



Crystal Lake Fire Rescue Department Annual Report 2017



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Professional Ready Innovative Dedicated Empowered

Gary J. Mayerhofer, City Manager
City of Crystal Lake

Dear Mr. Mayerhofer;

I present to you the 2017 Annual Report for the Crystal Lake Fire Rescue Department. As in previous years, this report is a detailed account of efforts, challenges and accomplishments of the Department for the past year. I am pleased to provide this information to you, the City Council, the trustees of the Crystal Lake Rural Fire Protection District, the Board Members of The Village of Lakewood, and the citizens of the Crystal Lake community. Without the support and trust of the aforementioned, our dedicated staff would not be able to continue to provide the professional services to the Crystal Lake community. We feel that service provided by our Department is truly second to none.

Listed below you will find highlights of the Department's accomplishments of 2017:

- Responded to over 6,200 calls for service
- Continued to maintain the Crystal Lake Wireless Alarm Network (CLWAN) and initiated the installation of a redundant CLWAN system at Fire Station 3
- Updated and re-formatted the Policy and Procedure Manual to provide consistent direction to our emergency personnel
- Completed over 1,080 Life Safety Inspections to occupancies within the community
- Continued the partnership and hosting of the Com Ed Joint Operations Center
- Took delivery of a new ambulance from Foster Coach Sales, Inc.
- Ordered a replacement ambulance from Foster Coach Sales, Inc.
- Completed the 2-year replacement of the Department's thermal imaging cameras



- Continued our support to the community through participation in and donations to the Salvation Army, Crystal Lake Food Pantry, Muscular Dystrophy Association, and Operation North Pole
- Replaced outdated SCBA fit testing equipment
- Purchased and placed in service new dive suits with funding from the Crystal Lake Rural Fire Protection District
- Purchased a new Stryker power lift cot with assistance from an IRMA grant
- Purchased hydrogen cyanide meters with grant funding from Medtronic Corp

On behalf of the men and women of the Crystal Lake Fire Rescue Department, thank you for the opportunity to serve the Crystal Lake community.

Sincerely,

Paul G. DeRaedt
Fire Rescue Chief



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Department Overview

The City of Crystal Lake is located in McHenry County, Illinois, approximately 45 miles northwest of the City of Chicago. The Crystal Lake Fire Rescue Department provides service for the City of Crystal Lake, the Crystal Lake Rural Fire Protection District, portions of Lake in the Hills, and the Village of Lakewood. The area served is approximately 51.2 square miles, with a resident population of nearly 56,000 based on the 2010 census. Services provided include fire protection, emergency medical care (Advanced Life Support), fire inspections, public education, hazardous material response, dive rescue, and special team responses such as trench, confined space, rope, and structural collapse. The City of Crystal Lake is the largest city in McHenry County, and the Crystal Lake Fire Rescue Department's service area includes four U.S. highways, a railroad (Union Pacific), three large lakes (Crystal Lake and Three Oaks Recreation Area), and McHenry County College. The Department also provides automatic aid to the Nunda Rural Fire Protection District, McHenry Township Fire Protection District, and the Algonquin / Lake in the Hills Fire Protection District. Mutual Aid is provided to communities in McHenry, Lake, and Kane Counties through the Mutual Aid Box Alarm System (MABAS).

The Fire Rescue Department provides 24-hour emergency response, operating out of three stations with 68 personnel. Staffing is provided by three shifts of full-time firefighters on a 24/48-hour schedule. Approved full-time positions include 3 Battalion Chiefs, 9 Lieutenants, and 48 firefighter/paramedics. Full-time firefighters and Lieutenants are members of the Crystal Lake Professional Firefighters Association, Local 3926, of the International Association of Firefighters. Emergency response minimum staffing is currently 15 firefighter/paramedics per shift. Administrative staffing positions include Fire Rescue Chief, Deputy Chief, Bureau Chief of Training, Bureau Chief of Fire Prevention, two Fire Inspectors (one part-time), and two Administrative Assistants. In 2017, the Department responded to 6,228 incidents of which 69% involved emergency medical care.



Year in Review

Deputy Fire Rescue Chief– Christopher Olsen

Medtronic Donation Received

On Tuesday, April 11th, Medtronic, located at 815 Tek Drive in Crystal Lake, presented a check to the Fire Rescue Department in the amount of \$2,000 for the purpose of purchasing hydrogen cyanide monitors to be placed on several of our apparatus. Medtronic has a philanthropy group and regularly donates to our Department to support our initiatives.



Crystal Lake Wireless Alarm Network Redundancy

In May, the Crystal Lake City Council approved the installation of a redundant monitoring system for the Crystal Lake Wireless Alarm Network (CLWAN). CLWAN is the City's network for monitoring fire alarms via radio directly into the City's dispatch center SEECOM.

The redundant system, which will be housed at Fire Station 3 on Virginia Road, will provide needed back up in the event the equipment at the Municipal Complex is damaged due to a catastrophic event. Ensuring we maintain continuity of operations is paramount to providing continuous monitoring of our customers' fire alarms.

Fire Chief Award Presented

On June 2, 2017, Fire Rescue Chief Paul DeRaedt presented a Fire Chief award to Crystal Lake resident Don Kountz. Mr. Kountz had reported a natural gas leak in his neighborhood. After calling 911, the fire crews determined a home had a gas leak on the outside of the dwelling that was collecting inside the home. The gas leak was near explosive levels. Mr. Kountz's actions prevented an explosion to an occupied home that could have resulted in a loss of lives.



July 23rd Flooding

Heavy rainfall totals in June and July produced a saturated soil that contributed to the historic flooding that reached its peak on Sunday, July 23rd. The City's Emergency Operations Center was activated. Representatives from Public Works, Police, Fire Rescue, Community Development, City Manager's Office, and Finance worked together over the course of several days to conduct regular briefings in order to identify the City's priorities in returning the City to its normal state and how to best execute the plan that was developed. Priorities identified included; identification of flood damage locations, formulation of a plan to conduct damage assessments, and development of a plan for debris removal.

Public Information Officers Group

On November 15th, City staff including our Department, attended a meeting of the McHenry County Public Information Officers (PIO) group. The purpose of the group is to facilitate networking amongst the many agencies in McHenry County, provide training opportunities, and provide support in times of disaster. The experience level of the group ranged from under one year to over 20 years in the PIO role.

During a disaster, PIOs play a major role in providing accurate incident related information to the public. Social media has forced local government to monitor and provide information about an incident within minutes compared to hours or days as it was in the past.

No one agency can handle information needs during a disaster. Much like our mutual aid partnerships, the PIO group will function in a similar manner when one agency is overwhelmed. The group can assist in getting timely, accurate information out to the community.

Fit Testing

Annual Fit Testing has been completed by all our personnel. Fit Testing is a way to measure if the mask that an employee is using fits them correctly, protecting them from harmful carcinogens that are released in a fire. The Department purchased a new compact fit testing unit that can easily be transported among the three fire stations, allowing employees to be fit tested without taking up road time to travel to Station One. The new system is expected to last 10-15 years.



Community Participation:

Operation North Pole (ONP)

On Saturday, December 9th, Fire Rescue personnel along with Crystal Lake Police and other McHenry County fire departments again participated in Operation North Pole.

This annual event brings children with life threatening illnesses and their families to Crystal Lake aboard a specially decorated Metra train. The train ride is part of a larger event held the same day where the children ride the train to the “North Pole”. Once at the North Pole the children are treated to a day filled with surprises and wonderment. These children and their families focus on the child’s illness most of the year. This is an opportunity for the children and their families to forget about their illnesses for one day.



Firefighters and their families stuffing goodie bags before ONP.



ONP train at Pingree Road Train Station.



Muscular Dystrophy Association “Fill the Boot Campaign”

The members of Crystal Lake Professional Firefighter Association Local 3926 collected over \$5,000 for the Muscular Dystrophy Association through their “Fill the Boot” campaign and Winter Formal.

Salvation Army Red Kettle Fundraising Campaign

Members of the Crystal Lake Fire Rescue Department participated off duty in the Salvation Army’s Red Kettle fundraising campaign. In 2017, the Crystal Lake Fire Rescue Department raised \$12,993. Members have contributed to this worthy cause for 12 years.

Crystal Lake Food Pantry Donation

In lieu of holiday gifts, the Officers of the Crystal Lake Fire Rescue Department personally donated \$500 to the Crystal Lake Food Pantry as part of the Officers’ holiday tradition. This donation equated to \$4,000 of buying power the Food Pantry has through the Northern Illinois Food Bank.



New Member

Lindsey Calin was hired as an Administrative Assistant this year. We look forward to her having a long and rewarding career and welcome her to our family.



Lindsey Calin



Annual Department Awards

Annual awards were presented to Fire Rescue personnel. Members were recognized in three award categories: Department Service Awards, EMS Service Awards, and Department Recognition Awards.

Service Awards

DC Christopher Olsen	25 years
BC Jerry Larsen	25 years
Lt. Dan Grischow	25 years
Lt. John Volenec	15 years
FF/PM Matt Leuck	15 years
FF/PM Bryan Kauke	15 years
FF/PM Kim Hagen	15 years
FF/PM Mike Hurley	10 years
FF/PM Kevin Kownacki	10 years
FF/PM Matt Klug	5 years
FF/PM Matt Newton	5 years

EMS Service Awards (years certified with IL Dept. of Public Health)

Lt. Joyce Stevenson	35 years
FF/PM Matt Thuma	30 years
FF/PM Dave Kaltenbach	25 years
BC Chris Kopera	20 years
FF/PM Ray Jakubowicz	20 years
FF/PM Bryan Kauke	15 years
FF/PM Kim Hagen	15 years
FF/PM Mike Lucas	15 years
FF/PM Bob Brechbiel	15 years
FF/PM Palmer Pace	15 years



FF/PM Martin Pireh	10 years
FF/PM Amanda Gundlach	10 years
FF/PM Scott Hagen	10 years
FF/PM Ryan Muscavitch	10 years
FF/PM James Gauldoni	10 years

Department Recognition Awards

Type of Award	Date of Incident	Description	Crew Receiving Award
Life Saving Recognition	02/02/2017	Actions taken at a medical call that led to the successful resuscitation of the patient	Lt. Bedore, FF/PM's Kauke, Landwer, Odishoo, Spivey
Unit Performance Award	03/03/2017	Actions taken at a medical call that led to a successful outcome for mother and newborn child	Lt. Cook, FF/PM's Borst, Geyman, Havemann, Hurley, Kaltenbach, Kownacki, Smith
Unit Performance Award	12/01/2017	Actions taken to prevent excessive flood damage to vital areas of the Municipal Complex	BC Whyte, FF/PM's Borst, Brechbiel, Hurley, Kownacki, Spivey, Williams
Award of Recognition	11/19/2017	Successfully coordinating the medical treatment of a pediatric patient despite challenging	BC Whyte, Lt's Olsen and Volenec, FF/PM's Geyman, Havemann, Kreher, D. Williams
Award of Meritorious Service	11/20/17	For tireless devotion to the Department's Cardiopulmonary Resuscitation Program	Lt. Stevenson

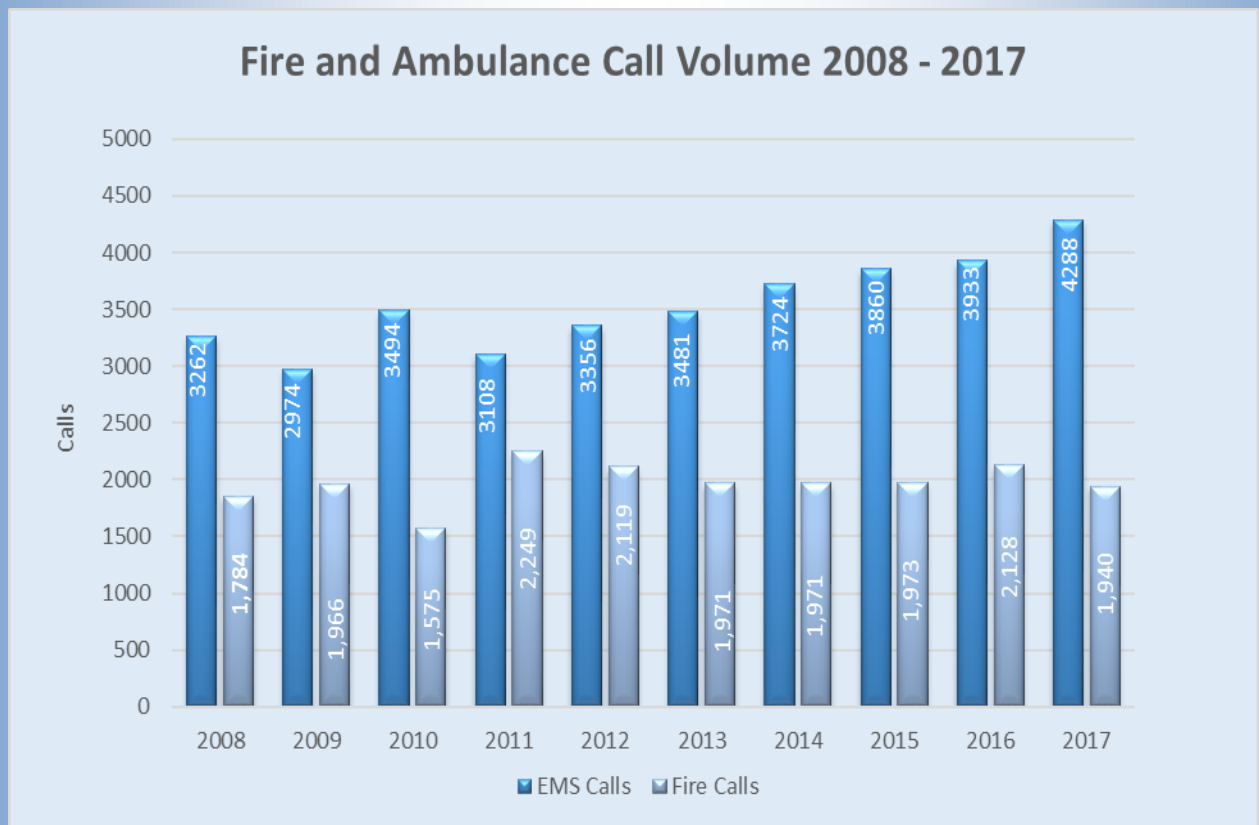
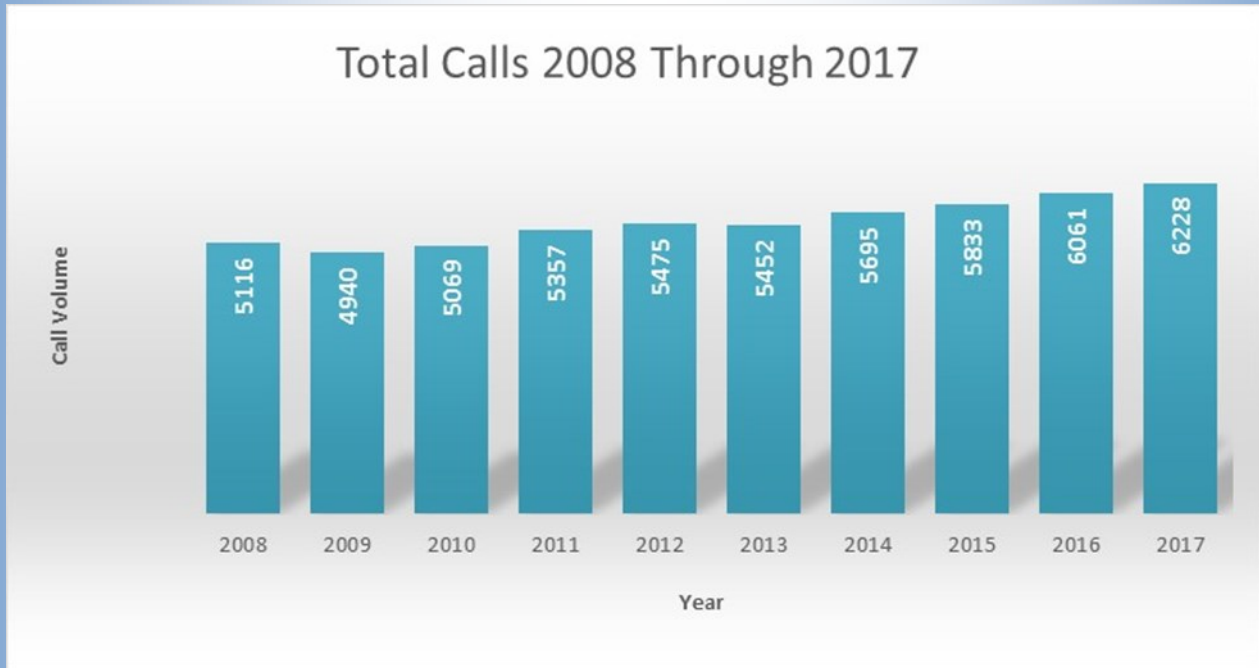


Incident Statistics

Battalion Chief – William Whyte

Incident Type	#2015	%2015	#2016	%2016	#2017	%2017
Fire	45	0.77%	50	0.82%	71	1.14%
Over Pressure, Rupture, Explosion	2	0.03%	3	0.05%	2	0.03%
Rescue and EMS Incidents	4,283	73.43%	4,371	72.12%	4,288	68.85%
Hazardous Conditions (No Fire)	184	3.15%	197	3.25%	298	4.79%
Service Call	334	5.73%	428	7.06%	550	8.83%
Good Intent Call	210	3.60%	216	3.56%	240	3.85%
Fire Alarms	758	13.00%	783	12.92%	759	12.19%
Special Incident Type	17	0.29%	13	0.22%	20	0.32%
Total	5,833	100.00%	6,061	100.00%	6,228	100.00%
Jurisdiction	#2015	%2015	#2016	%2016	#2017	%2017
City of Crystal Lake	5,081	87.11%	5,135	84.72%	5,152	82.72%
CL Rural FPD	580	9.94%	573	9.46%	683	10.97%
Lakewood	N/A	N/A	222	3.66%	264	4.24%
Out of District	172	2.95%	131	2.16%	129	2.07%
Total	5,833	100%	6,061	100%	6,228	100%





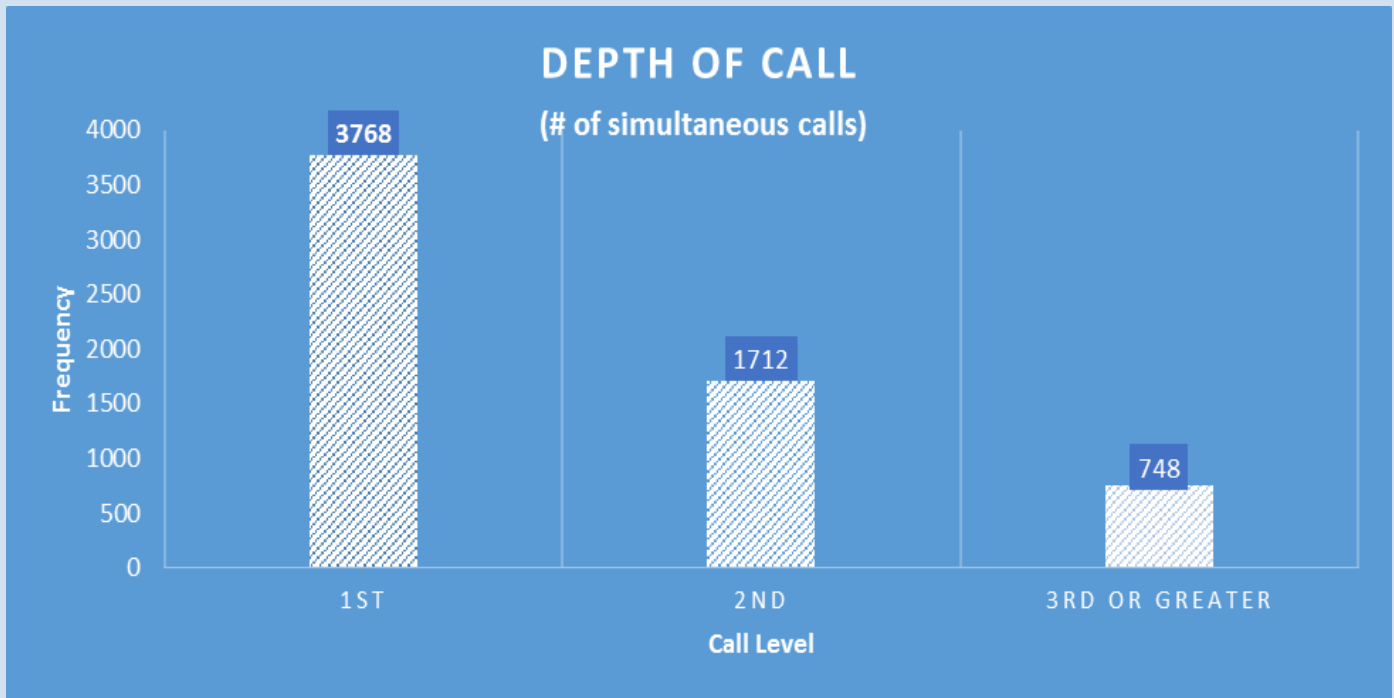
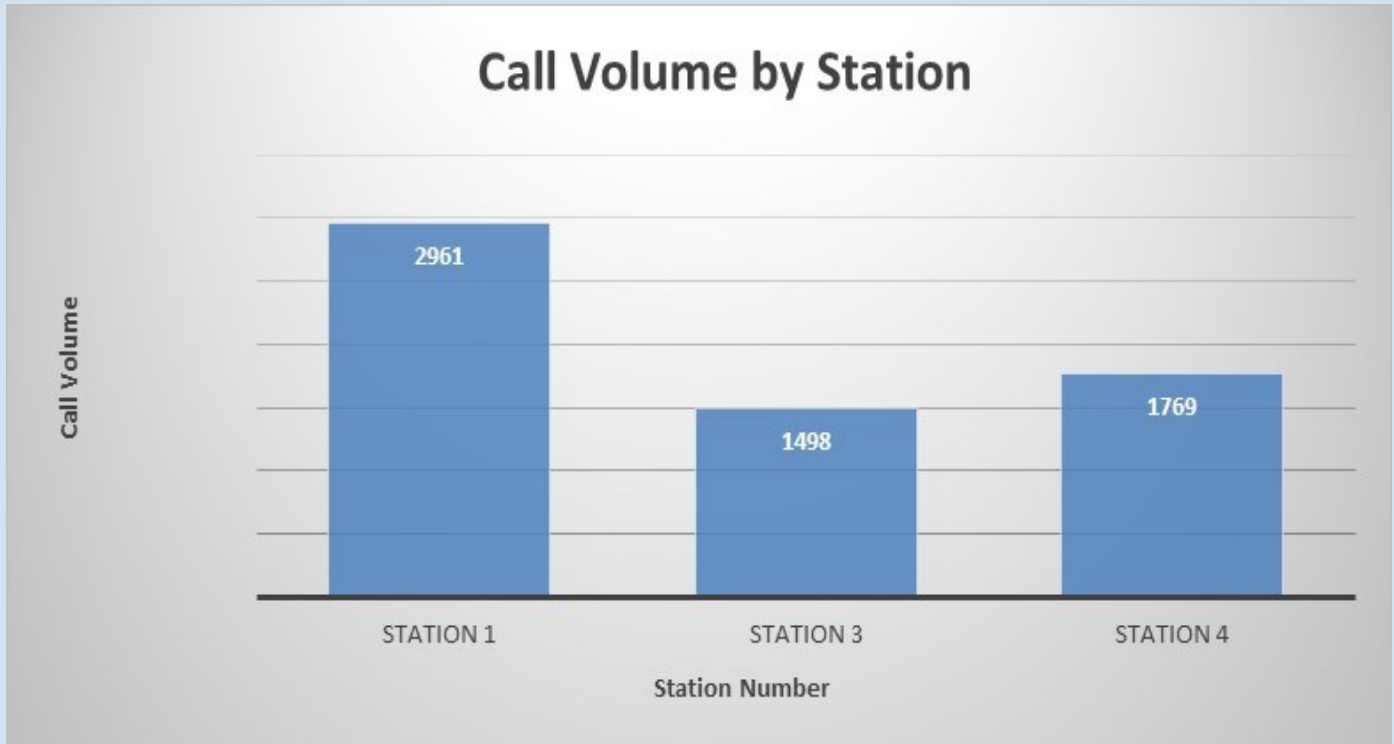
Crystal Lake Fire Rescue Department Fire Suppression Response Times Within Each Response District

	Station 1	Station 3	Station 4
Average Alarm Processing Time	1:24	1:22	1:25
Average Turn Out Time	0:53	0:52	0:59
Average Travel Time	4:25	4:38	5:47
Average Alarm To Scene Time	6:37	6:49	8:04

Crystal Lake Fire Rescue Department EMS Response Times Within Each Response District

	Station 1	Station 3	Station 4
Average Alarm Processing Time	1:25	1:21	1:26
Average Turn Out Time	0:42	0:42	0:41
Average Travel Time	3:57	4:00	4:51
Average Alarm To Scene Time	6:03	6:03	6:57





Fire Prevention Bureau

Bureau Chief of Fire Prevention– Bob Kohley

The Fire Prevention Bureau is a critical component of the Crystal Lake Fire Rescue Department's effort to protect the citizens and visitors of Crystal Lake against the loss of life and property through its enforcement of adopted building and fire codes. The Fire Prevention Bureau ensures code compliance through the thorough examination of building plans, inspection of buildings, structures, and facilities.

Providing education to building designers, contractors, business owners and their employees about fire prevention practices can reduce the chance of fire in their buildings. The goal of enforcement is to reduce fire hazards, as well as mandating the proper installation and maintenance of a building's fire and life safety features. Two major functions of the Fire Prevention Bureau are the review of engineered building plans for all life safety systems and the inspection and testing of any installation, alteration, modification, repair to any fire alarm, sprinkler, or engineered suppression system.

Plan Reviews

During calendar year 2017, the Fire Prevention Bureau completed 481 plan reviews. The Fire Prevention Bureau strives to complete reviews within the following deadline for the requesting department or for fire protection systems; within 10 business days for 1st reviews and within 5 business days for re-submittals. The annual goal is to have 98 percent of the reviews completed within the timeframes. For the calendar year of 2017, 99.78 percent of the reviews were completed within the timeframes. Listed below are the types and amounts completed:



Type of Review	2015	2016	2017
Building Permit	162	258	206
Sprinkler System	58	41	41
Fire Alarm System	58	62	64
Wet Chemical/Clean Agent	3	2	9
PUD	11	8	9
SUP	28	48	17
Special Event	0	1	30
TUP	49	26	0
Variation	10	2	1
Cursory	42	23	39
FOIA	84	58	49
County-Resident./Commer.	7	7	16
Annexations	7	12	0
Total	519	548	481

Inspections / Code Enforcement

The Fire Prevention Bureau completed 981 inspections in calendar year 2017. Listed below are the type and total number of inspections completed:

Inspection Type	Number of Inspections 2015	Number of Inspections 2016	Number of Inspections 2017
Construction/Status	137	315	375
Fire Alarm	107	111	90
Sprinkler System	69	109	118
Hood or Other Suppression	6	11	16
Life Safety Follow Up/Target Hazard	161	111	156
Occupancy	230	162	99
Concerns/Condition Report	123	132	102
Special Event	0	15	15
Mobile Food Truck	0	3	10
Total	833	969	981



Life Safety Inspections

During calendar year 2017, the Fire Rescue Department conducted 1,086 Life Safety Inspections.

Life Safety Inspections	Calendar Year 2015	Calendar Year	Calendar Year
Initial Inspections	398	710	765
Re-Inspections	134	431	321
Total	532	1,141	1,086

Public Education

Public Education Coordinator – Lindsey Calin

Public Education is part of the Crystal Lake Fire Rescue Department's Fire Prevention Bureau. Public Education supports the Fire Prevention Bureau by educating all age groups about fire prevention and fire safety with the goal of reducing fires, fire-related injuries, and fire deaths. The Fire Rescue Department conducts station tours and fire safety talks for school groups, senior groups, scout groups, businesses, and other organizations. The Department also conducts observed fire drills at all public schools every fall along with some private schools and businesses throughout the year. In 2017, the Crystal Lake Fire Rescue Department conducted 16 observed fire drills with 8,984 participants.

The majority of our public education events are directed to school children from the ages of 3 to 9 years old. Children are taught not to touch matches and lighters, to stop, drop and roll in the event their clothing catches on fire, and to know that firefighters will help them. Older children are encouraged to create and practice a fire escape plan with their family.

The Crystal Lake Fire Rescue Department participated in five major events that provide an opportunity to teach children and adults about fire safety.



- ***The Crystal Lake Expo***—emphasis is placed on emergency preparedness in case of disaster. Brochures, such as the Crystal Lake Preparedness Guide, were developed to encourage people to be prepared at home or work in case of a blizzard or severe summer storm.
- ***McHenry County Children’s Health Fair***—The Department’s Safety Trailer is featured at this county-wide event.
- ***National Night Out***—Sponsored by the Crystal Lake Police Department, this nationally recognized event provides an opportunity to showcase the Fire Rescue Department’s equipment and talk to families about fire safety.
- ***Johnny Appleseed Festival***—This popular and highly attended family event features the Department’s Fire Safety Trailer and Aerial Ladder Truck.
- ***Crystal Lake Fire Rescue Open House***—Fire equipment and Fire Station One are on display with activities for adults and children. Children have an opportunity to spray an actual fire hose, participate in a firefighting obstacle course, and “Ask the Firefighter”. Everyone is welcome to view the Fire Rescue Department’s vehicles, tour the fire station, and participate in an escape drill in the Fire Rescue Department’s Safety Trailer. Despite the cold, rainy day, 250 participants attended this annual event.



2017 Crystal Lake Fire Rescue Open House



Listed below is a breakdown of events and participants for 2017:

Type of Education Event	Number of Events	Total Participants
Block Parties	13	570
Blood Pressure Checks	12	63
Career Presentations	9	157
Community Events	8	3,201
CPR Classes	29	138
Extinguisher Demos	13	450
Health Fairs	1	600
Observed Fire Drills	16	8,984
Open House	1	250
Preschool Presentations	24	709
Safety Presentations	17	900
Safety House	6	514
Senior Safety	2	80
Station Tours	37	1,169
Total	188	17,785



Specialized Rescue Teams

Dive Rescue Team Coordinator – Lieutenant Christopher Bedore

Incidents

The Crystal Lake Fire Rescue Dive Rescue team responded to two water rescue incidents in 2017. Both occasions were for mutual aid in Algonquin. Though our divers were not deployed, our personnel were used to assist an effective rescue in each incident.

Training

In 2017, the Crystal Lake Fire Rescue Dive Rescue team met or exceeded all annual required training by the MABAS Divisions 4 & 5 Specialized Response Teams. Below are some highlights from this years training:

- In January, the Dive Rescue team began their annual SCUBA skills assessments. These evaluations are necessary to remain on the team as an active diver.
- In June, the Dive Team had an open water dive training in Crystal Lake where divers performed sweep patterns at a specific last seen point. Divers reached a depth of 25 feet with 3 feet of visibility.
- The Dive Team hosted two MABAS dives at Three Oaks Recreation Area. Divers performed a simulated search for victims using tethered sweep patterns.
- In September, the Dive Team conducted a night dive at Three Oaks Recreation Area. Divers had visibility of approximately 20 feet. Updated dive equipment has significantly increased the divers protection from environmental hazards associated with contaminated waters. Divers also utilized new dive lights that significantly improved night time visibility, increasing the ability to search and see while conducting night time rescue dives.
- In October, the Dive Team conducted a combined drill with the MABAS Divisions 4 & 5 Sonar team. Both teams worked together to simulate the rescue of a victim. Crew operations focused on communications between Sonar Techs and Divers.
- In November, the Dive Rescue Team assisted the Three Oaks Staff in removing the anchoring systems for the swim buoys, tying on underwater floatation devices, and securing the anchor lines back to the anchor blocks. Divers then worked with wireless communication devices and compasses to navigate a dive plan.



Technical Rescue Team Coordinator – Lieutenant Dan Grischow

Incidents

During 2017, the Technical Rescue Team (TRT) had one callout for service. In April, technicians from Crystal Lake assisted Algonquin with equipment and manpower to help a stranded pontoon boat on the Fox River from going over the low head dam at the Route 62 crossing. The boat was secured in place under the bridge with ropes until a rope system could be constructed at the nearby Port Edwards restaurant deck overlooking the Fox River. The boat then was carefully pulled upstream to the deck where the passengers could be safely unloaded.

Equipment

Crystal Lake Fire Rescue continues to house one of the MABAS 5 hook trucks and two roll off containers, TRT 5 and Trench 5 at Station 3. These containers consist of the equipment needed for vertical rescue, confined space, structural collapse rescue, and rope rescue.

Training

Crystal Lake Fire Rescue TRT technicians attended over 400 hours of rescue training and attended 15 drills in 2017 including the following:

- Highline Rope Rescue
- Confined Space
- Trench
- Structural Collapse
- Equipment Familiarization and Inventory
- Slope Evacuation
- High Angle Rescue

New Members

Three new members have joined the Technician Rescue Team in 2017 bringing Crystal Lake Fire Rescue's Technician roster to 8 members. It takes commitment to complete eight, 40 hour training classes to reach the Technician level. We welcome FF/PMs Borst, Bucheger, and Seyl to the team.



Haz Mat Team Coordinator – Lieutenant Dan Grischow

Incidents

The Crystal Lake Fire Rescue Hazardous Materials Team responded to 5 incidents in 2017.

- In March, technicians responded to Barrington for a semi-trailer that had caught fire and leaked a chemical into the soil next to the roadway. Initially, Barrington Fire crews were told that the liquid was nonhazardous by the driver. When the fire was extinguished, the truck was relocated to a tow yard in Crystal Lake. It was at this point fire crews identified the chemical on board as hazardous. The site where the truck burned and the towing company yard were monitored by hazardous materials technicians and cleaned up by a certified disposal service. The event lasted three days due to the complex clean up process.
- On March 15th, hazardous materials technicians were called out for a train derailment in Lake Forest. It was determined that none of the train cars were breached and there were no hazards from chemicals.
- In April, the Hazardous Materials Team responded to Barrington for a green liquid in a creek. Fortunately, the liquid was identified as a nontoxic plumbing dye.
- In July, technicians responded to Antioch for a Ferric Chloride leak in an industrial park. The leak was contained, but it took a cleanup company several days to mitigate the spill.
- The team responded in October to Lake Zurich for a chemical odor from a self-storage unit. Investigation revealed the odor was from stored pool chemicals which had not leaked from their containers. The owner was contacted for cleanup and disposal.

Training

The Crystal Lake Fire Rescue Department has three technicians on the MABAS Divisions 4 & 5 Hazardous Materials Team. Crystal Lake Technicians attended over 140 hours of continuing education during 2017. Along with monthly drills, technicians attended seminars and classes in Hazardous Materials Identification and Incident Management. Technicians also train our Department members on hazardous materials awareness and operations.

The Crystal Lake Fire Rescue Department hosted a county-wide hazardous materials drill at Chemtool, a large manufacturer of mechanical grease. This opportunity was used to educate the Chemtool staff on our procedures should an incident occur, as well as providing McHenry County technicians an opportunity to train in their manufacturing operations.



Emergency Medical Services (EMS)

EMS Coordinator – Lieutenant Heidi Olsen

EMS Statistics – 2017

EMS Incident Outcome	Number of Patients	% of Patients
Hospital Transport	3,185	72%
Non-Transport	1,245	28%
Total	4,430	100%

Services Provided	Number of Patients	% of Patients
Advanced Life Support	1,998	45%
Basic Life Support	2,432	55%
Total	4,430	100%

Transport Destination	Number of Patients	% of Patients
Centegra-McHenry	1,138	25.69%
Centegra-Woodstock	583	13.16%
Centegra-Huntley	925	20.88%
Good Shepherd	439	9.91%
Sherman	93	2.10%
St. Joseph's	2	0.05%
Other	5	0.11%
Non-Transport	1,245	28.10%
Total	4,430	100%



Emergency Medical Services (EMS)

State Regulations:

Crystal Lake Fire Rescue Department operates a total of 6 ambulances, 3 engines and 1 ladder truck that carry basic and advanced life support equipment. This equipment is regulated by state guidelines. The Illinois Department of Public Health (IDPH) inspects each vehicle on an annual basis. All of the Department's vehicles successfully met and passed these State inspections.

Training:

Crystal Lake Fire Rescue personnel are trained as state certified emergency medical providers. This requires certification through the Illinois Department of Public Health. IDPH licenses people to assure they are competent and keep current in the practice of emergency medical services. This requires a minimum of 120 hours of approved continuing education every 4 years.

Equipment:

The Crystal Lake Fire Rescue Department purchased a second power cot this year; the Stryker Power-Pro XT. The Power-PRO XT is an innovative battery-powered hydraulic system that raises and lowers the patient with the touch of a button. Power cots reduce injuries and lost/modified workdays. Power cots are now the industry standard of care.

In 2017, Crystal Lake Fire personnel conducted trials on automatic CPR devices. These devices provide high quality, continuous CPR. They provide CPR while the patient is being moved and during transport, allowing the paramedics to provide uninterrupted Advanced Life Support interventions. The Crystal Lake Fire Department will continue to evaluate different devices with the hope of purchasing at least one in the future.



Stryker Power-Pro XT



Training Bureau

Bureau Chief of Training – Richard Kaiser, Jr.

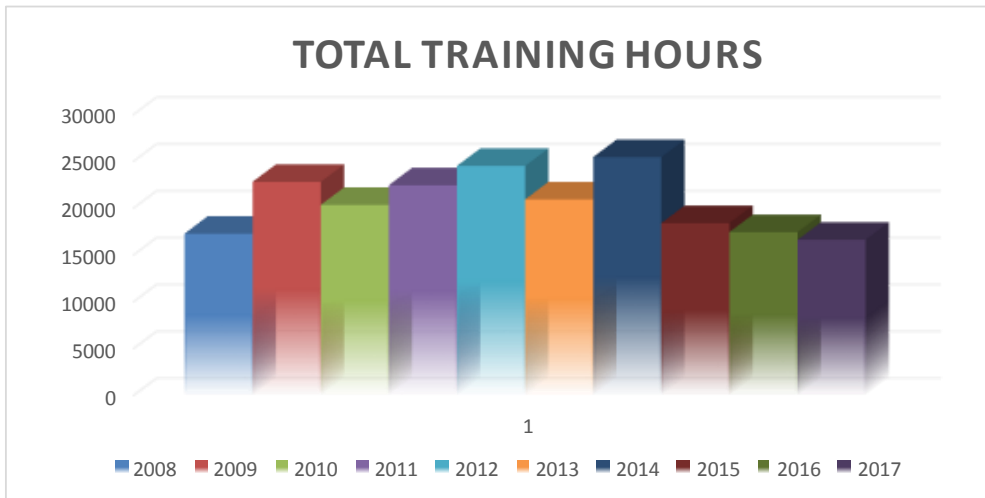
Training is crucial to ensuring benchmark emergency service delivery to our community. Training requirements for Crystal Lake Fire Rescue personnel are outlined by several organizations, such as the Occupational Safety and Health Administration (OSHA), Illinois Department of Labor (IDOL) and National Fire Protection Association (NFPA). Crystal Lake Fire Rescue Department (CLFRD) personnel participated in over 16,630 hours of training in order to learn new skills and remain proficient in all areas of emergency operations.

In 2017, the Training Bureau accomplished the following:

- Provided live fire and flash-over simulator training.
- Hosted a Youth Fire Setter Intervention Program class through the Office of the State Fire Marshal. The Crystal Lake Fire Rescue Department now has seven Youth Fire Setter Interventionists.
- Utilized the old Sears building for three days of firefighter training. This included supplying a sprinkler system, relay pumping through a wall-hydrant, large area search, hoseline advancement, ladder training, aerial ladder training, and cutting a flat metal and concrete roof.
- Completed hands-on auto extrication training with assistance from Whitey's Towing. This included extrication training on a school bus which will prepare our department in the event there is a major accident involving one of the many school buses that transport students throughout our district each year.

In 2017, each member of the Crystal Lake Fire Rescue Department participated in approximately 260 hours of training for the year, or 21.67 hours of training monthly. The Insurance Services Office (ISO) recommends each firefighter complete 240 hours per year, or 20 hours of training per month. Our training hours are directly related to the lower ISO rating of 2 achieved by this Department in 2016. The lower rating provides a cost savings to the homeowners in our service area through their homeowners insurance premium.





Professional Development and Certifications

- Seven personnel participated in the Fire Officer I program to further their training and to prepare for promotional advancement opportunities for the rank of Lieutenant.
- Three personnel participated in the Advanced Fire Officer certification program to further their education and prepare for promotional advancement opportunities for a Chief level position.
- Three members have joined the Technical Rescue Team and will complete all eight classes by the first quarter of 2018. These disciplines include: Trench, Confined Space, Ropes and Water trainings.
- All members completed Kinder Morgan pipeline safety and awareness training.

Many classes, seminars, and trainings were attended by our staff in 2017, including a large number of State certification courses. Some of the certification courses attended by Department personnel in 2017 are as follows:

- National Fire Academy Managing Officer Program
- Advanced Fire Inspector
- Basic Operations Firefighter
- Advanced Technician Firefighter
- Ice Diving Operations
- National Fire Academy- Decision Making for Initial Company Operations
- Reid Integrity Interviewing Class
- Severe Weather Spotters Class
- Water Operations & Technician Level certification
- Rapid Intervention Team Rescue Technician
- Youth Fire Setter Intervention Program
- Confined Space Operations & Technician Level
- CPR Instructor
- Dive Rescue I & II
- Hazardous Materials Incident Command



- Hazardous Materials Technician, A&B
- Incident Safety Officer
- Fire Officer I Courses
- Fire Officer II Courses
- Rope Operations & Technician Level
- Structural Collapse Operations
- Trench Operations & Technician Level
- Vehicle Machinery Operations & Technician Level



Flight for Life provided a bi-annual in-service to the Crystal Lake Fire Department.





Companies work on Truck Operations at an acquired structure building at 105 Northwest Highway (Sears)



Crews work on hose advancement and engineering skills at 105 Northwest Highway (Sears)



The dive team and Quarry Cable Park employees work on water rescue operations

City employees participate in safe and effective fire extinguisher training.



Safety Committee

Chairman — Bureau Chief Richard Kaiser, Jr.

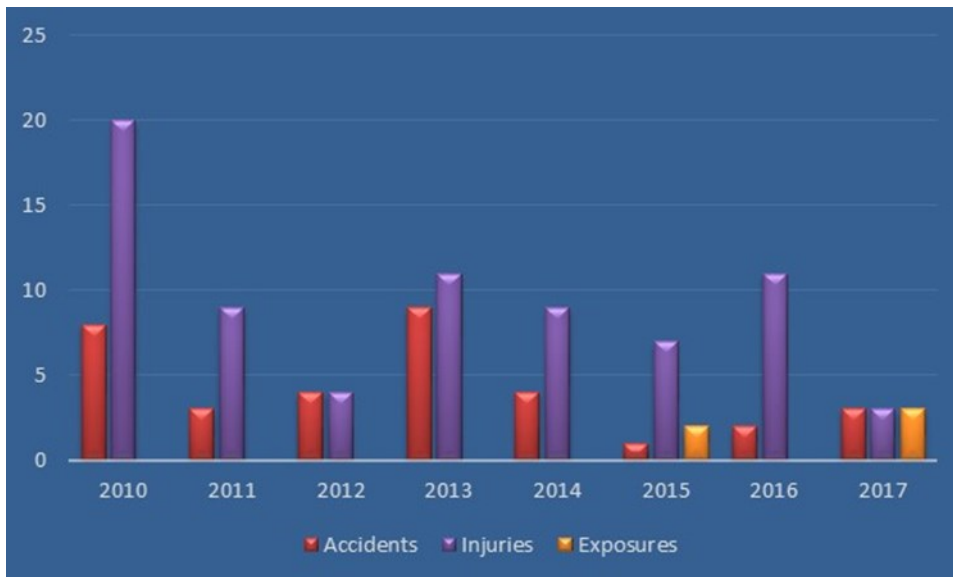
The Crystal Lake Fire Rescue Department continues to emphasize safety in our work practices and procedures. The health and safety of our personnel is paramount to be able to effectively perform our duties. The Department's Safety Committee continues to be an integral part of the City's risk management plan.

Following are several of the Crystal Lake Fire Rescue Department's activities during the past year in the promotion of a safe working environment:

- Continued driver education training.
- Continued promotion of the Department's Behavior Observation Program.
- Focused monthly safety messages, frequently addressing identified problem areas.

Accident/Injury Investigations

The Fire Rescue Department Safety Committee conducted a total of 10 accident/injury/exposure investigations for the year 2017. The following graph shows a comparison between previous years' accident/injury/exposure incidents:



*2015 is the first year we began to track exposures separate from injuries



Fire Investigation Program

Lead Investigator—Deputy Chief Christopher Olsen

Illinois Statutes defer responsibility of fire investigations to each individual Fire Chief of a municipality or fire protection district. These are completed by Office of State Fire Marshal (OSFM) certified investigators with 100 hours of training every 4 years. Currently, the Department has six fire investigators. Each investigator is required to maintain their certification through various means such as participating in investigations, training sessions, court testimony, and investigation ride-along opportunities. Training opportunities are gained through our membership with the Fire Investigation Strike Force, International Association of Arson Investigators (IAAI), and locally through the MABAS Division 5 Fire Investigators Group.

In 2017, the Crystal Lake Fire Rescue Department investigated a total of 11 fires within the jurisdiction, and one investigation completed assisting another department. Fires are classified in one of four categories. Those categories are: Accidental, Incendiary, Natural, or Undetermined. Most of the fires we investigate fall into the accidental or undetermined categories. While the investigator may be able to determine where the fire originated, it is not as easy to determine *exactly* what was the cause. Oftentimes it takes more testing to determine the exact cause and this is primarily the responsibility of the insurance company's fire investigators. Of the 11 investigations completed, three were determined to be accidental in nature, with the remaining eight being undetermined, pending further testing/investigation by the insurance company.



The remains of a fully involved structure fire. The exact cause of this fire is undetermined and remains under investigation.



The debris from a “room and contents” fire. The cause of this fire was most likely due to careless smoking.



Apparatus

Apparatus Coordinator – Lieutenant James Sustek

This year, the apparatus committee developed specifications for a new engine and 2 new ambulances. After months of vehicle specification reviews and several inspections, Engine 344 was delivered and put in service in the beginning of the year. The committee put many hours into specifying a new bariatric ambulance which was delivered and placed in service in mid 2017. The second ambulance had its final inspection in November and will be in service in early 2018. Upcoming projects include preparing specifications for a new ambulance and repurposing an older ambulance into a replacement dive rescue vehicle.

Vehicle Inspections and Maintenance

All applicable apparatus passed their D.O.T inspections, Underwriters Laboratories (U.L.) ground and aerial ladder testing, State EMS inspection, and National Fire Protection Association (NFPA) pump testing.

In 2017, the Department generated 225 service tickets for maintenance issues related to our apparatus and equipment. The apparatus committee worked closely with the City's Fleet and Facilities Division to ensure timely repairs.

Station	Tickets Generated
Station 1	100
Station 3	45
Station 4	80
Total	225



New Apparatus



**Engine 344
2017 Spartan**



**Ambulance 352
2017 Horton Ford F550**



**Ambulance 354
2017 Horton Ford E450**



Retired Members

After 5 years of service, Administrative Assistant Annette Kunes announced she was leaving the Fire Rescue Department to spend more time with her family. Annette served as the Public Education Coordinator along with her many other duties supporting our organization. We thank Administrative Assistant Kunes for her dedicated service to our Department and the community. We wish her the best in the future.



Station Locations



Fire Station One
100 W. Woodstock Street



Fire Station Three
844 Virginia Road



Fire Station Four
8705 Bard Road



Department Roster

Officers

Paul DeRaedt	Fire Rescue Chief
Christopher Olsen	Deputy Fire Rescue Chief
Robert Kohley	Bureau Chief of Fire Prevention
Richard Kaiser, Jr.	Bureau Chief of Training
Jerry Larsen	Battalion Chief – Black Shift
Casey Cork	Lieutenant
John Volenec	Lieutenant
Brian Tamason	Lieutenant
Bill Whyte	Battalion Chief – Red Shift
Heidi Olsen	Lieutenant
James Sustek	Lieutenant
Darrell Cook	Lieutenant
Chris Kopera	Battalion Chief – Gold Shift
Dan Grischow	Lieutenant
Chris Angelo	Lieutenant
Chris Bedore	Lieutenant
Joyce Stevenson	Lieutenant
Linda Olszak	Administrative Assistant
Lindsey Calin	Administrative Assistant
Art Lutherus	Fire Inspector
Chris Williams	Fire Inspector



Department Roster

Members

Aiello, Mike

Borst, Nick

Brechbiel, Bob

Bucheger, Adam

Chociej, Kamil

Delgado, Sergio

Forsberg, Joe

Fowles, Adam

Geyman, Michael

Gualdoni, James

Gundlach, Amanda

Hagen, Kim

Hagen, Scott

Havemann, Ed

Hurley, Mike

Jakubowicz, Ray

Kaltenbach, Dave

Kauke, Bryan

Kempe, Kyle

Kerley, Tim

Klug, Matt

Kownacki, Kevin

Kreher, Rich

Landwer, Mark

Leuck, Matt

Linneman, Tom

Lucas, Mike

Marino, Brian

Menzimer, Brian

Miller, Megan

Muscavitch, Ryan

Newton, Matt

Odishoo, Tim

Pace, Palmer

Pireh, Martin

Rosner, Joe

Ryan, John

Seyl, Robert

Smith, George

Spivey, Jim

Sypura, Andrew

Szatkowski, Dane

Thuma, Matt

Vega, Ramon

Walker, Curt

Williams, Dan

Wisz, Rob

