



Marshalltown Fire Department

Annual Report 2021

Table of Contents

Message from the Fire Chief	2
Organizational Structure	3
Administrative Staff & Officers	4
Incident Breakdown	5
Distribution of Calls	6
Fire Call Breakdown, Cause of Ignition	7
Fire Loss, Fatality, and Fire Photographs	8
EMS	10
Operations	11
Overlapping Calls	12
Calls by Day of Week	13
Calls by Hour of Day	14
Training & Activity	15
Training Photographs	15
Fire Prevention, Inspections, & Investigations	20
Employee & Shift Information	21
Department Update	22
New Equipment	23



Message from the Chief

The members of the Marshalltown Fire Department (MFD) are pleased to offer you this annual report for the year 2021. This working document addresses your fire departments daily activities and accomplishments. It is our goal to offer the highest level of service possible for the citizens and to the business community of Marshalltown.

Many had hoped COVID would become a thing of the past as we moved through 2021. Unfortunately, as we move into 2022, it is still present. Fortunately, it is not affecting operations as it did in 2020.

MFD experienced a busy 2021, responding to 3,174 calls for service. This is the first time in the history of the department that service calls exceeded 3,000. The primary cause of the increase is 9-1-1 calls for medical emergencies. This is not a trend exclusive to Marshalltown. In speaking with other Fire Chiefs in Iowa, many are experiencing 10 to 15 percent increases in department responses as well.

MFD also experienced the retirement of two senior Fire Captains and our Administrative Assistant, as well as the resignation of another fire officer. As such, the department experienced more turnover than in any of my seven years as Chief with five officer promotions, three new firefighters and a new Administrative Assistant.

The department, regrettably, must report a civilian fire fatality in 2021. While this is tragic occurrence, a positive is this has not happened since 2013.

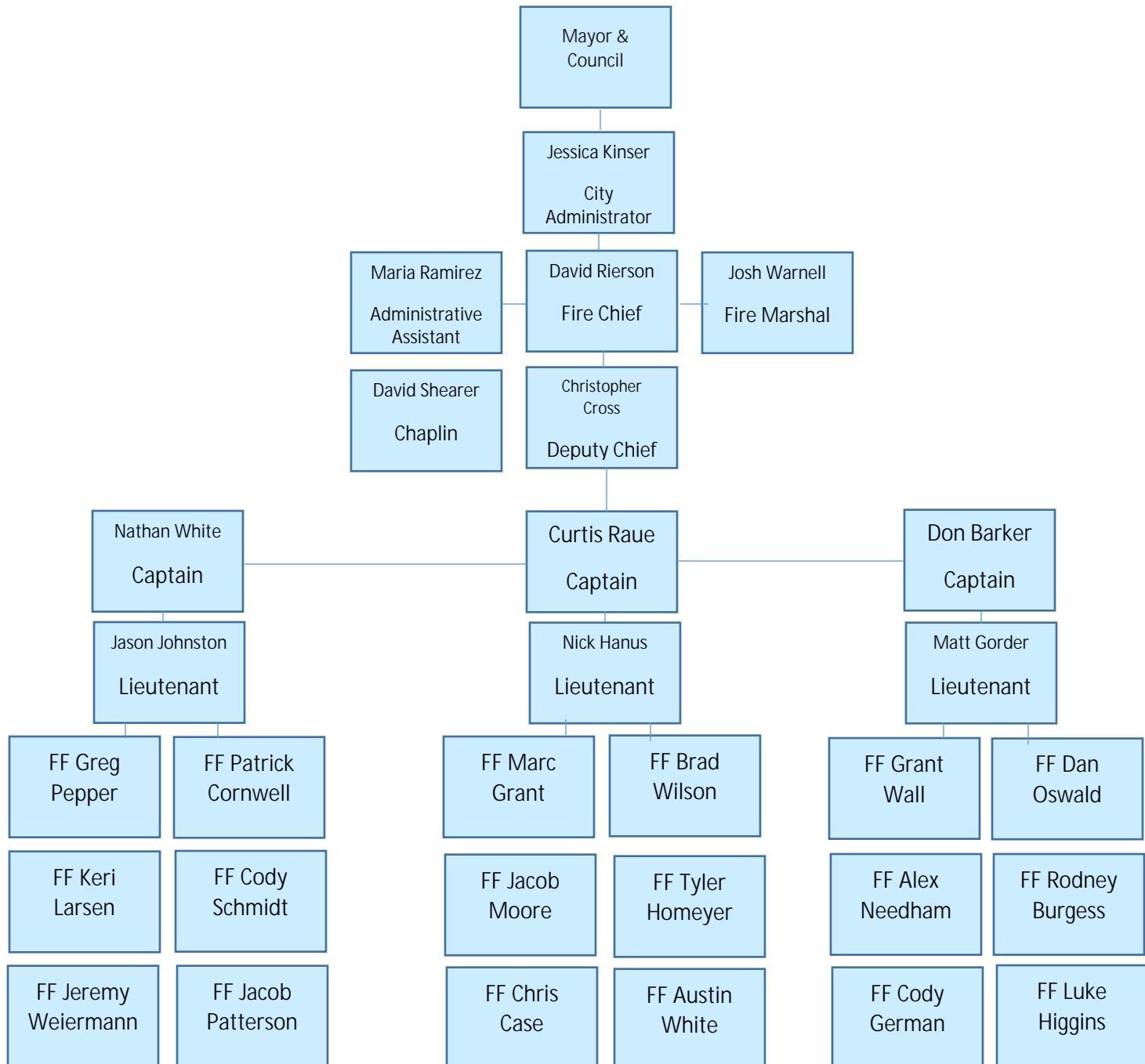
Lastly, 2021 saw the addition of two new fire apparatus and a utility vehicle to our fleet. Without the support of the City Council and a generous donation, this would not have happened. We are fortunate and blessed to have the support of our community.

Sincerely,

David Rierson

David Rierson - Fire Chief

Organizational Structure



Administrative Staff & Officers



David Rierson – Fire Chief



Christopher Cross – Deputy Chief



Joshua Warnell – Fire Marshal



Nathan White - Captain



Curtis Raue - Captain



Don Barker - Captain



Jason Johnston - Lieutenant



Nick Hanus - Lieutenant



Matt Gorder - Lieutenant

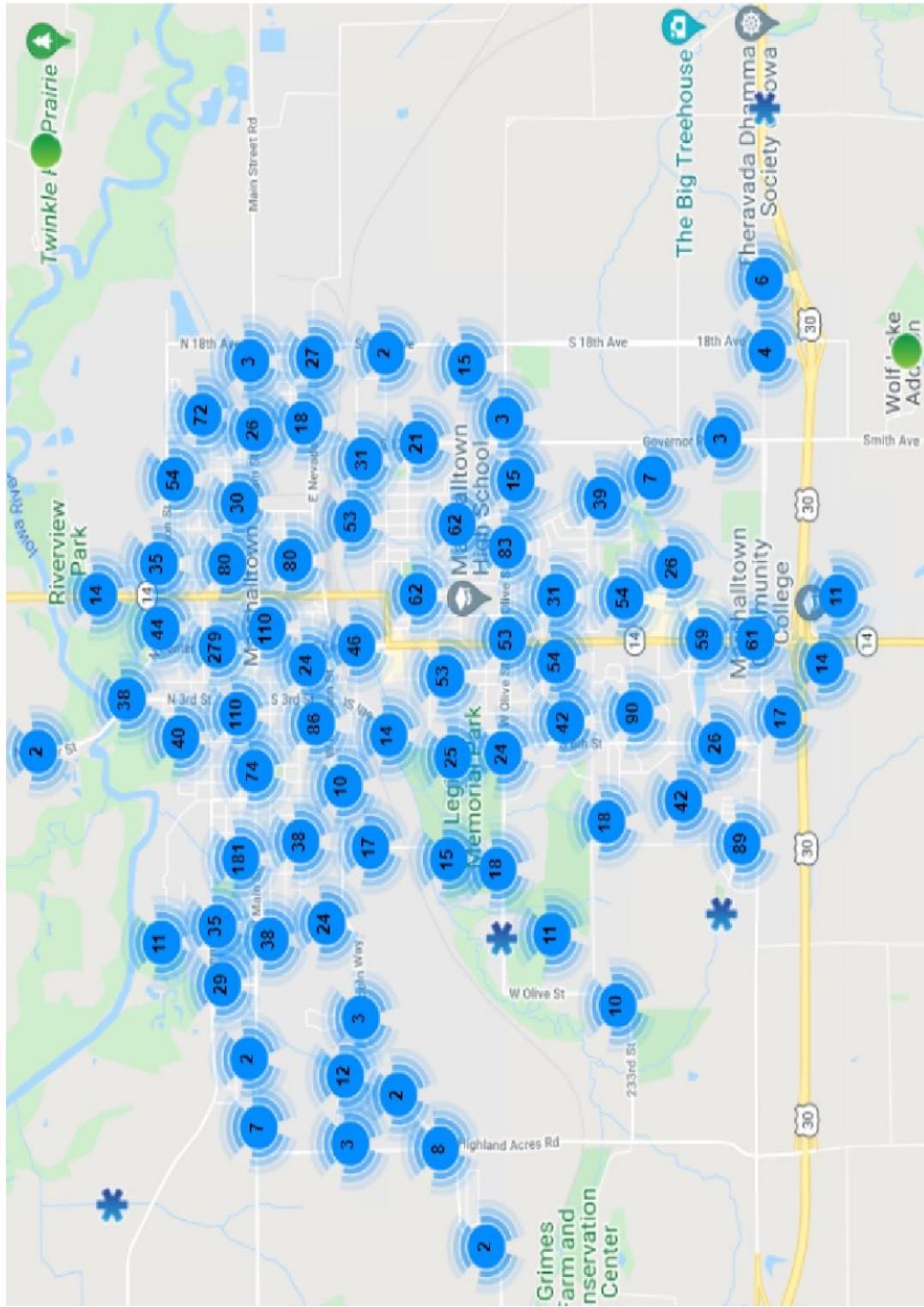
Reports and Statistics

Incident Breakdown

As an all-hazards department, Marshalltown Fire Department responds to emergencies that include fires, emergency medical calls, hazardous materials incidents, water and ice rescue, trench and confined space rescue, and vehicle extrication. In 2021, the department responded to 3,174 requests for service, which represents an increase of 12 percent over 2020 (2,834). Listed below are explanations of the categories and a chart breaking down fires by type and other calls for service as well as a map showing distribution of calls throughout the City.

1. EMS: Includes emergency medical calls and extrications.
2. Hazardous Condition-No Fire: Includes arching or shorted electrical equipment, electrical wiring issues, power lines down, and overheated motor.
3. Fires: Includes structural, vehicle, brush and weeds, and rubbish.
4. False Alarm: Includes accidental alarm trips.
5. Service Calls: Includes Smoke or odor scares, animal rescues, water problems, and public assistance.
6. Hazardous Materials: Includes release, containment, and mitigation of a hazardous substance.

Distribution of Calls - 2021



2021 Fires By Incident Type	Number
Building Fire	20
Cooking Fire (contained)	10
Chimney/Flue Fire (contained)	1
Outside Storage	5
Outside Rubbish, Trash, Waste Fire	4
Dumpster Fire	3
Passenger Vehicle Fire	9
Mobile Property Fire	2
Grass Fire	11
Brush or Brush/Grass Mix Fire	13
Excessive Heat/Overheat	8
Total Fires	86

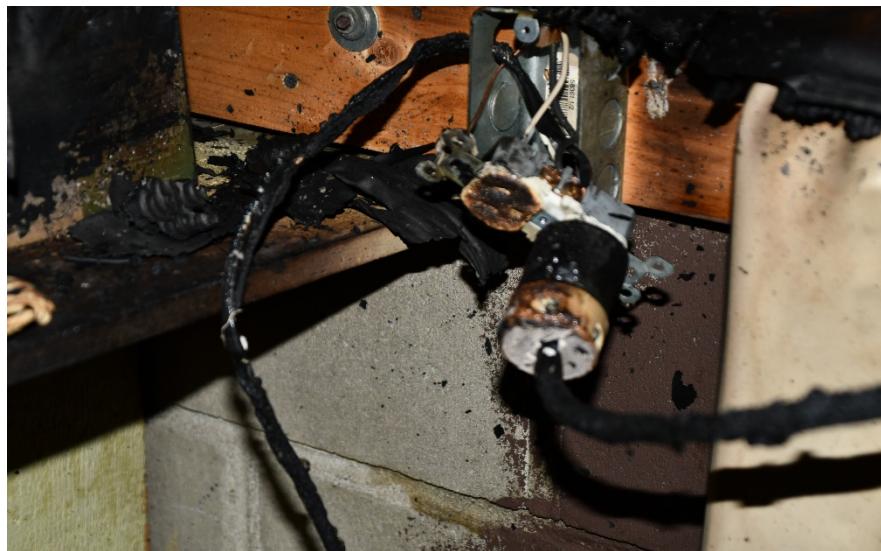
Fire Loss

In 2021, fire loss is valued at \$400,950, which is a 17.4% increase from 2020 (\$341,470). With a pre-incident value of property involved at \$3,202,056, the department saved \$2,801,106 worth of property.

Fire Injuries/Fatalities

Unfortunately, in 2021 we experienced a civilian fire fatality. The last fatality occurred in 2013.

Residential Structure Fires





EMS

Marshalltown Fire Department responds with UnityPoint EMS on specific medical calls for service. In some instances, the department arrives on scene prior to the ambulance and begins patient care. EMS calls responded to include cardiac arrest/CPR, difficulty breathing, seizures, diabetics, strokes, and traumatic injuries. Additionally, there are times when the fire department crew, depending on patient condition, help either render patient care in the ambulance or drive it for the EMS crew to the hospital. In 2021, the department responded to 2,110 medical calls, assisted in patient care 17 times (0.8%) and drove the ambulance for the EMS crew 53 times (2.5%). At times, the responding fire crew finds itself waiting on scene for an ambulance. In 2021, responding crews waited on scene for an ambulance for greater than 10 minutes 29 times (1.4%).



Operations

To fully understand our operation and to ensure the best service delivery possible, specific factors related to our service are analyzed. These factors include response time performance, requests by time of day and day of week, overlapping calls, and calls by month. The definition of “response time” depends on the perspective from which one approaches the data. Response time components include call processing and dispatch, turnout time, and drive time to the scene. Call processing time is measured from the time the 9-1-1 call is received to dispatch of the department. Turnout time is measured from dispatch of the department to the time the apparatus leaves the station. Drive time starts when the apparatus leaves the fire station and stops when the apparatus is on location of the incident. Drive time is affected by traffic patterns, time of day, weather patterns, and distance to the incident. For 2021, our department numbers were as follows:

Average Response Times for EMS Runs: 5:56

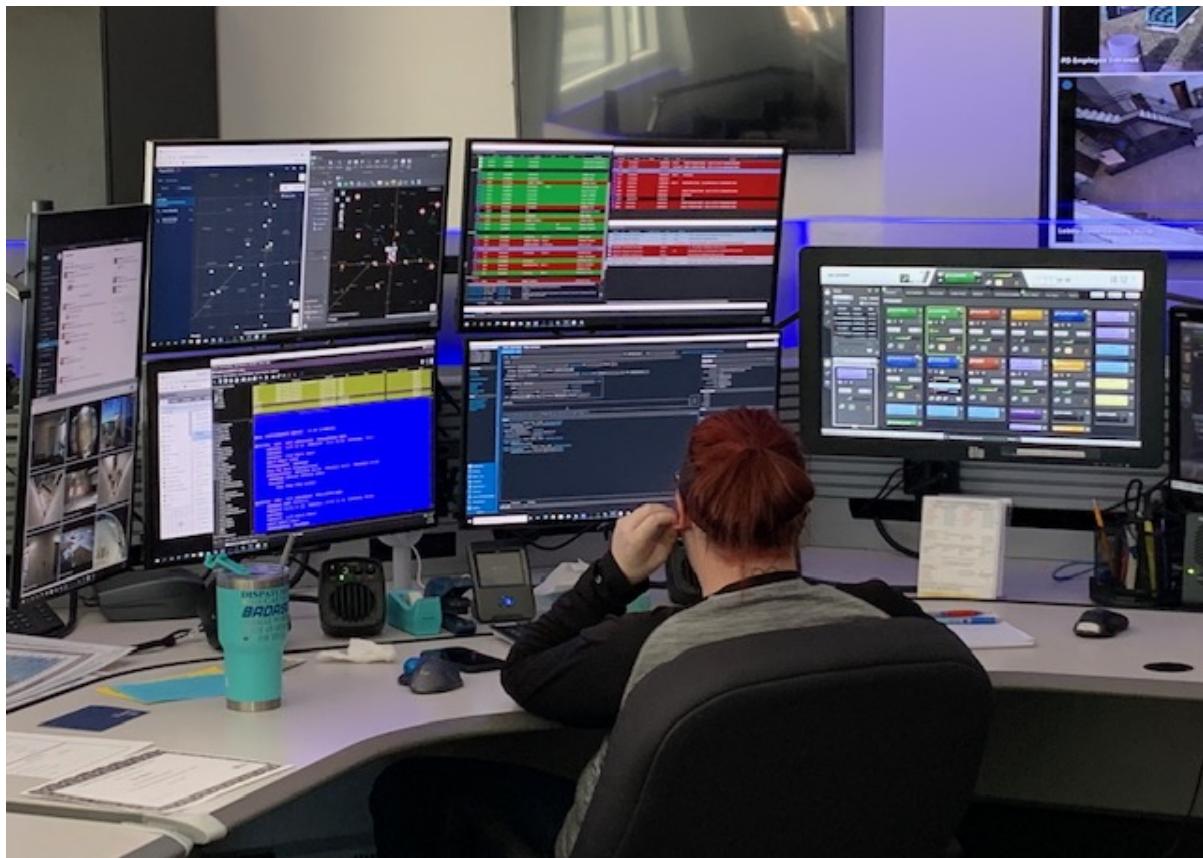
Average Response Times for Fire Runs: 7:05

Average Response Time for All Runs: 6:07

Average Turnout Time for EMS Runs: 1:37

Average Turnout Time for Fire Runs: 2:41

Average Turnout Time for All Runs: 1:48



Overlapping Calls:

Overlapping calls are those times when the department has more than one call for service occurring at the same time. This is an important statistic to track as it could result in either delayed or no response. In 2021, we experienced a 24% increase in overlapping calls (720 vs. 581), which represents 20.7% of our total calls. A visual graph of the overlaps is located below.

Calls by Day of Week:

Calls By Hour of the Day:

As in previous years, the department remains busiest between the hours of 8:00 am and 8:00 pm.

Training and Activity

As an all-hazards department, training is an important part of our annual activity. Department training is provided through a combination of in-house instruction, online classes, and outside classes and training. Outside training courses were limited the first quarter of 2021 due to COVID issues. 8,134 person-hours were spent training in the areas of EMS, fire, hazmat, OHSA, physical fitness, and specialty (confined space, ropes and water rescue). Additionally, 4,747 person-hours were spent answering calls for service, providing station tours, and maintaining facilities and equipment. Total activity time for 2021 is 12,881 person-hours. Below is a breakdown of the hours.

New L-175 Training



New Employee Orientation



Polaris UTV Training



High Angle Rope Rescue Training



Confined Space Rescue Training



Fire Marshal's Office

COVID related issues continued into early 2021, which limited our ability to inspect buildings. Department affiliation with The Compliance Engine continued in 2021. The Compliance Engine sends notification to property owners who have fire protective systems (sprinklers, hood systems, alarm systems) when service is due, as well as when there are deficiencies in need of correction. In 2021, the Compliance Engine reported 501 system inspections of which 68 were non-compliant (13.6%). In addition to inspections, Fire Investigators conducted 21 fire investigations of which eight were determined to be arson.

Retirements, Deaths, New Employees, Promotions, and Anniversaries

For those of us in the fire service, the people we work with become our second families. As such, we celebrate members who have reached milestones in their careers and honor those who are no longer with us. In 2021, Captain Tim Hillygus, Captain Scott Doe, and Administrative Assistant Karen Allen retired. Lastly, the following individuals celebrated anniversaries with Marshalltown Fire Department:

5 years: Rodney Burgess, Chris Cross

20 years: Marc Grant

Department Staff



Oswald



Grant



Schmidt



Larsen



Pepper



Weiermann



Wall



Cornwell



Moore



Wilson



Homeyer



Needham



Burgess



German



Patterson



Case



A. White



Higgins

Department Improvements/Updates

In 2020, COVID protocols forced changes in our operations, responses, training, and fire code enforcement and prevention activities. Unfortunately, COVID continued into 2021 and affected activity well into the first quarter. Promotions & hiring were prevalent in 2021 as two Captains and our Administrative Assistant all retired. Additionally, another officer resigned to pursue other career opportunities. As such, the department promoted two new Captains and three Lieutenants, as well as hiring a new Administrative Assistant and three new Firefighter/EMT's.

In August 2021, the department took delivery of two new fire apparatus. While it is unusual for a department of our size to replace two vehicles at the same time, financially it made sense based on the annual price increases passed on by manufacturers. Moreover, doing so has pushed back the need for additional large fleet replacement for up to 10 years.

In 2020, the fire department entered into an agreement with Kirkwood Community College and Marshalltown Community School District to be part of a high school job ready program in firefighting. The program offers students college credit and is designed in a blended learning format. Students enroll in on-line classes from the Fire Science Department at Kirkwood during the first semester, discussing history of the fire service and other introductory material. The second semester students are provided classroom and hands on instruction at the Marshalltown Fire Department to obtain the Firefighter I certification by the State of Iowa. In September of 2021, we had our first student go through the program. We are hoping interest in the program will grow in 2022.

In October 2021, the department initiated an officer Professional Development Program. This process included a department cultural survey and a 360-degree survey of all officers. The surveys were designed to identify strengths and weaknesses of our officers, which is important as areas for improvement will vary between them. Based on the surveys, each officer (Captain & Lieutenant) received a personalized development plan. In 2022, a professional development plan will be established for the Deputy Chief and Fire Marshal.

In 2021, the Fire Chief was re-designated as a Chief Training Officer by the Center for Public Safety Excellence. Additionally, the Chief was elected to the position President of the Missouri Valley Division of the International Association of Fire Chiefs. The Missouri Valley Division includes the states of Iowa, North & South Dakota, Nebraska, Colorado, Wyoming, Missouri, and Kansas.

The Future

In 2022, the Fire Department will continue to look for ways to improve services and safety. The first step is establishing a public-private partnership to conduct fire code building inspections.

Due to resignation and promotion, the department will be training additional members to become Fire Investigators. This is important, as nearly 10% of our fires are arson. Additionally, we look to train a member as a Fire Education Specialist to work with the schools and kids on fire safety. This person will also receive Juvenile Firesetter training and work with our younger citizens who have or have the identified propensity for starting fires. Fire Officers will work to complete their development plans, meeting monthly with the Fire and Deputy Chief for mentoring

L: Retired L-175

R: New L-175



New E-171



New Polaris UTV

