



Miles City Fire Rescue

CITY OF MILES CITY

www.milescityfirerescue.com



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500

End of Year Report for 2022

Message from the Chief:

January 24, 2022

Greetings, 2022 was another year full of challenges for Miles City Fire Rescue (MCFR). MCFR responded to 1,642 calls for service in 2022. Some interesting challenges are presented with ever increasing numbers in call volume. One major challenge we are faced with in our community is the number of staff available to assist in emergency calls, and when those emergency's happen. In 2022 we experienced a weekly and sometimes daily (delays for ambulances) Several times during the year emergency calls have come in a five or six in a row. MCFR is staffed with a minimum of 3 firefighter/EMTs. 6 emergency calls in less than an hour is more than 3 firefighter/EMTs are able to handle. We respond to multiple calls at the same time, on average 33% of the time.

Our building continues to be a major obstacle to overcome. We are working with the Public Safety Committee of the City Council and the Mayor, to search out possible solutions to this issue. Alternatives for funding and a General Obligation Bond are currently being discussed.

On a very positive note - Our Cardiac Arrest Survival rate is something our community should be very proud of. MCFR has a **survival rate greater than 2 ½ times the national average**. The national average is only 10.4% survival of sudden cardiac arrest, MCFR has an exceptional save rate over the last two years (28% in 2022). This is a reflection of a large team effort, from our EMT's and Paramedics to community CPR programs, availability of AED's, 911 dispatchers trained in pre-arrival instructions, AED's in Law Enforcement vehicles, Advanced Cardiac Life support ambulances, and high quality emergency room staff at our hospital. More about the survival rate is included in this report.

Another very positive note, is the department structure fire save ratio. MCFR has a save ratio of 98.2% in 2022.

Our community should be very proud of the women and men of MCFR for their dedication and commitment to helping others. We look forward to serving the city of Miles City and Custer County in 2023.

Respectfully,

Branden M Stevens
Fire Chief

ABOUT YOUR MILES CITY FIRE RESCUE



- Our Mission -

To prevent or minimize loss of life and property from fire, injury, illness, or other sudden hazardous situations which can be dealt with by the resources of the department and cannot be managed by other public or private services.

- Our Vision -

Our vision is to serve our customers as the leading Fire and EMS Service in Eastern Montana and become the top department in the State of Montana. To achieve this vision, we will treat every customer with compassion. We will always strive to stay up to date on positive changes and trends in the world of fire and medicine, never ending in our pursuit of education.

-Our Core Values-

1. Respect: treat others with compassion and dignity
2. Accountability: holding others to the same standard we hold ourselves
3. Motivation: enthusiastically completing tasks, and striving for a better tomorrow
4. Excellence: surpass all expectations at all times. Education, safety, training, and preparedness are the keys to professionalism
5. Teamwork: what affects one, affects all
6. Family: we will act with integrity, honor, and trust-embracing diversity-to watch over ourselves, our families, and our community.

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STAFFING



- 1 Fire Chief (day-time)
- 1 Battalion Chief of Operations (day-time)
- 4 Captains
- 1 Lieutenant
- 8 Firefighter/EMT's
- 6 Part-Paid Firefighter/EMT's (4 less than the last two years)

15 total FTE and 6 part-paid, for a total of 21 members 2022

Of our 21 - member department

- 5 are certified as Paramedic's
- 4 as Advanced EMT's
- 9 at the EMT level
- 3 are non-EMS staff

Minimum staffing is three firefighter/EMT's on duty at all times. Off-duty staff routinely are called back for structure fires, standbys and EMS transfers out of town.

In the near future we need to address our staffing model. The increased demand for emergency medical care and advanced medical care -will require more paramedics and staff to meet these needs. Emergency calls for service routinely come in more than one at a time (33% responding simultaneously). The priority dispatching system is helping for now, but it is only a "Band-Aid." If we are to continue the level of service we currently provide we will need to increase staff.

According to NFPA, fire service EMS calls have increased about 350 percent over the last 30 years, including a nearly 50 - percent jump in just the last decade .Jan 2, 2019



Pathways Program –

Starting in 2019 MCFR, along with Custer County High School, started a Pathways program aimed at recruiting and retaining youth into Emergency services. During the school week, a high school senior comes to the fire department for one hour for job shadow and job training. This high school student receives credit for work completed and job training and knowledge for a future pathway into a career field. This program is at little to no cost to MCFR.

Experience Works Program –

For a number of years, MCFR has had a partnership with the Experience Works Senior Citizen - work - place placement program. A senior citizen is placed at a business and trained in a skill set, with a goal of returning to the workforce. Our participation in the program had an individual placed in the receptionist/secretarial area of the fire department. Unfortunately, department is not participating in the program due to no space available at the department, which will leave a gap in the front office/administration and efficiently at the fire department. The position greeted visitors and directed phone calls, answered water towers, as well as assisted in a number of office functions. We have a need for an administrative person Monday through Friday to perform basic office functions for the department.

RESPONSE



Miles City Fire Rescue operates out of one station located at 2800 Main Street in Miles City, MT. Miles City Fire Rescue provides fire suppression to the citizens of the City of Miles City and EMS/Ambulance transport for all of Custer County and responds to over 1,600 calls a year. These include medical emergencies, structure fires, fire and life safety inspections, and motor vehicle crashes.

Response area for the City of Miles City is 3.34 sq. miles
EMS and Ambulance response for Custer County is 3,793 sq. miles

Miles City Fire Rescue Responded to 7 working building fires in 2022 - and a number of other fire-related responses. The total combined value of the buildings prior to the fires, minus the loss of the damage, results in the value saved for the calendar year 2022 (below).

* Total value saved does not include fire prevention and education programs.

Building values:	\$5,873,150 (prior to fire incident)
Total fire loss:	\$106,450 (damage of the fire)

Total value saved: \$5,766,700* (this is a 98.2 % save ratio)

(One high value buildings is included)

911 EMS calls are responded to in a 3-tier system of priority:

- Basic Life Support Yellow (non-emergency) ambulance request (2 EMT's) 1 ambulance no lights, no siren.
- Basic Life Support Red (emergency care needed) ambulance and engine request (3 EMT's) lights and sirens.
- Advanced Life Support (critical) ambulance and or rescue request (highest level emergency care available) lights and sirens.

Each 911 call is answered by a specially trained emergency medical dispatcher, who can give vital pre-arrival instructions and better triage each call.

For the period June 14 through August 31, 2019, there were a total of 100 calls generated with Emergency Medical Dispatch and the use of the Priority Dispatch for MCFR.

<u>Number of calls meeting the criteria</u>	<u>Call processing time</u>	<u>Response time</u>	<u>Prior response time and call processing</u>	
(15) ALS: Ambulance and or Rescue	Average 01:14	Average 5:00	Average 2 min	Average 6 min + 2
(51) BLS Red: Ambulance and Engine	Average 01:58	Average 05:24	Average 2 min	Average 6 min + 2
(34) BLS Yellow: Ambulance, no lights	Average 02:14	Average 08:26	Average 2 min	Average 6 min + 2

The numbers show that we are responding to, and dispatching, Advanced Life Support calls faster and more efficiently (almost two minutes faster than before this new system), which will equate to more lives saved and a reduction in mortality and morbidity for our citizens.

(Average number of reduced miles per year on the engine 1,759 less miles traveled)



Out of Town Transfers

Out-of-town transfers are responded to by off-duty staff. Because of this system there are a number of non-emergent transfers out of town that we could not accept. These trips are unable to go for a number of reasons, including:

No off-duty staff available_____	52
No Advanced Life Support (paramedic) available_____	20
Out of Area/State_____	10
Holy Rosary Cancelled transfer or other hospital_____	33
Mechanical_____	3
Weather hazard conditions_____	0
Equipment needed/Scope_____	4
Non-medical_____	1

Total of out of town transfers cancelled (2022) by facility’s =33

TRANSFERS OUT-OF-TOWN BY YEAR		
Year	Transfers turned down	Transfers accepted
2022	90	84 + 33 cancelled = 117
2021	123	98
2020	111	100
2019	74	138 (new record)
2018	125	121
2017	96	81
2016	58	63
2015	22*	85
2014	*No data available	124 (previous record per year)

CPR and Cardiac Arrest Data and Outcomes

According to the American Heart Association there are more than 350,000 cardiac arrests outside of hospitals each year in the United States, MCFR responds to a number of out of hospital cardiac arrests each year. Over the last two years MCFR has had a save rate 2 ½ times greater than the national average 10.4% - MCFR save rate (27% in 2021) and (28% in 2022). This success is attributed to the men and women of our department and their commitment to providing the very best in patient care, advanced cardiac life support and CPR. But we can’t do it alone, bystander CPR prior to ambulance arrival can help improve chances of survival by as much as 45%.

To get involved and take a CPR course contact MCFR at (406)234-2235



Apparatus	Year	Mileage/Hours	Acquisition	Issues
Engine 9 pumper (28 years old)	1995	46,883 miles/1,530 hours (increase of 244 miles in 2022) 851 miles in 2021	Free through excess property grant	Corroded internal pump parts from saltwater intake in California, rear main gear box needs to be replaced \$15,000 Planned for 2023/24 budget year
Engine 8 pumper (23 years old)	2000	64,393 miles/6,932 hours (increase of 4,558 miles in 2022) 3,654 in 2021 4,715 in 2020 5,413 in 2019	Purchased used through FEMA grant	Pump-control computer problems, random electrical issues. Engine brake issue
Engine 7 pumper (35 years old)	1988	40,648* miles/5,043 hours (odometer broken) 150 miles estimate*	Purchased new	Illegal open cab seating, needs updated emergency lighting. Need to replace and put to reserve status
Truck 13 (17 years old)	2006	55,520 miles (increase 1,650 miles in 2022) Being put into service in 2023	Purchased used	Training program started
Tower 19 (30 years old)	1993	15,688 miles/4,411 hours Out of service	Purchased used with insurance money after last one was damaged at a fire	Out of Service – Replaced in 2022

Ambulance 26 (12 years old)	2011	139,815 miles (increase of 10,617 miles in 2022) 11,711 in 2021 6,770 in 2020	Purchased as refurbished ambulance	Beginning to have more and more problems from frequent use, replaced cot loading system in 2021
Ambulance 28 (5 years old)	2018	31,717 miles (increase of 8,836 miles in 2022) 7,534 in 2021 7,287 in 2020	Purchased new with a FEMA grant	None
Ambulance 20 (19 years old)	2004	255,043 miles (increase of 2,080 miles in 2022) 1,010 in 2021 504 in 2020	Purchased used as a demo unit	On its second engine and at the end of its life span Past replacement date
Ambulance 30 (5 years old)	2018	118,890 miles (increase of 16,923 miles in 2022) 20,847 miles in 2021 24,445 in 2020	Purchased new with help of a Coal- Board grant	High number of miles due to increased out-of-town transfers Replacement is needed next year
Command 275 (21 years old)	2002	142,658 miles (increase of 6,083 miles in 2022) 7,879 in 2021 3,790 in 2020	Purchased new in 2002	Beginning to have minor mechanical issues Past replacement date
Command 350 (29 years old)	1994	132,904 miles (increase of 47 miles in 2022) 113 in 2021 106 in 2020	Donated as a used vehicle	Has mechanical issues and is not reliable as an emergency response vehicle – taken out of service Past replacement date
Command 293 (19 years old)	2004	Miles 75,710 (increase of 7,616 miles in 2022) 2,892 in 2021 2,655 in 2020	Purchased used from City water department	Has minor issues Need to replace in 3 years
Investigation 467 (20 years old)	2003	95,885 miles (estimate increase for 2022 is 500 miles)	Donated from Helena Fire Department 2021	Has minor issues Need to replace in 5 years
Rescue 1 (16 years old)	2007	141,327 miles (increase of 138 miles in 2022) 151 in 2021 377 in 2020	Purchased used	Needs new front tires next budget year
URV (11 years old)	2012	1,694 miles (increase of 166 miles in 2022) 92 in 2021	Donated	Is in good shape Replacement plan in the next 7 years

		346 in 2020		
Zodiac Raft	Unknown	Out of Service (unsafe)	Purchased by the firefighters with personal money	Need to replace
Tender 23 (40 years old)	1983	Out of Service (unsafe)		Major mechanical issues and water tank will not hold water Applied for FEMA grant to replace (unsuccessful)
DEQ oil spill containment Hazmat Trailer	2012		Donated	None – checked by DEQ in 2022
Special Operations/Hazmat Response Trailer	2007			None
State of Montana EMS/MCI Trailer	2004		Was given to MCFR for regional EMS incidents	Being upgraded by State of Montana EMS bureau
Engine 2 Parade Vehicle American LaFrance Chemical Truck (105 years old)	1918		An apparatus of historical significance to Miles City would be an excellent restoration project and show piece	In need of repair of coolant system and storage/up keep.
Air Trailer	2019		Purchased new from FEMA grant	No issues

Total miles traveled by MCFR vehicles in the year 2022 = **59,534**, just over 2 times around the earth. Miles traveled does not reflect total fuel used by idle time on scene, fire pump engaged time, vehicle checks, and fire-pump testing program.

2021 = 57,392 total miles

2020 = 52,677 total miles



FACILITIES



MCFR Fire Station:

Miles City Fire is located at 2800 Main Street in Miles City and has been at this location since the 1970's. Our current building was originally used as a farm implement building that was built in the 1950's. It was designed to house light weight farm equipment, and never designed to be a fire station or have people living in it. In the 1960's to early 1970's it was used as the Miles Community College Vo-tech. Miles City Fire Rescue moved in to the building as a fire station in the late 1970's and the remodel construction was done by the firefighters themselves. Currently the City is looking at Preliminary Architectural Reports for a new fire station.

Housing Units:



Housing units have been purchased by a grant from TC Energy and current house the firefighters while on duty. The City building inspector and the insurance carrier for the City will not allow the firefighters to live in the damaged portion of the

station. The housing units are a temporary fix and will not sustain daily living for a long term solution. The sewer lines for these housing units are not working and several other issues are starting to arise from long term use. These units are only a temporary fix and will not last.

Fire Training Center:



Our fire training center sits on the property at the fire station. The fire training center was upgraded with a new support beam in the fall on 2019 and has served us well. The current P.A.R. and design of a new fire station will not allow enough room on site for the fire training center and a fire station. We have found an alternative location for the training center, with help from the City Council and the Water Department.

Storage Facilities:

With the damaged station, we have secured a temporary storage for fire trucks in the event of a collapse. The storage location was generously given to the department at a reduced cost. Several pieces of equipment are being stored at the storage facility.

EQUIPMENT

SCBA's

In 2019 MCFR was able to upgrade our Self Contained Breathing Apparatus with the help of an AFG FEMA grant for \$222,000. All 24 SCBA's and extra bottles where replaced with this grant.

Hose



Several sections of old hose were placed out of service in 2022. Some of the hose had been dated back to the 1960's. MCFR is planning on updating our old hose over a period of several years to bring us up to current standards.

Radios



Several handheld radios needed to be upgraded in 2021. We are planning on replacing more of these units in 2023.

Extrication gear

Our auto extrication gear and equipment was upgraded and replaced in 2022. The life span of this replacement is 10 years.

Computers

Several tablets were able to be upgraded and replaced in 2022. We are planning on replacing all of the outdated computers over a three year period.

EMS cots



Several of our EMS cots and mounting systems for the ambulances got replaced in 2020 with a reimbursement program through the State of Montana CARESACT. The outdated equipment was in need of replacement, including an ambulance cot that was over 25 years old. Cots are an important tool we use to lift and move patients safely. An unsafe cot can cause back injuries to employees resulting in costly workers compensation claims.

Website

www.milescityfirerescue.com

Our website was revamped in 2020 and updated. Our new website was designed and managed by Dawn Kanduch and she has done a terrific job with our website.

CALL VOLUME AND BREAKDOWN



Total call volume for year 2022: **1,642**

Total call volume previous year (2021): **1,703**

Difference: **61** less calls in 2022

Total call volume 10 years ago 2012: **1,402**

Difference: **240** more calls a year

May 2021 was the busiest month for emergency calls, with (195) and September being the slowest, with (109) emergency calls. The busiest days of the week are Monday through Thursday, 8 a.m. to 6 p.m.

Breakdown of calls:

1	Search and Rescue
2	Kitchen fires
4	Vehicle fires
4	Contract fires
5	Hazmat responses
6	County Assists
7	Structure fires
10	Investigations
10	Grass fires
26	Event or rodeo standby's
32	Interfacility medical transfers
43	Motor vehicle crashes
50	Inspections
67	Other (Pt assist, false call, education etc.)
69	City fire alarms
74	Public assists, public service, CO checks
84	EMS transports to Billings, MT, or other towns
168	EMS flight team transports
980	911 medical calls
1,642	Total calls

Area breakdown of calls:

227 County EMS response
1,167 City EMS response or transfers
248 Fire related calls

Calls per day breakdown:

1,642 total = 4.49 calls per day 2022
1,703 total = 4.66 calls per day 2021
1,521 total = 4.16 calls per day 2020
1,686 total = 4.61 calls per day 2019
1,592 total = 4.36 calls per day 2018
1,428 total = 3.91 calls per day 2017

10 years ago
1,326 total = 3.63 calls per day 2010

29 to 30 years ago
792 total = 2.16 calls per day 1991

49 to 50 years ago
357 total = 0.97 calls per day 1971

69 to 70 years ago
101 total = 0.27 calls per day 1951

102 years ago
51 total = 0.13 calls per day 1918
Less than 1 call per week

Breakdown of medical incident, complaint to dispatch:

Transfer/Interfacility request	11.84%
Falls	9.90%
Breathing problems	8.38%
Air-medical transfer	7.78%
Motor vehicle crash	6.26%
Weakness/lethargic	5.67%
Psych problem, suicide attempt	4.91%
Lift assist	3.64%
Abdominal pain	3.47%
Chest pain/cardiac	3.13%
General pain	3.13%
Seizure	2.62%
Unresponsive	2.45%
Altered mental status	2.12%
Nausea vomiting	1.86%

Sick person	1.35%
Assault	1.02%
Stroke/CVA	1.02%
Unknown problem/person down	0.93%
Traumatic injury	0.93%
Back pain	0.93%
Overdose	0.93%
Syncope	0.85%
Diabetic	0.68%
Fracture	0.68%
Bleeding	0.51%
Headache	0.51%
Epistaxis	0.51%
Cardiac arrest/death	0.42%
Alcohol withdrawal	0.42%
Medical alarm	0.42%
Hypotension	0.34%
Stab/gunshot wound/penetrating	0.34%
Fever	0.34%
Heart problem	0.34%
Allergic reaction	0.25%
Hemorrhage/laceration	0.25%
Urinary problem	0.25%
Head injury	0.17%
Cardiac dysrhythmia	0.17%
GI Bleed	0.17%
Choking	0.17%
Multiple casualty incident	0.17%
Burn/fire	0.17%
Burn/fire standby pt.	0.17%
Auto vs pedestrian	0.17%
Taser shock	0.17%
Motorcycle collision	0.17%
Heart/cold exposure	0.17%
Medication reaction	0.08%
Chronic illness	0.08%
Possible DOA	0.08%
Eye injury	0.08%
Well person check	0.08%
Cardiac arrest possible DOA	0.08%

INSURANCE SERVICES OFFICE



ISO Insurance rating Public Protection Classification (PPC) for the city of Miles City remains at a 4, which is categorized on a scale of 1 to 10 with one being the best. The rating helps lower commercial and residential insurance premiums.

<u>PPC</u>	<u>Points</u>
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	00.00 to 9.99

MCFR rating is **68.16** out of 105.5 total possible points (we are only 1.84 points away from a PPC of 3)

Miles City is set to be re-evaluated on our PPC/ISO score again in 2025, we can make some small adjustments and add some important pieces to score a 3 or better.

ISO collects information on municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data using our Fire Suppression Rating Schedule (FSRS). We then assign a Public Protection Classification from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates that the area's fire-suppression program doesn't meet ISO's minimum criteria.

Data collected and analysis

Emergency Communications 10% of total score

Fire Department 50% of total score

Water Supply System 40% of total score

For the Fire Department 50% score is based on:

<i>Engine Companies up to 6 points</i>	<i>MCFR score 4.5</i>
<i>Reserve Pumper up to 0.5 points</i>	<i>MCFR score 0</i>
<i>Pump Capacity up to 3 points</i>	<i>MCFR score 3</i>
<i>Ladder Truck up to 4 points</i>	<i>MCFR score 3.86</i>
<i>Reserve Ladder Truck up to 0.5</i>	<i>MCFR score 0</i>
<i>Deployment Analysis up to 10 points</i>	<i>MCFR score 6.70</i>
<i>Company Personnel up to 15 points</i>	<i>MCFR score 4.55</i>
<i>Training up to 9 points</i>	<i>MCFR score 4.27</i>
<i>Operational Considerations up to 2 points</i>	<i>MCFR score 2</i>

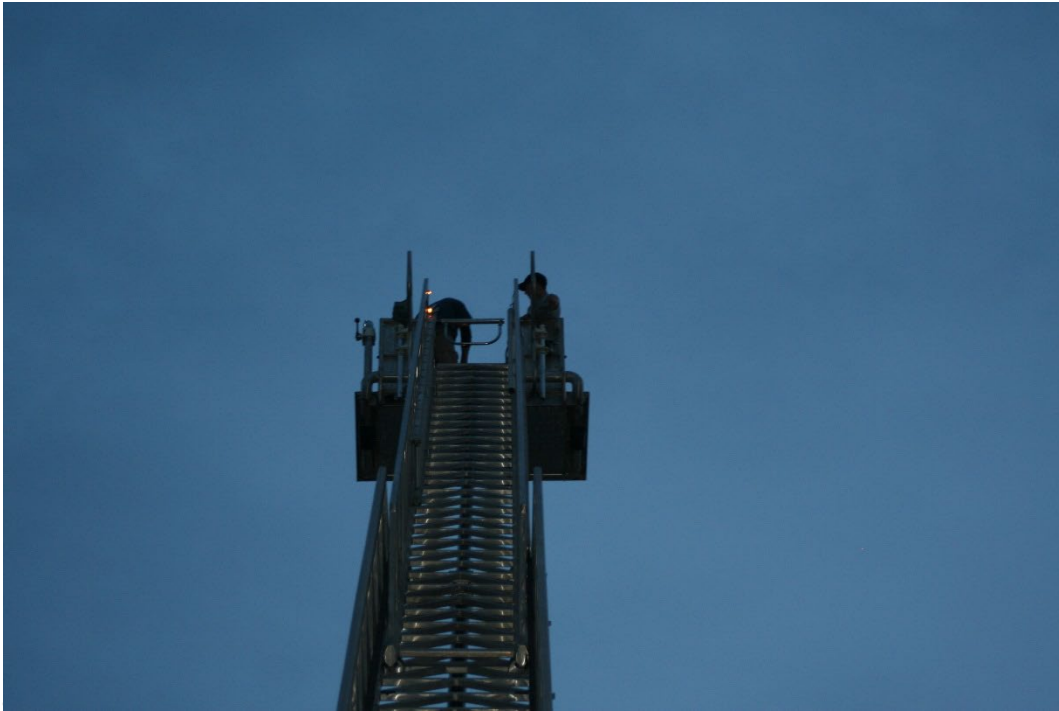
In addition to running emergency calls:

All Fire hose tested and maintained, fire engine pumps tested and maintained, all ladders tested and maintained. SCBA's and compressors are tested and maintained. Firefighters and EMS staff also participate in a continuous training program throughout the year. In 2022, 1,147 vehicle preventative maintenance checks performed, 72 burn permits issued, over 500 water towers filled.



(Miles City Firefighters delivering Toys for Tots)

CHALLENGES AND GOALS FOR 2023



- Staffing for out of town transfers will continue to be a major challenge for MCFR in 2023.
- Continued uninterrupted response from our station will also be a major challenge.
- Continue to search out and apply for grants for personnel and equipment.
- Increase our Cardiac Arrest survival rate.
- Our department technical rescue training will continue.
- Continue to work towards Advanced Life Support/Paramedic 24/7 response.
- Review and update Working Rules, Position Descriptions, and Policies.
- Review and update practices for improvement of ISO rating.
- Work together for better out comes for our citizens.