STANDARDS OF COVER

Critical Tasking | Benchmarks Statements | Performance Gaps for Levels of Risk

Oshkosh Fire Department

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Emergency Services Consulting International

Helping Change the World, One Community at a Time

The following are recommendations for the Oshkosh Fire Department's standard of response cover to outline an expectation for services with the community. The document outlines varying levels of risk for emergency medical services, fire suppression, hazardous materials response, technical rescue, and water rescue. For each program of community risk reduction, the document identifies the critical tasks with each benchmark statement, the resources needed, the output of a three-axis risk scoring methodology, and the response time goals and performance gaps.

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Oshkosh Fire Department

2023 Staffing

Unit Name	Station	Minimum Staffing	Paramedic Level of Care	Staffed 24/7
Engine 14	Station 14	3	Yes	Yes
Engine 15	Station 15	3	Yes	Yes
Ladder 15	Station 15	3	Yes	Yes
Medic 15	Station 15	2	Yes	Yes
Car 15	Station 15	1	No	Yes
Engine 16	Station 16	3	Yes	Yes
Medic 16	Station 16	2	Yes	Yes
Quint 17	Station 17	3	Yes	Yes
Medic 17	Station 17	2	Yes	Yes
Engine 18	Station 18	3	Yes	Yes
Engine 19	Station 19	3	Yes	Yes
	Daily Staffing:	**28**		

RISK SCORE METHODOLOGY & DEFINITIONS

Probability of Occurrence & Consequence to the Community:

The Oshkosh Fire Department uses the last five years of response data to determine the likelihood of occurrence. The three-axis model uses a numeric score based on the definitions below. Additionally, the department subjectively assigns a consequence score based on the definitions outlined below.

PROBABILITY SCORING	
1	Less than Annually
2	Annually
3 4	Quarterly
5 6	Monthly
7 8	Weekly
9	Daily
10	Multiple Times Daily

CONSEQUENCE SCORING	
1	One Person
2	One Household
3	Single Business Interruption - One-Day
4	Single Business Interruption - 2-7 Days
5	Multiple Businesses or Households Impacted
6	Neighborhood-wide Impact
7 8	City-wide Impact
9 10	Region-wide Impact

Impact on the Oshkosh Fire Department:

The department calculates the impact score by dividing the staff resources assigned by the department's minimum staffing then multiplied by 10. This method provides a result on a ten-point scale and aligns with the practices of the other two axes.

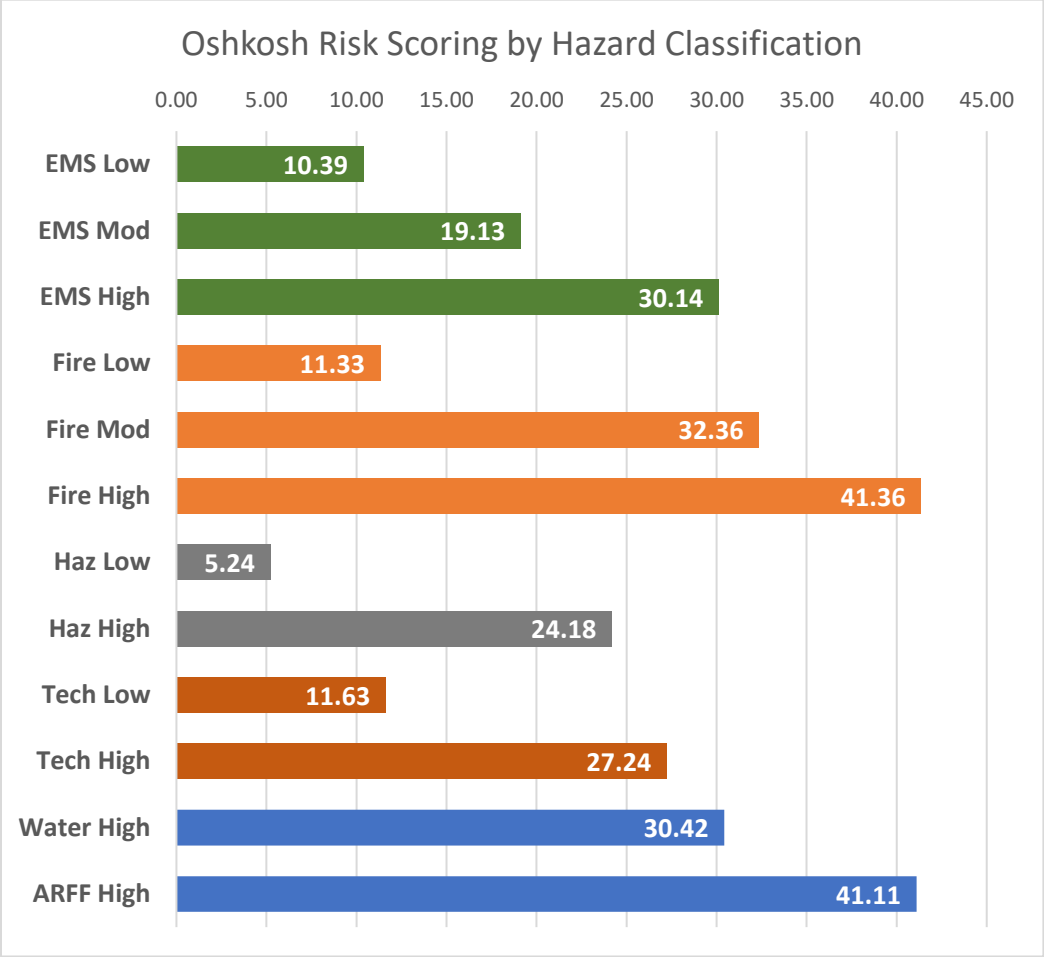
(Staff Assigned to Incident / Minimum Staffing) x 10 = Impact Score

Three-Axis Risk Scoring Model

The Oshkosh Fire Department uses the three-axis scoring methodology. This method uses the square root of each risk element value to determine the "surface area." The surface area value then becomes the risk's numeric value.

Square Root of $((Prob^2 \times Cons^2/2) + (Cons^2 \times Imp^2/2) + (Prob^2 \times Imp^2/2)) = Risk\ Score$

The scores derived from this method indicate the level of risk associated with certain types of incident responses. The scores are sorted into three different risk classifications: Low, Moderate, and High risk. The figure below shows the score ranges for each type.



2023 DAILY RESOURCE LEVELS & STAFFING LEVELS

Unit	Type	Station	Daily Staffing
CRASH 1	Rescue	Station 14	0
CRASH 2	Crash Truck	Station 14	0
CRASH 3	Crash Truck	Station 14	0
Boat 215	Inflatable	Station 15	0
Car 14	Reserve	Station 15	0
Car 15	Command	Station 15	1
Dive 17	Utility	Station 17	0
Engine 14	Engine	Station 14	3
Engine 15	Engine	Station 15	3
Engine 16	Engine	Station 16	3
Engine 18	Engine	Station 18	3
Engine 19	Engine	Station 19	3
G119	Grass/Brush	Station 19	0
H119	HazMat	Station 19	0
Husky 15	Air Boat*	Station 15	0
Ladder 15	Aerial	Station 15	3
Medic 15	ALS Ambulance	Station 15	2
Medic 16	ALS Ambulance	Station 16	2
Medic 17	ALS Ambulance	Station 17	2
Medic 214	Cross Staff Ambulance	Station 14	0
Medic 216	Cross Staff Ambulance	Station 16	0
Medic 218	Cross Staff Ambulance	Station 18	0
Medic 219	Cross Staff Ambulance	Station 19	0
Quint 17	Quint	Station 17	3
Reserve 1	Engine	Station 18	0
Reserve 2	Engine	Station 19	0
Reserve 3	Quint/Ladder	Station 19	0
SC116	Spec Ops	Station 16	0
U119	Rehab	Station 19	0
		Minimum Daily Staffing:	**28**

*During the winter months, Husky 15 is stored in-service at Station 15. During the off-season, the boat is stored at the county sheriff's facility.

EQUIPMENT SHARING AGREEMENT

The Agreement between the fire departments of Appleton, Fox Crossings, Grand Chute, Kaukauna, and Oshkosh focuses on creating a system for temporary sharing of motor vehicles, equipment, tools, and machinery to improve operational efficiency and effectiveness. The Parties will offer each other access to specified equipment according to the terms of this Agreement. This Agreement is effective from August 1, 2023, to December 31, 2024, requiring approval from all participating municipalities. A detailed procedure is set, covering aspects such as equipment availability, usage terms, designated liaisons for coordination, fee structures, equipment condition, and responsibility for maintenance and repair. There is a strong emphasis on ensuring safety, with provisions to ensure that equipment is in good condition, is used by qualified individuals, and undergoes regular checks. An attachment lists the types of equipment covered, which includes fire apparatus, ambulances, specialized vehicles, medical goods, training props, communication gear, and more.

EMERGENCY MEDICAL SERVICES

In 2022, the exceptional efforts of the Oshkosh Fire Department were recognized by the Wisconsin EMS Association, earning them the prestigious EMS Service of the Year title at the Excellence in Service Awards. The department's rescuers were commended for their unwavering commitment, dedication, and willingness to go above and beyond the call of duty.

Under the guidance of the Medical Director and the vigilant oversight of the EMS Division, the Oshkosh Fire Department assumes the responsibility of providing essential medical care to those in need. Their highly trained paramedics deliver advanced pre-hospital care, or Advanced Life Support (ALS). Working in conjunction with fire trucks, ambulances stationed at several of the city's six fire stations ensure swift and efficient medical assistance to the citizens of Oshkosh. Each ambulance is staffed with two firefighter/paramedics, and three primary ambulances are always prepared and ready to respond promptly. If all three primary ambulances are engaged, the fire trucks in Oshkosh are likewise staffed with paramedics. This allows for the seamless coordination of care, even during periods of high demand. A Battalion Chief monitors call volumes city-wide, ensuring that Oshkosh maintains the capacity to respond to any medical or fire emergency that may arise.

To mitigate high-demand times, OFD utilizes a cross-staffing model at four stations (14, 16, 18 and 19). When the three primary OFD ambulances are unavailable for calls, a cross-staff ambulance (either M214, M216, M218, M219) will be deployed from the closest station depending on incident location and availability. This reduces the capability of the department to respond to a fire incident should one occur while a cross-staff ambulance is deployed.

The Oshkosh Fire Department's responsibilities extend beyond city limits, as they respond to emergency and non-emergency medical calls in neighboring cities, townships, and villages. This collaborative effort is facilitated through an Ambulance Service Agreement, demonstrating the department's commitment to serving a wider community. OFD serves as the primary EMS transport provider to a large portion of Winnebago County.

Furthermore, the EMS Division actively engages in a comprehensive Quality Assurance/Quality Improvement program for medical calls. Each shift has an EMS Coordinator who diligently reviews patient care reports, collects vital data, identifies trends, provides ongoing education, and mentors new employees. Utilizing the Just Culture™ format, emergency medical calls undergo peer reviews to continually seek opportunities for quality assurance and improvement in their care delivery.

Apparatus & Staff Resources

Table 1: EMS Staffing

Unit	Type	Station	Daily Staffing
Engine 14	Engine	Station 14	3
Engine 15	Engine	Station 15	3
Engine 16	Engine	Station 16	3
Engine 18	Engine	Station 18	3
Engine 19	Engine	Station 19	3
Ladder 15	Ladder	Station 15	3
Quint 17	Quint	Station 17	3
Medic 15	ALS Ambulance	Station 15	2
Medic 16	ALS Ambulance	Station 16	2
Medic 17	ALS Ambulance	Station 17	2
Medic 214	Cross Staff Ambulance	Station 14	0
Medic 216	Cross Staff Ambulance	Station 16	0
Medic 218	Cross Staff Ambulance	Station 18	0
Medic 219	Cross Staff Ambulance	Station 19	0

Recommended Response Performance Goals

Measure	2023 Goal	Sample Risk	Justification
Alarm Handling	1:00	All Risk	NFPA 1710
Turnout Time	1:00	All Risk	NFPA 1710
1st Unit Travel Time	15:00	BLS	OFD Specific
1st Unit Travel Time	4:00	ALS	NFPA 1710

Emergency Medical Services – Low Risk

Low-risk EMS are those medical calls for service that the emergency medical dispatch process determines are non-emergency. Examples of low-risk EMS incidents may include ground-level falls without injury, general illness, low-acuity abdominal pain, and those incidents classified by ProQA as Alpha and Omega.

CRITICAL TASK	REQUIRED STAFF
Primary Patient Care & Incident Command	1
Vehicle Operations	1
Effective Response Force:	**2**

RESOURCE DEPLOYMENT	MINIMUM STAFFING
Ambulance (or Engine)	2 (3)
Total Personnel:	**2 (3)**

THREE-AXIS RISK SCORE	
Probability of Occurrence	10
Consequence to Community	1
Impact on Fire Department	1
SCORE:	**10.39**

BENCHMARK STATEMENTS – LOW RISK

For 90% of low-risk emergency medical responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least two paramedics, shall be 15 minutes.

The first arriving unit for low-risk emergency medical responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Obtaining vitals and administering emergency medical patient care;
- Assessing the need for additional resources;
- Deploying external defibrillation;
- Performing cardiopulmonary resuscitation (CPR);
- Initiating advanced life support measures; and
- May provide patient transport to the closest appropriate facility.

The response model achieves the effective response force with the first arriving unit.

Emergency Medical Services – Moderate Risk

Moderate-risk EMS are those medical calls for service that the emergency medical dispatch process determines are emergent. Examples of moderate-risk EMS incidents may include chest pain, difficulty breathing, stroke, and those incidents classified by ProQA as Bravo, Charlie, Delta.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Primary Patient Care Provider	1
Secondary Patient Care Provider	1
Vehicle Operations	2
Effective Response Force:	**5**

RESOURCE	MINIMUM STAFFING
ALS Ambulance	2
Suppression Apparatus	3
Total Personnel:	**5**

THREE-AXIS RISK SCORE	
Probability of Occurrence	10
Consequence to Community	2
Impact on Fire Department	2
SCORE:	**19.13**

BENCHMARK STATEMENTS – MODERATE RISK

For 90% of moderate-risk emergency medical responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least two paramedics, shall be 6 minutes.

The first arriving unit for moderate-risk emergency medical responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Obtaining vitals and patient medical history;
- Administering advanced life support patient care;
- Deploying external defibrillation; and
- Performing cardiopulmonary resuscitation (CPR).

For 90% of moderate-risk emergency medical responses in the area of responsibility, the total response time for the arrival of all fire and other EMS units and personnel necessary to complete the first-alarm assignment, otherwise referred to as the Effective Response Force (ERF), shall be 8 minutes.

The effective response force for moderate-risk emergency medical response shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Obtaining vitals and patient medical history;
- Administering advanced life support patient care;
- Deploying external defibrillation;
- Performing cardiopulmonary resuscitation (CPR);
- Assisting transport personnel with packaging the patient;
- Providing advanced life support; and
- Providing patient transport to the closest appropriate facility.

Emergency Medical Services – High Risk

High-risk EMS are those medical calls for service that the emergency medical dispatch process determines are life-threatening. Examples of high-risk EMS incidents may include cardiac arrest, shootings, stabbings and those incidents classified by ProQA as Echo.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Primary Patient Care Provider	1
Secondary Patient Care Provider	1
Medical Equipment Operator	1
Vehicle Operations	1
Effective Response Force:	**5**

RESOURCE	MINIMUM STAFFING
ALS Ambulance	2
OFD Suppression Apparatus	3
Total Personnel:	**5**

THREE-AXIS RISK SCORE	
Probability of Occurrence	9
Consequence to Community	4
Impact on Fire Department	2
SCORE:	**30.14**

BENCHMARK STATEMENTS – HIGH RISK

For 90% of high-risk emergency medical responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least two paramedics, shall be 6 minutes.

The first arriving unit for high-risk emergency medical responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Obtaining vitals and patient medical history;
- Administering advanced life support patient care;
- Deploying external defibrillation; and
- Performing cardiopulmonary resuscitation (CPR).

For 90% of high-risk emergency medical responses in the area of responsibility, the total response time for the arrival of all fire and other EMS units and personnel necessary to complete the first-alarm assignment, otherwise referred to as the Effective Response Force (ERF), shall be 8 minutes.

The effective response force for high-risk emergency medical response shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Obtaining vitals and patient medical history;
- Administering advanced life support patient care;
- Deploying external defibrillation;
- Performing cardiopulmonary resuscitation (CPR);
- Assisting transport personnel with packaging the patient; and
- Providing patient transport to the closest appropriate facility.

FIRE SUPPRESSION

The Oshkosh Fire Department operates out of six strategically located fire stations located throughout the city service area. All but one station is equipped with a pumper (designated as "Engine") with a 750 gallon booster tank (capacity) and a 1,500 gallon per minute (gpm) pump. Station 17 is equipped with a Quint with a 500 gallon booster tank and 1,500 gpm pump. The department has a total of 115 authorized personnel with twenty-eight operational personnel designated as minimum staffing. The table below shows the department's frontline apparatus. The table excludes the department's small complement of reserve apparatus.

The department follows the National Incident Management System for incident command and uses a commercial command process for the deployment of incident command. Company officers are used as initial incident commanders, and command is often passed to the first arriving chief officer.

Table 2: Fire Suppression Staffing

Unit	Type	Station	Daily Staffing
Engine 14	Engine	Station 14	3
Car 15	Command	Station 15	1
Engine 15	Engine	Station 15	3
Ladder 15	Aerial	Station 15	3
Medic 15	ALS Ambulance	Station 15	2
Engine 16	Engine	Station 16	3
Medic 16	ALS Ambulance	Station 16	2
Quint 17	Quint	Station 17	3
Medic 17	ALS Ambulance	Station 17	2
Engine 18	Engine	Station 18	3
Engine 19	Engine	Station 19	3

Battalion Chief Staffing Model

The Oshkosh Fire Department operates its Field Command Staff with Four Battalion Chief positions. Three positions are Shift Supervisors that work a 24-hour schedule. They handle all the daily operational supervision and command of large incidents. The fourth position is an Administrative Battalion Chief. This Chief position has a dual role and function. The Administrative Battalion Chief works a split work week. They will work three regular 8-hour days and then will work a 24-hour shift (currently Thursdays) to provide relief for the regular shift battalions. The Administration Battalion Chief position will also handle special projects as they are needed within the department. Depending on the expertise and background, this Administration Battalion Chief can be filled with any of the four Battalion Chiefs.

Table 3: Fire Suppression Resources

Resource	Location	Model	Year	Pump	Tank	Aerial Length
E14	Station 14	Pierce Quantum	2006	1500	750	
E15	Station 15	Pierce Velocity	2023	1500	750	
E16	Station 16	Pierce Quantum	2009	1500	750	
E18	Station 18	Pierce Velocity	2023	1500	750	
E19	Station 19	Pierce Velocity	2021	1500	750	
L15	Station 15	Pierce Quantum	2016	1500	500	105’
Q17	Station 17	Pierce Quantum	2016	1500	500	105’
C15	Car 15	Ford F150	2017	N/A	N/A	

*Engine 16’s authorized tank capacity is reduced to 575 gallons because of axle weight limits.

Recommended Response Performance Goals

Measure	2023 Goal	Sample Risk	Justification
Alarm Handling	1:00	Moderate	NFPA 1710
Turnout Time	1:20	Moderate	NFPA 1710
1st Unit Travel Time	4:00	Moderate	NFPA 1710
ERF Travel Time	8:00	Moderate	NFPA 1710

Fire Suppression – Low Risk

Low-risk fire incidents are those emergent calls for service that are unlikely to cause injury or significant property damage. Examples of low-risk fire incidents may include unoccupied vehicles, trash, brush, and other non-structural fires not close to a building.

CRITICAL TASK	REQUIRED STAFF
Attack Hoseline Deployment	2
Vehicle Operations	1
Effective Response Force:	**3**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Total Personnel:	**3**

THREE-AXIS RISK SCORE	
Probability of Occurrence	7
Consequence to Community	2
Impact on Fire Department	1
SCORE:	**11.33**

BENCHMARK STATEMENTS – LOW RISK

For 90% of low-risk fire responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be 6 minutes and 20 seconds.

The first arriving unit for low-risk fire responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for and requesting additional resources as needed;
- Providing 1,500 GPM water pumping capacity; and
- Advancing a charged fire suppression attack hose line for fire control or rescue.

The response model achieves the effective response force with the first arriving unit.

Fire Suppression – Moderate Risk

Moderate-risk fire incidents are those calls for service that are unlikely to cause injury or significant property damage. Examples of moderate-risk fire incidents may include single-family homes, utility facilities, small commercial & business occupancies, and storage facilities.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Water Supply	1
Attack Hoseline Deployment	2
Secondary Hoseline Deployment	2
Support Position - Ventilation – Utility Control – Forced Entry	3
Support Position – RIC	3
Search & Rescue	2
Aerial Operations	1
Medical Assistance & Rehab	2
Effective Response Force:	**17**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Aerial Apparatus	3
Ambulance	2
Battalion Chief	1
Total Personnel:	**18**

THREE-AXIS RISK SCORE	
Probability of Occurrence	5
Consequence to Community	4
Impact on Fire Department	6
SCORE:	**32.36**

BENCHMARK STATEMENTS – MODERATE RISK

For 90% of moderate-risk fire responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be 6 minutes and 20 seconds.

The first arriving unit for moderate-risk fire responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for and requesting additional resources as needed;
- Providing 1,500 GPM water pumping capacity; and
- Advancing a charged fire suppression attack hose line for fire control or rescue.

For 90% of all moderate-risk structure fire responses within the area of responsibility, the total response time for the arrival on scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds.

The effective response force for moderate-risk fire responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Establishing an incident command system;
- Providing an uninterrupted water supply;
- Advancing a charged fire suppression attack hose line and a backup line for fire control;
- Complying with the OSHA requirements of two-in and two-out;
- Completing forcible entry;
- Searching and rescuing at-risk victims;
- Ventilating the structure;
- Controlling utilities; and
- Placing elevated master streams into service from aerial apparatus.

Fire Suppression – High Risk

High-risk fire incidents are those calls for service that are likely to cause injury or significant property damage. Examples of high-risk fire incidents may include multi-family occupancies, places of assembly, high-rise buildings, academic, athletic, and health buildings, industrial buildings, mixed-use, and railway emergencies.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Water Supply	1
Primary & Secondary Attack Hoseline Deployment	4
Support Functions – Ventilation – Utility Control – Forced Entry	2
Search & Rescue	4
Aerial Operations	2
On-Deck Crew & Rapid Intervention Crew	2
Medical Assistance & Rehab	2
Effective Response Force:	**18***

*The NFPA Standard 1710 recommends twenty-eight personnel deployed on the initial response.

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Aerial Apparatus	3
Ambulance	2
Battalion Chief	1
Total Personnel:	**18**

THREE-AXIS RISK SCORE	
Probability of Occurrence	5
Consequence to Community	6
Impact on Fire Department	6
SCORE:	**41.36**

BENCHMARK STATEMENTS

For 90% of high-risk fire responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be 6 minutes and 20 seconds.

The first arriving unit for high-risk fire responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for and requesting additional resources as needed;
- Providing 1,500 GPM water pumping capacity;
- Advancing a charged fire suppression attack hose line for fire control or rescue; and
- Initiating other fire ground operations in accordance with department policies and procedures.

For 90% of all high-risk structure fire responses within the area of responsibility, the total response time for the arrival on the scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes and 20 seconds.

The effective response force for high-risk fire responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Establishing an incident command system;
- Providing an uninterrupted water supply;
- Advancing a charged fire suppression attack hose line and a backup line for fire control;
- Complying with the OSHA requirements of two-in and two-out;
- Completing forcible entry;
- Searching and rescuing at-risk victims;
- Ventilating the structure;
- Controlling utilities; and
- Placing elevated master streams into service from aerial apparatus.

HAZARDOUS MATERIALS

The Oshkosh Fire Department Hazardous Materials Response Team, is a regional type 2 HazMat team in the State of Wisconsin. They also serve as the primary HazMat team for Winnebago and Green Lake Counties. To ensure preparedness for potential hazardous materials incidents in the area, OFD HazMat members undergo continuous training, encompassing both commonly encountered hazardous materials and emerging threats.

The team receives excellent support and is well-equipped with state-of-the-art monitoring, detection, and mitigation equipment. Their dedicated hazmat response vehicles, Hazmat 119 and 219, are stationed at Station 19. Notably, in 2022, the team acquired QRAE 3 meters, further enhancing their monitoring capabilities.

Apparatus & Staff Resources

Unit	Type	Location	Daily Staffing
H119	HAZMAT Truck	Station 19	0
H219	Utility Truck	Station 19	0

Recommended Response Performance Goals

Measure	2023 Goal	Sample Risk	Justification
Alarm Handling	1:00	Low	NFPA 1710
Turnout Time	1:20	Low	NFPA 1710
1st Unit Travel Time	4:00	Low	NFPA 1710
ERF Travel Time	8:00	High	NFPA 1710

Hazardous Materials – Low Risk

Low-risk hazardous materials incidents are those calls where the situation is usually limited to a specific location and only necessitates the evacuation of the affected building or its immediate surroundings. There's no need for specialized chemical protective attire or equipment for these incidents.

CRITICAL TASK	REQUIRED STAFF
Incident Command & Safety Officer	1
Leak & Spill Control	2
Effective Response Force:	**3**

RESOURCE	MINIMUM STAFFING
Engine	3
Total Personnel:	**3**

THREE-AXIS RISK SCORE	
Probability of Occurrence	3
Consequence to Community	1
Impact on Fire Department	2
SCORE:	**5.24**

BENCHMARK STATEMENTS – LOW RISK

For 90% of low-risk hazardous materials responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for low-risk hazardous materials responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Evacuating immediate and adjacent areas; and
- Isolating and controlling access to high-hazard areas. .

The response model achieves the effective response force with the first arriving unit.

Hazardous Materials – High Risk

High-risk hazardous materials incidents are those calls encompassing a more significant hazard or broader area, posing a potential risk to lives or property. This might necessitate a partial evacuation or protective measures for the adjacent area. Using specialized chemical protective attire and monitoring/sampling tools could be essential.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Safety Officer	1
Research & Referencing	2
Entry Teams - Leak & Spill Control	2
Backup Team	2
Decontamination	2
Medical Support	2
Effective Response Force:	**12**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	2
HazMat 119	1
Ambulance	2
Battalion Chief	1
Total Personnel:	**12**

THREE-AXIS RISK SCORE	
Probability of Occurrence	2
Consequence to Community	7
Impact on Fire Department	4
SCORE:	**24.18**

BENCHMARK STATEMENTS – HIGH RISK

For 90% of high-risk hazardous materials responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for high -risk hazardous materials responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Evacuating immediate and adjacent areas; and
- Isolating and controlling access to high-hazard areas. .

For 90% of all high-risk hazardous materials responses within the area of responsibility, the total response time for the arrival on scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds (10:20).

The effective response force for high-risk hazardous materials responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Evacuating immediate and adjacent areas;
- Isolating and controlling access to high-hazard areas;
- Establishing and conducting emergency decontamination procedures as necessary;
- Identifying and assessing hazardous materials involved and their potential for harm; and
- Developing a plan of strategies and tactics to effectively mitigate the incident;

AIRCRAFT RESCUE

Wittman Regional Airport, a county-run public facility, is situated 2 miles south of Oshkosh's central business area. It has hosted sizable aircraft, including the Boeing 747, 767, Airbus A380, Concorde, and Boeing B-52 Stratofortress. Historically, commercial airlines operated here. In fact, until 1980, it surpassed the nearby Appleton International Airport in passenger count, becoming the primary air gateway for the Fox Valley area.

Spanning 1,392 acres, Wittman boasts four concrete runways:

- 18/36 - 8,002 feet long
- 9/27 - 6,179 feet long
- 5/23 - 3,423 feet long
- 13/31 - 3,061 feet long

Every year during the EAA Air Venture Oshkosh event, two more temporary runways are added to manage the surge in diverse aircraft traffic. The EAA Air Venture, hosted by the Experimental Aircraft Association (EAA), stands as one of the world's premier aviation events and is often dubbed "The World's Greatest Aviation Celebration." Every year, Wittman Regional Airport teams with over 500,000 enthusiasts from more than 60 countries, witnessing a display of over 10,000 diverse aircraft, from handcrafted models to colossal commercial jets and vintage planes. Throughout its week, attendees are treated to spectacular airshows, educational forums, hands-on workshops, and evening entertainment.

In 2021, the airport saw 80,102 aircraft movements. This comprised 97% general aviation, 3% air taxi, and under 1% military operations. Notably, the EAA Air Venture airshow contributes significantly to the yearly count.

Additionally, three flight training institutions operate here, and the EAA provides select sport pilot sessions for its members on-site.

The Federal Aviation Administration does not recognize the Whittman Regional Airport as a facility required to maintain full-time Aircraft Rescue and Fire Fighting (ARFF) capabilities. As such, the Oshkosh Fire Department staff Station 14 at the airport and provides cross-staffing to ARFF resources. Engine 14, a structural suppression resource, is the primary response resource at Station 14.

Notably, the week of EAA Air Venture is the only time that OFD must maintain FAA Part 139 Aircraft Rescue and Fire Fighting capabilities. Annually, the department works closely with Fox Valley Technical College to deploy a specially designed ARFF recertification course to meet the commercial flight ARFF capabilities.

Aircraft Rescue – High Risk

Note: The OFD Standard of Cover excludes the annual EAA Air Venture event. During that event, OFD and EAA utilize higher-than-normal resources to mitigate the potential risks.

All aircraft rescue incidents are categorized as high-risk. These incidents may involve aircraft fires, fuel fires, on-ground collisions, aircraft crashes without injury, and crashes with injuries. Because of the airport's location relative to the City of Oshkosh, the incidents may or may not occur on airport property. Aircraft incidents are commonly categorized with three terms. Alert 1, Alert 2, and Alert 3 (crash or imminent crash)

Alert 1

Issued when a pilot reports a minor malfunction not affecting aircraft operation. Air traffic control informs communications, which then notifies relevant airport departments. Fire and rescue units take standby positions near their stations, while safety officers standby near the arrival runway.

Alert 2

Issued when a pilot reports a significant malfunction potentially affecting aircraft control. Fire and rescue units, along with safety officers, assume standby positions near the arrival runway. After landing, responding units escort the aircraft to the gate. Depending on the emergency's nature, additional fire units might be requested.

Alert 3

Issued for an aircraft crash or imminent crash. Mutual aid units respond. In case of water landings, the Winnebago County Sheriff's Department (WCSD) assumes command responsibilities.

Oshkosh Fire Department adopts a standard high-risk response to all alert levels.

Apparatus & Staff Resources

Unit	Type	Location	Daily Staffing
Engine 14	Pumper	Station 14	3
CRASH 1	Crash	Station 14	0
CRASH 2	Crash	Station 14	0
CRASH 3	Crash	Station 14	0

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
ARFF Equipment Operations	3
On-Deck Crew & Rapid Intervention Crew	2
Water Supply	1
Engine Operations	2
Aerial Operations	2
Support Functions	6
Medical Assistance & Rehab	4
Effective Response Force:	**20**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus (Cross Staffed)	0
ARFF Crash Apparatus	1
ARFF Crash Apparatus	1
ARFF Rescue Apparatus	1
Aerial Apparatus	3
Ambulance	2
Ambulance	2
Battalion Chief	1
Total Personnel:	**20**

THREE-AXIS RISK SCORE	
Probability of Occurrence	1
Consequence to Community	8
Impact on Fire Department	7
SCORE:	**41.11**

BENCHMARK STATEMENTS – HIGH RISK

For 90% of high-risk ARFF rescue responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for high-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources; and
- Isolating and controlling access to high-hazard areas.

For 90% of all high-risk technical rescue responses within the area of responsibility, the total response time for the arrival on scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds (10:20).

The effective response force for high-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Isolating and controlling access to high-hazard areas;
- Suppressing fires; and
- Rescuing and transporting victims to an appropriate medical facility.

WATER, DIVE, & ICE RESCUE

Situated alongside Lake Winnebago, Lake Butte des Morts, and the Fox River, the City of Oshkosh boasts abundant water resources that attract numerous recreational enthusiasts. Recognizing the potential risks of these waterways, the Operations Bureau offers surface water, dive rescue, and ice rescue. To ensure safety, OFD collaborates closely with the Winnebago County Sheriff's Department, which has jurisdiction over the water.

During the summer months, OFD utilizes an inflatable boat. In addition, sheriff personnel provide boat operations for the larger Sheriff's boat, and OFD personnel utilize the resource as a rescue platform. In winter, OFD personnel operate the Husky airboat, a sheriff-owned vessel, across the frozen surfaces.

As the winter deepens and the allure of ice-related activities grows, many residents and visitors venture out on the frozen surface. Local fishing clubs frequently bridge cracks in the ice to accommodate vehicles; however, vehicle operators often get lost or misjudge the surface and drive into the cracks.

Lake Winnebago's icy surface undergoes various changes throughout the winter season. Rainfall events, for instance, can significantly alter the appearance and structure of the ice. Such changes make it difficult for anglers driving across the ice to distinguish between solid ice and areas of liquid water.

OFD also operates a robust dive rescue program. With rapid deployment from Station 17, OFD divers will attempt rescue within the first thirty minutes. If the individual is not rescued in the first thirty minutes of the operation, the situation is turned over to the Sheriff's Department to conduct a recovery mission. In many cases, the lake's vastness makes it difficult to locate the position in which the person was last seen above the surface.

Apparatus & Staff Resources

Unit	Type	Location	Daily Staffing
Engine 15	Pumper	Station 15	3
Ladder 15	Aerial	Station 15	3
Boat 215	Inflatable	Station 15	0
Husky 15	Air Boat	Sheriff's Office	0
Dive 17	Utility	Station 17	0
Quint 17	Quint	Station 17	3

Water Rescue – Moderate Risk

Moderate-risk water incidents are those calls that can be mitigated by the Oshkosh Fire Department staff and resources. All "above-surface" water rescue incidents within the OFD service area are considered moderate-risk. These incidents may occur on the river or lakes and include marine vessel crashes, disabled vessels, and vehicles that partially fall through the ice.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Rescue Diver	1
Backup Diver	1
Water Rescue Support	3
Rescue Vessel Operator	1
Patient Care & Transport	2
Equipment & Support Assistance	6
Tender	1
Effective Response Force:	**16**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Aerial Apparatus	3
Ambulance	2
Battalion Chief	1
Total Personnel:	**15**

THREE-AXIS RISK SCORE	
Probability of Occurrence	6
Consequence to Community	3
Impact on Fire Department	5
SCORE:	**30.42**

Water Rescue – High Risk

High-risk water incidents are those calls that can be mitigated using a conjunction of Oshkosh Fire Department staff and resources and the personnel and equipment of the Winnebago County Sheriff's Office. All "sub-surface water rescue" incidents within the OFD service area are considered high-risk. These incidents may occur in the river or lakes and include drownings, vessels sinking, and vehicles that fall through the ice.

The Oshkosh Fire Department enjoys an excellent working relationship with partner agencies. In the event of a water rescue, surrounding communities immediately begin coordinating with OFD and deploying appropriate resources. The water rescue community in and around the Fox Valley is robust.

Apparatus & Staff Resources

Unit	Type	Location	Daily Staffing
Engine 15	Pumper	Station 15	3
Ladder 15	Aerial	Station 15	3
Boat 215	Inflatable	Station 15	0
Husky 15	Air Boat	Sheriff's Office	0
Dive 17	Utility	Station 17	0
Quint 17	Quint	Station 17	3

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Rescue Diver	1
Backup Diver	1
Water Rescue Support	3
Rescue Vessel Operator	1
Patient Care & Transport	2
Equipment & Support Assistance	6
Tender	1
Effective Response Force:	**16**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Suppression Apparatus	3
Suppression Apparatus	3
Aerial Apparatus	3
Ambulance	2
Battalion Chief	1
Total Personnel:	**15**

THREE-AXIS RISK SCORE	
Probability of Occurrence	6
Consequence to Community	3
Impact on Fire Department	5
SCORE:	**30.42**

BENCHMARK STATEMENTS – HIGH RISK

For 90% of high-risk water rescue responses in the area of responsibility, the total response time for the first arriving fire unit arrival at the initial deployment site, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for high-risk water rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources; and
- Isolating and controlling access to high-hazard areas.

For 90% of all high-risk technical rescue responses within the area of responsibility, the total response time for the arrival at the initial deployment site of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds (10:20).

The effective response force for high-risk water rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Isolating and controlling access to high-hazard areas; and
- Rescuing and transporting victims to an appropriate medical facility.

TECHNICAL RESCUE

Besides handling fire, hazmat, and medical crises, the department acknowledges the importance of readiness for emergencies that demand advanced operational skills and equipment. As a result, select department personnel receive training in high-angle, trench collapse, and confined space rescues. The necessary equipment for these specialized operations is housed on the department's ladder truck, quint, and other specialized support resources.

Through mutual aid requests, the Oshkosh community has access to the Wisconsin Task Force 1 Urban Search & Rescue team. The federally funded team comes with a full complement of personnel and equipment.

Apparatus & Staff Resources

Unit	Type	Location	Daily Staffing
Ladder 15	Aerial	Station 15	3
SC116	Special Operations Truck	Station 16	3

Recommended Response Performance Goals

Measure	2023 Goal	Sample Risk	Justification
Alarm Handling	1:00	High	NFPA 1710
Turnout Time	1:20	Moderate	NFPA 1710
1st Unit Travel Time	4:00	Moderate	NFPA 1710
ERF Travel Time	8:00	Moderate	NFPA 1710

Technical Rescue – Low Risk

Low-risk technical rescue incidents are those calls for service that are unlikely to cause injury or significant property damage. Examples of low-risk technical rescue may include vehicle accidents with entrapment.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Safety Officer	1
Extrication Team	2
Equipment Operator	2
Apparatus Operator	1
Primary Patient Care	1
Vehicle Operations	1
Effective Response Force:	**9**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus	3
Aerial Apparatus	3
Ambulance	2
Battalion Chief	1
Total Personnel:	**9**

THREE-AXIS RISK SCORE	
Probability of Occurrence	4
Consequence to Community	2
Impact on Fire Department	3
SCORE:	**11.63**

BENCHMARK STATEMENTS – LOW RISK

For 90% of low-risk technical rescue responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for low-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources; and
- Isolating and controlling access to high-hazard areas.

For 90% of all low-risk technical rescue responses within the area of responsibility, the total response time for the arrival on scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds (10:20).

The effective response force for low-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Isolating and controlling access to high-hazard areas; and
- Rescuing and transporting victims to an appropriate medical facility.

Technical Rescue – High Risk

High-risk incidents are those calls that can be mitigated by utilizing the expertise and resources of a rescue group. Specialized gear, tools, equipment, or knowledge will be required beyond the scope of a first responder. Examples of high-risk technical rescue responses include rope rescue, structural collapse, trenches, vehicle extrications with multiple patients or needing multiple extrication points and involving multiple vehicles, and confined space rescues.

OFD approaches these incidents through an operational upgrade model. When responding personnel (or on-scene) personnel identify the increased risk level, those responders request an upgrade and receive the response below.

Through mutual aid requests, the Oshkosh community has access to the Wisconsin Task Force 1 Urban Search & Rescue team. The federally funded team comes with a full complement of personnel and equipment.

CRITICAL TASK	REQUIRED STAFF
Incident Command	1
Safety Officer	1
Technical Rescue Group Lead	1
Extrication Team #1	2
Equipment Operator	3
Apparatus Operator	3
Medical Support & Rehab	2
Effective Response Force:	**15**

RESOURCE	MINIMUM STAFFING
Suppression Apparatus*	3
Suppression Apparatus	3
Aerial Apparatus*	3
Aerial Apparatus	3
Ambulance*	2
Battalion Chief*	1
Total Personnel:	**15**

*Indicates the initial response from Technical Rescue – Low Risk

THREE-AXIS RISK SCORE	
Probability of Occurrence	1
Consequence to Community	7
Impact on Fire Department	5
SCORE:	**27.24**

BENCHMARK STATEMENTS – HIGH RISK

For 90% of high-risk technical rescue responses in the area of responsibility, the total response time for the first arriving fire unit, staffed with at least three firefighters, shall be six minutes and twenty seconds (6:20).

The first arriving unit for high-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources; and
- Isolating and controlling access to high-hazard areas.

For 90% of all high-risk technical rescue responses within the area of responsibility, the total response time for the arrival on scene of all fire units and personnel necessary to complete a full first-alarm assignment, otherwise referred to as the Effective Response Force (ERF) shall be 10 minutes, 20 seconds (10:20).

The effective response force for high-risk technical rescue responses shall be capable of:

- Conducting a rapid size-up of the emergency scene;
- Initiating an incident command system;
- Assessing the need for additional resources;
- Isolating and controlling access to high-hazard areas; and
- Rescuing and transporting victims to an appropriate medical facility.

APPENDIX A – 2023 Oshkosh Fire Department Response Table

Incident Type	Risk Level	Resource Assignment	Resources	Personnel
Structure Fire		4-E/Q, 1L, 1A, 1C	Engine	3
			Engine	3
			Engine	3
			Engine	3
			Ladder	3
			Ambulance	2
			Command	1
			Total:	**18**
Box Alarm		1-E/Q, 1-A	Engine	3
			Ambulance	2
			Total:	**5**
Gas Leak		3-E/Q, 1-L, 1-A, 1-C	Engine	3
			Engine	3
			Engine	3
			Ladder	3
			Ambulance	2
			Command	1
			Total:	**15**

Fire/Water Flow Alarm	1-E/Q, 1-L	Engine	3
		Ladder	3
		Total:	**6**
Vehicle Fire	1- E/Q, 1-L	Engine	3
		Ladder	3
		Total:	**6**
Smoke/Gas Odor	1- E/Q, 1-L	Engine	3
		Ladder	3
		Total:	**6**
Rubbish/Dumpster Fire	1- E/Q	Engine	3
		Total:	**3**
Grass/Brush Fire	1- E/Q	Engine	3
		Total:	**3**
Wire Down Transformer	1- E/Q	Engine	3
		Total:	**3**
Vehicle Accident	1-E/Q, 1-L, 1-A	Engine	3
		Ladder	3
		Ambulance	2
		Total:	**8**

Any Incident on Hwy 41	2-E/Q, 1-L, 1-A, 1-C	Engine	3
		Engine	3
		Ladder	3
		Ambulance	2
		Command	1
		Total:	**12**

Lock in/out	1- E/Q, 1-L	Engine	3
		Ladder	3
		Total:	**6**

Water/Ice Rescue	3-E/Q, 1-L, 1-A, 1-B, 1-C	Engine	3
		Engine	3
		Engine	3
		Ladder	3
		Ambulance	2
		Command	1
		Total:	**15**

Elevator Rescue	1-E/Q, 1-L, 1-C	Engine	3
		Ladder	3
		Command	1
		Total:	**7**

Rescue (Caught/Trapped, Industrial Accident)	1-E/Q, 1-L, 1-A, 1-C	Engine	3
		Ladder	3
		Ambulance	2
		Command	1
		Total:	**9**

Spill Clean Up, Oil/Anti-freeze	1- E/Q	Engine	3
		Total:	**21**

Haz-Mat Response City*	3-E/Q, 1-L, 1-C, Haz-Mat 119	Engine	3
		Engine	3
		Engine	3
		Ladder	3
		Haz-Mat 119	0
		Command	1
		Total:	**13**

CO Alarm-no symptoms	1- E/Q	Engine	3
		Total:	**3**