



Fire and EMS Analysis

Minot, ND
Mark Piland
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Center for Public Safety Management

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Significant Report Components

Data Analysis of Call Types and Workload

NFPA Compliance

Analysis of The 2017 Insurance Services Office (ISO) Report

Analysis of the Administrative and Operations Staff

Recommendations (32 total)

Methodology

Data Analysis

- Workload, Resiliency, Response Times

Interviews

- On-site January 22-24, 2024

Document Review

- Minot Provided

National Benchmarking

- National Fire Protection Association
- Insurance Services Organization
- Fire & EMS Best Practices

Key Observations/Findings

- MFD needs to review and address the deficiencies in the current ISO Report
 - Deployment Analysis
 - Company Personnel
- Fleet
 - Purchase an Engine/Pumper with Lead Time Considerations
- Administrative Staffing
 - Assistant Chief, Fire Marshal, Administrative Assistant

Key Observations/Findings

- Operational Staffing
 - The addition of three Firefighters for Ladder 5
 - Establish Engine 5 at Fire Station 5 to complement Ladder 5
 - Field Incident Technicians
- Begin Planning for Fire Staffing to Comply with NFPA 1710
 - Emergency Response Force (ERF) for Critical Tasking
 - Engine and Ladder Staffing

Key Observations/Findings

- Fire Education & Professional Development
 - Continue Opportunities with the National Fire Academy
 - Evaluate Position Certifications for Fire Prevention and Firefighters/Officers
 - Succession Planning
 - Begin The Fire Accreditation Process with New Staff Positions
- Response of Emergency Operations
 - Work to Improve Turnout Times
 - Work with 911 Communications to Improve Call Processing Times
 - Mutual Aid Agreements

The National Fire Protection Association (NFPA)

- NFPA plays a critical role in fire safety. Its codes and standards provide guidelines for the design, construction, and maintenance of buildings and other structures, as well as for the use of fire protection and life safety equipment.
- NFPA Standards are Consensus Standards
- However, it should be obvious how important compliance with NFPA standards can be when it comes to liability. For this reason, fire department policies, procedures, training and operations should align with NFPA standards to the greatest extent possible.

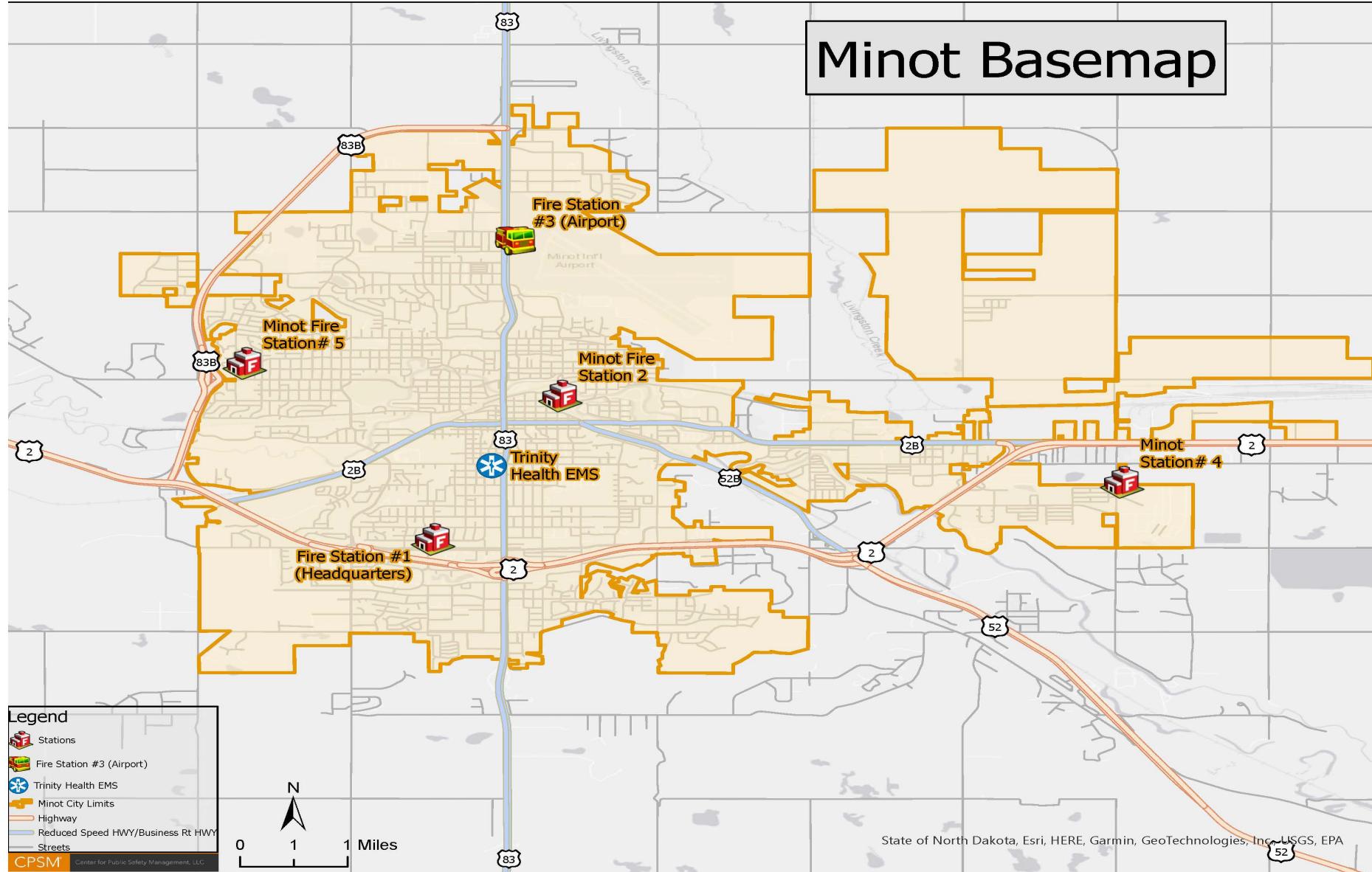
*Curt Varone, Can a Fire Department Be Sued for Not Meeting NFPA Standards?
August 19, 2019 LEXIPOL*

Fire Accreditation: CFAI

- According to The Center for Public Safety Excellence: Agency accreditation is an international recognition of achievement. It shows your community that your agency continually self-assesses, looks for opportunities for improvement, and is transparent and accountable through the application of a true third-party verification and validation process.
- Accreditation will benefit your agency internally by fostering pride among your members, community leaders, and citizens. It will also benefit you externally through the support of and networking with other accredited agencies.



Minot Basemap



Fire and EMS Calls

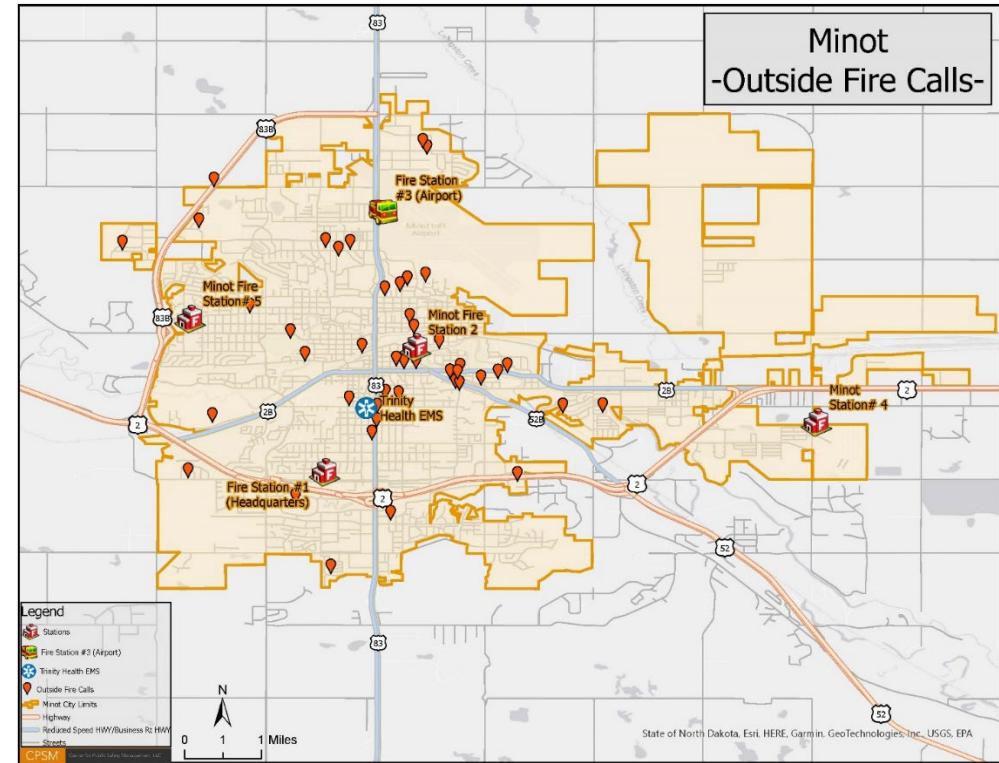
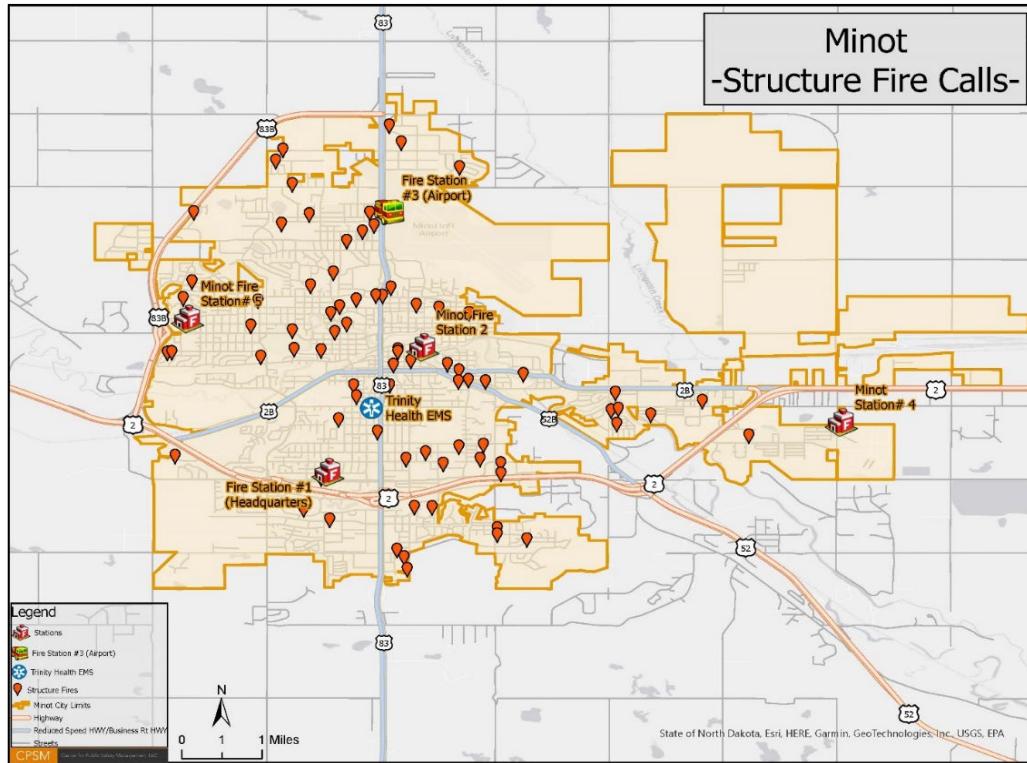
EMS 76% Fire 19%

Call Type	Total Calls	Calls per Day	Call Percentage
Medical and other	3,538	9.7	72.9
MVA	176	0.5	3.6
EMS subtotal	3,714	10.2	76.5
False alarm	400	1.1	8.2
Good intent	76	0.2	1.6
Hazard	186	0.5	3.8
Outside fire	47	0.1	1.0
Public service	95	0.3	2.0
Structure fire	83	0.2	1.7
Technical rescue	18	0.0	0.4
Fire subtotal	905	2.5	18.6
Canceled	211	0.6	4.3
Mutual aid	25	0.1	0.5
Total	4,855	13.3	100.0

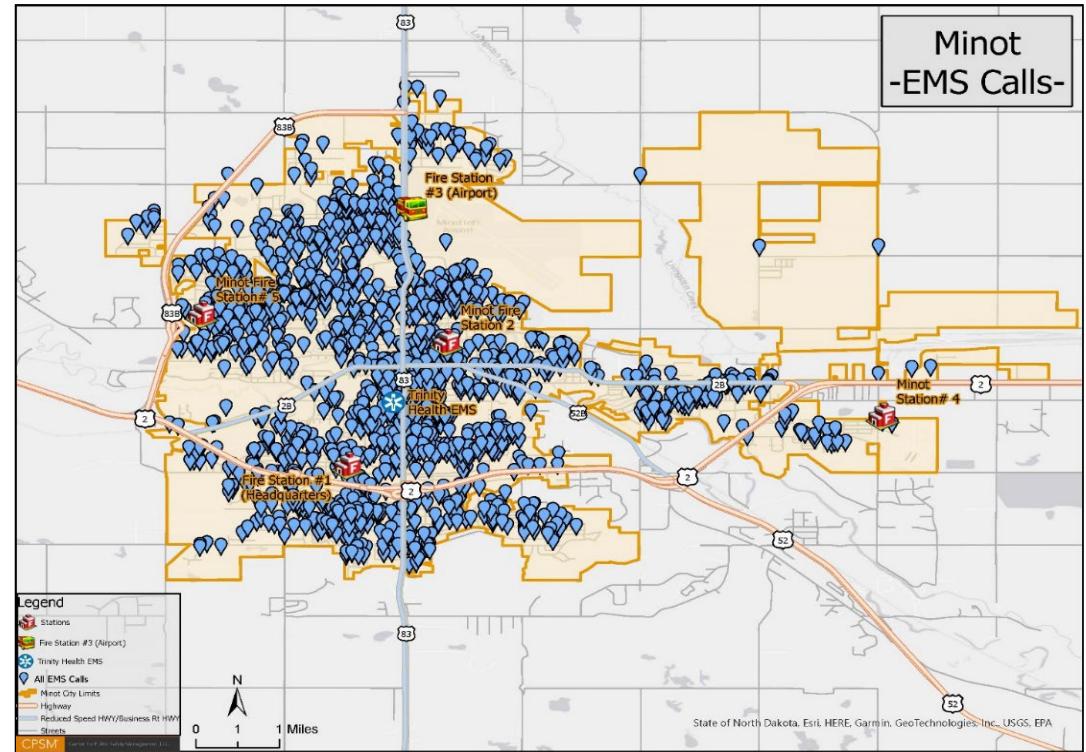
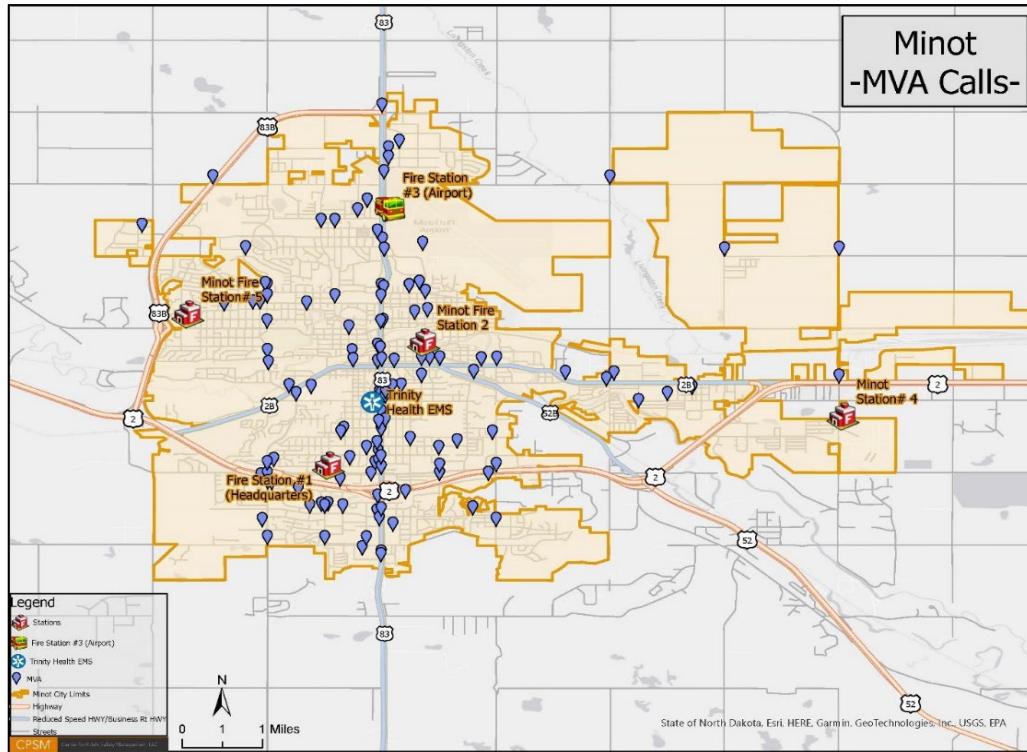
Fire and EMS Workload

Area	Calls	Percent Calls	Runs	Runs Per Day	Minutes Per Run	Work Hours	Percent Work	Minutes Per Day
MFD1	1,907	39.3	2,672	7.3	20.4	906.4	37.4	149.0
MFD2	1,650	34.0	2,295	6.3	20.2	774.3	32.0	127.3
MFD3	912	18.8	1,271	3.5	23.6	501.0	20.7	82.4
MFD4	290	6.0	379	1.0	26.3	165.8	6.8	27.3
MFD5*	71	1.5	92	0.3	22.2	34.1	1.4	5.6
MFD Subtotal	4,830	99.5	6,709	18.4	21.3	2,381.6	98.3	391.5
MRFD	19	0.4	40	0.1	37.8	25.2	1.0	4.1
Burlington	3	0.1	5	0.0	76.5	6.4	0.3	1.0
Sawyer	1	0.0	1	0.0	0.4	0.0	0.0	0.0
Surrey	1	0.0	3	0.0	33.1	1.7	0.1	0.3
Velva	1	0.0	3	0.0	164.0	8.2	0.3	1.3
Aid Given Subtotal	25	0.5	52	0.1	47.8	41.5	1.7	6.8
Total	4,855	100.0	6,761	18.5	21.5	2,423.1	100.0	398.3

Structural Fires



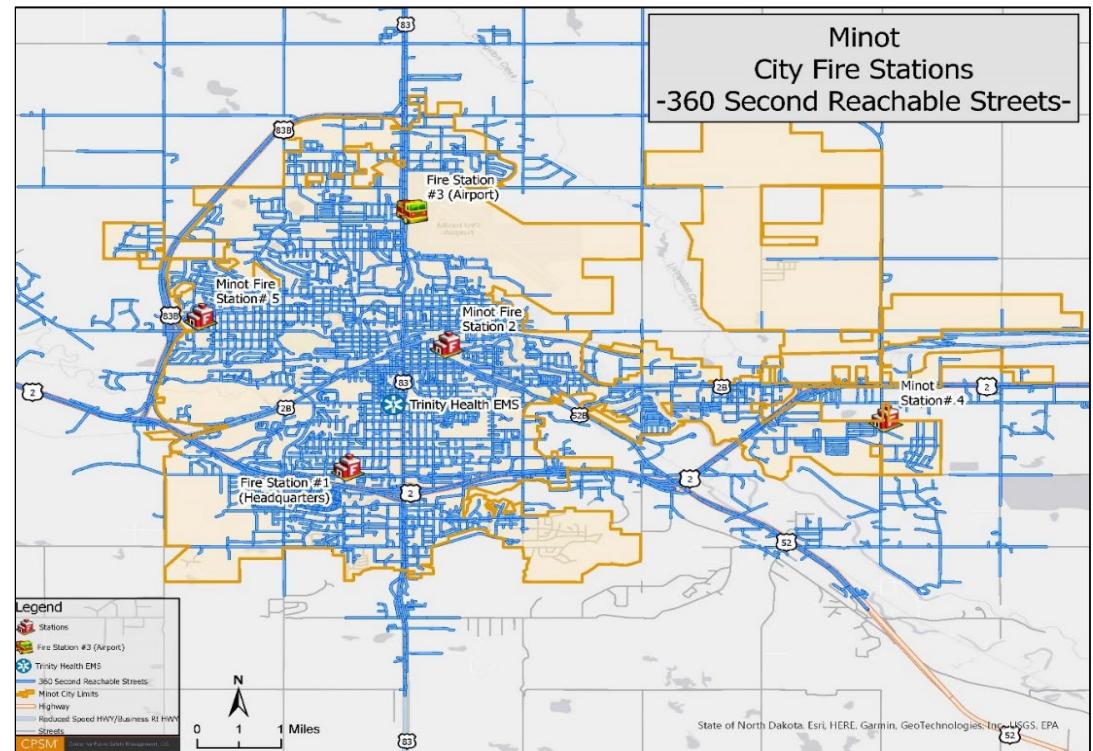
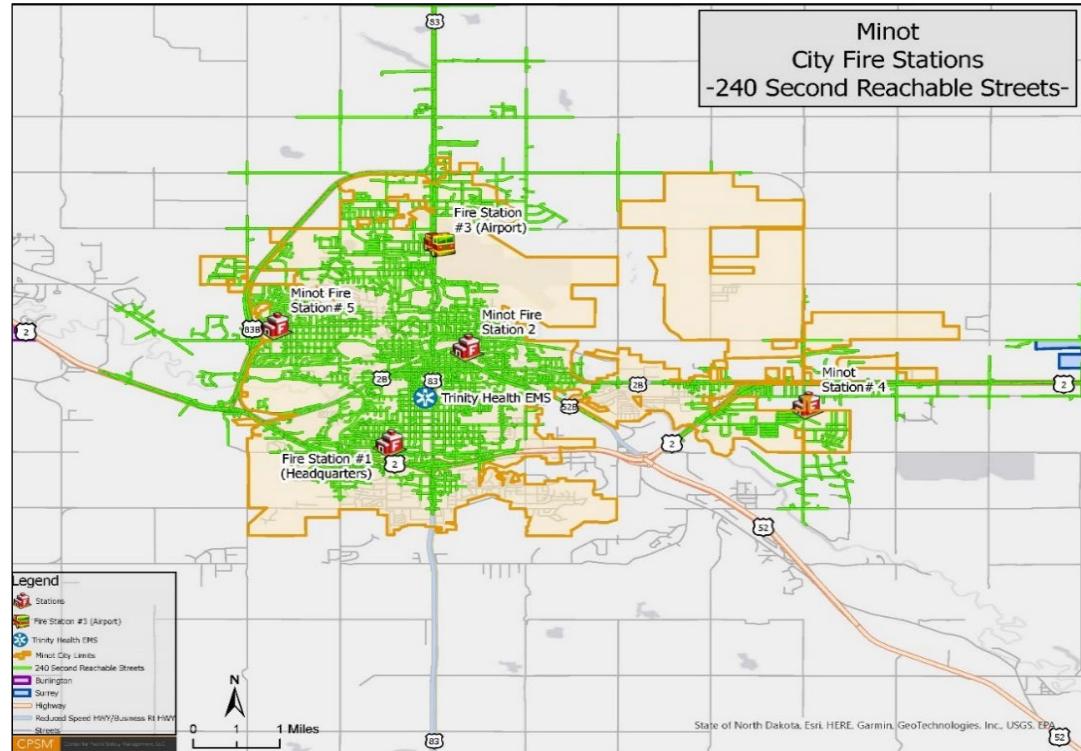
EMS Incidents



Average and 90th Percentile Response Time of First Arriving Unit, by Call Type

Call Type	Average Response Time				90th Percentile Response Time				Call Count
	Dispatch	Turnout	Travel	Total	Dispatch	Turnout	Travel	Total	
Medical and other	3.0	1.0	3.9	7.8	4.4	1.8	6.2	10.8	3,132
MVA	2.9	0.8	3.1	6.9	5.6	1.6	5.3	10.5	129
EMS subtotal	3.0	0.9	3.9	7.8	4.4	1.8	6.2	10.8	3,261
False alarm	1.9	1.0	3.7	6.7	3.2	1.9	6.5	10.0	308
Good intent	1.6	0.8	4.1	6.5	3.0	1.6	7.1	9.6	63
Hazard	2.4	0.9	4.2	7.5	3.6	1.9	8.1	11.9	133
Outside fire	2.2	0.8	3.4	6.4	3.0	1.4	5.6	8.3	36
Public service	3.5	0.8	3.6	7.9	7.5	1.9	5.9	12.1	57
Structure fire	1.8	1.1	3.4	6.2	2.6	1.7	5.6	8.8	72
Technical rescue	4.4	0.6	3.6	8.6	12.2	1.4	6.1	16.3	5
Fire subtotal	2.1	1.0	3.8	6.9	3.5	1.8	6.7	10.6	674
Total	2.8	0.9	3.8	7.6	4.3	1.8	6.2	10.8	3,935

RESPONSE TIMES



End of CPSM Presentation Questions and Discussion