ropes, Knots, and Hoisting – Crews reviewed the construction and use of fire department ropes, practiced tying all essential knots, and hoisting equipment to elevated areas using rope and the proper knot for the situation.

Ladder Raises and Firefighter/Occupant Rescue – Crews practiced proper ladder raises and performing the rescue of injured firefighters or occupants from the upper floors of a building using ropes and ladders.

Health Insurance Portability and Accountability Act Violations – Paramedics completed a mandatory review of the legal aspects of HIPAA violations and the procedures to follow to prevent violations.

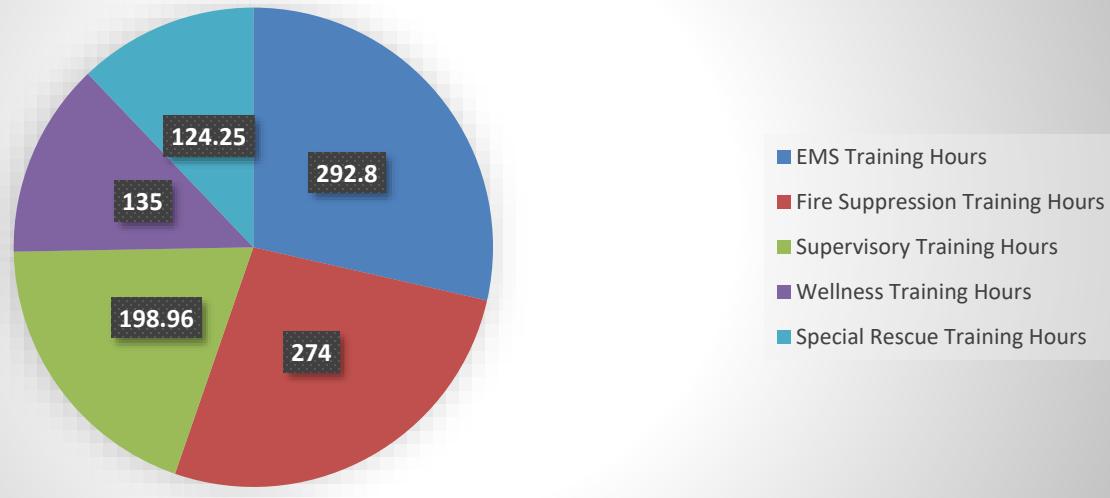
AT&T Walkthrough – Crews completed a walkthrough and preplanning of the AT&T Facility located on Main Street.

First Due Size-up – Using simulation software, officers responded to structure fire situations, completed a size-up, and assigned crews based on the conditions at each fire. Tactics and strategies were discussed by the crews that best applied to each fire.

Weekly Equipment Review – Weekly crews review department equipment and ensure they can operate it properly and effectively.

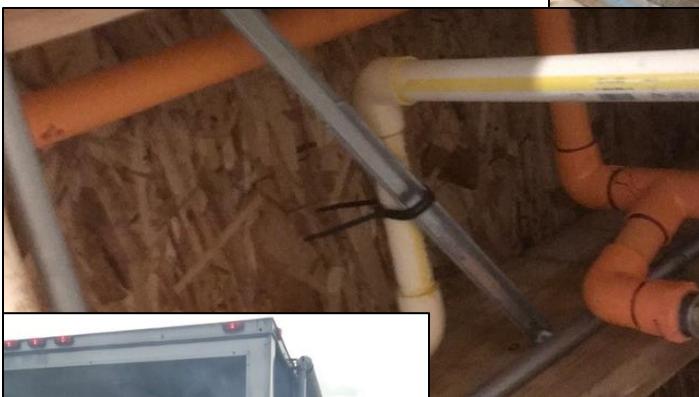
Gas Monitor Training – An outside instructor from AFC International reviewed proper startup, calibration, and safety of the monitors used during CO calls, gas leaks, and hazmat responses.

July Training Hours - 1,025.01 Total



Fire Prevention Bureau Division

The Lake Zurich Fire Department and Fire Prevention Bureau took part in three firework shows on July 2, July 3, and July 4. Thousands of people came out to enjoy these events. The Fire Prevention Bureau logged more than 30 hours of extra time working on these three events. (Pictured right)



As our housing market heats up, so do our inspection numbers. Each home has at least two inspections on the residential fire sprinkler system to ensure its reliability when it is needed. Other trades can cause problems when placing their product on the sprinkler pipe. (Pictured left)

Every Wednesday evening and the last Friday of each summer month, the Fire Prevention Bureau has conducted inspections on the various food trucks at the new Lake Zurich downtown events. This has been a fun and productive event as numerous fire safety issues have been discovered on some food trucks.

Pictured left is Fire Prevention Specialist, Bob Kleinheinz, conducting one of these food trucks inspections.

JULY FIRE PREVENTION ACTIVITIES

- Fireworks meetings with the vendor:
 - Hawthorn Woods Country Club
 - Village of Hawthorn Woods
 - Village of Lake Zurich
- Three Fireworks shows – 36 hours
- District 95 safety team meeting with Police and District 95 staff
- Police Department fire drill
- Alpine Days inspections – 2 days – 4 hours total
- Food Truck inspections at lakefront social events
- Construction meeting
 - Life Time Fitness – weekly and specials
 - G2 Revolution
 - Lake Zurich High School
- NIFIA Board and General meetings
- Fire Department staff meetings

