

MUSCATINE

FIRE DEPARTMENT

2018

ANNUAL REPORT

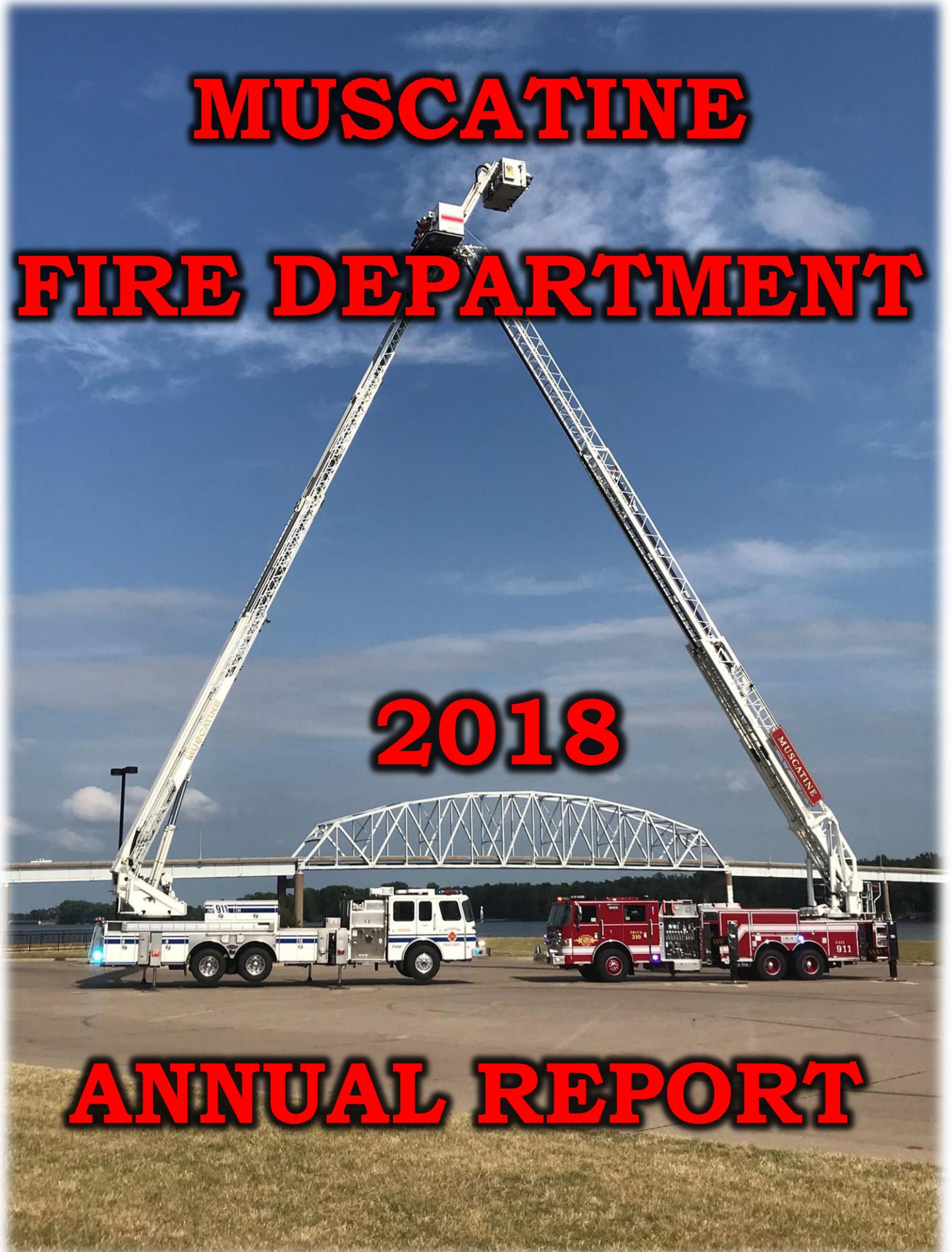


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Chief's Report



On behalf of the men and women of the Muscatine Fire Department it is my pleasure to present the 2018 Annual Report. The purpose of this easy to read report is to provide our residents with a snapshot and overview of the activities in which their fire department is involved. We invite you to explore the contents and would be happy to further explain any of the information contained in this report.

I'm proud of the impact our staff makes each day, whether it's taking the time to participate in a community event, providing life-saving care, or protecting someone's home. When fire is the threat, you may rest assured that your firefighters are highly motivated and well trained, responding in modern fire apparatus with the proper tools and equipment to do the job safely. We are helping our community when they need it most. This past year reminded us that there are no "normal" days in emergency response and each day we have an incredible opportunity to make a positive difference in the lives of those that we serve.

In 2018, through the collective efforts of many, we responded to 5,027 calls for service. As an example, these calls for service include all types of fires, car accidents, haz mat incidents in a five county region, technical rescue, and ambulance calls. In addition to calls for service, we also focus our energy and efforts on fire prevention, education, and life safety. Prevention and education is the key. We do this through public education, fire inspections, code enforcement, plan reviews, and community outreach.

Although this past year has been challenging, our staff stepped up and helped out when we needed them the most. Our biggest challenge of the year was turnover due to personnel changes such as retirements and resignations. This required several job announcements, entrance testing, interviews, hiring, training new staff, coordinating several recruit academies, and tracking probationary requirements while onboarding new employees into our organization. The retirement of two officers also led to several internal promotions at all ranks. These fresh faces will bring new ideas, concepts, and innovations to our department.

"These fresh faces will bring new ideas, concepts, and innovations to our department."

We purchased and took possession of a new 100' Aerial ladder. This replaced a 21 year old aerial ladder. Most of the summer was filled with pump and ladder training. We were also able to start up a Fire Explorer Program in 2018.

In closing, it is an honor and privilege to serve as Fire Chief and lead such a dedicated group of men and women each and every day. Together our professional staff remains ever ready and committed to promoting the health, safety, and well-being of our community by providing the highest level of services possible. Again, thanks to the staff working tirelessly to meet the demands and needs of our great community. Also, I would be remiss if I did not convey my sincere thanks to the Mayor, City Council, and City Administrator for their continued support and commitment to our fire department, staff, and overall mission.

Sincerely,

Jerry Ewers, Fire Chief



FIRE DEPARTMENT

Mission, Core Values & Philosophy

MFD Mission Statement

It is our mission as members of the Muscatine Fire Department to safely provide quality emergency services to the community through the protection of life, property, and the environment from the effects of medical emergencies, fires and other hazards and to reduce these threats through fire prevention and public education.

MFD Core Values

Members: We promote an atmosphere of trust and respect that encourages individual growth, participation, creativity and acknowledges the achievements of our members.

Organization: We support an organization built on a foundation of initiative, collaboration and commitment to efficiency, consistency and results, while attaining the goals of the organization.

Customer Service: We are dedicated to providing superior customer service.

Strategic Management: We plan for change and develop management strategies to meet the challenges of our future.

Regional Cooperation: We promote, encourage and participate in partnerships that provide all communities and organizations with the highest level of service and training.

MFD Philosophy

Service and protection with Pride, Honor, Loyalty, Courage, Compassion, Respect, Teamwork, and Safety.

We Accept:

- Great personal risk to save another person's life
- Moderate personal risk to save another person's property
- No personal risk to save what is already lost

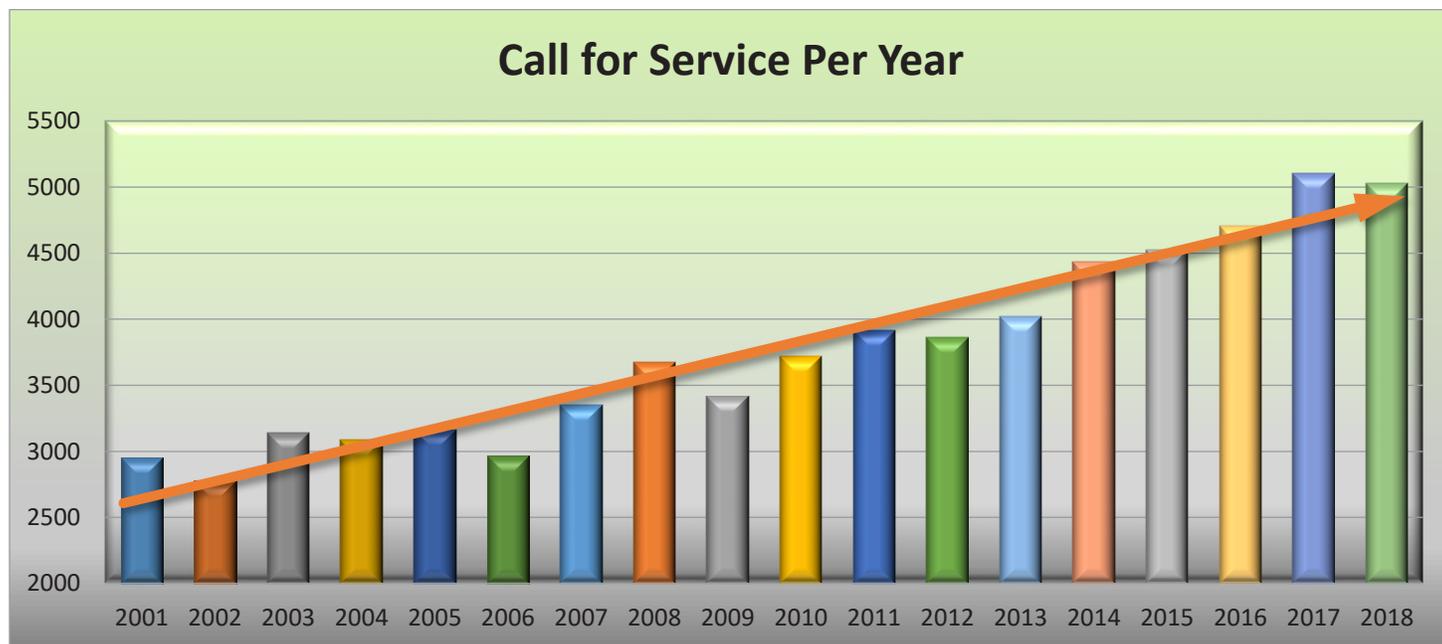
"I remember Muscatine for its sunsets. I have never seen any on either side of the ocean that equaled them" — Mark Twain

2018 Department Organization

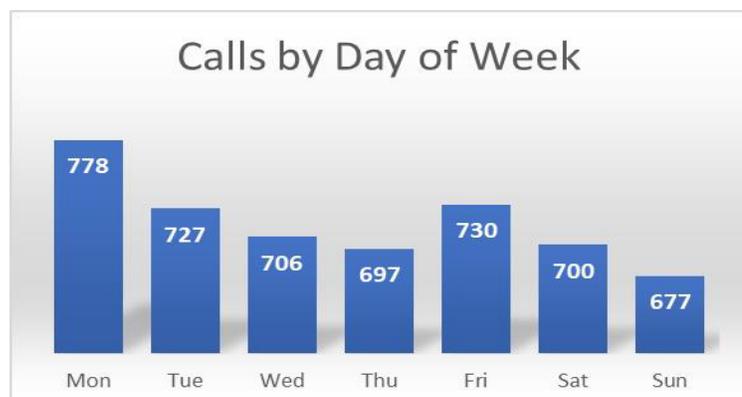
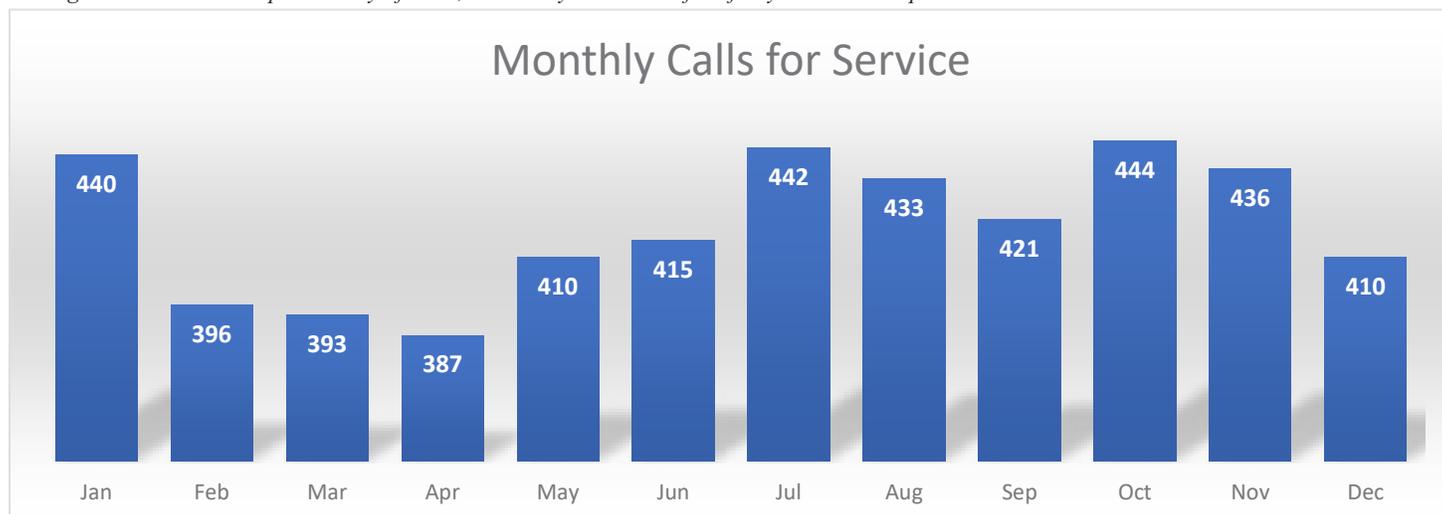


Calls for Service Report

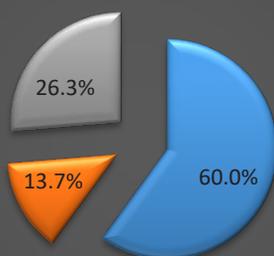
In 2018 we had another busy year, with a total of 5,027 calls for service. We expect our call volume will only continue to increase. Here are some visuals that represent our call volume this past year:



We began ambulance transport in July of 2000, the 2001 year was the first full year as a transport service



Calls by District



■ Public Safety Building (PSB)
 ■ Station #2 - South End
 ■ Future Station #3 - East Hill

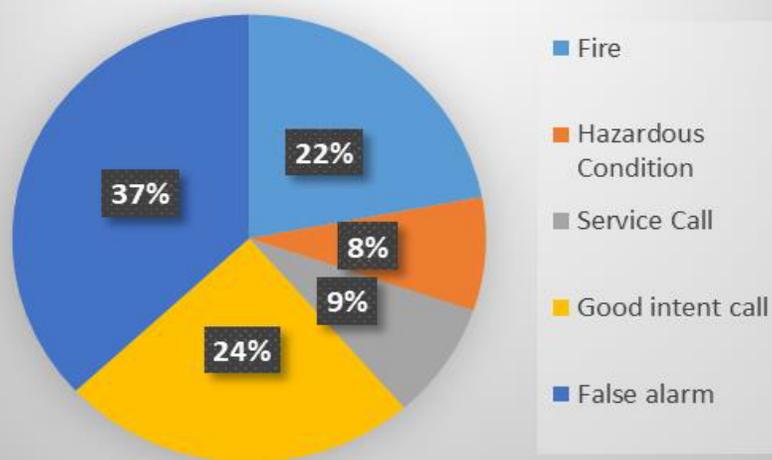
East Hill calls are covered by PSB staff; a request for station #3 is in the City Capital Improvement Plan

5,027 Annual Calls

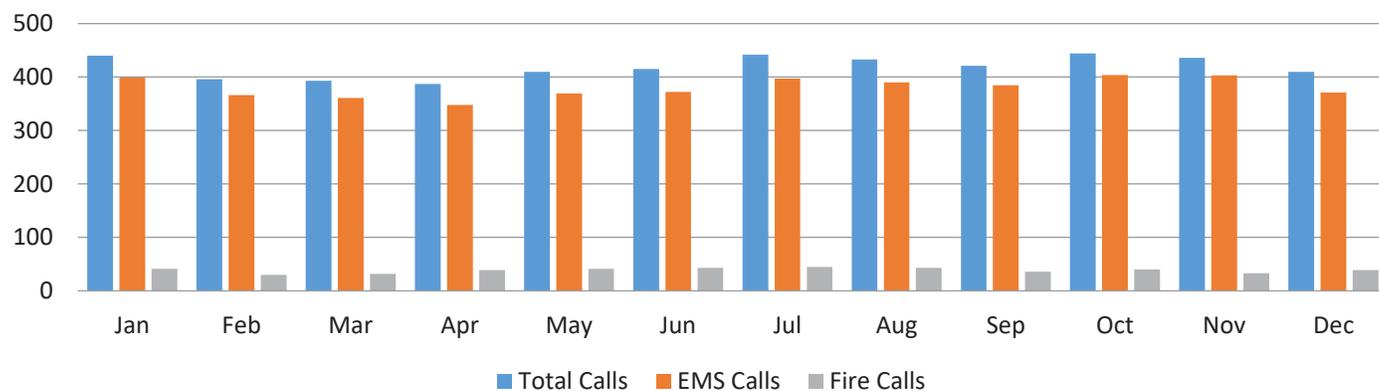
13.8 Calls/day Average

90.8% of calls are EMS

Fire Call Types for 2018



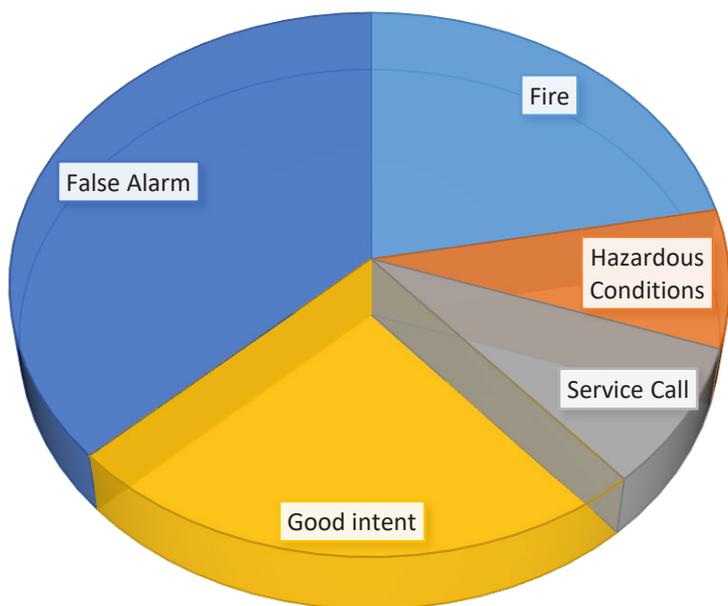
Monthly EMS and Fire Calls for Service



Fire Response Report

During the year of 2018 the Muscatine Fire Department responded to 463 calls for service that fall into the category of a fire-related response. Of the 119 total fires, 42 were structure fires. The total fire loss for 2018 was estimated at \$1,238,660 which is less than a tenth of a percent of Muscatine’s property valuation.

FIRE INCIDENT TYPES 2018



Dollar Loss by Month

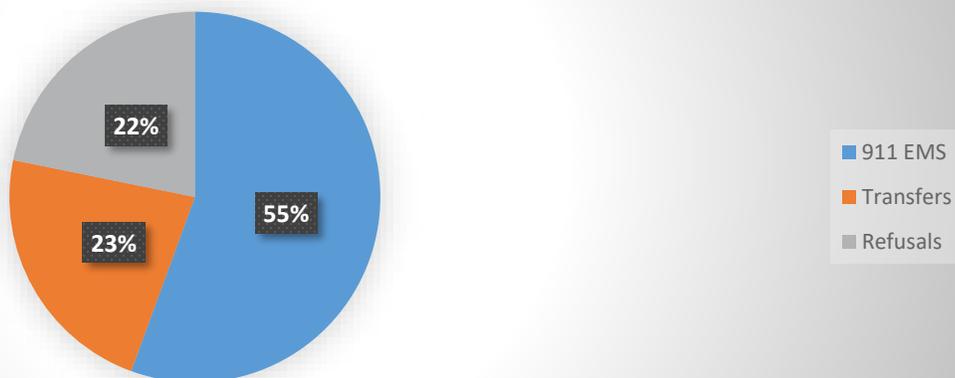


January had a large fire loss due to smoke damage at an industrial warehouse facility

EMS Response Report

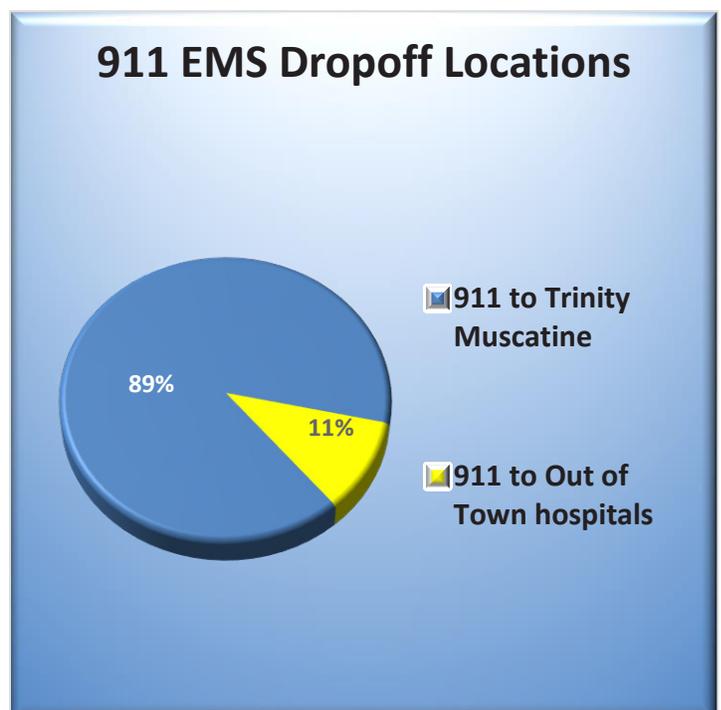
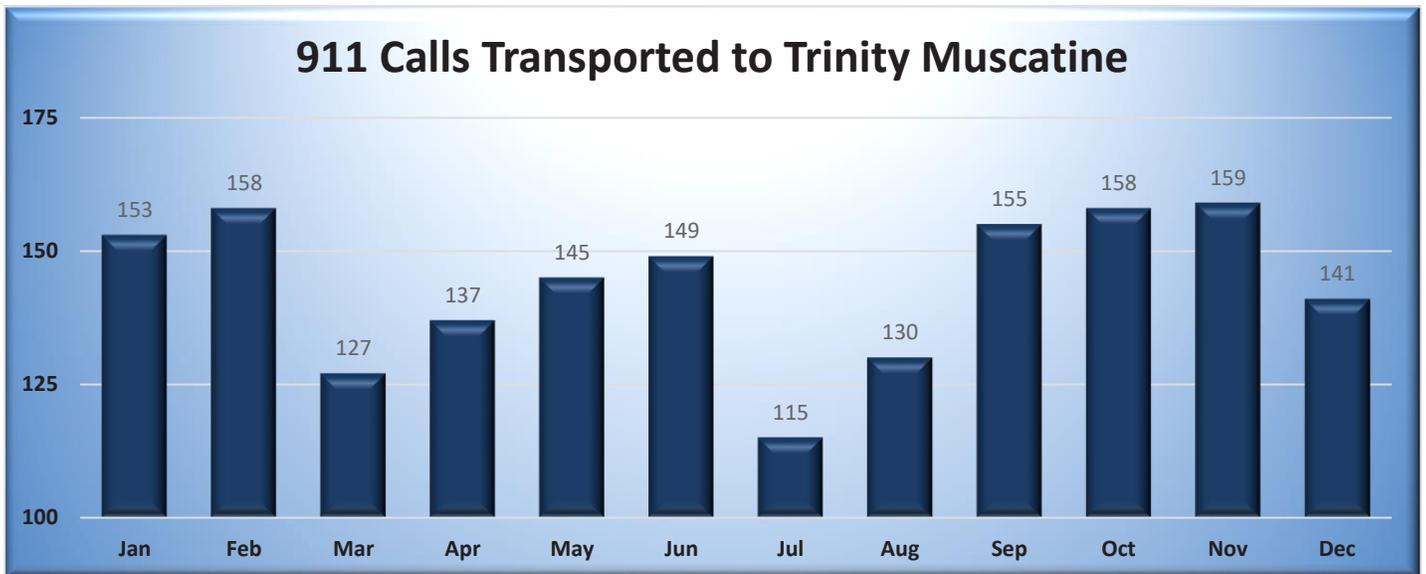
Our EMS calls are broken into three categories: refusals, where a patient decides they do not want transport; 911 calls, which are medical calls that originate with a 911 call; and transfers, where the patient is transported from Muscatine to a hospital in another location. The results of these requests for service are shown here.

EMS Call Type

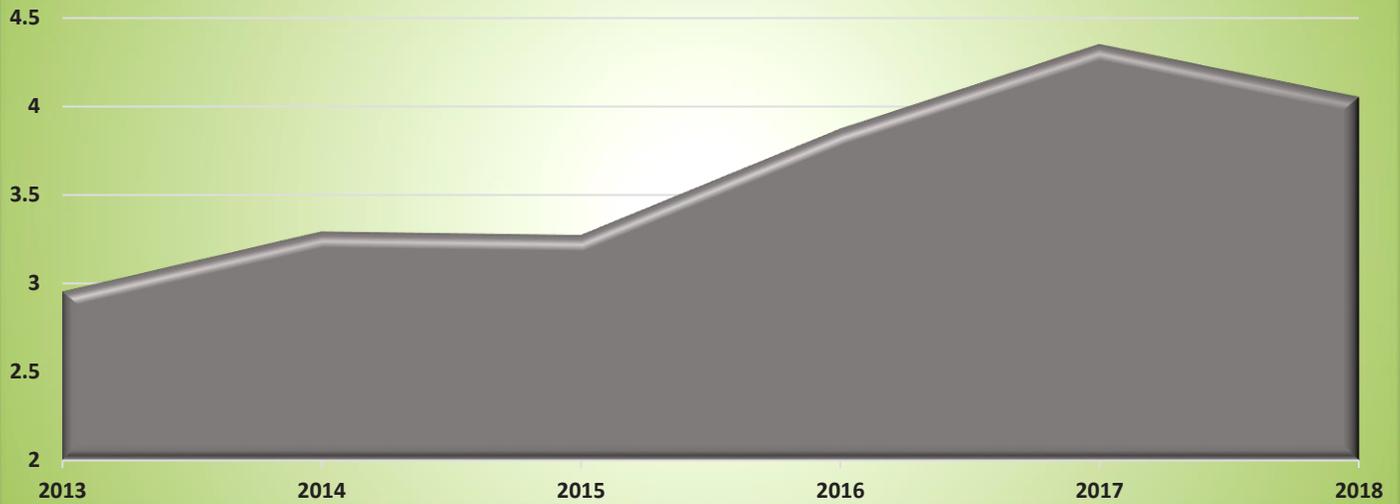


EMS Transport Report

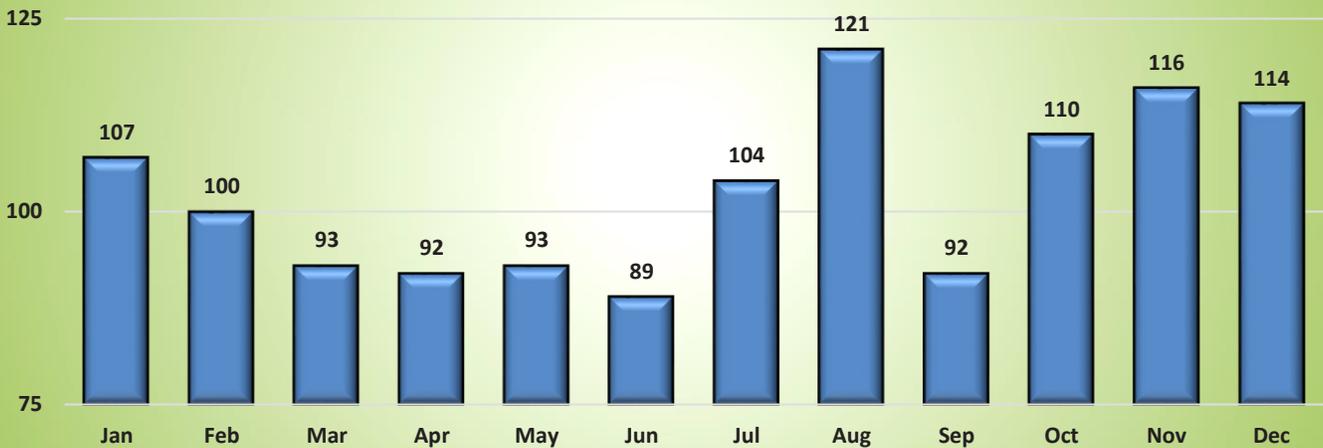
Our patients who call 911 and are in need of being transported to a hospital typically go to Trinity Muscatine unless they need services that are not available in town or if the patient has a special request. One challenge we have with 911 calls where the patient goes out of town is that it makes an ambulance unavailable again until they get back. These calls usually take an ambulance 2-3 hours depending on where they go, how busy the receiving hospital is, and how long it takes to get the patient to the room they are assigned and complete the handoff to hospital staff.



Total Out of Town Dropoffs Per Day

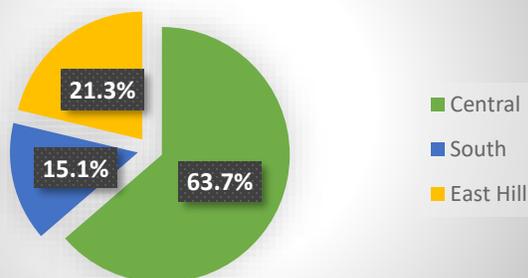


Total OOT Transfers by Month



Location of Calls Report

All EMS Calls by District



Depending on the service provided, the Muscatine Fire Department has a very large response district. Our fire district is 18.5 square miles and a population of 23,819 people within the city of Muscatine. Our EMS district represents 151.5 square miles with a population of 30,342 people. This area includes some of the townships that surround Muscatine. We also provide Advanced Life Support (ALS) medical tiers in Rock Island & Mercer Counties in Illinois. Additionally, we have ALS tier agreements with several other local ambulance services.

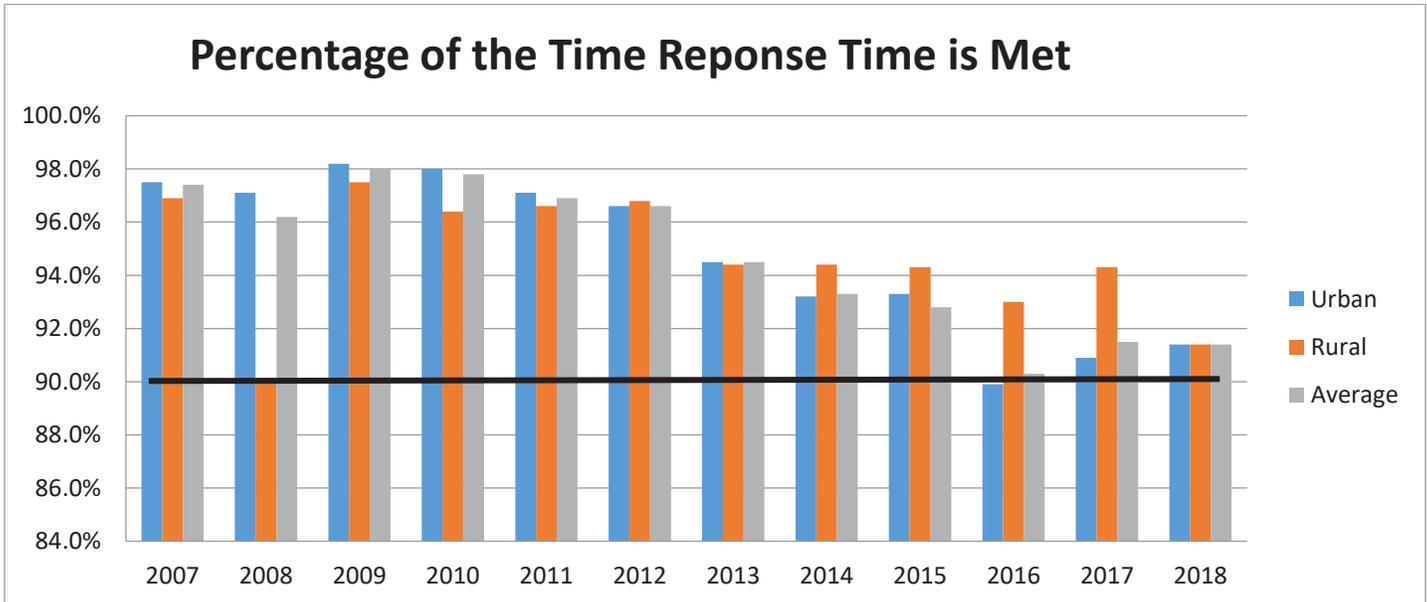
We are the Iowa Region 16 hazardous materials team and we cover Muscatine, Louisa, Washington, Henry and Keokuk counties which encompasses 2,455 square miles with a population of 106,684 people.

In the future, the addition of a third station will drastically improve response times to the more than 20% of calls that are in the East Hill districts. Our call volume and response times indicate this is a strong need for the community. A third fire station is listed in the City of Muscatine Capital Improvement Plan.

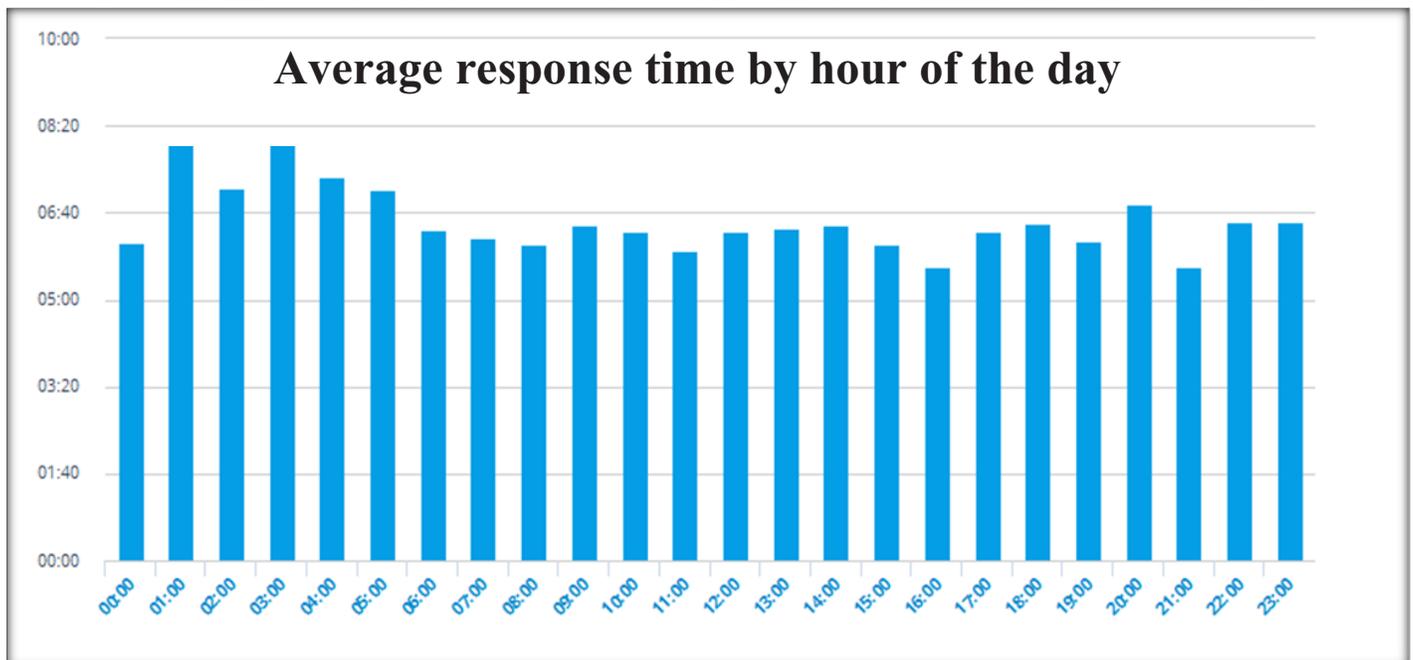
Out-of-City Response Area	2015	2016	2017	2018
Fruitland Township	192	158	205	194
Sweetland Township West	48	43	66	59
Bloomington Township	28	36	30	45
Sweetland Township East	30	15	34	40
Fruitland area South/East of Muscatine	17	46	47	37
Out of District	7	1	11	37
Illinois Areas	12	29	20	32
Wilton	13	9	16	27
City of Fruitland	51	40	39	26
Lake Township	39	21	18	11
Suburban Area North of City	26	11	4	3
Suburban Area West of City	5	1	4	3
Louisa County	2	1	4	3
Moscow Township	12	1	10	3
Fairport	7	8	2	2
Seventy Six Township	7	4	11	2
Hilltop Subdivisions	5	0	6	2
West Liberty	1	10	0	2
Areas East of City	2	4	8	1
Washington County	1	0	0	1

Response Time Report

The Muscatine Fire Department strives to provide a rapid response that arrives on scene in a safe and efficient manner. Depending on the nature of call and the location of the response, different response time goals are set. A standard followed throughout the nation is to arrive at a call in urban areas (within the City) in less than 9 minutes 90% of the time. For calls outside the City limits the standard set is to arrive in less than 15 minutes 90% of the time. This response time starts from the time of the 911 call and goes until the first unit arrives on scene. One of the challenges to this standard in recent years was the annexation of the Ripley’s area which is about 5 miles from the central station.

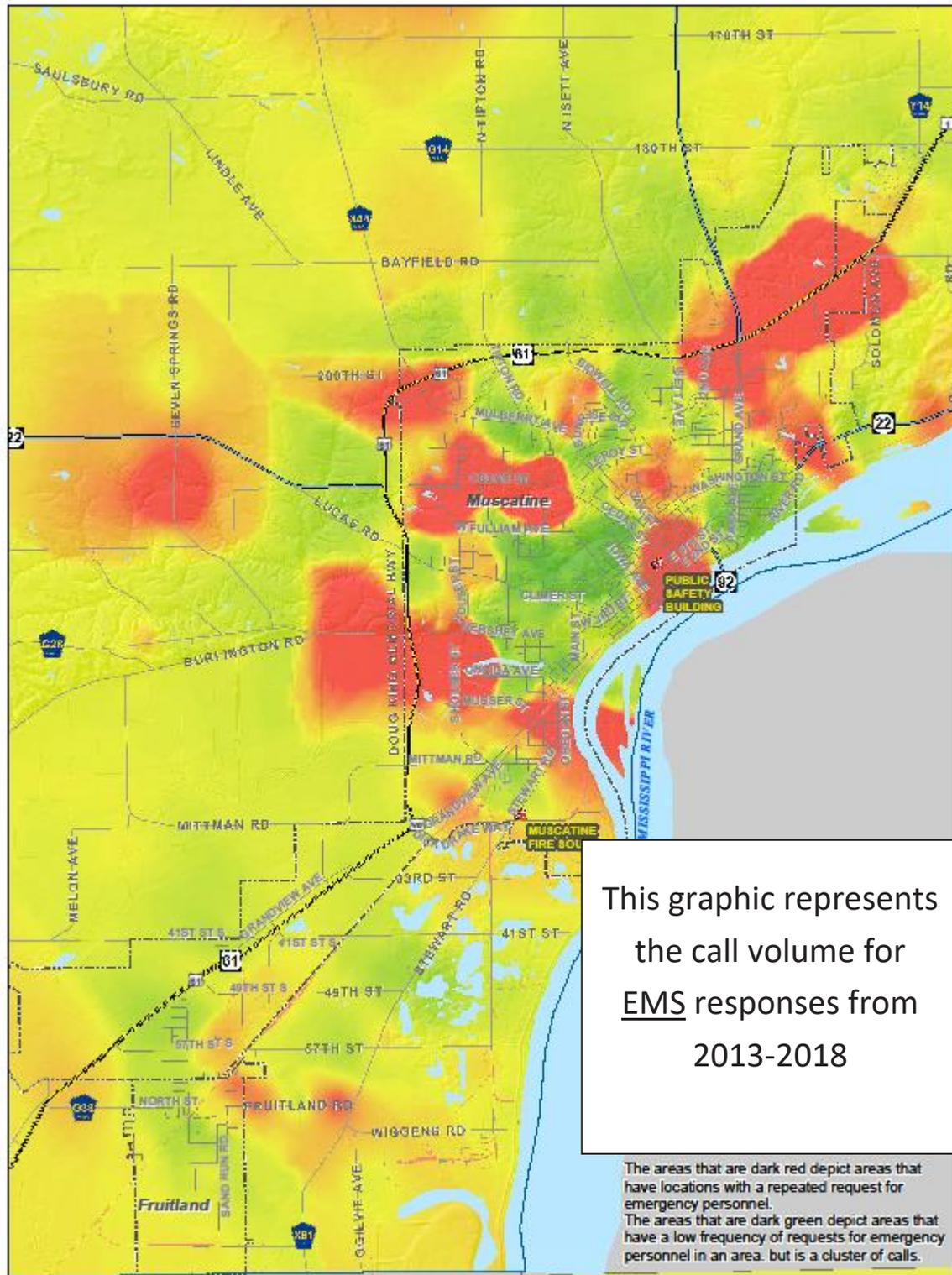


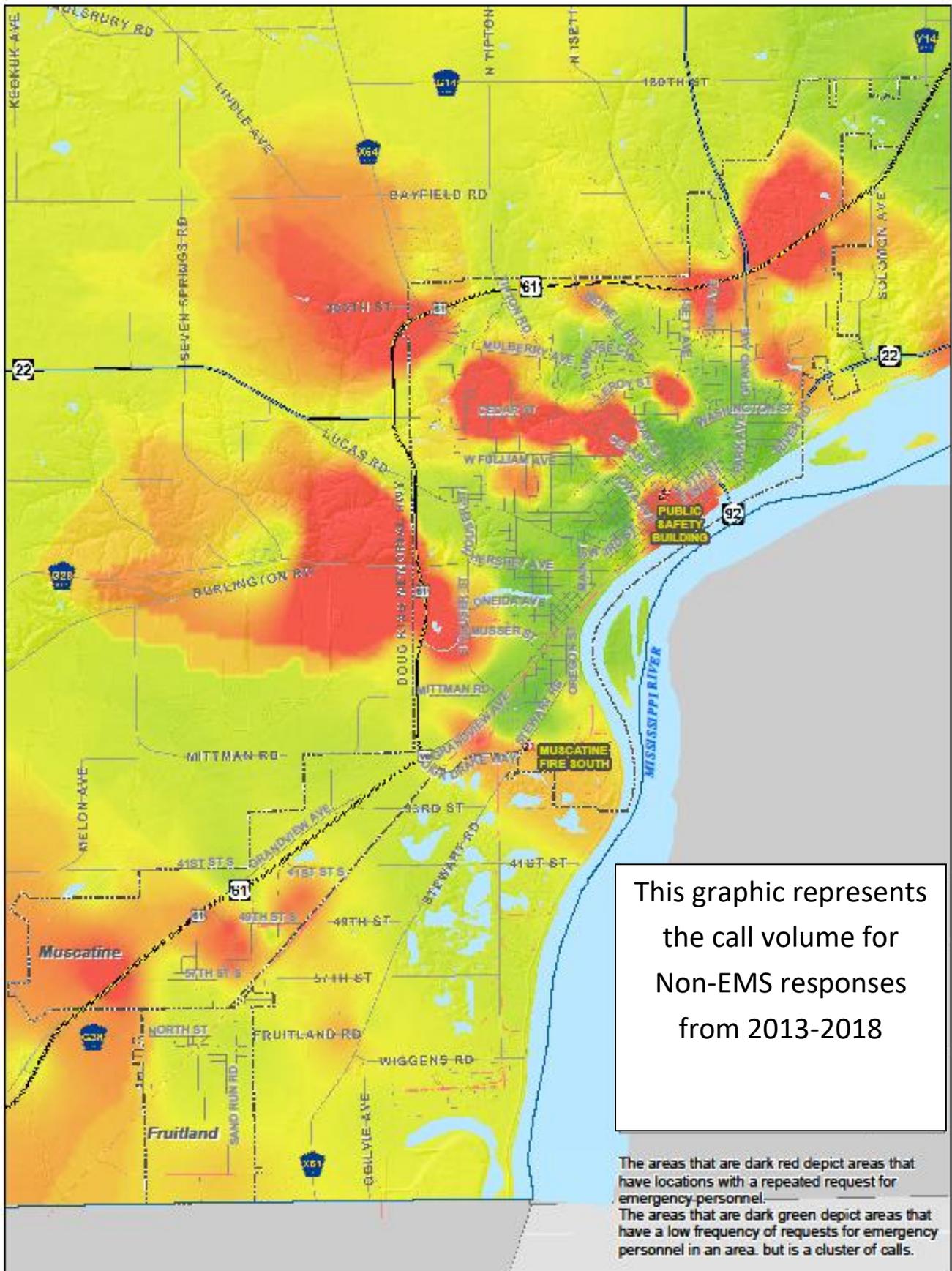
In 2008 and 2016 major construction projects slowed response to high call areas, impacting the yearly average

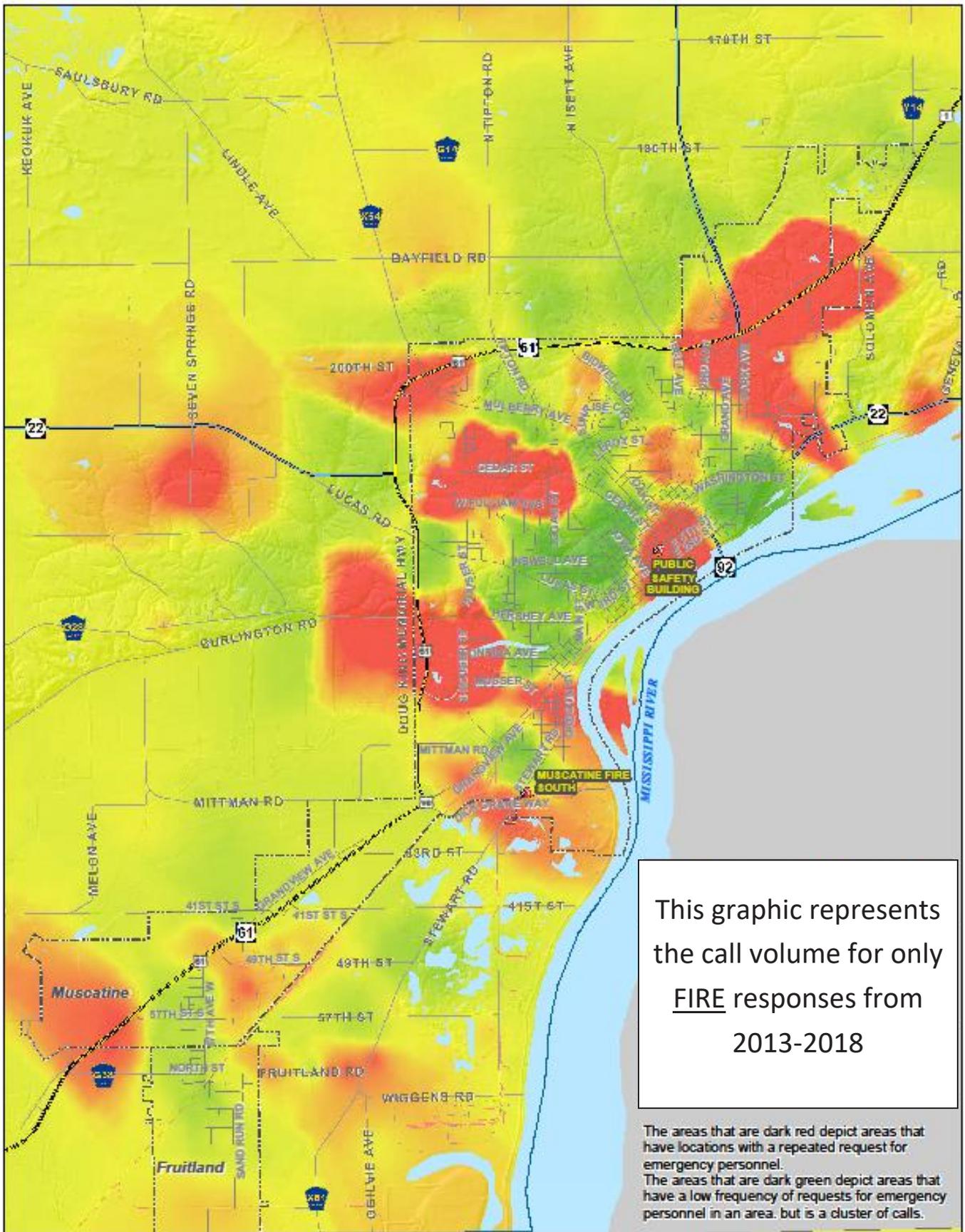


Hot Spot Analysis Diagram

The following diagrams were produced with assistance from the Muscatine Area Geographical Information Consortium (MAGIC). MFD was able to provide the locations of all of our calls for service and MAGIC plotted them to these maps to indicate the busiest locations within our coverage area.

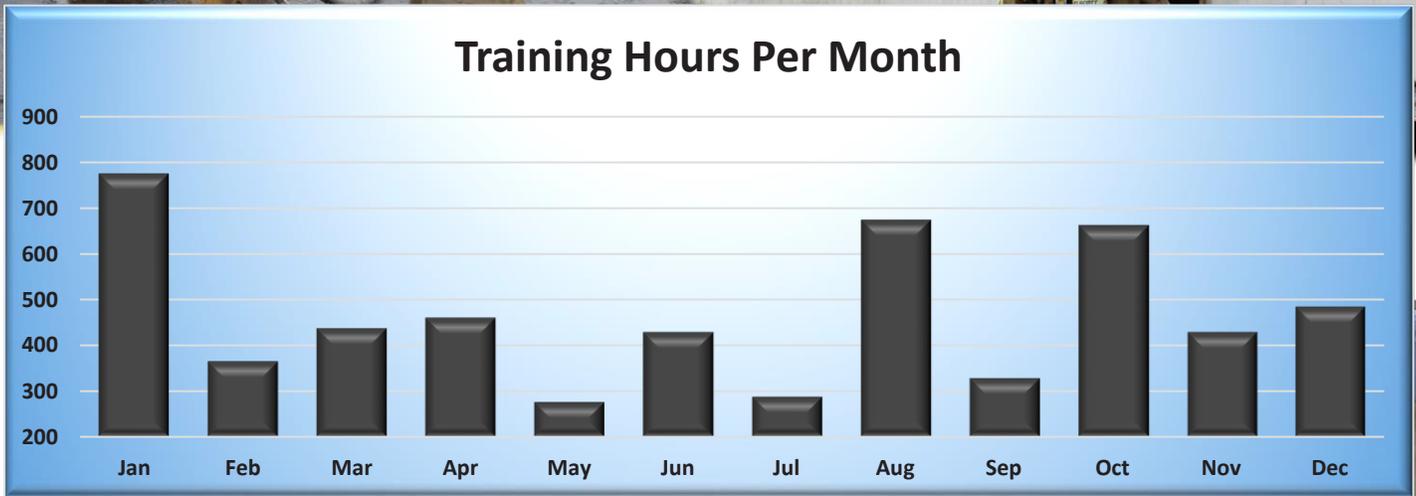






Training and Certification Report

In 2018 a total of over 5,600 hours of training was completed. Our focus this year was on providing the initial training for our new hires. One of the difficulties was to provide a challenging, worthwhile, and safe two week training academy for the new hires; usually using a mixture of off-shift and on-shift personnel, all while still maintaining enough staff available for calls. We met that challenge and provided some of the highest quality initial training in our history. A big thank you to all of our members who stepped up to teach or to help out!





Muscatine Fire Department Honor Guard

Up until the events of 9/11, the Muscatine Fire Department never really thought of or had a desire to form an Honor Guard group. With everything that happened in 2001, followed by our line of duty death the following year, several members began to discuss among themselves the concept of forming a group of people who could serve in that capacity. Some members had experiences attending funerals of retired fire fighters or line of duty death memorials – most notably Keokuk in 1999 – and felt they would like to step up and help with this service. Although we paid our respects to brother and sister fire fighters, we did so in our regular uniform instead of a formal uniform.



The formal dress uniform is referred to as a Class A uniform. The Class A was used decades earlier for members of the department but had faded to memory, so the uniform specifications had to be created from scratch. This involved determining who was interested in the new honor guard and getting their input into what the ‘new’ Class A should look like.



The department went with a number of traditional fire service features, including the navy blue color and the uniform and hat styles. FF Travis Edwards, who lead the push for development of the Honor Guard, designed a special patch for the Class A uniform.

From there procedures and guidelines were developed, with the help of other fire departments. Since that time our department has become a critical piece of the annual Honoring Our Own ceremony at the Iowa EMS Association conference, we have participated in numerous fire fighter memorials throughout the region, and we have provided a welcome sign of respect for many of our retirees.





Apparatus Condition Report

Vehicle	Description	Condition
<u>Fire Engines</u>		
Engine 311	2006 Alexis Station 1 Front Line Engine	Fair
Engine 312	2013 Pierce Station 2 Front Line Engine	Good
Engine 313	1988 Smeal Engine – Station 1 Reserve Engine (Refurbished Once)	Poor
Engine 314	1993 Pierce Engine – Station 2 Reserve Engine (Refurbished Once)	Poor
<u>Ambulances</u>		
Ambulance 351	2018 Ford Medix Ambulance	New
Ambulance 352	2016 Ford Medix Ambulance	Good
Ambulance 353	2011 Ford Medtec Ambulance with 2000 box (Refurbished Once)	Poor
Ambulance 354	2014 Ford Medtec Ambulance with 2004 box (Refurbished Once)	Fair
Ambulance 355	2012 Ford Medtec Ambulance	Poor
<u>Specialized Apparatus and Support Vehicles</u>		
Truck 310	2018 Pierce Arrow XT 100' Ladder Truck	New
Tender 316	1978 Chevrolet Water Tender (Tanker)	Poor
HazMat 321	2005 Chevy Duramax C8500 w/ 2004 Mickey 16 Bay Trailer	Good
Chief's Vehicle	2019 Chevy Tahoe	New
Asst. Chief Vehicle	2018 Chevy Silverado 1500 Crew Cab	New
Command 333	2008 Chevy Tahoe (used police vehicle)	Fair
Truck 331	2019 Chevy Silverado 2500 Extended Cab pickup	New
Staff Car 335	2011 Ford Crown Victoria (used police vehicle)	Fair
Mule 350	1997 Kawasaki Utility Vehicle (used police vehicle)	Fair
Air Trailer	1993 Three bank pull-behind air trailer	Good
Boat 332	2017 Inflatable rescue boat with 25hp Evinrude outboard motor	New

New Apparatus

Squad 351



Truck 310



Boat 332



Truck 331



Chief's Vehicle



Asst. Chief's Vehicle



Assistant Chief's Report

2018 Review

There have been a number of things that happened in the last year that impact what we do and how we do it. This department is one that constantly strives to improve, and is always looking to provide better service. This last year was no exception.

One of our ongoing challenges is staffing. We have experienced turnover due to a number of reasons, and filling the hole when someone leaves is difficult. Our department had several waves of hiring, and the process that goes into meeting the Civil Service requirements is fairly extensive. We continue to utilize a nationally accepted entrance testing process, and we have been extremely fortunate to find excellent candidates. With the department poised for growth and the hiring pool beginning to dry up industry-wide we will only see these challenges expand.

A benefit to new hires is the opportunity for our present staff to review the basics when they train the new employee. Another is that it also reminds each of us why we got into the profession. Seeing the enthusiasm on the faces of the brand new employees brings back memories for all of us.

Fireworks continue to be a challenge as well. This year we saw an increase in incidents involving fireworks use, including the total loss of a vehicle. Even though we stepped up on-site visits and outreach to fireworks sales locations, we still had an unacceptable number of those vendors get caught selling fireworks to underage individuals (four of the seven who were checked failed). Inspectors spent 15-20 hours per week on fireworks related activities for several weeks before July 4th. We will be stepping things up again this coming year and will look to increase enforcement since the education aspect was insufficient. However, with limited time and seemingly unlimited responsibilities, this increased focus will be pulling resources from other areas of need. However, that has become the nature of the job for all of our staff – prioritization of limited resources to meet increasing need and demand. The fire service in 2018 is far more complex than the fire service of even 1998. Those twenty years have changed what we do and how we do it. Fortunately we have found personnel who are willing and able to step up.

Despite our efforts, fires still happen and people still get hurt. The Clinton firefighter fatality illustrates the dangers of fire, especially for those who work to protect us all. Please do what you can to help push back against fire injuries and deaths – make sure you have working detectors (including carbon monoxide), close your door when you sleep, be careful with fireworks, and support fire sprinkler usage. The only way we will make progress is by anticipating the problem and working together to address that potential.

Respectfully Submitted,



Assistant Chief Mike Hartman



Battalion Chief's Report: Green Shift

2018 Review

Last year was a busy year for providing fire safety inspections to businesses and presenting fire and life safety programs to our citizens and visitors. The total number of emergency calls for service was again over 5000. Emergency calls for service still have to be answered in between our inspections and education outreach activities.

Green Shift's responsibilities include the fire department fire inspection and public education programs. The intent of these programs is to reduce risk within the community as it relates to fire and accident prevention. Public education has been a backbone program of Green Shift for decades, and we take pride in our outreach. The effects of the presentations is difficult to measure, but stories like the meritorious civilian award presentation to a 7 year old (page 29) show the worth of all the time invested in this training. Kaiden Herlein was able to think clearly and make good decisions based on part of fire safety information he was given in one of our offerings. Events such as this help to motivate our staff to continue their high level of engagement and effort needed to continue providing this service.

Fire and Life Safety activities included:

- 298 inspections performed
- 270 re-inspections performed
- 568 total inspections performed
- 44 public education programs presented
- 55 hours of fire and life safety presentations
- Reached a total of over 1,900 people with safety offerings
- Organized and planned the annual open house during fire prevention week
- Installed 40 smoke detectors
- Inspected a total of 18 child car seats

Respectively Submitted,



Battalion Chief Darrell Janssen



Battalion Chief's Report: Blue Shift

2018 Review

Our main project goal for 2018 was to continue to improve the performance of our Emergency Medical Services (EMS) by reducing fiscal supply costs and eliminating fees, tracking supplies more closely, implementing consumable supply accountability for reimbursement, adding new and innovative equipment for patient care, and enhanced safety during transport. We also continued quality control meetings with nursing home and hospital staff to enhance the care and improve the quality of patient transfer to and from various health care facilities.

Many events were attended throughout the year such as participation in the department Open House, EMS Saturday, Trinity's Health Fair, the Iowa EMS Association (IEMSA) Conference and EMS Day on the Hill in Des Moines.

Emergency Medical Service program highlights include:

- Renewed Iowa & Illinois EMS Ambulance Licenses & State Inspections
- Managed the EMS Continuous Quality Improvement (CQI) program
- Maintained all EMS emergency equipment and apparatus
- Implemented new spinal immobilization devices on all ambulances
- Implemented new pediatric transport systems
- Eliminated our annual hospital linen fee
- Upgraded our vehicle diagnostic equipment
- Modernized the EMS supply room for supply accountability
- Established an in-house decontamination shower
- Demonstrated hands on CPR booth at Open House 2018
- Implemented an AEROCLAVE Decontamination System
- Implementation of new 'bone needles'
- Installation of new Knox key holders
- Updated new fitness equipment in the Public Safety Building
- Provided training to the new EMS part time employees



Respectfully Submitted,

A handwritten signature in black ink that reads "Ted Hillard".

Battalion Chief Ted Hillard

Battalion Chief's Report: Red Shift

2018 Review

This last year was a busy year for emergency runs made. Red shift was also busy with the purchasing of new equipment for the department and coordinating training. This year's primary focus on training was in fire operations, but also included a significant amount of training in Emergency Medical Services (EMS). EMS training requires at least 30 hours annually for each Firefighter/Paramedic to remain eligible for recertification. The department also has minimum training requirements in firefighting, Hazardous Materials, and Special Operations. Red Shift is responsible for putting out the annual training plan. This year the department had over 5100 hours of training completed. One of the goals was to update, re-organize, and formalize all training programs to be referenced to national standards and requirements. Firefighters have adapted quickly and continue to push for new training that aligns with new technology.

Some of the highlights/significant events that happened during the year include:

- Purchased and put the new aerial/truck into service, this was done with all three shifts working together
- Purchased three new utility service vehicles that replaced vehicles in the aging fleet
- Replaced personal protective equipment that was older than 10 years
- Purchased a new inflatable boat and trained personnel on boat operations
- Purchased fire hose that replaced damaged and failing hose
- Coordinated an Aerial Operator certification course with 8 personnel becoming certified
- Instituted a new fire officer development training program for professional development
- Held two probationary fire academies. This includes over 160 hours of training for each new recruit
- Hosted a Flashover Leadership Course with the help of the Muscatine County Firefighters Association
- Updated, re-organized, and formalized all training programs

Respectfully Submitted,



Battalion Chief Gary Ronzheimer



New Employees



Zach Diewold
Hire Date: March 1, 2018



Reece Hall
Hire Date: April 30, 2018



Isaac Linder
Hire Date: June 25, 2018



Mike Collins Jr.
Hire Date: July 9, 2018



Tyler Willsher
Hire Date: October 15, 2018



Joseph Rymars
Hire Date: October 15, 2018

New Part-Time Ambulance Employees



Jake Hillard
Hire Date: Nov 24, 2018



Stephanie Tharp
Hire Date: Nov 24, 2018



Jo Lowe
Hire Date: Nov 24, 2018

Promotions



Jonathan Weiland from
Firefighter to Lieutenant
June 1, 2018



Andrew Summitt from
Lieutenant to Captain
June 1, 2018



Gary Ronzheimer from
Captain to Battalion Chief
June 1, 2018

Fire Department Meritorious Civilian Award



On Thursday, November 23, 2017 the Muscatine Fire Department responded to 1116 East 4th Street for a report of a structure fire. After the fire was extinguished crews began the investigation of the fire and interviewed family members. It was determined that 7 year old Kaiden Herlein was the one who observed the fire dripping from a ceiling light fixture. At about the same time the smoke detector activated. Kaiden was able to use the cordless phone to call 911. Kaiden was also able to assist his grandmother outside and instructed her not to re-enter the structure. Kaiden's grandmother needed assistance due to her being legally blind

Kaiden learned these critical fire safety skills during a fire department public education training program at Colorado School. Also, the working smoke detector was installed by the fire department a few months ago, as part of our department's smoke detector program.

On behalf of the City of Muscatine and the Muscatine Fire Department we would like to recognize Kaiden Herlein with the Muscatine Fire Department "Meritorious Civilian Award." This is only the second time this award has been given out.

The Meritorious Civilian Award is presented for actions termed "Outstanding Performance" in the course of action where a civilian demonstrates remarkable performance relating to the protection of life and/or property.

We would like to recognize Kaiden's actions by presenting him with a wooden plaque and letter describing the incident that ensured the safety of himself and his grandmother.

2018 Major Activities and Accomplishments

- Obtained a rescue boat/motor/water protective gear through a community donation of \$10,000
- Sold the old aerial to a fire department in Washington, IN for \$75,000
- Implemented strategies to decrease EMS costs, including in-house training for Pediatric Advanced Life Support, elimination of linen fees from Trinity, and utilization of new diagnostic equipment
- Coordinated and implemented another successful Public Safety Open House, utilizing the “Close before you Doze” message to encourage participants to close their doors while sleeping and used the live fire ‘burn cell’ to illustrate this point
- Reviewed, adjusted the inspection program, and began to make progress toward returning to a fire inspection schedule of visiting commercial occupancies every two years, industrial and storage every three, and special locations such as daycares and liquor permit locations each year
- Hosted State certification training and testing for Driver/Operator certifications at the Pumper and Aerial levels, which certified 8 staff to the IFSAC/ProBoard standards (Continuous Service Improvement)
- Conducted over 200 fire marshal visits to new and existing locations to answer questions and ensure Fire Code compliance
- Hosted the 9th Annual EMS Saturday conference at Discovery Park; this event draws participants from throughout Eastern Iowa as well as serving MFD personnel (Marketing)
- Completed inspection and acceptance process of a new platform aerial truck to replace a unit that was at end of life (*Continuous Service Improvement*)
- Continued social media outreach using Facebook and Twitter, which have reached more than 318,000 people in the last year (56.2% increase over 2017) and has ‘engaged’ about 2,500 people per month on average; the page presently has about 3,550 ‘likes’ (16.4% increase) (*Marketing*)
- Saw an increase in the number of people participating in public education offerings, up 16.5% from 2017 and 10.5% above the five year average
- Obtained formal tactical EMS certification for two new tactical team paramedics

Retirements



Brian Abbott - Hired November 19, 1996. He was promoted to Lieutenant April 3, 2007 and to Captain November 21, 2009. On May 5, 2013 Brian was selected to fill a Battalion Chief position. Chief Abbott retired from the department on May 31, 2018.



Brian Wright was hired on September 9, 1982 and retired on October 19, 2018, with over 36 years of service.

We look forward to the challenges and opportunities in 2019 and we wish to thank you for your continued support.



Muscatine Fire Department

312 East 5th Street

Muscatine, IA 52761

Emergency Phone: 911

Phone: 563-263-9233



<http://www.muscatineiowa.gov>



Thank you to Firefighter Craig Chelf for organizing and developing this report!