CRYSTAL LAKE FIRE RESCUE

Annual Report 2013



Red Shift Members of Fire Station 3

Crystal Lake Fire Rescue Department
2013 Annual Report

Gary J. Mayerhofer, City Manager
City of Crystal Lake

Dear Mr. Mayerhofer,

It is my pleasure to present to you the 2013 Crystal Lake Fire Rescue Department Annual Report. The Crystal Lake Fire Rescue Department has created this narrative to provide an accounting to you, the City Council, the Fire District Trustees, and the community, of the management and guardianship of the mission and resources entrusted to the Fire Rescue Department. Its contents detail the Department's efforts, challenges and accomplishments in the past year.

As you review this report, the commitment of the men and women of the Crystal Lake Fire Rescue Department to live the values of our organization…. "Serving Crystal Lake with P.R.I.D.E." (Professionalism, Readiness, Innovation, Dedication and Empowerment) will be self-evident.

The Department's ability to provide service is interrelated with numerous factors. A key factor is the organizational support provided by you, the Mayor, the City Council, the Fire District Trustees and the community. The members of the Fire Rescue Department deeply appreciate this support and strive to be a "Benchmark Organization."

Listed below you will find highlights of the Department's accomplishments in 2013:

- Responded to over 5,400 calls for service.
- Constructed a dedicated Emergency Operations Center.
- Completed the revitalization and construction of an addition to Fire Station Three.
- Completed the revitalization of Fire Station Four.
- Developed a comprehensive Master Address Repository (MAR).
- Continued Officer Development on a monthly basis.
- Maintained the Crystal Lake Wireless Alarm Network (CLWAN).
- Continued to focus on the training and professional development of all personnel.
- Attended two days of damage assessment and debris removal training with several City departments.
- Attended a community specific training on large scale emergency management with McHenry County municipal and county representatives.
- Completed Life Safety Inspections in over 480 occupancies in the Crystal Lake community.
- Updated the Department's comprehensive Policy and Procedure Manual to provide consistent direction to our emergency response personnel.
- Continued the Department's Observed Behavior Safety Training Program to place an increased focus on the safety of personnel.
- Continued to develop and train on fire ground operational policies.

- Provided community support through active participation in and donations to the Salvation Army and Crystal Lake Food Pantry.
- Replaced automobile extrication equipment. The new equipment will be capable of cutting and spreading today's composite metals.

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,

James P. Moore
Fire Rescue Chief

Table of Contents

Department Overview 5
Year in Review 6
Annual Department Awards 14
Incident Statistics 16
Public Education 19
Fire Prevention Bureau 22
Specialized Rescue Teams 24
Emergency Medical Services (EMS) 27
Training Bureau 30
Safety Committee 35
Fire Investigation Program 37
Quartermaster Program 38
Juvenile Firesetter Program 38
SCBA Program 39
Apparatus 40
Retired Members 41
Station Locations 42
Department Roster 43

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 and portions of Lake in the Hills. The area served is approximately 46.2 square miles, with a resident population of over 52,000 based on the 2010 census. Services provided include fire protection, emergency medical care (Advanced Life Support), fire inspections, public education, hazardous material response, water rescue, and special team responses such as trench, confined space, rope, and dive rescue. The City of Crystal Lake is the largest city in McHenry County, and the Crystal Lake Fire Rescue Department's service area includes three 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 73 personnel. Staffing is provided by three shifts of full-time firefighters on a 24/48-hour schedule, and is supplemented with paid-on-premise firefighters. 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. Minimum staffing for emergency response is currently 15 firefighters per shift. Approved day positions (40-hour week) include Fire Rescue Chief, Deputy Chief, Bureau Chief of Training, Bureau Chief of Fire Prevention, Fire Inspector, and Administrative Assistant (2). In 2013, the Department responded to 5,452 incidents. 64% of the incidents involved emergency medical care.

Year in Review

Deputy Fire Rescue Chief – Paul DeRaedt

2013 brought improvements in service for the Fire Rescue Department especially in the area of emergency management. The Department remains committed to providing the best possible service, which is accomplished by the dedication of the men and women of this Department and their commitment to the citizens of Crystal Lake.

Community Fundraising
Fire Rescue personnel participated in two, off-duty fundraising events this year.

- For the eighth year, fire rescue personnel participated in the Salvation Army's Red Kettle fundraising campaign. In 2013, the Crystal Lake Fire Rescue Department raised $19,400.

- In lieu of holiday gifts, the Officers and Firefighters of the Crystal Lake Fire Rescue Department personally donated $625.00 to the Crystal Lake Food Pantry as part of the Officers' holiday tradition.



Crystal Lake Fire Rescue Department Officers present a check to the Crystal Lake Food Pantry.

Emergency Operations Center
Construction of a dedicated Emergency Operations Center (EOC) in the basement of the Municipal Complex was completed in April of 2013. Technology integration and situational status boards in the EOC have given the City the ability to quickly respond to and coordinate an extended response to incidents that impact the City beyond normal operations.

An Emergency Operations Center (EOC) is a central location from which local governments can provide interagency coordination and executive decision making in support of incident response and recovery operations. The purpose of the EOC is to provide a centralized location where public safety, emergency response, and support agencies coordinate planning, preparedness, and response activities.

The EOC does not command or control on-scene response efforts, but does carry out the coordination functions through:

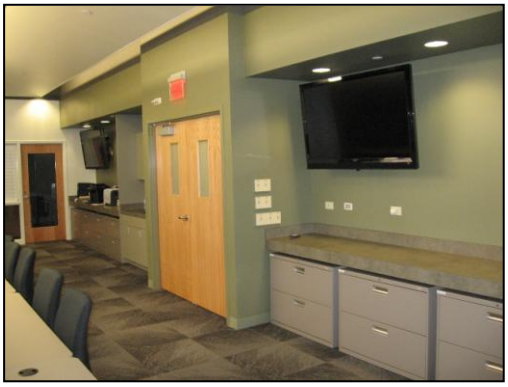
1. Collecting, evaluating and disseminating incident information.
2. Analyzing jurisdictional impacts and setting priority actions.
3. Managing requests, procurement, and utilization of resources.

The decisions made through the EOC are designed to be broad in scope and offer general guidance on priorities. Information is disseminated through the EOC Manager and tactical decisions are coordinated from field response personnel. The EOC serves as a coordinated link between the Chief Elected Official (CEO) of each jurisdiction and the field personnel coordinating the execution of event priorities.

The Crystal Lake EOC was designed to provide great flexibility in order to adjust with the priorities for each operational period. The technology for this center was funded through a grant from the Illinois Emergency Management Agency.



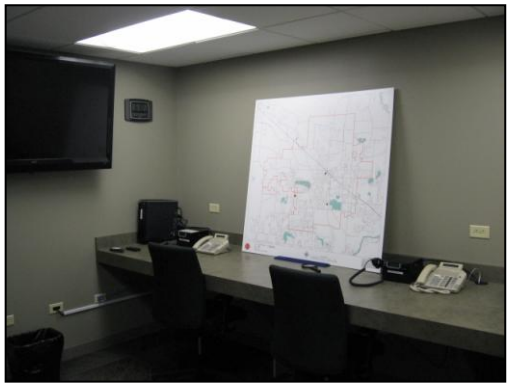
EOC space before construction in early 2013.



EOC entrance and screens to monitor weather and resources.



Situation status boards to monitor incident activity.



Command Center showing maps, radios and phones.

Emergency Operations Center Activation
On June 26, 2013, the Command Center was activated due to 3.5 inches of rainfall in one hour, which caused significant flooding. As the urgent calls were handled by the personnel in the Command center, a Level 2 activation of the Emergency Operations Center (EOC) occurred in order to provide for a collaborative City-wide response to the flooding that was affecting residents and businesses.

Promotions
In 2013, the Department celebrated the promotions of Lieutenants Darrell Cook, James Sustek, and Chris Angelo. The promotions are a career milestone for these individuals and a leadership development opportunity for the Department.







Fire Service Accreditation
The Commission on Fire Accreditation International (CFAI) has created a comprehensive self-assessment and evaluation model that enables fire and emergency service organizations to examine past, current, and future service levels and performance, and compare them to industry best practices. This process leads to improved service delivery by helping fire departments:

- Determine community risk and safety needs.
- Evaluate the performance of the department.
- Establish a method for achieving continuous organizational improvement.

The goal of the Fire Rescue Department is to achieve fire service accreditation in 2015. The Fire Service Accreditation process will require a critical evaluation of the Fire Rescue Department in a full range of performance evaluation categories:

- Assessment and Planning
- Essential Resources
- External Systems Relations
- Financial Resources
- Goals and Objectives
- Governance and Administration

- Human Resources
- Physical Resources
- Programs
- Training and Competency

Each category includes a measure on which a judgment can be based, as well as indicators that define the desired level of ability to perform a particular task.

Fire Station 3

The renovation of Fire Station 3 was completed in July of 2013. The project included additional living space being added over an existing foundation that maximized the foot print of the existing building. Other improvements included in the revitalization of the building were fresh paint, new roof, new bathroom fixtures, new light fixtures, replacement windows, and garage doors.



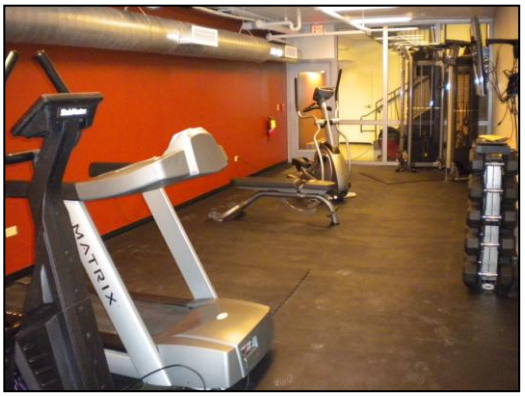
New two story addition with office and kitchen.



New kitchen on second floor.



New office area and main entrance.



Remodeled basement to include exercise area.

Fire Station 4
Built in 1990, this fire station has served the City of Crystal Lake well. After 22 years, the fire station was in need of revitalization to replace aging building features. Among the items receiving attention during this project were:

- Replacement of the fire alarm system
- Replacement of exterior siding
- Replacement of kitchen cabinets and countertops
- Replacement of carpeting and floor tile
- Repainting of all interior walls and door frames
- Replacement of interior light fixtures

New Ambulance
The efforts of the Department's Apparatus Committee and support of the City Council lead to a new style of ambulance being specified, purchased, and delivered. A 2013, Horton, Type I ambulance was placed in service in August 2013.



Crystal Lake Ambulance 354

Emergency Management Tabletop Exercise
The City of Crystal Lake and Fire Rescue Department hosted training and a tabletop exercise for the Commonwealth Edison Joint Operations Center (ComEd JOC). The ComEd JOC is hosted in the Crystal Lake Municipal Complex when a power outage affects 20% of the McHenry County area for more than 3 hours. Our City and Staff rated among the best of the 17 ComEd JOC's throughout Illinois.

Emergency Management Training
The Fire Rescue Command staff attended two days of training/exercises conducted by the Illinois Emergency Management Agency on Damage Assessment and Debris Management. Fire Rescue personnel were joined by City representatives from Community Development and Public Works.

Integrated Emergency Management Course (IEM)
During the week of March 11, 2013, eight representatives from the City of Crystal Lake joined 60 local government officials from McHenry County for a week long, intense training on large scale emergency management. The IEM course focused on community specific response within McHenry County in order to provide realistic, results driven training. This focus allowed local municipalities to coordinate and integrate services to disasters simulated within our County. City of Crystal Lake departments represented were the City Manager's Office, and the Public Works, Police, and Fire Rescue Departments.



Crystal Lake Fire Rescue Command Staff members (L-R); BC Robert Kohley, BC William Whyte, DC Paul DeRaedt, Chief James Moore, BC Christopher Olsen, BC Thomas Pollnow, BC Jerry Larsen

Significant Structure Fire
On May 1, 2013, Fire Rescue personnel were dispatched for a structure fire at 3217 Carrington Drive. Upon arrival, the initial fire crew reported a “two story, single-family residence was fully involved”. As the original structure was “fully involved”, fire crews focused their attention on the neighboring houses that were starting on fire from the radiant heat, high winds, and flying embers.

Firefighters worked to overcome numerous challenges such as:

- No hydrants with tender recycle time of 17 minutes
- Limited access subdivision
- Critical fire flow of 3,000 gpm
- Building components
- Wind-driven fire
- Firefighter exertion

Thanks to the hard work of Crystal Lake Fire Rescue personnel and 40 mutual aid companies, this significant fire was limited to one house destroyed and four others

damaged. Thanks to the firefighters' committed efforts, this incident did not result in the complete destruction of numerous structures.



Original fire building shortly after crews arrived on scene.



Crews work to extinguish one of the exposure buildings.



Crystal Lake's ladder and crew work on another building.



View of another exposure building with fire on the roof.

Auto Extrication Equipment and Training

A great accomplishment that was completed this year was the purchase of new auto extrication equipment. This equipment replaced tools that had been in-service for over 17 years and reached their serviceable life span. In addition, new metal composites used to manufacture today's automobiles made it necessary to upgrade the Department's extrication capability.

A due diligence process was completed in order to garner the input of all interested parties. A committee of Fire Rescue personnel was assembled to determine a tools needs assessment while providing equipment that met industry standards. The committee came up with a comprehensive list of tools needed and then determined how the tools would be distributed among the vehicles. These tools involved hydraulic and pneumatic rescue tools, as well as stabilizing struts.

Once the needs assessment was completed, a substantial amount of funding was needed to be secured for this purchase. Support for this project came from the City of Crystal Lake, Crystal Lake Fire Rescue Association, Crystal Lake Foreign Fire Insurance Board, and the Crystal Lake Rural Fire Protection District. The Department was able to outfit four engines and one aerial ladder with extrication tools.

The Extrication Committee compiled comparable specifications for tools based on the needs of the Department. Four manufacturers were discussed and vendors were contacted to present these tools to the committee members and provide them with the opportunity to work hands-on with the equipment. Careful evaluation of each tool was conducted with comparisons and evaluations done on:

- Weight of tool(s)
- Durability
- Cutting and spreading force
- Speed of cutting and spreading
- Maneuverability
- Warranty

The committee evaluated all the tools in real-life situations on actual vehicles. These vehicles were donated to us by Herrick's Auto Body and Whitey's Towing. Upon completion of the evaluation, a competitive bid specification was established and distributed to qualified vendors. As a result of this process, the Crystal Lake Fire Rescue Department was able to purchase auto extrication equipment at a very competitive price.

After delivery of the tools, extensive training was conducted using additional vehicles donated by Whitey's Towing. Training was conducted indoors at the former Alexander Lumber property on Virginia Road.

Along with the tools, specific personnel have been trained as service technicians to be able to perform maintenance on the hydraulic rescue tools, eliminating the need to send the tools out for costly repairs by an outside source. These tools will provide many years of service.





Shown L-R is a spreading tool and a cutting tool.

Annual Department Awards

Annual awards were again presented to Fire Rescue personnel. Members were recognized in 3 award categories: Department Service Awards, EMS Service Awards, and Department Recognition Awards.

Service Awards:

Christopher Williams	30 years
Matt Thuma	15 years
Heidi Olsen	10 years
Michael Aiello	5 years
Nicholas Borst	5 years
Adam Bucheger	5 years
Michael Geyman	5 years
Amanda Gundlach	5 years
Scott Hagen	5 years
Richard Kreher	5 years
Mark Landwer	5 years
Art Lutherus	5 years
Timothy Odishoo	5 years
Martin Pireh	5 years
James Spivey Jr.	5 years
Andrew Sypura	5 years
Dane Szatkowski	5 years
Robert Wisz	5 years

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

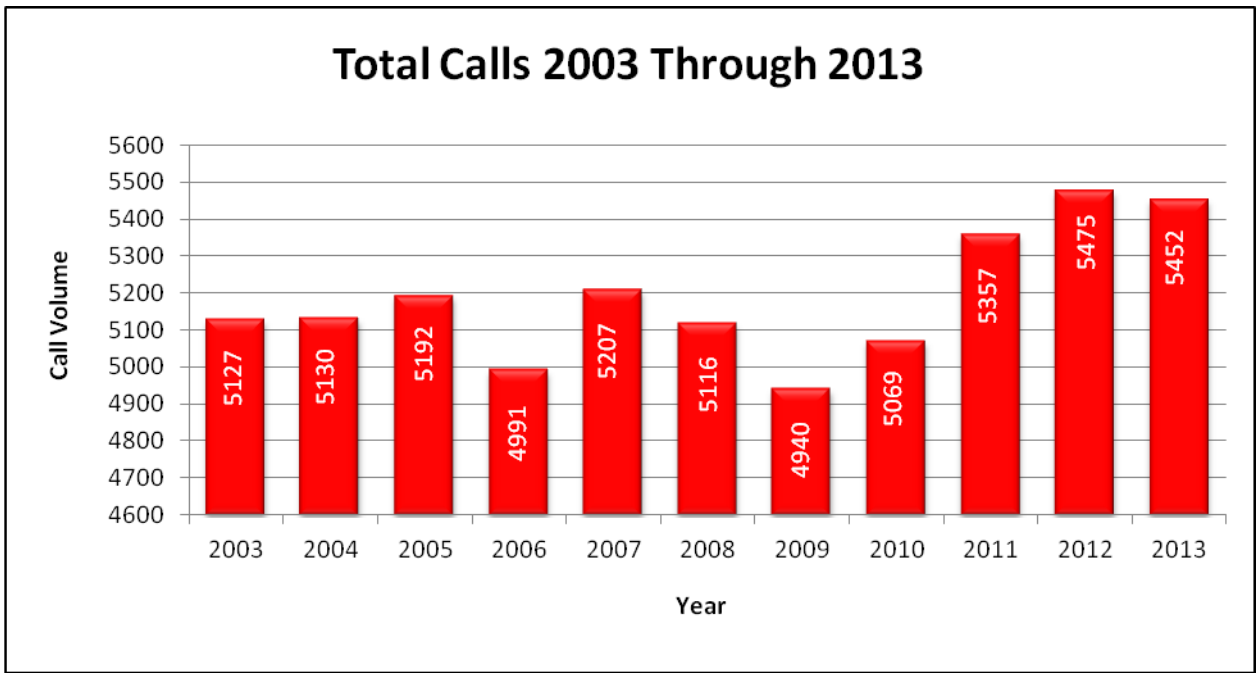
Christopher Williams	30 years
Dan Grischow	25 years
Bob Lutherus	25 years
Jerry Larsen	25 years
Rick Kaiser	20 years
Ed Havemann	15 years
Brian Menzimer	15 years
Chris Angelo	10 years
Kevin Kownacki	10 years
Mark Landwer	10 years
Mike Aiello	5 years

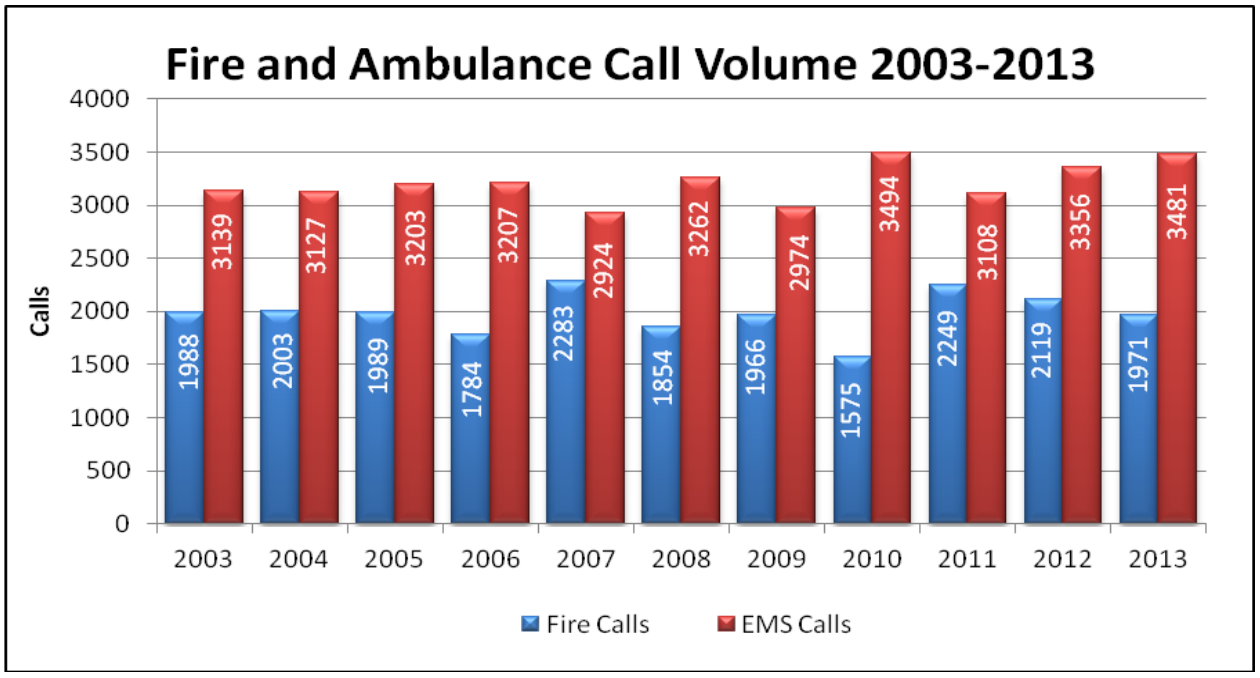
Department Recognition Awards

Type of Award	Date of Incident	Description	Crew Receiving Award
Unit Performance Award	4/14/13	Removal of victim from single-family structure fire	Lts Cook, Kopera and Volenec, FF/PMs Bedore, Borst, Brechbiel, Geyman, Havemann, Hurley, Kownacki, Kreher, Newton, Schmitt, Spivey, Sustek, and D. Williams,
Unit Performance Award	5/1/13	Multiple wind driven structure fires within one residential neighborhood	Chief Moore, BCs Kohley, Olsen and Pollnow, Lts Butler and Volenec, Fire Inspector Art Lutherus, FF/PMs Bucheger, Forsberg, Gundlach, Kaltenbach, Kerley, Klug, Linneman, Marino, Muscavitch, Pace, Pireh, Rozhon, Ryan, Sustek, Szatkowski, Tamason, Thuma and FF/EMT C. Williams
Award of Recognition	12/1/13	Dedication for researching & presenting Department history for City's Centennial Celebration	FF/EMT C. Williams
Award of Recognition	12/7/13	Operation North Pole	Chief Moore, DC DeRaedt, BCs Kohley, Pollnow and Whyte, Admin Assts. Olszak and Kunes, Lt's Cork, Kaiser, Kopera, Lutherus and Stevenson, FF/PMs Bucheger, Fowles, Havemann, Hurley, Kaltenbach, Kauke, Kerley, Kownacki, Linneman, Marino, Muscavitch, Newton, Pace, Pireh and Smith
Award of Recognition	12/20/13	Actions taken at a structure fire that positively impacted personnel safety	Lt. Kaiser, FF/PMs Cook and Kerley

Incident Statistics

Battalion Chief William Whyte





Crystal Lake Fire Rescue Department
2013 Annual Report

Fire Rescue Department Calls for Service 2011-2013

Incident Type	#2011	%2011	#2012	%2012	#2013	% 2013
Fire	75	1.40%	110	2.01%	70	1.28%
Rescue and EMS Incidents	3,502	65.37%	3,768	68.82%	3,856	70.73%
Hazardous Conditions (No Fire)	345	6.44%	218	3.98%	204	3.74%
Service Call	456	8.51%	509	9.30%	397	7.28%
Good Intent Call	190	3.55%	188	3.43%	195	3.58%
Fire Alarms	789	14.73%	682	12.46%	730	13.39%
Total	5,357	100.00%	5,475	100.00%	5,452	100.00%

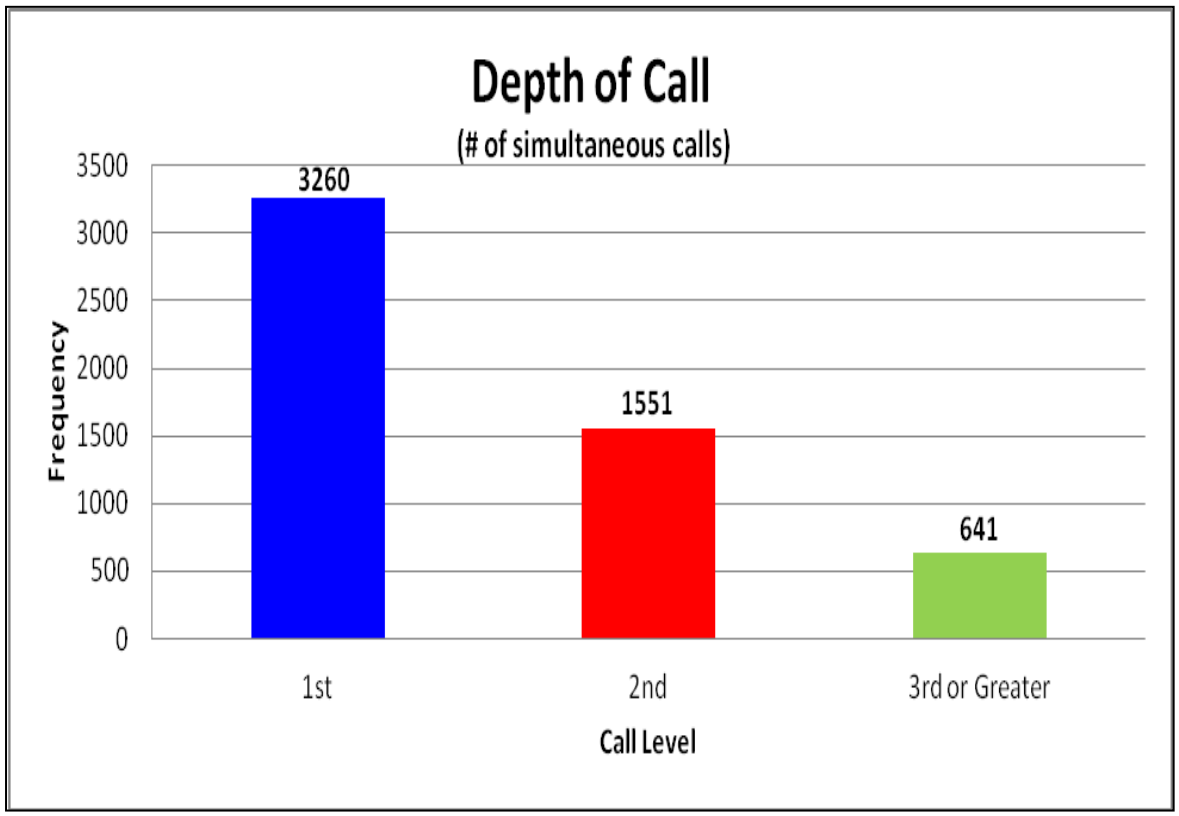
Jurisdiction	#2011	%2011	#2012	%2012	#2013	% 2013
City of Crystal Lake	4,622	86.28%	4,807	87.80%	4,766	87.42%
CL Rural FPD	616	11.50%	550	10.05%	568	10.42%
Out of District	119	2.22%	118	2.16%	118	2.16%
Total	5,357	100.00%	5,475	100.00%	5,452	100.00%

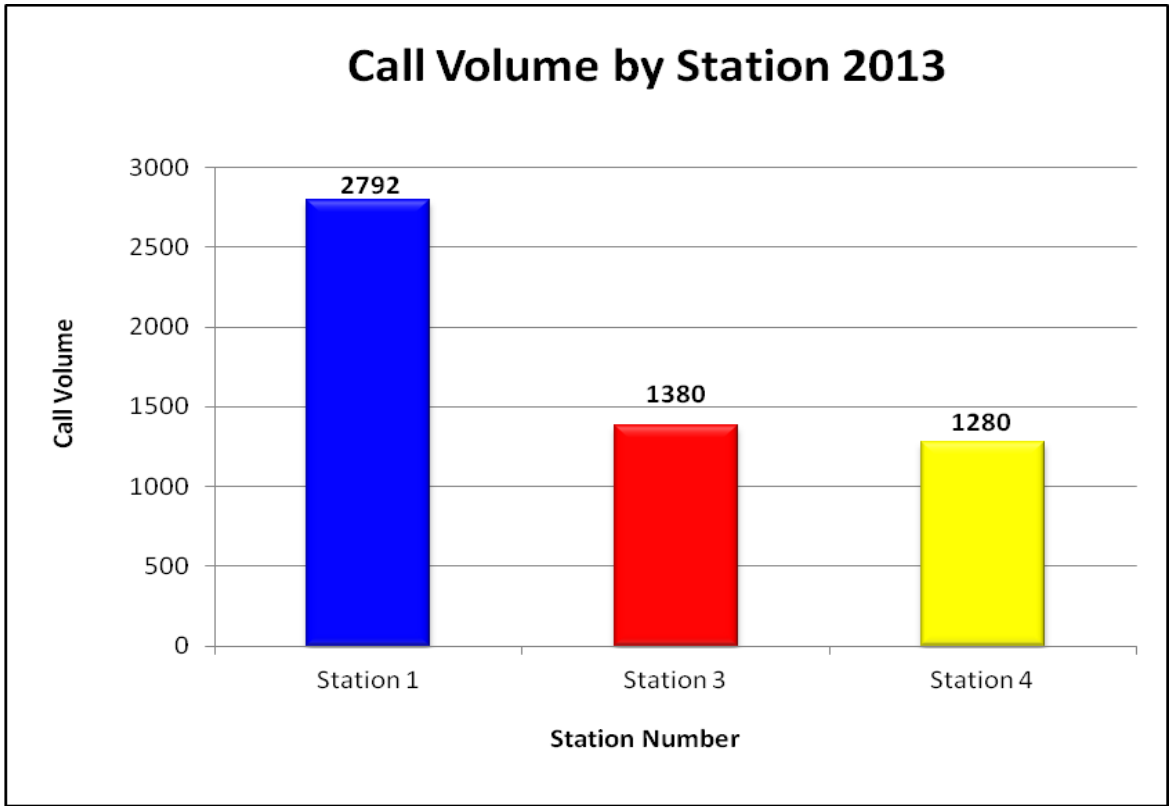
Crystal Lake Fire Rescue Department Fire Suppression Response Times Within Each Response District

	Station 1	Station 3	Station 4
Average Alarm Processing Time	1:50	1:44	1:57
Average Turn Out Time	0:53	0:52	0:52
Average Travel Time	4:22	4:31	5:27
Average Alarm To Scene Time	**7:05**	**7:06**	**8:16**

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

	Station 1	Station 3	Station 4
Average Alarm Processing Time	1:56	1:54	1:54
Average Turn Out Time	0:28	0:27	0:27
Average Travel Time	3:46	3:49	4:53
Average Alarm To Scene Time	**6:10**	**6:09**	**7:14**


Depth of Call
(# of simultaneous calls)
Frequency
3500
3000
2500
2000
1500
1000
500
0
3260
1551
641
1st
2nd
3rd or Greater
Call Level


Call Volume by Station 2013
Call Volume
3000
2500
2000
1500
1000
500
0
2792
1380
1280
Station 1
Station 3
Station 4
Station Number

Public Education

Coordinator- Katelyn Lorenz

Public Education is a section of the Crystal Lake Fire Rescue Department's Fire Prevention Bureau. It supports the Fire Prevention Bureau by informing all age groups about fire prevention with the goal of reducing fires, fire injuries, and fire deaths. The Fire Rescue Department receives many requests each year to conduct tours and fire safety talks for school groups, scouts, senior groups, businesses, and other organizations. In 2013, 118 events were presented to approximately 6,883 people.

The majority of the public education events were directed to school children from ages 3 to 9 years old. All children are taught to STOP, DROP, and ROLL in the event of their clothes catching on fire and to know that a firefighter is a friend who will help them. Older children are encouraged to make and practice a fire escape plan with their family. All children are encouraged to know the emergency number 911, as well as their name, address, and telephone number. Also, the Fire Rescue Department's Life Safety Trailer, which simulates a single-family home, is an excellent tool for teaching families about fire escape and the importance of practicing exit plans.



FF/PM Mark Landwer talks with some children about being a paramedic.

In 2013, 11 public fire extinguisher classes were conducted with a total of 219 students participating. The classes were conducted utilizing the Bullex Fire Extinguisher Training System.



Fire Extinguisher Demonstration

Crystal Lake Fire Rescue Department
2013 Annual Report

The Crystal Lake Fire Rescue Department has 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.

Listed below is a breakdown of events and participants for the 2013 year:

Type of Education	Amount of Events	Total Participants
Preschool Events	44	866
High School Events	5	228
Safety House	12	923
Scout Events	11	151
Adult Events	7	116
Extinguisher Demos	11	219
Community Events	8	3,804
Career Talks	5	360
Mom's Groups	1	9
Other	2	207
Total	**106**	**6,883**

CPR Coordinator – Lieutenant Joyce Stevenson

Cardiopulmonary Resuscitation (CPR) classes continue to be in demand as more Crystal Lake businesses, churches, and non-profit agencies are purchasing Automatic External Defibrillators (AED). The Crystal Lake Fire Rescue Department offers American Heart Association (AHA) certification for the following classes:

- Healthcare Provider
- Healthcare Provider Recertification
- Heartsaver AED
- Heartsaver/First Aid

The Department offers regularly scheduled classes each month and will schedule classes for organizations such as schools, churches, scouts, and social service organizations. The Department also demonstrates Hands Only CPR for those individuals who want to administer aid but have not had a CPR class. An online course is also offered for healthcare providers through the American Heart Association. After completing the online course, students are given a certificate to bring to an instructor who tests their hands-on skills.

Listed below is the breakdown of the classes taught in 2013:

Group	Number of Students	Number of Classes
Heartsaver AED	43	6
Heartsaver AED First Aid	79	10
Healthcare Provider	31	5
Healthcare Provider Recertification	133	13
Online Recertification	7	7
Total	**293**	**41**

Information regarding CPR training classes can be found at:

- www.crystallake.org
- The City of Crystal Lake Public Access Channel 17
- The City of Crystal Lake Newsletter

Fire Prevention Bureau

Bureau Chief of Fire Prevention - Jerry Larsen

Fire Prevention Programs focus on the three E's of Fire Prevention - Education, Enforcement, and Engineering. Providing education to building designers, contractors, and business owners and their employees about safe practices can reduce the chance of fire in their buildings. Enforcement is aimed at reducing fire hazards, as well as mandating the proper installation and maintenance of a building's fire and life safety features. Engineering is about designing buildings properly with respect to fire and life safety. Plan review is part of this process. The Crystal Lake Fire Prevention Bureau's continued focus on the three E's of Fire Prevention is a critical step in helping ensure the safety of the Crystal Lake community.

Plan Reviews

During the calendar year of 2013, the Fire Prevention Bureau completed 405 plan reviews. Plans for any type of structure, system, or event are reviewed by the Fire Prevention Bureau for code compliance. The approved plans are then used for construction in the field or set up for an event. The Fire Prevention Bureau strives to complete reviews within the established City deadlines of 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 time frames. For the calendar year of 2013, 99.01 percent of the reviews were completed within the time frames. Listed below are the types and amounts completed:

Type of Review	2012	2013
Building Permit	126	138
Building Permit Occupancy	10	-
Sprinkler System	69	75
Fire Alarm System	89	73
Wet Chemical	9	12
PUD	17	7
SUP	12	5
TUP	21	30
Variation	16	6
Façade Grant	8	-
Cursory	15	14
FOIA	35	44
County-Residential	1	1
Total	**428**	**405**

Building Permit Occupancy[1] – The Crystal Lake Department of Community Development – Building Section discontinued use of this category in April of 2012.

Inspections / Code Enforcement

The Fire Prevention Bureau completed 1,060 inspections in calendar year 2013. Inspections of this type are for system acceptance, occupancy approval, or code compliance. Listed below are the types and amounts completed:

Inspection Type	Number of Inspections 2012	Number of Inspections 2013
Construction / Status	139	99
Fire Alarm	133	112
Sprinkler System	144	147
Hood or Other Suppression	25	13
Life Safety Follow Up / Target Hazard	156	193
Occupancy	284	280
Concerns / Condition Report	196	216
Total	**1,077**	**1,060**

Life Safety Inspections

During calendar year 2013, the Fire Rescue Department conducted 721 Life Safety Inspections. Life Safety Inspections are conducted by on-duty fire crews and are focused on life safety features such as exiting, emergency lighting, storage, and other items that could cause a fire to start.

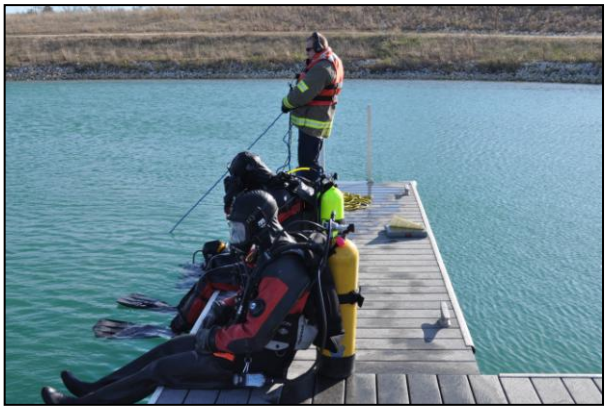
Life Safety Inspections	Calendar Year 2012	Calendar Year 2013
Initial Inspections	481	487
Re-Inspections	220	234
Total	**701**	**721**

Specialized Rescue Teams

Dive Rescue Team Coordinator – FF/PM Chris Bedore

The Dive Rescue Team (DRT) currently has seven active members with one new diver added to the team in 2013. The following accomplishments were seen in 2013:

- All divers tested and passed the required annual watermanship skills.
- All divers met or exceeded the minimum required training dives set by the Lake/McHenry Counties Specialized Rescue Team's (SRT) annual requirements for a member to be active and participate in Mutual Aid Box Alarm System (MABAS) evolutions.
- The DRT participated in training in conjunction with local lifeguards from both the Crystal Lake Park District and Three Oaks Recreation Area.
- The DRT held nine open-water training dives. Five of the training dives were open to all MABAS divers.
- The DRT members participated in one MABAS ice dive in McHenry.
- The DRT held three pool sessions at the Sage YMCA for Annual Watermanship / SCUBA skills.
- FF/PM Chris Bedore became the Area 5 representative of the Lake / McHenry Counties Dive Rescue Team.
- Members of the DRT participated in a MABAS readiness drill on September 10th. MABAS Division 5, of which Crystal Lake is a member, was rated as the top division of response agencies participating in the drill.



Dive Rescue Team training at
Three Oaks Recreation Area

SRT Coordinator – FF/PM Dan Grischow

The Crystal Lake Fire Rescue Specialized Rescue Team (SRT) is a part of the larger Lake / McHenry Counties Specialized Response Team, which prepares for high risk, low frequency incidents. As no one department can have all of the equipment and manpower necessary to handle these events, the combined manpower and specialized equipment from Lake and McHenry Counties are able to handle these specialized calls for service.

Team members train in four major specialties:

- Structural Collapse
- Trench Rescue
- Confined Space Rescue
- High Angle Rescue

Training

Crystal Lake technicians attended over 120 hours of additional rescue training this year. Along with hosting an equipment inventory drill in January and Structural Collapse drill in February, Crystal Lake technicians provided manpower and equipment for ten other drills around McHenry County. Annually, Crystal Lake technicians attend drills throughout Lake and McHenry Counties and must complete at least eight drills and one update each year. Trainings included structural collapse rescue, slope evacuation, trench rescue, and confined space rescue.

Two Crystal Lake Firefighters began their training to become SRT technicians and one firefighter has completed the training to the operations level with the Lake / McHenry Counties team this past year. A commitment of four, 40-hour training classes is needed to obtain operations-level certification and four additional 40-hour training classes are needed to reach technician-level certification, as required by the office of the Illinois State Fire Marshal.

Equipment

Crystal Lake Fire Rescue continues to house the Lake / McHenry Counties Urban Search and Rescue (USAR) truck and two roll-off containers at Fire Station 3. This year, with the remodeling of Station 3, the containers were given a new concrete pad to be staged on. This will allow for rapid deployment of these heavy containers. The USAR containers house tools and specialized equipment that team members can use to handle almost any type of specialized rescue incident. One container holds the equipment needed for high angle rescue, confined space, and structural collapse rescue (SRT 5). The other container has been designated as the trench container (Trench 5) because it is larger and can hold the large amount of equipment and lumber needed for a trench collapse incident. All Crystal Lake Fire Rescue members are trained to drive and load containers on the vehicle in case they need to respond to an incident with a container in either Lake or McHenry Counties.





Pictured L-R is roll-off containers SRT 5 and Trench 5.

Haz Mat Team Coordinator – FF/PM Dan Grischow

Crystal Lake Hazardous Materials (Haz Mat) Team members, like the SRT Team members, are part of the larger Lake / McHenry Counties Hazardous Materials Team. Crystal Lake's team members are certified to the Hazardous Materials Technician B level (highest level of certification). This involves an annual commitment of at least 40 extra hours of hazardous materials training. Technicians train with specialized monitors, fully encapsulated suits, and a host of other specialized equipment.

Incidents
Lake / McHenry Counties Hazardous Materials Technicians responded to two incidents in 2013. In Crystal Lake, there was a callout to mitigate a chemical reaction in a vessel at a Crystal Lake business. Fortunately, the chemical reaction was quickly cooled and the vessel did not pressurize enough to fail.

In a separate incident, Crystal Lake Firefighters and Hazardous Material Technicians were called for an explosion and fire at a Cary commercial building. The fire was challenging for all the departments involved due to the size of the building and the numerous chemicals housed in the building.

Training
Crystal Lake technicians attended over 80 hours of continuing education during 2013, including monthly drills and seminars in hazardous materials identification, incident management, and chemical process industries. Crystal Lake Technicians trained our Firefighter / Paramedics on hazardous materials awareness and operations.

Emergency Medical Services (EMS)

EMS Coordinator – Lieutenant Heidi Olsen

Organizational Structure
To better manage and improve efficiency, the EMS Division was restructured in 2013. The assignment of Assistant EMS Coordinator was introduced this past year. This assignment supports the EMS Coordinator and works with EMS Liaisons to ensure equipment stocks are maintained and oversee the readiness of the ambulances. In addition to the Assistant EMS Coordinator, a Data Assistant assignment was also introduced this past year. The Data Assistant ensures EMS reports (Image Trend) are in compliance and provides monthly and yearly patient care statistical data. In an effort to provide consistent communication between the shifts, the Department has developed a system that has at least two members of the EMS Division working on each shift. This enables better communication and provides for minimal downtime of equipment. The following are the EMS Division members:

Coordinator:	Lt. Heidi Olsen
Assistant Coordinator:	FF/PM Palmer Pace
Data Assistant:	Lt. Chris Kopera
EMS Liaisons:	FF/PMs Havemann, Tamason, Aiello, Geyman, and Muscavitch

Policy Development
One of the focuses during the past year for the EMS Division has been the safety of our personnel. Several policies have been developed to provide direction and safety for Crystal Lake Fire Rescue Personnel.

1. Lift Assist Policy: This policy was developed to provide direction for our personnel to ensure proper documentation of the care and treatment of our patients. This policy provides protection to the Department and our personnel and is compliant with McHenry / Western Lake County, Region IX, EMS Guidelines.

2. Concealed Carry Weapons Policy: This policy has been developed in response to the legalization of Concealed Carry in Illinois beginning January 1, 2014. The policy outlines the proper care and transport of a weapon that may be legally carried on a person and that Crystal Lake Fire Rescue Personnel may encounter. This policy has brought about weapon safes being purchased and secured in all ambulances and the Shift Commander's vehicle. This policy provides safety for our personnel within the legal parameters of the new state law. Training on safe weapons handling is being provided in conjunction with Law Enforcement and will continue into 2014.

EMS Continuing Education
The Crystal Lake Fire Rescue Department strives to be the benchmark organization for emergency services. Endotracheal intubation and airway management are critical lifesaving skills. The Crystal Lake Fire Rescue Department has developed and implemented an airway training obstacle course. This course has several components that develop and test paramedic skills while working in challenging and stressful environments. The training has led to an improvement in the Department's success rate for endotracheal intubation. Our personnel showed a 100% success rate with 17 for 17 on the use of endotracheal intubation to aggressively manage an unstable airway. Quick, proper, and effective intubation, along with other advanced life saving interventions, offers the patient the best probability of a better outcome.

Equipment
The Crystal Lake Fire Rescue implemented the use of new equipment in 2013 to provide enhanced care to pediatric patients. This includes the use of neonate resuscitation masks and pediatric SPO2 tape sensors which enable the paramedics to more effectively monitor and care for the pediatric patient. The addition of a Pedi-mate restraint system will provide improved safety during transport for pediatric patients.

McHenry / Western Lake County Relations
The Crystal Lake Fire Rescue Department has an ongoing, cohesive working relationship with the medical resource hospital (Centegra). This positive relationship has led to the Fire Rescue Department being requested by the McHenry / Western Lake County EMS system to pilot test new glucose (blood sugar) meters. Our crews were trained and participated in a trial period for these meters. A report was then generated and given to the McHenry / Western Lake County EMS system for consideration.

The Crystal Lake Fire Rescue Department also was involved in the McHenry / Western Lake County Cardiac Accreditation process. The Department's personnel and equipment were utilized in the evaluation.

EMS Statistics - 2013

EMS Incident Outcome	Number of Patients	% of Patients
Hospital Transport	2,926	70.61%
Non-Transport	1,218	29.39%
Total	**4,144**	**100%**

Transport Services Provided	Number of Patients	% of Patients
Advanced Life Support	1,873	64.01%
Basic Life Support	1,053	35.99%
Non-Transport	1,218	N/A
Total	**4,144**	**100%**

Transport Destination	Number of Patients	% of Patients
Centegra-McHenry	1,052	35.95%
Centegra-Woodstock	1,289	44.05%
Good Shepherd	374	12.78%
Sherman	210	7.19%
St. Joseph	1	0.03%
Non-Transport	1,218	N/A
Total	**4,144**	**100%**

Training Bureau

Bureau Chief of Training – Christopher Olsen

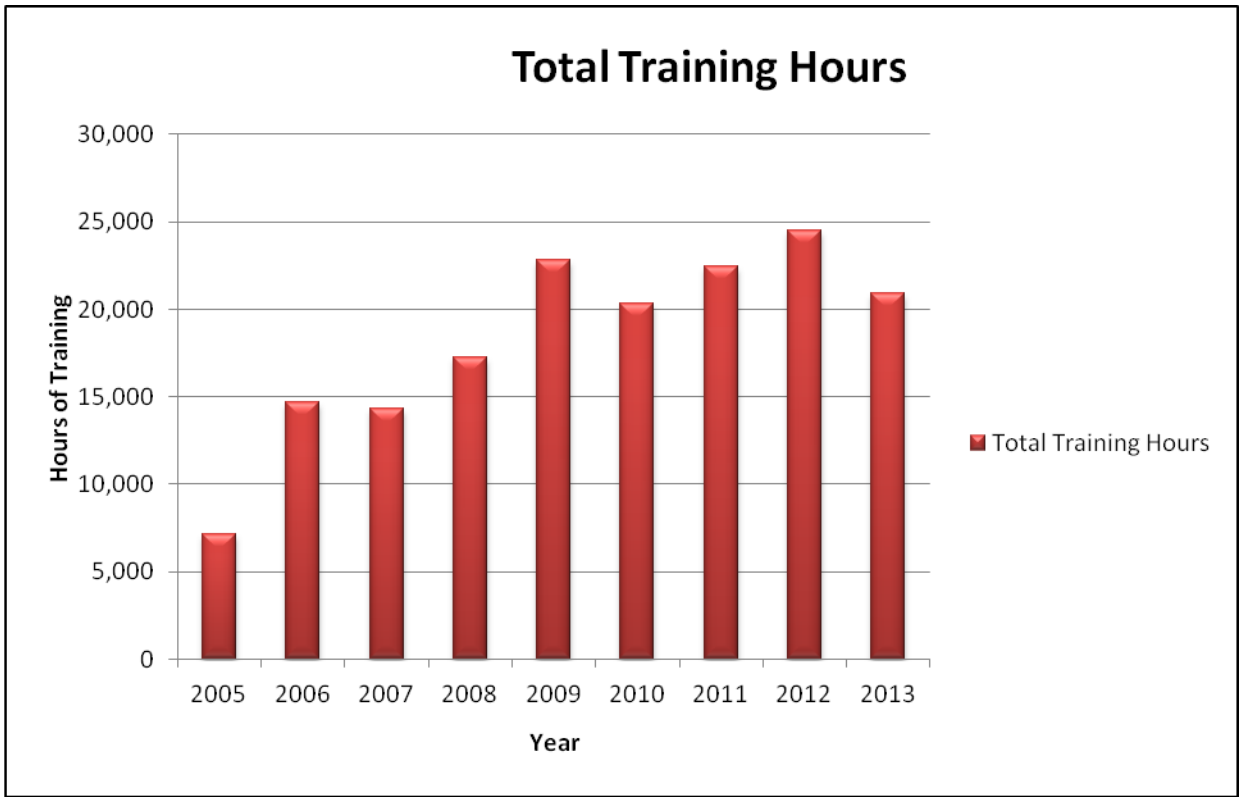
Training continues to be a high priority for the Fire Rescue Department. This is a key element in ensuring the Department's vision of continuing to be the benchmark organization for emergency services. Training requirements are outlined by several organizations, such as the Occupational Safety and Health Administration (OSHA), Illinois Department of Labor (IDOL) and National Fire Protection Association (NFPA). Crystal Lake Fire Rescue Department (CLFRD) personnel participated in nearly 21,000 hours of training in order to learn new skills and remain proficient in all areas of emergency operations.

These goals were accomplished through the ongoing commitment, hard work, and support from Crystal Lake Fire Rescue Department personnel.

In 2013, the Training Bureau accomplished the following:

- Provided live fire training and flashover simulation utilizing an intergovernmental agreement with the Huntley Fire Protection District to use their training facility
- Acquired two vacant residential and two vacant commercial structures to utilize for practical "hands-on" training
- Hosted LP Gas Firefighting course for all members
- Completed online Tuberculosis (TB) Awareness training for all personnel
- Completed aerial ladder operations training and implemented an Annual Aerial Assessment program
- Completed a safety in-service training with Flight for Life
- Completed hands-on auto extrication training in addition to the purchase of new state-of-the-art extrication tools
- Completed familiarization walk-through at Gables Point Senior Living and General Kinematics
- Command staff members attended Emergency Management Institute in Emmitsburg, Maryland with other key McHenry County participants for a McHenry County Specific Emergency Operations Drill
- Completed Damage Assessment and Debris Management training by McHenry County and Illinois Emergency Management Agencies

2013 Training Bureau Statistics



Total training hours for 2013 compared to 2012 were decreased largely in part to extensive training conducted in 2012 to put a new ladder truck in service.

In 2013, Crystal Lake Fire Rescue Department personnel logged 20,931 hours of training. On average, each firefighter/paramedic participated in approximately 308 hours of training annually, or 25.66 hours of training monthly. The Insurance Services Office (ISO) recommends each firefighter complete 20 hours of training per month. Our members continually surpass that recommendation.

Much of this training was accomplished utilizing acquired structures. We have been privileged to have the opportunity to utilize the former Alexander Lumber building at 201 Virginia Road and the former Extreme Ford building at 5213 Northwest Highway for commercial building operations training. The Department has also been granted permission from the owners of 140 Crystal Lake Avenue and 5006 Edgewood Road for residential fireground operations training. These structures provide Department personnel with “life-like” scenarios they are more apt to encounter on a day-to-day basis.

Professional Development and Certifications
Many classes, seminars, and trainings were attended, including a large number of State certification courses. Some of the certification courses attended by Department personnel are as follows:

- Instructor I and II
- Tactics & Strategy I and II
- Management I,II, III and IV
- Fire Prevention Principles I
- Vehicle Machinery Operations
- Rope Operations
- Advanced Technician Firefighter
- Trench Operations
- Structural Collapse Operations
- Confined Space Operations
- Pediatric Advanced Life Support
- Fire Investigator
- Incident Safety Officer
- CPR Instructor
- Hazardous Materials Incident Command

Department personnel have spent many hours both in the classroom and on the training ground. The following list reflects additional educational opportunities that have been made available to Department personnel both in-house and at other locations:

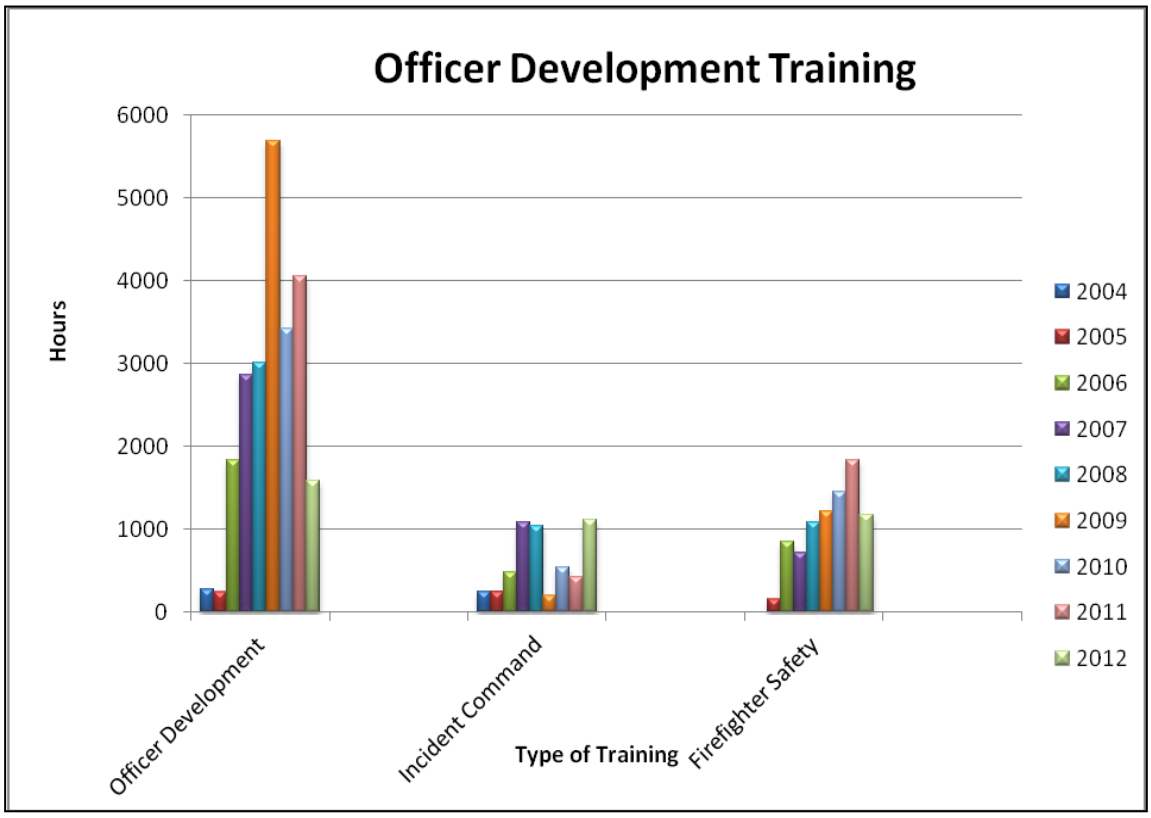
- Live fire suppression drills
- Water supply drills
- Forcible entry/exit drills
- Ventilation drills
- Building tours/Pre-plans
- Aerial operations drills
- Auto extrication drills
- Ladder drills
- Incident Command training
- Officer level training
- Specialty rescue
- Rapid intervention training
- Fireground Command and Company Officer training
- Accreditation seminars
- Various NFPA and fire prevention classes
- Nicor Gas training
- LP Gas Training

Fire Officer Training

The Fire Rescue Department's commitment to officer development training has helped to ensure the officers of the Department remain focused on safe and efficient fireground operations. Each officer is required to attend outside training classes that will educate, enhance, or supplement their personal development. In 2013, Fire Rescue Department officers logged over 3,200 hours of Officer Development training. The Department also provides a New Lieutenant Program, as well as officer training to the Acting Officers who occasionally work in supervisory positions.

In addition to attending Fire Officer I and II courses, other courses or seminars attended by Fire Rescue officers included:

- Fireground Command Officer class at the Illinois Fire Service Institute
- Ventilation, Flow Paths and Suppression Tactics
- "Blue Card" Incident Command Class Series
- Incident Safety Officer
- Health and Safety Officer
- Monthly Officer Development Company Drills
- Emergency Operations Center Exercises



Probationary Training
The Crystal Lake Fire Rescue Department welcomed seven new personnel to the Department's ranks. Two firefighter/paramedics have completed their probationary period and two firefighter/paramedics will complete their probationary periods in April. These probationary members will complete 240 hours of orientation training each. This comprehensive training far surpasses other department's orientation programs, and compliments the Crystal Lake Fire Rescue Department's dedication to providing an exemplary level of service. The Department's probationary members are trained in Department policies and procedures and EMS system protocol knowledge, as well as many different firefighting skills. At the end of this orientation period, the probationary members are tested on the "Essential" firefighter skills and complete a comprehensive EMS testing of protocol knowledge and skills. This rigorous training allows the Department to ensure personnel are focused on the Department's vision of being the benchmark organization in emergency services.

SCBA Training Trailer
The Self-Contained Breathing Apparatus (SCBA) trailer is owned by the Crystal Lake Fire Rescue Department and continues to be utilized by the following McHenry County Fire Protection Districts through a cooperative agreement:

- Cary Fire Protection District
- Richmond Fire Protection District
- Woodstock Fire/Rescue District

Throughout the year, Crystal Lake Fire Rescue personnel have the opportunity to drill in the trailer. The trailer provides a confidence course for members wearing SCBA and is also used to practice various rescue scenarios.

Validation Training
On a monthly basis, validation drills are completed amongst all the shifts. Validation drills are an essential part of any training program to ensure that the skills being taught are accomplishing proficiency by all personnel.

The validation drills consist of numerous areas of job function that are assigned by the Bureau Chief of Training. The station assigned to perform the validation drill then gathers the equipment necessary to perform the drill, relocating to a specific training site, if necessary. The Department has expanded the validation drills in 2013 to include the operation of additional equipment, including two-way radios, as extensive changes have taken place with the Department's radio system this past year. A majority of the validation drills have a time standard in which the drill must be completed. A 100% proficiency was achieved during all validation sessions in 2013.

Safety Committee

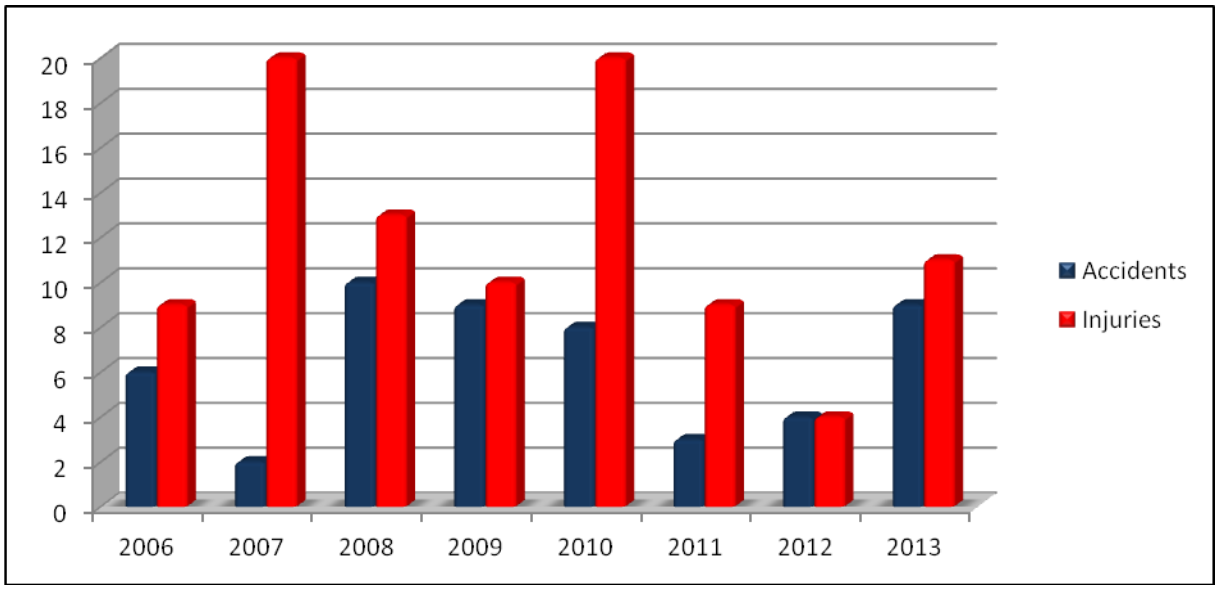
Chairman – Bureau Chief Christopher Olsen

The Crystal Lake Fire Rescue Department Safety Committee continues to be an integral part of the City of Crystal Lake's overall risk management plan and program. Through the Safety Committee, all levels of employees can communicate safety concerns and ideas to promote a safe work environment for Department employees.

Following are several of the Crystal Lake Fire Rescue Department's accomplishments during the past year:

- Continued quarterly driver education training.
- Continued to promote the Department's Behavior Observation Program.
- Promoted the use of physical fitness equipment to improve personal strength and health.
- Continued the warm-up routine for multi-company practical evolutions.

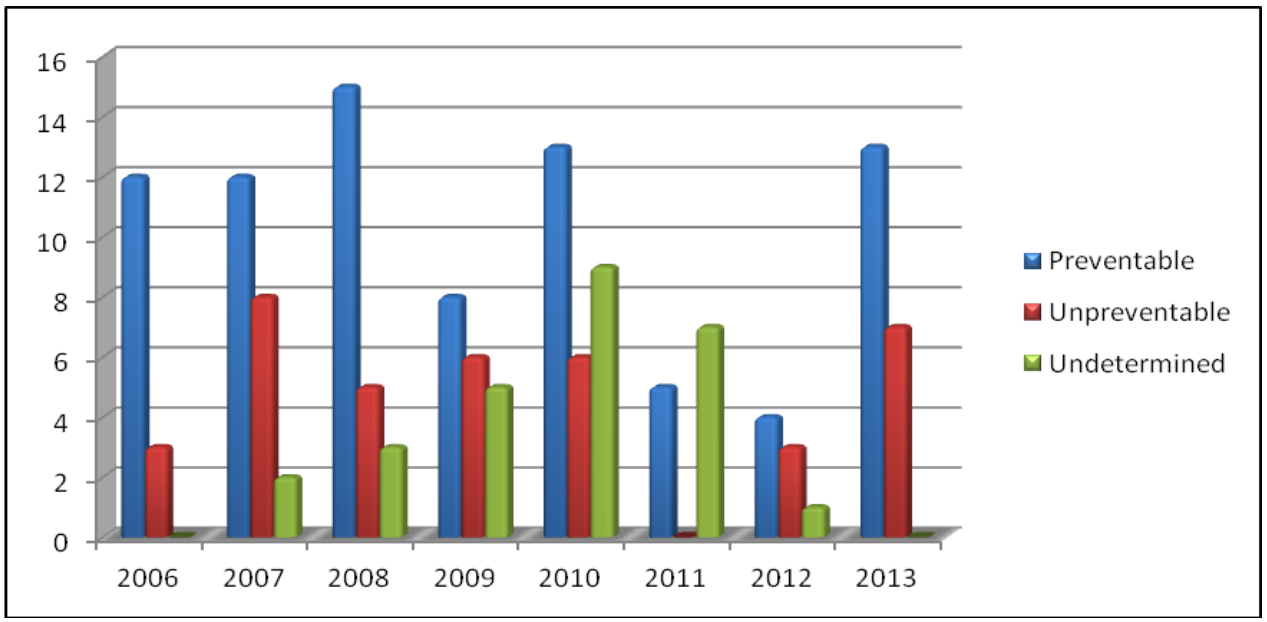
Accident/Injury Investigations
The Fire Rescue Department Safety Committee conducted a total of 20 accident/injury investigations for the year 2013. The following graph shows a comparison between previous years' accident/injury investigations:



Observed Behavior Program

The Department's Observed Behavior Program consists of a monthly safety message and a risk assessment of multi-company practical training drills, and requires Safety Committee participation. Each month, a company officer prepares and presents a safety message to his/her shift. Areas of operational risk are identified from previous claims or observed behaviors for expanded awareness training. Additionally, shift officers attend the Department's monthly Safety Committee meetings in order to enhance each officer's knowledge of risk management as it pertains to the Fire Rescue Department and to provide the officer with a better perspective on safety within the Department.

The following graph shows a comparison between preventable, unpreventable, and undetermined accident/injury investigations from 2006 to 2013.



Fire Investigation Program

Lead Investigator - Bureau Chief Christopher Olsen

Fire investigation is an important part of the fire prevention process. By investigating the cause and origin of fires, the fire service is better able to identify trends and motives related to arson, as well as defects in products that cause fires and then work to prevent future fires. Many of the fires the Department responds to are deemed to be accidental in nature.

The Crystal Lake Fire Rescue Department has eight personnel trained in cause and origin fire investigations. Of these personnel, one is a certified arson investigator, which involves a police background. The Department's personnel are required by the Office of the Illinois State Fire Marshal (OSFM) to maintain 100 hours for recertification every four years. These hours are accumulated in a variety of ways, including actual investigations, training sessions, and courtroom testimony.

In 2013, our investigators responded to and investigated 9 fires.

Significant Investigations
On May 1st, one structure fire was responsible for igniting four other residences to varying degrees. Most fires are primarily investigated by off-duty personnel to ensure the focus is on the fire without the interruption responding to additional calls. Once an investigation commences, it is imperative that investigating personnel maintain possession and security of the scene. Most fires are investigated in cooperation with the appropriate law enforcement agency. Of the fires investigated this year, two were intentionally set and seven were due to other reasons that were not suspicious or intentional.

Fire investigations will continue to play a vital role in ensuring the safety of the citizens of the Crystal Lake area and the promotion of fire prevention activities.

Quartermaster Program

Quartermaster - Lieutenant Robert Lutherus

Crystal Lake Fire Rescue is committed to providing National Fire Protection Association (NFPA) compliant bunker coats, pants, boots, gloves, helmets, hoods, eye protection and Self-Contained Breathing Apparatus. The Department follows NFPA 1851, which outlines maintenance, inspections, and the recommended serviceable life of personal protective equipment (PPE).

In 2013, the following was achieved:

- Quarterly inspections and maintenance of all PPE as outlined per NFPA 1851
- Replacement of ten sets of bunker gear that had reached their serviceable life in accordance with NFPA 1851

Juvenile Firesetter Program

Coordinator - Battalion Chief Thomas Pollnow

The Juvenile Firesetter Program is an educational program designed to assist juveniles in understanding the dangers and consequences of fire play. This program is voluntary and can also be assigned as part of a judgment by the juvenile court system.

The Department had no reported Juvenile Firesetter cases in 2013.

SCBA Program

SCBA Coordinator - Lieutenant Rick Kaiser

Self-Contained Breathing Apparatus (SCBA) are vital pieces of equipment to the firefighter and are used on a daily basis as part of their personal protective equipment. The technology that is used to operate this equipment requires an active preventative and regular maintenance program. As a cost-saving measure, several of the Department's firefighters are trained to make certain repairs to the SCBA.

Having an in-house repair center allows the Department to diagnose potential problems with the SCBA, order parts, and then make the repairs and have the equipment back in service in an expedient manner.

Fit Testing
Fit testing of face pieces for employees in the Fire Rescue Department, Police Department, and certain Public Works employees, is conducted on an annual basis to ensure that the face piece an employee is wearing fits correctly and does not allow any contaminated air into their respiratory system. This in-house fit testing is a significant cost savings to the City.

SCBA Air Compressor
The Crystal Lake Fire Rescue Department has its own air compressor that is used strictly for compressing air for the Department's SCBA and SCUBA tanks. This air is tested by an independent laboratory four times a year and is required to meet a grade "E" or better for the Department's use as required by ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989.





(L) Firefighters entering a structure with full protective equipment including SCBA. (R) Scott brand SCBA used by Crystal Lake Fire Rescue.

Apparatus

Coordinator - Lieutenant John Volenec

2013 was a very positive and progressive year for the Crystal Lake Fire Rescue Department fire apparatus. All of the work that went into maintaining the Department's fleet of vehicles is attributed to a group effort by the City's Fleet Services Division and the Fire Rescue Apparatus Committee.

New Apparatus
Ambulance 354 was purchased and placed into service in August of 2013.

Inspections
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.

Retired Members

In 2013, the following members of the Crystal Lake Fire Rescue Department retired after many years of dedicated service to the residents and business owners of the Crystal Lake community.



Lieutenant Tim Butler
23 Years



Lieutenant Kirk Kiermas
23 Years



FF/EMT Mike Lukas
24 Years

Station Locations

Fire Station One
100 W. Woodstock Street





Fire Station Three
844 Virginia Road

Fire Station Four
8705 Bard Road



Department Roster

Officers

James Moore	Fire Rescue Chief
Paul DeRaedt	Deputy Fire Rescue Chief
Jerry Larsen	Bureau Chief of Fire Prevention
Chris Olsen	Bureau Chief of Training
Tom Pollnow	Battalion Chief
Robert Kohley	Battalion Chief
Bill Whyte	Battalion Chief
Rick Kaiser	Lieutenant
Kirk Kiermas/James Sustek	Lieutenant
Robert Lutherus	Lieutenant
Tim Butler/Chris Angelo	Lieutenant
Darrell Cook	Lieutenant
John Volenec	Lieutenant
Casey Cork	Lieutenant
Chris Kopera	Lieutenant
Heidi Olsen	Lieutenant
Joyce Stevenson	Lieutenant

Members

Aiello, Mike
Bedore, Chris
Borst, Nick
Brechbiel, Bob
Bucheger, Adam
Colucci, Gino
Forsberg, Joe
Fowles, Adam
Geyman, Michael
Grischow, Dan
Gualdoni, James
Gundlach, Amanda
Hagen, Scott
Havemann, Ed
Howell, Todd
Hurley, Mike
Jakubowicz, Ray
Kaltenbach, Dave
Kauke, Bryan
Kempe, Kyle
Kerley, Tim
Klug, Matt
Kownacki, Kevin
Kreher, Rich
Kunes, Annette
Landwer, Mark
Leuck, Matt
Linneman, Tom
Lorenz, Katelyn
Lucas, Mike
Lukas, Mike
Lutherus, Art
Marino, Brian
Menzimer, Brian
Muscavitch, Ryan
Newton, Matt
Odishoo, Tim
Olszak, Linda
Pace, Palmer
Pireh, Martin
Rozhon, Patrick
Ryan, John
Schmitt, Kim
Smith, George
Spivey, Jim
Stoddard, Rick
Sypura, Andrew
Szatkowski, Dane
Tamason, Brian
Thuma, Matt
Williams, Chris
Williams, Dan
Wisz, Rob