



CASCADE TOWNSHIP FIRE DEPARTMENT

2020 ANNUAL REPORT



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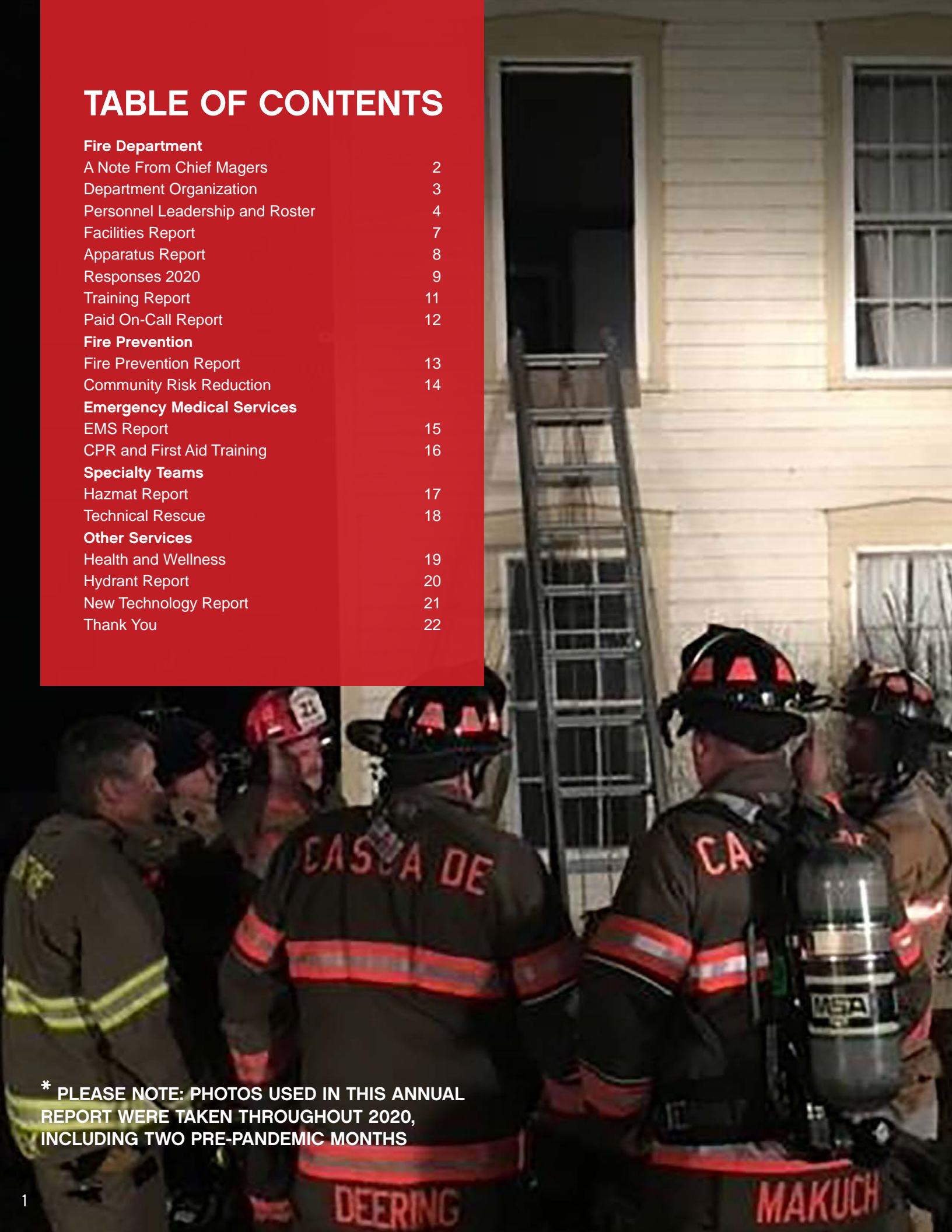
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* PLEASE NOTE: PHOTOS USED IN THIS ANNUAL REPORT WERE TAKEN THROUGHOUT 2020, INCLUDING TWO PRE-PANDEMIC MONTHS

FROM THE FIRE CHIEF



The Cascade Township Fire Department is pleased to share our 2020 annual report with you. In this report, you will find general information about our fire stations and vehicles, response data and updates on the department's programs.

Last year certainly was one no one will forget. A tumultuous election year with racial justice movements during an unprecedented, worldwide pandemic. In my 20-plus-year fire career, I have yet to see an instruction manual on how to navigate all the complexities that 2020 brought us. Fortunately, Cascade Fire has a dedicated staff that used critical thinking, ingenuity and flexibility to mitigate all that was thrown our way. I'm so proud of the way our staff was able to serve our Cascade community at such a high level – with a great attitude – during such uncertain times.

PERSONNEL CHANGES

In 2020, we saw the retirement of paid on-call firefighter Eric Rodegher. Paid on-call firefighter David Lintemuth was promoted to full-time firefighter. We also welcomed Heather Flathau and Jake Lotterman as two new paid on-call firefighters.

2020 ACHIEVEMENTS

Lt. Michael Bolt completed the Eastern Michigan University fire staff and command course in Ypsilanti. Capt. Jeff Knowles was appointed to the Michigan Occupational Safety and Health Administration Part 74 Standard Advisory Committee for the state of Michigan. Inspector Colin Forzley completed certifications in Inspector I, Inspector II and Plans Review. Officers Jeff Knowles, Mike Bolt and firefighters David Lintemuth, Eric Melse, Todd Pell, Mike Poolman and Eric Rodegher were awarded the Kent County EMS Life Saving Award. This was in recognition of their lifesaving efforts during a resident's cardiac arrest. We also improved our Insurance Services Office, or ISO, score. The ISO score ranges from one to 10, with one being perfect. Departments our size are typically scored between five and nine – our department now holds a four rating, which is a score we are incredibly proud of.

2020 GOALS & OUTCOMES

Improve efficiency with new software programs

- Purchased, installed and trained on the following platforms: First Arriving, Check It, Target Solutions and Emergency Reporting Inspections.

Finalize Fire Station 1 plan

- Worked with Redstone Architects, Progressive A&E, Township officials and the community to complete a comprehensive concept plan we hope to implement in 2021.

Implement a firefighter wellness program

- Appointed Capt. Knowles to health, safety and wellness officer. Utilized firefighter Steven Riddle and his professional trainer qualifications to instruct all fire crews on proper fitness. Brought in a yoga instructor to help with firefighter flexibility and strength. Completed a 12-week fitness challenge and logged more than 1,488 hours of fitness training.

Increase search and rescue capabilities

- Designed, purchased and trained on a new specialty rescue vehicle.
- Designed, certified, trained and implemented a drone program for emergency response and fire investigations.
- Developed and installed location and mapping systems for Cascade parks and river.

2021 GOALS

- Begin construction on new Fire Station 1.
- Successful transition to 800MHz radio platform to improve radio transmission locally and statewide.
- Advanced computer training for command staff.
- Gender separation/virus protection bunkroom remodel at Fire Station 2.
- Completion of storage building at Fire Station 2.
- Implement new hose plan.
- Stay healthy from COVID-19.

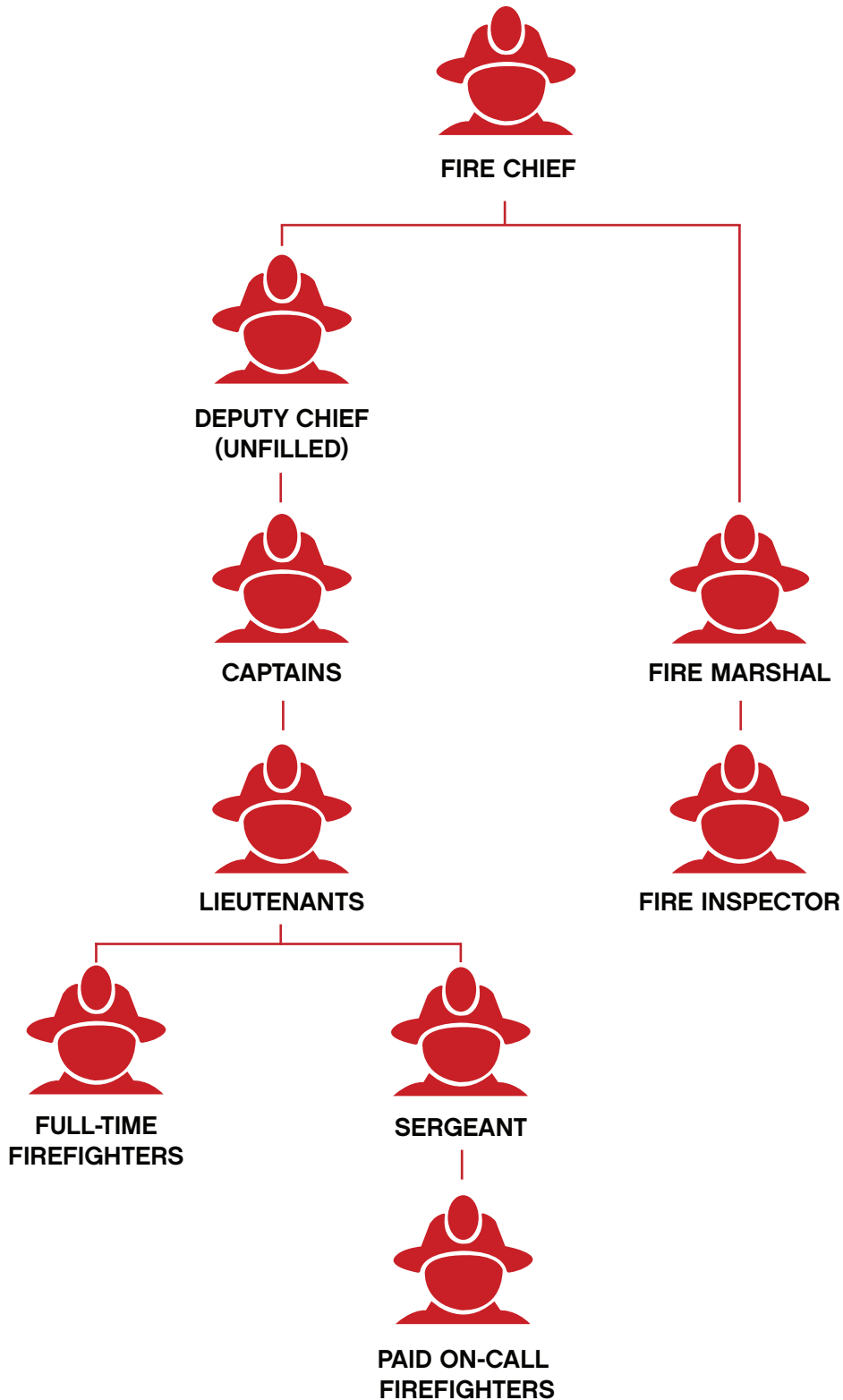
We are hopeful 2021 provides some sense of normalcy for our department. While last year was challenging, we were able to meet its demands and start the new year a stronger, more capable and confident department. Whatever this year brings us, I am positive Cascade Fire is ready to succeed!

A handwritten signature in black ink, appearing to read 'A. Magers'.

Chief Adam Magers

DEPARTMENT ORGANIZATION

THE CHAIN OF COMMAND FOR THE CASCADE TOWNSHIP FIRE DEPARTMENT



PERSONNEL LEADERSHIP



Adam Magers
Fire Chief



Doug Venema
Captain



Todd Stevenson
Captain



Jeff Knowles
Captain



Doug Poolman
Fire Marshal



Andy Albright
Lieutenant



Michael Bolt
Lieutenant



Josh Dettwiler
Lieutenant



Colin Forzley
Fire Inspector

PERSONNEL ROSTER



Brett Boonenberg
Sergeant



Kreigh Deering



Jeff Rashid



Robert Norris



Andy Marsman



Jim Walker



John Makuch



Lance Korhorn



Jon Snyder



Michael Lemkuil



Michael Kadish



David Lintemuth



Colin Rodriguez



Caleb Huggler



Todd Pell



Eric Melse



Todd Hemmi



Richard Raviolo



Mike Poolman



Zach Christian



Steven Riddle



Joel Baker



Luke McCarthy



Heather Flathau



Jake Lotterman



Cynthia Holzhei
Admin.

33 MEMBERS

**21 FULL-TIME
PERSONNEL**

**12 PAID ON-
CALL MEMBERS**





Josh Dettwiler
Lieutenant

FACILITIES REPORT



We worked hard to keep the stations and vehicles sanitized last year during the pandemic, and we continue to do so. At the beginning of COVID-19, we started using a product called Transform to disinfect the offices, sleeping areas and vehicles. We bumped up the cleaning and disinfecting to at least every 12 hours. New mattresses with antibacterial mattress covers were also purchased. Unfortunately, we had to close the stations to visitors for the health and safety of our community and our firefighters and to help stop the spread of COVID-19. We look forward to reopening them for events in 2021 as CDC and local health guidelines allow.

On a positive note, we finished phase two of the landscaping at Fire Station 2. We also replaced one of its three air conditioning units. The other two units will be replaced over the next three years. In 2021, Station 2 will get updated. We will remodel the four semi-private rooms into three private rooms.

Fire Station 1 replacement is moving forward in 2021. Cascade Township and Progressive AE – after numerous site studies – are determining where the future Station 1 should be located. This may mean tearing down the whole building, including the Township offices located in front of the fire station. Fire Department operations west of the river may potentially be relocated to another facility that can house the engines and medic unit during construction.

Along with the Station 1 project, we will construct a new storage building at Fire Station 2. This much-needed storage building will not only help us house some of

our emergency vehicles while Station 1 is being built, but it will continue to be used for storage of seasonal equipment, utility vehicles and a future reserve engine. When it is time to replace the oldest engine in our fleet, we will move that engine into reserve status and store it in this building. This engine will not only give us points on our Insurance Services Office rating, but it will also allow us to have a backup engine ready to go when a front-line engine goes in for routine maintenance. This storage building will help keep bays clear of clutter and will be an asset to the future growth of the department.





APPARATUS REPORT

Doug Venema
Captain

Every year, we sit down and create a budget for the upcoming year based on what we think our vehicles will need to be properly maintained. This includes tires, brakes, annual state inspections and yearly service.

In 2020, our vehicles threw a few wrenches into our plan. We had a turbo fail on one of our frontline pumpers and another one needed transmission repairs – both costly and difficult to predict and prevent.

We placed a new vehicle into service in the fall. It is a Polaris Ranger, also known as Brush 6. We held a training session at Peace Park that focused on victim rescue along the walking trails. It was quickly determined that gaining access to a patient back on those trails could not be accomplished with our traditional medical response vehicles. With the new Brush 6, that access is possible. Brush 6 is both street legal and off-road ready. It is equipped with a small water tank and pump, making it useful during brush fires. It has already been used for a medical response in Burton Park. We look forward to many years of service from this piece of specialized equipment.

In 2021, we will replace two of our smaller vehicles. The medic unit at Station 1 will be replaced, along with the chief’s vehicle. As we replace these vehicles, they will



be moved around in the fleet to replace older vehicles. We are continually planning for the department’s future vehicle needs, and we use a long-range vehicle replacement schedule to do this.

Another change we will see in 2021 will be assigning a new member to oversee vehicle maintenance. Firefighter Zeke Kadish will assume that role as I transition to retirement in early 2022 after 35 years with the Cascade Fire Department. Firefighter Kadish has experience with purchasing and maintaining large vehicles from a previous role. I have no doubt his knowledge and experience will be a great benefit to the department for years to come.

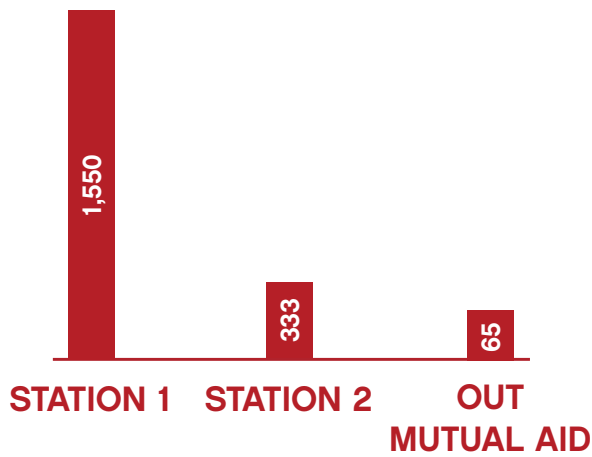
“
Brush 6 has already been used for a medical response in Burton Park.
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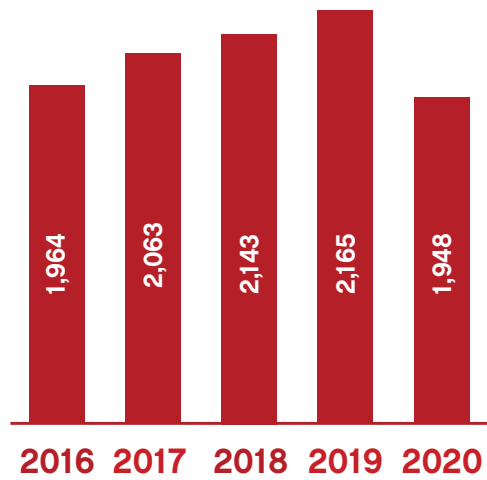
RESPONSES 2020



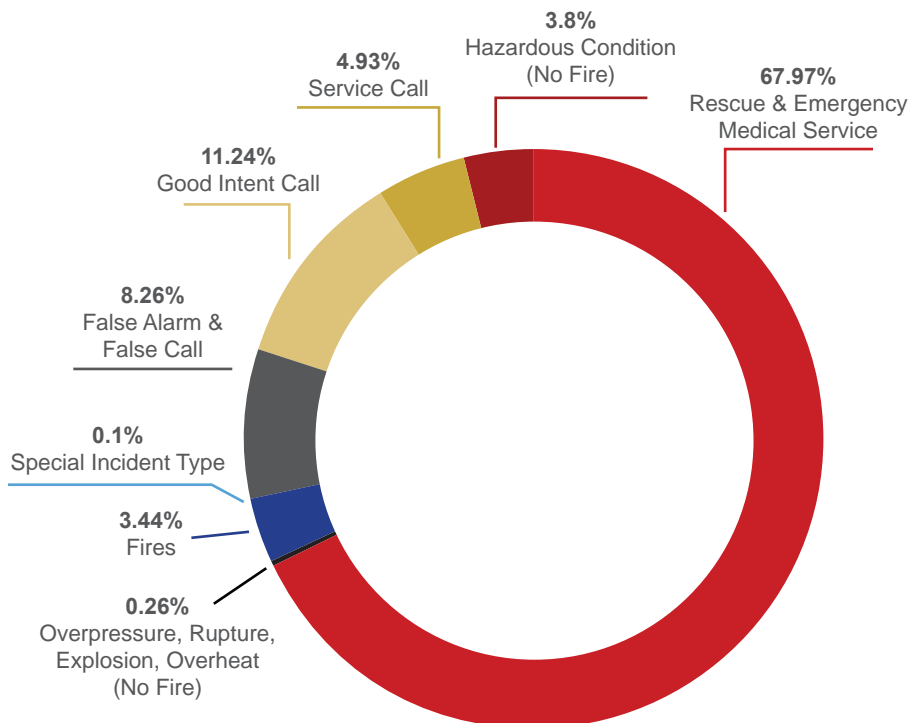
INCIDENTS BY STATION



TOTAL CALLS



MAJOR INCIDENT BREAKDOWN





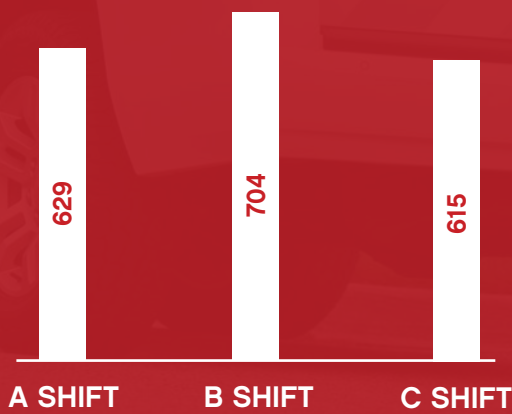
AVERAGE DISPATCH TIME
DISPATCH TO ARRIVAL



AVERAGE TURNOUT TIME
DISPATCH TO ENROUTE

7,851
TOTAL AGENCY TRAINING HOURS

INCIDENTS
BY SHIFT





Todd Stevenson
Captain

TRAINING REPORT



For the Fire Department's training division, the pandemic created challenges and changes that affected our training. We had to cancel many of our planned trainings, including live-fire training, out-of-state hazardous material training and any large group training we had on the schedule.

We quickly adapted and changed the way we trained the department. With the restrictions on large gatherings, we broke our trainings into individual shifts. We held the same type of training, whether fire or EMS-related, on all three shifts, allowing full-time and paid on-call members to attend the trainings in a safer setting of fewer people.

Over the past few years, the Cascade Fire Department invested in computer-aided training platforms that allowed us to make a hybrid training schedule during the pandemic. Since we were limited on how we could train, we took advantage of online trainings to supplement our training needs. Our department members did an outstanding job of being flexible and they were committed to completing their training hours and requirements for the year.

These requirements included:

- MIOSHA 74 compliance
- ISO compliance/improvement – 192 hours
- EMU fire executive staff and command
- TargetSolutions online trainings
- All full-time ICS 300 & 400
- All full-time officer 2 certified or currently enrolled in classes

Our commitment to sending an officer to Eastern Michigan University for the nine-month staff and command program was fulfilled, but not without its own challenges. COVID-19 restrictions caused some delays and forced a few classes to go online. While Lt. Mike Bolt did finish the program, his graduation was postponed to summer 2021.

Training division, along with Cascade Fire Department officers, played a large role in creating a black helmet program for all new paid on-call members. All new paid on-call members are required to complete this program. Once completed, they are given their black helmet shield to replace the yellow probationary shield they had been wearing since their hire date.

The black helmet program requirements include:

- Eight-month, 235-hour Fire Academy
- Five-month nationally registered EMT
- MI emergency driving class
- Hazmat operations
- Two officers signed off - officer seat
- Two officers signed off - equipment location
- Two officers signed off - first due engine operations
- Two officers signed off - tender operations
- Two officers signed off - water supply
- Two officers signed off - rescue operations
- Two officers signed off - medical administration
- Two officers signed off - medical trauma
- Two officers signed off - driving 10+ hours
- One written test
- Area familiarization street test
- Three 24-hour shift evaluations and sign-offs by two officers on all shifts: A, B and C

We are optimistic we can return to somewhat of a normal year in 2021, both operational and training-wise. We plan to send staff to hazardous material training in Colorado, live-fire trainings in Indianapolis and local live-fire trainings. We also plan to send another officer to Eastern Michigan University. We will continue training on firefighter and rescue techniques, using our engines, boat and off-road vehicle. If COVID-19 or any other challenge is thrown our way, we will adapt, be flexible and remain committed to providing the best training we can to ensure the best service possible to our Cascade community.



PAID ON-CALL REPORT

Brett Boonenberg
Sergeant

It was an interesting year, to say the least. However, I consider 2020 a success and have found many positive outcomes from the past year.

There are many responsibilities placed on a paid on-call firefighter. Oftentimes, it can be challenging to balance personal life with the responsibilities of the department. I am very proud to be the leader of such hardworking and dedicated men and women.

I am pleased we added two firefighters to the roster in 2020. Heather Flathau and Jake Lotterman joined us, bringing along both medical and firefighting credentials. They come with experience from other surrounding departments, and we welcome their experience.

Five of our newly added paid on-call firefighters became fully qualified in 2020. That means they now can fill shifts for full-time firefighters on their days off. Zach Christian, Todd Hemmi, Heather Flathau, Steven Riddle and Jake Lotterman all went from cadet to black helmet qualification.

The department purchased a drone so we could have “eyes in the sky” during emergencies and fire investigations. Zach Christian completed training and is now fully licensed to pilot the drone at emergency scenes.

It has been very beneficial to have such a diverse group of paid on-call firefighters. We have builders, remodelers, landscapers and electricians who all have extensive knowledge in home construction. This can be helpful when trying to find the root of a fire odor or working in attics. In addition, we have a personal trainer who is helpful in keeping all of the firefighters in top shape. We also have two full-time firefighters from area departments who bring their expertise to each call.

We were only able to accomplish physical trainings in small groups this past year due to COVID-19. Fortunately, we did stay on top of our computer-based training and Zoom meetings to stay connected. This change gave us the opportunity to evaluate and revamp our probationary training/testing qualification process. In 2020, we added more layers of testing to our standards, so we are confident Cascade Township residents are receiving well-qualified firefighters on each call.

Paid on-call firefighters spent more than 8,000 hours of their time serving Cascade in 2020. This included participation in 40-plus community events, including Project Night Lights and Touch A Truck, as well as responding to more than 1,000 emergency calls.

It is an honor to represent the Cascade Township Fire Department and I look forward to continuing to improve our level of service in 2021.





Doug Poolman
Fire Marshal

FIRE PREVENTION REPORT

We started 2020 off with the promotion of Colin Forzley as our new fire inspector. Inspector Forzley has exceeded our expectations by achieving his National Fire Protection Agency certifications in Inspector I, Inspector II and Plan Review. With these certifications, he was able to apply for and receive his Fire Inspector II and Plan Review licenses from the state of Michigan. Inspector Forzley also contributed to launching many programs, such as the new Brush 6 vehicle, drone and Peace Park and Thonrapple River trail marking system. We are more than pleased and proud to have Inspector Forzley join our fire prevention program.

Also at the beginning of 2020, I stepped into a new role as fire marshal. This gave me additional duties, including assisting the Building Department in inspecting and certifying new fire protection systems in commercial buildings in Cascade and the neighboring communities with which we contract. This has provided me with new experiences and relationships.

As businesses began to reopen following the COVID-19 shutdown, we were able to perform many critical on-site inspections, including all of our hotels and many of our restaurants. We also worked with businesses to ensure their outdoor seating areas met fire and safety codes, enabling them to protect the public and stay open.

We look forward to the new year and trust that a large majority of our business friends will still be able to operate in the coming years.





COMMUNITY RISK REDUCTION REPORT

Andy Albright
Lieutenant

As with every aspect of life in 2020, our community risk reduction team faced challenges with how to connect with residents. However, we once again did what we always do: adapt, improvise and overcome.

COVID-19 virtually eliminated our ability to interact with the community in person. While some of our events were canceled, we were able to change them or create new programs that followed CDC guidelines.

Here are some of the ways we adapted to make a connection with our community in a safe, physically distanced manner:

In the past, our firefighters were invited to children's birthday parties where we gave tours of the trucks, passed out fire safety materials and sprayed water. To avoid larger gatherings, in-person birthday parties have become birthday drive-by events. To schedule a drive-by event, call Fire Station 1 at 616.949.1320, and a fire truck will drive by with emergency lights on and siren blaring – bringing joy to all ages. Families have even had the fire truck lead “family and friends parades” as a way to make the event more special. We have provided drive-by birthday celebrations for all ages – from 1 to 99. To date, we have done 67 drive-bys!

We welcomed a new member to the Cascade Fire Department. In September, Ember the River Otter became our new mascot. In film and TV, they say you should never work with animals or kids. Well, we decided an animal (mascot) would help us engage children and encourage them to listen to our fire safety messages. Ember was featured in fire safety videos and at some physically distanced in-person events. We look forward to having Ember continue to be involved in spreading our fire safety information and joining us at community events.

We participated in the National Night Out program organized by the Kent County Sheriff's Department. In the past, this program was primarily a law enforcement event. This year, it was a drive-thru event held at the Mary Free Bed YMCA that was expanded to include fire, EMS and military personnel. Approximately 200 packets of fire safety materials were handed out to children who attended. This event allowed us to introduce Ember the River Otter and a new emergency response vehicle, Cascade Brush 6. Brush 6 is a specially designed utility

terrain vehicle capable of carrying water and personnel. It is used for grass and brush fires, as well as a way for Cascade fire personnel to access EMS patients in hard-to-get-to areas and transport them to a staging area where Advanced Life Support units can take over care and transportation to a medical facility.

Halloween is usually held at Fire Station 1, where we provide refreshments, costume contests and fire safety materials. In 2020, Cascade firefighters went out into the community to engage our residents. Five neighborhoods were chosen and at pre-scheduled times, a fire truck, Brush 6 and Ember visited the neighborhoods and passed out packages with fire safety materials and a few sweet treats.

The Cascade Fire Department will continue to adapt and explore new ways to interact and engage the community in 2021. We will continue to use online resources, social media and other non-contact ways to get our fire safety messages out to community members in an effort to keep them as safe as possible.





EMS REPORT

Jim Walker
EMS Coordinator



In a normal year, I would tell you about the 1,324 EMS calls we responded to and the training we completed. But 2020 was unlike any other. At the beginning of the pandemic, the Cascade Fire Department was fortunate enough to have been prepared with training and personal protective equipment, or PPE, to stand and serve our community. Firefighter Lintemuth and I put together airborne precaution kits that helped keep personnel safe from COVID-19 when responding to EMS calls. These PPE kits included gowns, foot protection, N95 masks, nitrile gloves, collection bags and hand sanitizer packets to keep at least two responders safe at all times. These airborne precautions kits were initially shared with the Ada Fire Department and some gowns were shared with the Kentwood Fire Department. To date, we always stock six medical response vehicles with at least two of these airborne precautions kits.

While every year brings bloodborne pathogen training, 2020 has highlighted the aspects of disease transmission via the airborne and surface contamination routes. Cascade Fire and EMS personnel have readily adapted to these changes with constant health monitoring and a rigid schedule of cleaning all equipment to keep down any chances of disease transmission. Some of the other changes that have come about is the wearing of face masks at not just on calls, but in and around the station, too. The governing body for emergency medical services in Kent County, Kent County EMS Medical Control Authority, has provided support in both PPE allotments and guidance, otherwise known as protocol. These protocols, while ever-changing, are based on sound science and state-

driven safety measures to keep patients and EMS personnel safe. Fortunately, at the time of this report, the Pfizer COVID-19 vaccine has been made available to all medically licensed personnel. This vaccine has proven 95% effective against the COVID-19 virus.

We look forward to continuing to service Cascade residents in 2021 and handling any medical emergency that comes our way.





CPR AND FIRST AID REPORT

Michael Bolt
Lieutenant



The Cascade Township Fire Department is proud to be associated with the American Heart Association and serve as a regional training center. Our ability to educate the community on CPR and First Aid was challenged during the pandemic. Many classes were canceled or rescheduled into smaller groups in order to comply with gathering restrictions. Many participants used the online classes offered by the American Heart Association to complete the classroom portion and scheduled a one-on-one class with one of our instructors to complete the testing.

In 2020, we trained more than 650 individuals in CPR and on the use of an automated external defibrillator. We brought this training to businesses, church groups, medical professionals and charity organizations – all while abiding by the restrictions put in place by the Michigan Department of Health and Human Services and careful sanitation of our facility and equipment. While 2020 brought many challenges, our instructors found creative ways to continue to provide this lifesaving education.

We look forward to a new year and new challenges.



650+ | THE NUMBER OF
INDIVIDUALS TRAINED
IN 2020



Jeff Knowles
Captain

HAZMAT REPORT



A material that poses an unreasonable risk to the health and safety of people and the environment if it is not properly controlled is considered a hazardous material. More than 80,000 chemicals are registered for use in commerce in the U.S., with an estimated 2,000 new chemicals introduced annually. The Cascade Township Fire Department responded to 68 hazardous incidents in 2020 – none of which involved major hazardous materials. Most of these incidents involved natural gas, carbon monoxide and fuel spills.

The department is part of a Regional Hazardous Materials Response Team, which also includes the City of Kentwood Fire Department and Dutton Fire Department, called Tri-Com Hazmat Team. Our team consists of 14 active members and the three fire chiefs. All active members are trained to the technician level. I serve as co-leader of the hazmat team with Capt. DeHaan of Kentwood Fire.

Our hazmat team attended an eight-hour rail car class offered by University of Findlay in Ohio. This class covered various types of rail cars and the hazards they pose. This was a great refresher for the team due to railroads in our districts

and the high risk and low frequency of hazardous material incidents involving trains. I am bringing this class to all Cascade Fire Department members on March 3. This is funded by the U.S. Department of Transportation.

All other hazmat training in 2020 was canceled due to the pandemic. We hope we are able to resume our training schedule in 2021.

If you have any questions about our hazardous materials response team, please feel free to reach out to me.

GOALS FOR 2020 INCLUDE:

- Quarterly hands-on training with our entire Tri-Com Hazmat Team.
 - Reschedule our hazmat tech classes.
 - Participate in the regional hazmat exercise with Kent County and the 51st Army hazmat team.
-



Michael Bolt
Lieutenant

TECHNICAL RESCUE TEAM REPORT

In 2020, we purchased a new Polaris utility task vehicle, or Brush 6, to assist with access to more remote areas in the township. On the first day Brush 6 was in service, it was used to assist a resident who suffered a medical emergency in Burton Park. This past year, we trained in Peace Park to get a better understanding of the park and how we would be able to respond in case of an emergency. In 2019, the Cascade Fire Department purchased a new boat to increase our ability to help our residents while they are enjoying their time on the Thornapple River. This year, we implemented a new mapping system of the Thornapple River to aid our rescuers in locating points along the river. In 2020, our boat responded to four calls for assistance on the river.

Rescues in the township included six calls for individuals trapped in elevators and one high-angle rescue where a contractor working on a roof fell and broke his ankle. The patient was on the roof when we arrived on scene. Firefighters used ropes, ladders and a stokes basket to remove the patient from the roof. While calls for technical rescue are rare, our department continues to train to be ready in the event the emergency calls for technical skill.





HEALTH AND WELLNESS REPORT

Jeff Knowles
Captain

In 2020, the Cascade Township Fire Department was very proactive in health and wellness. Most people probably think the leading cause of death among firefighters is fires. It's actually heart-related issues. In 2019, 82 firefighters died in the U.S. in the line of duty – and 33 of those were heart attacks. This was a slight improvement from 2018 and 2020 is looking to improve even more. The Cascade Township Fire Department is committed to providing our firefighters with the resources and tools they need to prevent these deaths.

Each fire station is equipped with a treadmill, elliptical machine, free weights and weight benches. Fire Station 1, which is larger, also has a row machine and other fitness equipment. Department policy requires each firefighter to perform a one-hour workout per shift. Workouts do get interrupted by emergency calls.

Chief Magers again issued the firefighter fitness challenge to our department in 2020. This is a 12-week challenge where each member must achieve the goal of 2,500 minutes of exercise. It promotes physical activity and friendly competition. Most members of the department participated, and most who started the challenge completed it.

We brought yoga to the Fire Department in 2020. We agreed to 12 weeks of professional yoga instruction at 6:30 a.m. every Wednesday at Fire Station 1. Our goal was to increase flexibility and reduce future injuries among our firefighters. We had good participation among department members and spouses before COVID-19 put a stop to the program. We look forward to resuming yoga in 2021.

I was asked to apply for the MIOSHA Part 74 committee in 2020 and was elected to be a voting member. This committee is made up of firefighters, experts and MIOSHA members to review and revise the MIOSHA Part 74 general industry standards for firefighting. I am truly honored to be on this committee and I feel I am making a positive change to firefighter safety in the state of Michigan. We hold virtual meetings every couple of weeks and we have made great strides toward improving firefighter safety statewide. I look forward to more changes in 2021.



1,488

HOURS OF FITNESS
TRAINING COMPLETED

GOALS FOR 2021

We will host another fitness challenge in 2021 – this time, it will include two tiers of competition. Tier one will be a yearlong challenge with a focus on fitness minutes completed. This is a less-difficult challenge that will hopefully keep some motivated for the entire year instead of a few months.

Tier two will be a much more difficult challenge. It will be yearlong and will include monthly workout goals that will be decided by a committee of members. Tier two members also will have to complete the goals each month to accomplish the challenge.

In 2021, we will start the process to become compliant with National Fire Protection Association, or NFPA, 1500 standard. NFPA 1500 is the standard that covers the health and safety of members on and off the fireground. While we do a great job of keeping our firefighters safe, NFPA 1500 helps us make sure we are doing our absolute best at following best practices.



Michael Bolt
Lieutenant

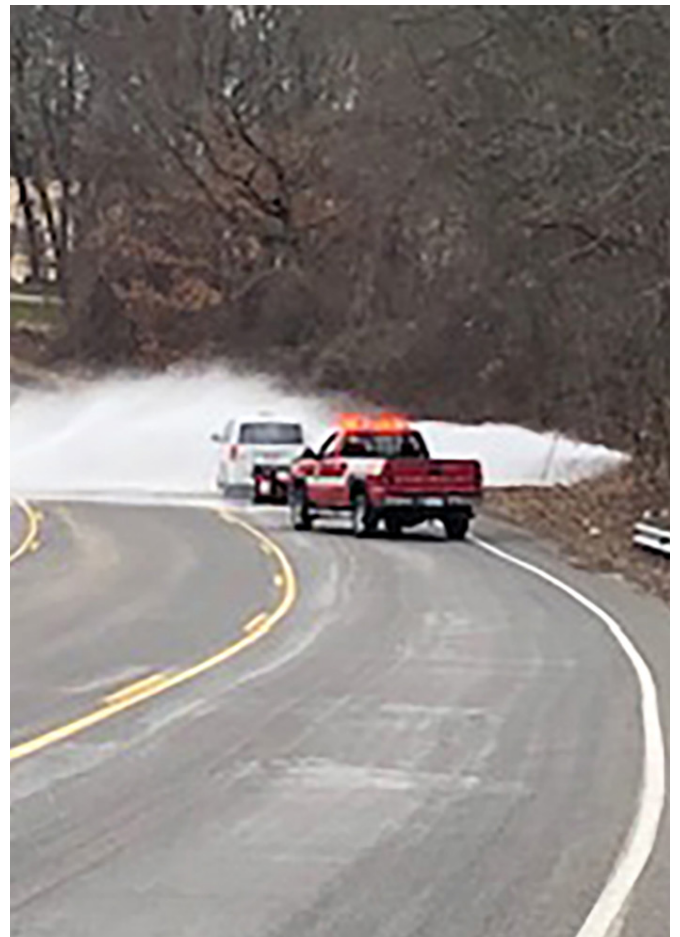
HYDRANT REPORT



In 2019, the City of Grand Rapids provided the Fire Department an overview of the water supply system that provides Cascade with drinking water. In spring 2020, the City of Grand Rapids, which provides drinking water to Cascade, tested a select number of hydrants throughout the township for pressure and volume. This meant a hydrant needed to be opened at full volume, with the hydrants before and after needing to be checked for residual pressure. Cascade Township, on average, consumes 26.3 million gallons of water on a daily basis, with peak summertime consumption of 74.9 million gallons per day.

There are 1,336 fire hydrants in Cascade Township. In 2020, the Fire Department spent 327 hours making sure these hydrants are ready for use in case of an emergency. In the springtime, we flush out the hydrants to remove any sediments that may have collected during the winter months. In the fall, we pump out the water that is trapped in the hydrant so it will not freeze during the winter.

We ask the Township residents to comply with Township ordinances to keep vegetation and snow piles clear of any fire hydrants on their property. Hydrants are there to provide fire protection for their property and that of their neighbors. If residents see any issues with the fire hydrants, please contact the Cascade Fire Department so we can have them addressed.





NEW TECHNOLOGY REPORT

Colin Forzley
Fire Inspector



To better facilitate department-wide communication, the Cascade Fire Department partnered with First Arriving to implement digital dashboards within our stations. These dashboards display critical information such as weather forecasts, apparatus status and other important details for each shift. While the primary function of these dashboards is to aid in communication transparency, they also display emergency call information and location routing as calls for service come in. We have started with a single display in each station with plans to add multiple displays throughout. We are excited to further tailor the displays to meet our communication needs.

Also in 2020, we purchased a drone to expand our on-scene capabilities, allowing us to get a better overall view of the scene through aerial imaging. The drone is outfitted with dual cameras, including a thermal imaging camera. This allows us to search for heat signatures that differ from the ambient air temperature, and we have utilized this technology in a handheld version for many years. While there are a great number of uses for this technology, attaching it to a drone gives us the ability to look for “hot spots” on a structure fire, as well as the ability to scan a large geographical area quickly while trying to locate a person outdoors during an emergency situation in the many types of terrain offered in Cascade Township. An added benefit of the drone is the ability to take aerial photos of buildings to be used in incident pre-planning, as well as aerial photos after a fire incident to better document the scene for fire investigation

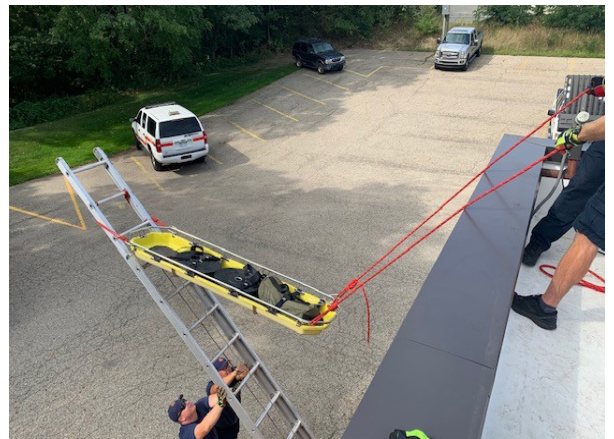
purposes. We have already used this technology on scene for several fire investigations and missing persons.

Since we are operating the drone in a commercial capacity per Federal Aviation Administration, or FAA, standards, we partnered with Unmanned Vehicle Technologies to guide us through the compliance process. The company helped us draft operational guidelines and an FAA-approved certificate of authorization. This allows us to operate the drone in a public safety capacity outside the standards of a typical commercial remote pilot license. Unmanned Vehicle Technologies also provided “ground school” training for six members of our department. This is the first step in training remote pilots and provides an in-depth understanding of the rules for remote pilots. After completion of the ground school and countless hours of studying, an FAA knowledge test is the final step in obtaining licensure to operate as a commercial drone pilot. All six of our team members passed the test.

This drone is used strictly in a public safety capacity for life-safety emergencies and operated solely by the licensed individuals of the Cascade Fire Department.



Thank you for reading our 2020 annual report. For more information and updates year-round, please visit cascadetwp.com





CASCADE TOWNSHIP FIRE DEPARTMENT

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