



Grand Rapids Fire Department 2013 Annual Report



**GRAND RAPIDS FIRE
DEPARTMENT**

RESIDENTIAL SAFETY PROGRAM

FOR QUESTIONS & INFORMATION

616.456.3966



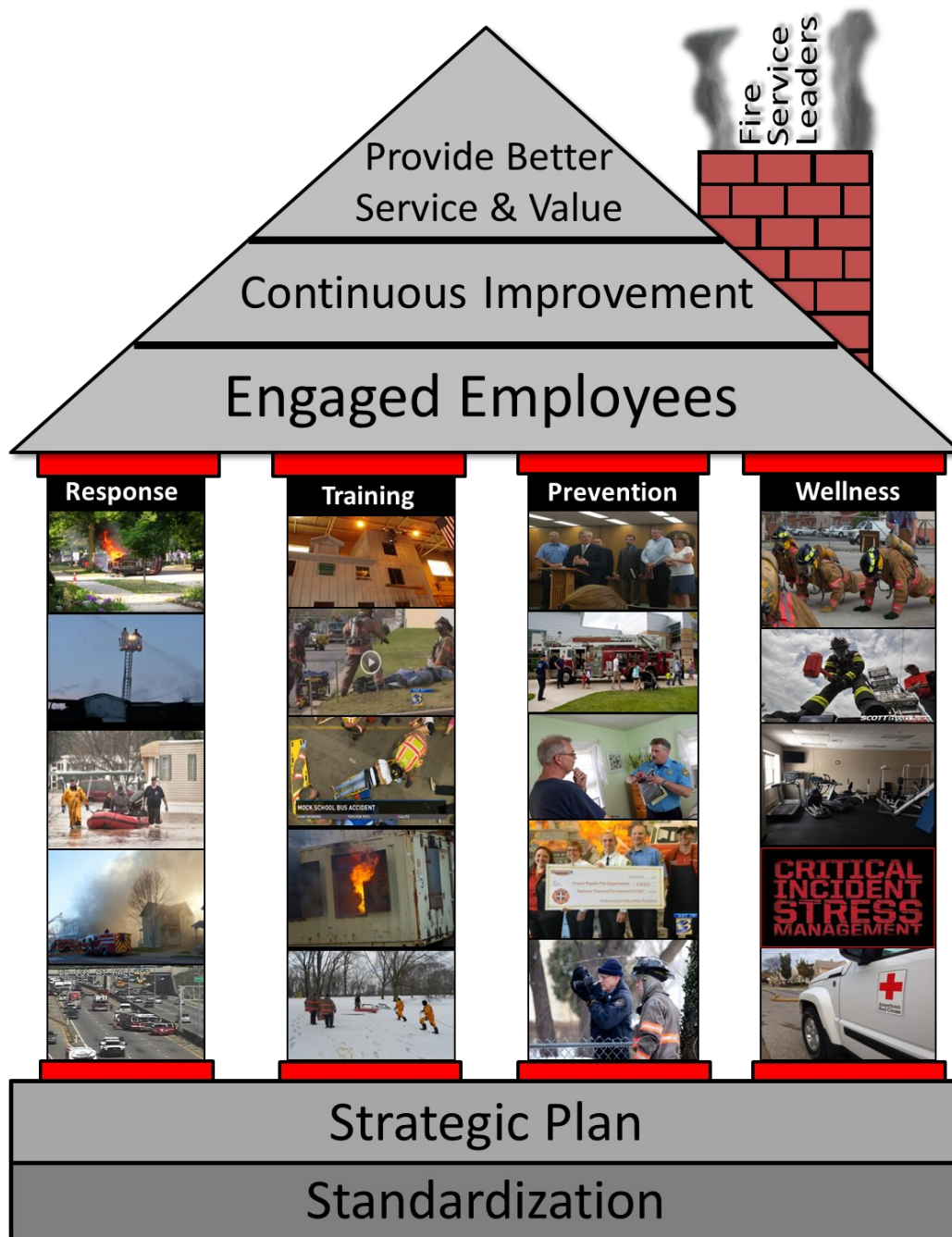
<u>DEPARTMENT OVERVIEW</u>		2013 Summary	
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Mission, Vision & Values	4	FY 2014 City General Fund\$118,334,722	
Fire Chief's Message	5	FY 2014 GRFD Adopted Budget... \$28,154,536	
Organizational Chart	6	<u>Personnel Summary</u>	
Jurisdictional Map	6	221.....Actual (July) 2013 Personnel (100%)	
<u>ADMINISTRATION</u>		194.....Operations Division Personnel (87.8%)	
Strategic Planning	7	13.....Administrative Personnel (5.9%)	
Fiscal Services	7	9.....Prevention Division Personnel (4.1%)	
Human Resources	7	5.....Training Division Personnel (2.2%)	
I.T.	8	<u>Emergency Operations Summary</u>	
Maintenance	8	27,997Apparatus Responses	
<u>PREVENTION</u>		21,422Emergency Incidents (All Types)	
Inspections	10	13,085....Emergency Medical Service Incidents	
Plan Review	10	2,135 Fires and Fire Alarms	
RSP	10	557..... Fires Extinguished	
Public Education	11	96.7%.....Property Saved Rate	
Fire Investigations	11	\$138,636,756.....Property Saved Value	
<u>OPERATIONS</u>		3.3%Property Lost Rate	
Battalion Chiefs	13	\$4,735,301Property Lost Value	
North Battalion	14	27..... Civilian Injuries	
South Battalion	17	1.....Civilian Death	
Training	20	32..... Firefighter Injuries	
<u>STATISTICAL SUMMARY</u>		0.....Firefighter Deaths	
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Grand Rapids Fire Department

Four Pillars: Response, Training, Prevention, Wellness



2013 reemphasized a renewed focus to our core mission and the activities that support it. Standardization is the key to supporting the department's improvement efforts and helps to accomplish the strategic vision of the GRFD. Our personnel dedicated each day to four main areas: Response, training, prevention, and wellness. Communication continues to increase with the hopes of fully engaging the GRFD, continuously improving the department, and providing better service and value to our customers. When fully supporting the four pillars, the GRFD will function as fire service leaders, not only in Michigan, but the entire country.



Grand Rapids Fire Department

Mission - Vision - Value Statement



Mission

GRFD will provide the highest level of service to our community through a commitment to excellence

Vision

The GRFD strives to be an accredited national fire service leader that aligns with community needs and provides a secure work environment for its members. This is accomplished by diverse partnerships, increased adaptability, fluid communication, complete transparency and a preventative mindset towards all endeavors.

Value Statement

GRFD is committed to doing what is right through:

Honesty

Integrity

Loyalty

Teamwork

Excellence

A message from the Fire Chief

Renewed Focus...



Another year has passed for the Grand Rapids Fire Department, one that has challenged our organization and pushed us to adapt to the changing needs of our City and our customers. Much of the department's work during 2013 was directly related to the master planning that was conducted in the latter part of 2012. As we constantly rose to meet the expectations of our customers this past year, we realized that we were busier than we have ever been and the demands on our organization do not seem to be diminishing in the future.

We decided that in order to be successful, we needed to refocus and align our efforts. We accomplished this by formally adopting a methodology known as the four pillars. It's a simple concept where four main areas consisting of emergency response, training, prevention, and wellness would be at the forefront of our decision process whenever we are planning activities for the GRFD.

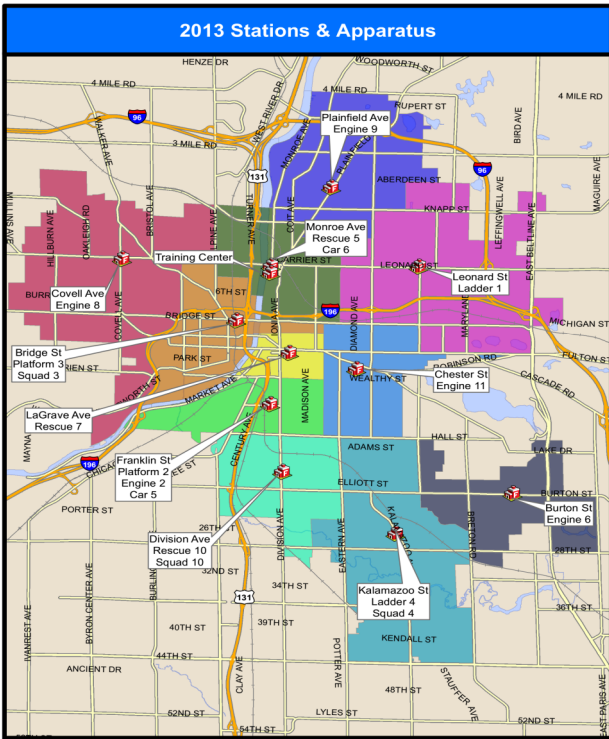
These are the activities that produce tangible outcomes for our employees and the customers we serve. In operations this past year we experienced a major event with the flooding of the Grand River in April. This kept our department at maximum capacity due to the increased call volume, assessment of buildings, and rescuing people from the rising waters. Another departure from the routine was the implementation of squads, a two person vehicle with suppression capabilities. These units added much needed flexibility to our deployment model and helped stabilize our emergency incident outcomes.

Both the Fire Prevention Bureau and Training Division were at staffing levels that haven't been in place in a very long time, if ever. Training conducted several rounds of safe and successful live fire training in our new "live fire" facility, with positive feedback from our employees on incorporating this style of training into our continuing education. Prevention spent a large amount of time on our residential safety program, ensuring that this impactful program would be successful. Wellness received some much needed resources from grant funding, which provided access to new cardio equipment and free weights at our stations.

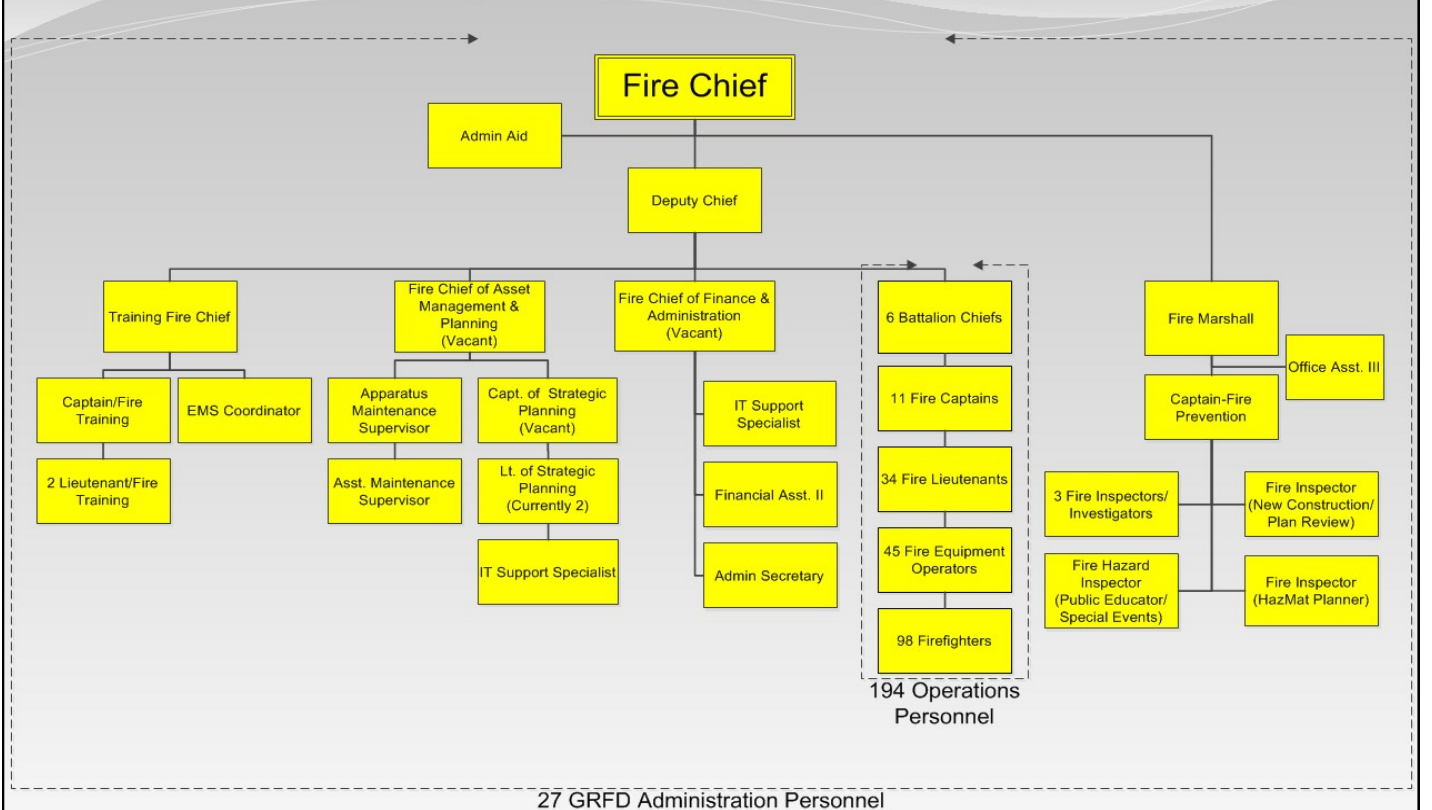
Looking back, I am simply amazed at our organization and the amount of positive change they have dealt with over the last several years. When you look around the State and the Country, you will see that we are leading the fire service through our continuous improvement mindset here in Grand Rapids. I am honored to be the fire chief of this progressive department and look forward to another productive and exciting year in 2014.

Laura L Krapp

2013 Jurisdictional Map and Organizational Chart



Grand Rapids Fire Department 2013 Organizational Chart (Approved FY2014)



Administration

Strategic Planning - Fiscal Services - Human Resources - I.T. - Maintenance

Strategic Planning

The strategic planning office (SPO) continued its work on A3's for the department, as well as expanded its lean initiatives to include value stream mapping and a multitude of other tools learned in the Grand Rapids Community College lean champion program which was completed in 2013. Using the newfound knowledge, the SPO assisted with Fire and Life Safety System reporting procedures and the Residential Safety program in fire prevention, as well as the



Apparatus Plan Reset, which established a capital reserve fund for the GRFD. This ensures that the organization will consistently receive new or refurbished equipment and smooth annual expenses over time. The data and mapping abilities of the office was greatly increased in August, when Jordan Van Overloop was hired as an IT Support Specialist, focusing on Firehouse and FireView programs.

Fiscal Services

FY13 began with an amended budget of \$30,764,643 in expenses and \$449,966 estimated in revenue. FY13 ended June 30, 2013, with an actual general fund expenditure totaling \$30,461,990. Revenues received in FY13 were \$722,180 (excluding grant funding).

FY14 began with an adopted budget of \$28,154,536 (includes \$3,476,857 from SAFER10, Income Tax, and Income Tax Reserve) and an estimated revenue of \$441,700. December 2013 closed with approximately 55.6% of the amended budget remaining for the second half of FY14.

Human Resources

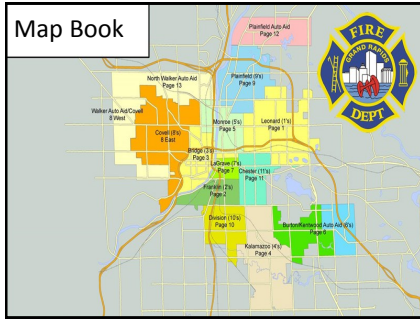
The following personnel left the GRFD during 2013, we wish them good luck in their new endeavors:

- Deputy Chief Gerard Salatka
- Battalion Chief Dan Caillouet
- Fire Captain Thomas VandeWater
- Fire Captain Kurt Baragar
- Fire Inspector Sandra Yeager
- HazMat Planner Nick Bonstell
- EO Don Serba
- EO Annette Swathwood
- Firefighter Robert Marks
- Firefighter Darryl Taylor
- Firefighter Rich Morningstar

The following personnel were promoted within the GRFD during 2013:

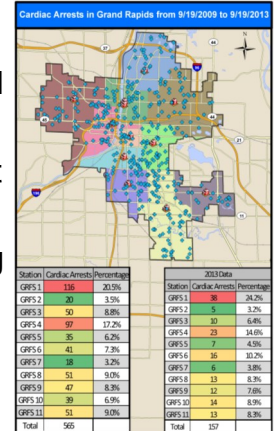
- Training & Battalion Chief Dennis Haisma
- Captain Brian DeForest
- Captain Kathleen Thompson
- Training Captain Lee Finlayson
- EMS Coordinator & Lt. Mark Fankhauser
- Lieutenant Jason Druckenmiller
- Lieutenant Scott Stevenson
- Lieutenant Rich Clark
- Lieutenant Dave Marchinda
- Training Lieutenant Wes Kelley
- Training Lieutenant Dan Witwer
- Fire Inspector Rick Bush
- Fire Inspector Eric Ryder
- Fire Inspector Kevin Robinson
- Haz Mat Planner John Hanes
- EO Kevin Fox
- EO Matt Dumond
- EO Travis Milner
- EO Todd Wright
- EO Rich Moore

Information Technology



Several large projects in 2013 included upgrading both Firehouse and TeleStaff up to the latest versions with enhanced features, updating mobile CAD to utilize InMotion GPS for increased location reliability of our units, and finally continued implementation of the computer replacement plan which yielded several new workstations for the GRFD. As mentioned in the SPO section, an additional IT support specialist was hired and focused on mapping and data for the GRFD.

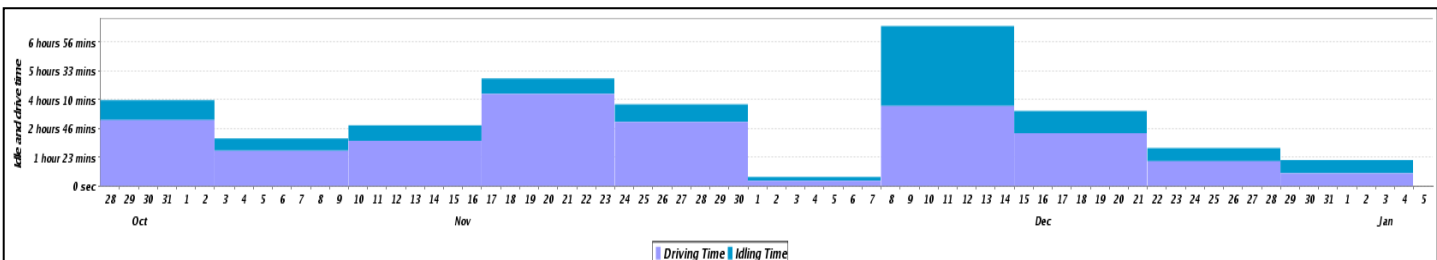
The first major product to come from this position was an updated map book that was placed in all frontline and reserve units. Several revisions based on end user feedback resulted in a great map for the GRFD. Key reports in Firehouse have been automated for delivery via email, saving time and ensuring consistent data is available for command staff members. Extensive data analysis and mapping also took place for many special projects throughout the year, including the example shown here which depicts the cardiac arrests in the city and their location. This information assisted the EMS Coordinator with making an operational decision for a cardiac arrest pilot study.



Maintenance

The largest milestone in recent memory regarding apparatus took place this past year with the establishment of the Apparatus Asset Management Plan. Working with the Joint Partnership Team (JPT) and the SPO, a plan was developed to transition the purchasing of our large apparatus from bonding to paying up front. Many benefits are realized from this plan including the possibility of prepay discounts and formation of an approved long range strategy.

Four apparatus experienced unique changes this year, as testing was conducted on both hydrogen injection technology and idle reduction technology to see if they would be viable options for our fleet. The chart below depicts the idle time of the testing apparatus. Finally, the squads (quick response vehicles) were placed into service and they will be continually analyzed.



An initial Facilities Condition Assessment (FCA) of the fire stations was conducted to ascertain the current state of our buildings, and much like the apparatus plan, lay out a long term method for maintenance and replacement. Work continued on energy efficiency, as plans were finalized to install a high efficiency boiler at the Leonard St. Station, capitalizing on the geothermal system already in use. This system will also utilize Direct Digital Controls (DDC) with advanced programming and diagnostic capabilities.

Fire Prevention

Fire Inspections - Residential Safety Program - Plan Review

Public Education - Fire Investigations



Fire Marshal Joe Durham

One of the visions of the Grand Rapids Fire Department is to be an organization with a preventative mindset. This preventative mindset allows the GRFD to best serve the community by preventing fire loss that can be devastating to both businesses and residents. In 2013, we continued with that vision of prevention through a variety of programs and initiatives.

Within the Fire Prevention Bureau (FPB) we use a variety of tools to prevent fire loss. In the course of any day our bureau conducts fire prevention inspections, plans review, new construction inspections of fire protection systems, code enforcement, hazardous materials planning, fire investigations, public education, fire prevention training, and residential Home Safety Assessments (HSAs). Each of these tools is used to target a different risk, which is why it is important that we have incorporated all approaches into the daily activities.

2013 was a year of challenges, accomplishments, and positive change in the FPB. Early in the year the City of Grand Rapids and surrounding areas were challenged with damaging floods. Inspectors from the FPB were tasked with providing loss estimates of affected structures for FEMA and helping to re-commission buildings that were damaged by the floods so that they could be safely reoccupied. I am proud of the way our personnel stepped up to help the citizens of Grand Rapids in a time of need.

We were excited to receive a second Fire Prevention and Safety Grant to continue our newly launched Residential Safety Program (RSP). The RSP was fully operational in April 2013 and the GRFD now incorporates in HSAs and smoke alarm installations into the daily work of the department; currently at a rate of over 2,000 homes per year. Many homes in Grand Rapids are now better educated on fire safety and more protected from fire as a result of the program.

An internal restructure took place in 2013 that allows us to better meet the vision of the GRFD. The restructure included the reinstatement of the Fire Captain of Prevention position to work along-side the Fire Marshal and oversee the Fire Inspectors. Also, due to retirements, we welcomed three new inspectors to the bureau.

Transitioning into 2014, we expect to face new challenges and make many positive improvements to our system. As we move throughout the new year, the FPB will continue their commitment to best serve the residents, businesses, and visitors of our fine City.

Fire Inspections

Inspections are a core function of the FPB. Whether it be a fire prevention inspection of an existing building, or the inspection of fire protection systems in new construction, inspections are essential in reducing fire loss. The FPB treats each inspection as an on-site educational opportunity to assist in the safety and sustainability of the business.



In 2013, the FPB conducted inspections in a variety of occupancy types. This year the majority of inspections were conducted in residential and assembly occupancies—approximately 55% of the total fire prevention inspections. The remaining 45% were divided by business, industrial, institutional occupancies and special events. In these inspections, over 2,200 fire safety issues were found and repaired. In new construction projects, the FPB was involved with nearly 500 inspections of fire protection systems.

Residential Safety Program

In April of 2013, we experienced the full launch of the Residential Safety Program (RSP). The development of this program began in 2012 when the GRFD was awarded a federal grant to build a fire safety program for owner-occupied homes. For this program, the GRFD will visit owner-occupied homes, conduct a HSA with the homeowner, and install 10-year smoke alarms throughout the home, all at zero cost.

In early 2013, the GRFD utilized a pilot/test group to refine the process before it was rolled out department-wide which proved beneficial in streamlining the work. When the program was fully operational in April, operations division personnel began visiting homes on a daily basis. Throughout the year, a total of 1,372 homes were assessed for fire safety issues, positively affecting nearly 4,000 residents. In that time, the GRFD installed over 8,100 smoke alarms.



Plan Review

In 2013, the FPB provided technical expertise to the Building Department through the City's Design Team, wherein proposed development projects are facilitated, and plan reviews for the installation of fire protection systems in new construction and remodeling projects are conducted. The review of fire protection systems included plans for fire protection sprinklers, commercial kitchen suppression systems, fire alarms, and alternative fire protection systems. There were approximately 172 fire suppression plans and 150 fire alarm plans reviewed in 2013 which included many substantial projects.

In addition to reviewing plans for fire protection systems, plan reviewers also evaluated approximately 27 Engineering Department combined sewer overflow and street repair/reconstruction check prints for fire hydrant spacing and fire department apparatus access.

Public Education

During 2013 the GRFD provided fire safety education in a variety of ways. Throughout the year we attended several festivals and events to educate citizens on fire safety. One of the largest events was the Home Show at Devos Place where over 525 people went through the GRFD's Fire Safety House.

New this year, an exciting character joined the GRFD at the kick-off of Fire Prevention Week. *Firefighter Dave*, developed and presented by Lt. Dave Pyle, took fire safety messages to the schools. Over the course of a month, Dave presented fire safety to nearly 4,000 children! *Firefighter Dave* was so well received by his audience that he was able to expand beyond his targeted second grade audience to all ages, including appearances on WXMI Fox 17 and WZZM TV 13.



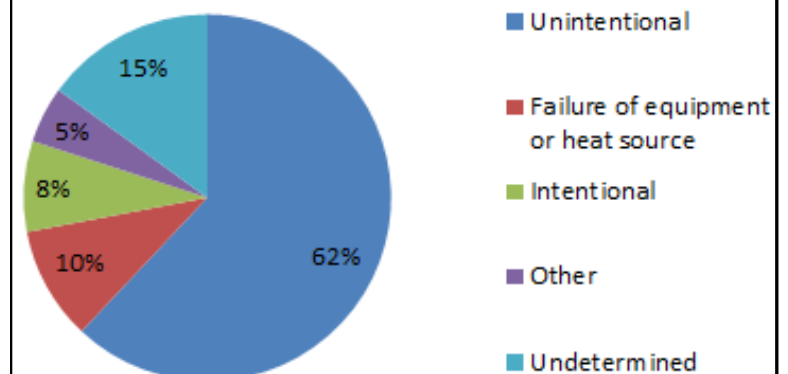
Another public education program developed in 2013 was the Senior Fire Safety Program. Assistant Fire Chaplain Bill VanderVennen, a former volunteer firefighter, organized the Senior Fire Safety Program to provide fire safety messages to senior citizens. In 2013, Chaplain VanderVennen reached nearly 500 seniors by presenting to retirement communities, churches, and apartment complexes for seniors. These interactive and tailored presentations served as a great awareness builder for the senior residents.

Fire Investigations

The task of fire investigations is more than just identifying what caused a fire and prosecuting arsonists. The primary reason to conduct fire investigations is to use the information to direct fire prevention efforts. If fire investigators find certain areas that have a high occurrence of fire, or if there is a particular cause that accounts for a large amount of fire loss, the FPB is able to adjust its fire prevention methods to focus on those risks.

In 2013, fire investigation services were provided by four cross-trained fire inspectors. During the year, those inspectors conducted 55 on-scene fire investigations, including one fatal incident. As in years past, the GRFD worked with Fire Investigators from the Federal Bureau of Alcohol, Tobacco, Firearms, and Explosives and the Michigan State Police. This year, the GRFD welcomed a new partner to the area. Ritzey, an accelerant detection K-9 (dog), joined the Kent County Sheriff's Department to help area agencies with fire investigations. The GRFD worked with Ritzey and her handler on multiple fires, as well as the Michigan State Police accelerant detection K-9 unit on occasion.

2013 Structure Fire Causes



Operations

Battalion Fire Chiefs - GRFD Training - GRFD Regional Training Center

Deputy Fire Chief Frank Verburg



The operations piece of the GRFD is arguably the most visible group of men and women in the organization. Although supported by a professional training division, a proactive fire prevention bureau, and dedicated administrative staff, the emergency and non-emergency services provided by the Operations Division are citizen centric and mission/vision critical. This paradigm is changing every year, and 2013 was no exception. Our suppression personnel are increasingly more efficient, not only in emergency response, but with training and prevention as well.

We responded to 21,422 incidents this past year, a 4% decrease from 2012, but still trending upward. These incidents required 27,997 apparatus responses to mitigate. Our fires dropped to 557, the lowest in recent memory; I partially attribute this to the largest prevention push in our department's history in the form of the Residential Safety Program. Coupled with the prevention bureau, our men and women on the street are putting forth a tremendous amount of effort to ensure their customers and neighbors are safe from the ravages of fire.

When not on alarms, conducting home safety assessments, or performing maintenance activities, our crews are training. In fact, our crews trained over 22,545 hours last year and attended 723 hands on scenarios. These training sessions not only ensure our proficiency and increase our chances for safe emergency scene operations, but lend themselves towards consistency in service delivery. No matter which district, time of day, or type of emergency you may experience, we strive to show up quickly, conduct ourselves professionally, and consistently produce great outcomes.

Our service delivery model continues to change, with our new squad units going into service in February of 2013. They were monitored closely to see how they fit into our department, and we gathered a tremendous amount of feedback from the officers and crew members assigned to these units. Several operational and equipment changes took place as a result of this feedback in the first six months, making these units more user friendly and effective. These apparatus are proving themselves a nice complement to our fleet and have increased the flexibility in our deployment model.

I am simply amazed at the work our members do each and every day. From battling the flood waters that threatened Grand Rapids and our neighboring communities, to effectively handling 312 structure fires, our workforce is our greatest asset. I am proud to serve as a Deputy Fire Chief in this dynamic organization and look forward to more progress and changes in 2014.

Battalion Fire Chiefs

Daily two Battalion Fire Chiefs (BC), one North and one South, ensure crews on-scene have the appropriate resources available to do their jobs. When one responds on an emergency call, the opposite BC may also respond to the incident as a Group or Division Supervisor, Branch Director, or Safety Officer as needed and assigned by the Incident Commander. Additionally, they work with Fire Dispatch to ensure adequate coverage of the remainder of the City. After significant incidents, they coordinate and conduct a Post Incident Analysis (PIA) to ensure continuous improvement.

Incidents of Significance

- House fire on Marcella NW, child gets everybody out and then calls 911, child honored at GRFD awards ceremony
- Record flooding with extended water rescues and associated responses
- House fire with rescue on White Ave. NW
- Downtown parking ramp flood with major gasoline leak
- River rescue, 2 civilians rescued – Grand River near Pearl St
- 2 Alarm fire at 963 Bridge St NW with firefighter Injury had a significant PIA and corresponding report published (1 of 22 conducted during 2013).
- Ice Storm – 146 Alarms citywide in one shift (approximately 3 times normal volume)

Administrative Duties

BCs manage the operations division personnel, programs, citizen interactions, and officer development; they also have many administrative duties during their shift. This includes tasks such as handling and scheduling Community Interaction Opportunities, traffic calming assessment, scheduling and ensuring proper follow up for ride-along requests. In addition, the South BCs have assumed the role of “Staffing Officer”. This involves making the short term work assignments on a daily basis the night before a shift starts, as well as making necessary adjustments and transfers throughout the day as frequent personnel changes occur with our multitude of activities.

- Accident Investigations: 30
- Schedule and Assign Community Interaction Opportunities: 145
- Command Staff Meetings: 14
- Multiple facility tours and inspections
- Assist with the planning and execution of the spring Fire Rescue Expo
- Conduct the Fire Suppression vacation draw
- Policy / SOG rewrites, reformats, and updating
- Coordinate six Ride-A-Longs with our crews





North Battalion - Battalion Fire Chief Bart Perry

Emergency Medical Services (EMS)

The delivery of EMS is one of the many missions that the GRFD enjoys providing to our citizens and visitors. The EMS Division operates under the proven practice that quality training and education will result into quality patient care. We operate proactively and adapt to the changing environment in the City of Grand Rapids.

Our department is licensed with the State of Michigan as a Medical First Responder (MFR) Agency with 28 apparatus and over 200 medically licensed providers.

2013 Medical Licensure Levels	2013 EMS Training Statistics
12 EMS Instructor Coordinators	118 Hand On Training Sessions
21 Paramedics	3 Multi-Agency Training Opportunities
38 EMT's	210 Personnel Recertified in CPR/AED
147 Medical First Responders	Over 2,000 hours of EMS Education

The GRFD responded to 13,085 requests for medical service in 2013. Cardiac arrests were targeted for review under Quality Assurance. 100% of the cases were reviewed accounting for 200 recorded arrests, 58 having a return of spontaneous circulation (ROSC).

Several significant events occurred in 2013 that stand as a testimony to our high standards.

- Partnership with AMR – West MI for the True CPR Study
- Joint Training exercises with Local ALS providers and Hospitals
- Renewal of MDCH Continuing Education Program Sponsorship
- Recognized American Heart Association Community CPR/AED Training Site
- Review and implementation of modified Dispatch procedures to better manage the escalating call volume
- Promotion of EMS Coordinator
- Conversion of online training platform to further enhance the quality of education
- Two additional personnel trained / licensed to EMS Instructor Coordinators
- Value Stream Mapping of EMS operation to ensure highest standard of performance
- Involvement with steering future EMS scope of practice standards
- Community CPR initiative



Critical Incident Stress Management (CISM)

CISM is a formal, professionally recognized process for helping first responders of all professions who are exposed to traumatic events. This confidential process in the GRFD is facilitated through a peer support group of 11 volunteers trained to deliver pre-crisis education and awareness, as well as post event defusing for our personnel. Although, full “defusing” and “debriefing” are rare events, GRFD team coordinators maintain a department wide situational awareness for all events responded to, making follow up contact with department members on an individual or crew basis depending on the event and referral. The CISM team continues to volunteer as a 24-hour a day point of contact for all members with emotional and mental health needs.

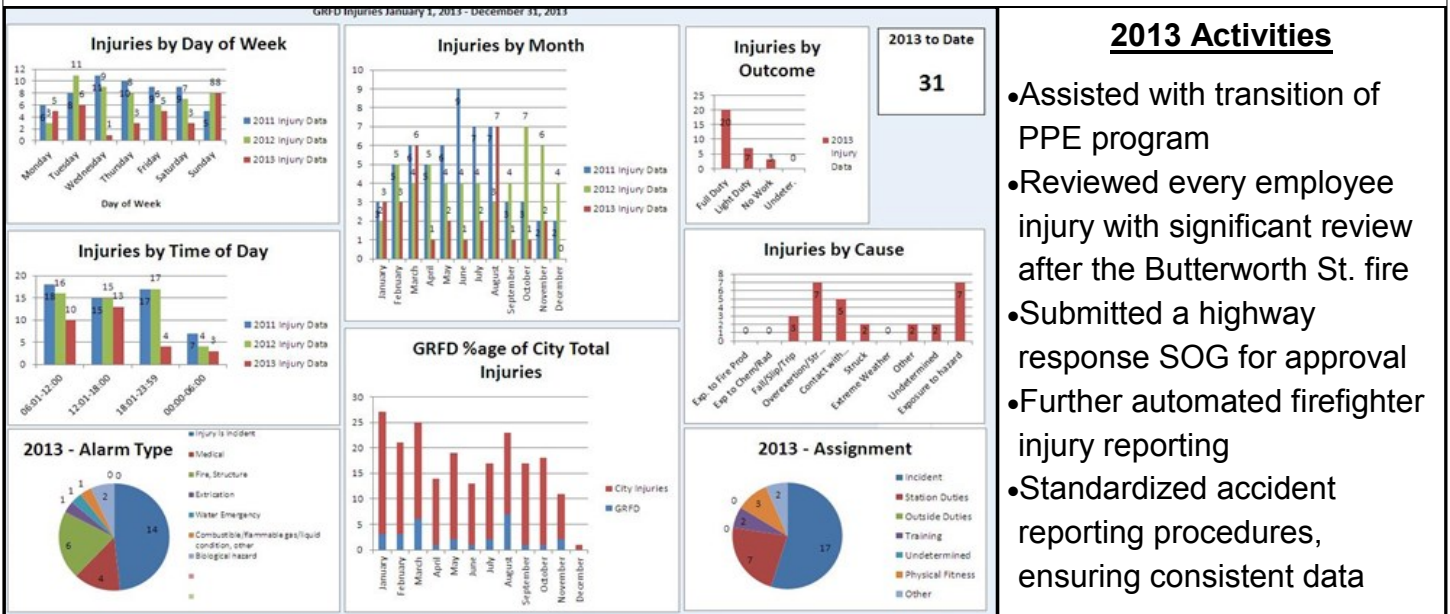


North Battalion - Battalion Fire Chief Ron Tennant

Safety Committee

The safety committee in 2013 consisted of the following members: BC Ron Tennant (chair), BC Kevin Sehlmeier, BC Dennis Haisma, Captain Tony Hendges, Lt. Kevin Carmel, FF Steve Adamczyk and FF Jeff Lysiak. The following are statistics on the work completed:

- 9 Committee Meetings
- 25 Accidents Reviewed
- 36 Injuries Reviewed
- 6 Official Recommendations Submitted
- 1 Meeting with the City's Risk Manager



2013 Activities

- Assisted with transition of PPE program
- Reviewed every employee injury with significant review after the Butterworth St. fire
- Submitted a highway response SOG for approval
- Further automated firefighter injury reporting
- Standardized accident reporting procedures, ensuring consistent data

Mask Repair

Program Manager Lt. VanderWall was assisted by a talented team of mask repair specialists including Lt.'s Marchinda, Kitchen, Pulsipher and Stevenson. Also involved were EO's Ogradzinski, Oliver, and Lewis.

Fit testing continued to be managed by the crews of Engines 6 and 8, a vital component of ensuring respiratory protection for our organization. A SCOTT mask repair class was held this year to bolster the number of mask repair technicians to the desired level of eight.

Alternative measures were enacted to provide a steady supply of oxygen for our medical equipment, as we experienced significant downtime with our oxygen generation system. Documents related to the department's respiratory protection standards were reviewed, as well as several other improvements made to equipment or processes involving SCBA's and oxygen cylinders. Time will be allocated to planning the replacement of our SCBA's in the next few years, as they are nearing the end of their expected lifespan, and several safety enhancements have been introduced since the units went into service.

2013 Mask Room Statistics	
Area	Quantity
Shifts Worked	115
Hour Worked	485.8
Face Pieces Repaired	25
Face Piece Fit Tests	199
SCBA's Repaired	198
SCBA's Flow Tested	312
Air Cylinders Filled	2,336
Oxygen Cylinders Filled	544
Air Cylinders Hyro Tested	108
Oxygen Cylinders Hydro Tested	8
Air Compressor Run Hours	6,584
Misc. Repairs and Maintenance	41



North Battalion– Battalion Fire Chief Kevin Sehmeyer

Fitness

Aligning with the four pillars of the organization, the fitness committee was reconvened and was made up of past members, in addition to receiving some new viewpoints and participation. Fitness Committee members were Russ Bolter, Jason Druckenmiller, Nick Fedewa, Don Gerkey, Jeff Martin, Ryan Sparks, Casey Spielmaker, Scott Stevenson, Dan Weatherwax, and John Zinn. Several goals were set for 2013, and those were conveyed to the Joint Partnership Team made up of labor, city management, and fire department administration. To accomplish many of these goals, financial resources were required to update the fitness equipment in our facilities. Teaming with Ryan Sparks, the department’s grant writer, we were able to utilize 2012 AFG funds that were allowed to be carried over for this critical and beneficial program.



New weight bars, bumper plates, medicine balls, kettle bells, and exercise mats were purchased after observing how many of our members now workout. These new tools will allow us to participate with functional fitness actives that will provide a higher level of performance on emergency incidents.

Additionally, 50 heart rate monitors will be distributed to the fire stations, as research has shown that operating on a fire can cause very high heart rate levels. The committee felt that providing critical feedback on how your body reacts during physical fitness could transfer to a better awareness on-scene.

GRFD continues it’s relationship with GVSU, and had an exercise science intern work this past summer to provide education on workouts and perform a baseline fitness analysis. This work will continue into 2014, as another student will cover usage of the heart rate monitors and how to maximize cardiovascular efforts. Expect more new equipment, instruction, and even voluntary competitions such as the GRFD Combat Challenge to take place in 2014.

Personal Protective Equipment

After many years of managing the personal protective equipment (PPE) program for the GRFD, Captain Baragar retired, necessitating a program change. Once again, critical safety equipment such as eye protection, hoods, and gloves were purchased with grant funds. Lt. Mennega has been assisting with the program, overseeing turnout gear repair and replacement, expanding the program to all shifts at the Leonard St. Station. This has resulted in decreased time for repairs and replacements for fire suppression personnel. Collaboration with the Safety Committee developed a comprehensive replacement plan for our PPE, rotating the vital safety gear between frontline usage and backup gear. In 2014, changes to the data gathering portion of the program are expected, which should enable better decision making in regards to the PPE Program.





South Battalion - Battalion Fire Chief Dennis Haisma

Special Operations

Extrication: The three Rescues are the backbone of our response to incidents requiring extrication and rescue from vehicle accidents; they also provide the Vehicle Extrication Instructors who schedule/provide quarterly training for the department. Another component of extrication rescue is to assemble equipment and send personnel from both the Technical Rescue Team and Rescues to a 30-hour Machine Rescue course hosted by Michigan State University.

Regional Response Team (RRT) /Hazardous Materials (HazMat): Seven personnel were added to the RRT and over 20 team members attended a grant funded training sponsored by the Department of Homeland Security. The team conducts weekly training to maintain the required proficiencies to respond to HazMat Emergencies, as well as possible WMD/Terrorist incidents. The team continually refines the approach to these events focusing on the HazMat IQ system of response, supported by training and equipment such as new sampling kits and monitors. Two significant incidents included a mutual aid response to HB Fuller (City of Walker) and the flooded parking structure at Ionia and Louis NW due to the release of gasoline from vehicles.

Confined Space/Rope Rescue (CSRR) Team: In 2013, the CSRR Team began with an initial 64-hour training for new members, culminating with exercises being conducted from the rafters of the VanAndel Arena. Training also occurred weekly to maintain the skills necessary to perform rescues, above and below ground, as well as incidents requiring rescue from heights. Bi-monthly training is also coordinated with the Walker Fire Department. On May 28, 2013 both teams assembled for the rescue of a maintenance worker that fell in an air shaft at Calvary Church, 777 East Beltline.



Water & Ice Rescue: Personnel from Bridge St. and Plainfield Ave. Fire Stations house and maintain the equipment needed for response to emergencies requiring rescue from water and ice. Water Rescue occurs more frequently than other Special Operations and 2013 was no exception with the Grand River flooding in April. It took the team and equipment to assist with multiple evacuations across the metro area.

Trench and Collapse Rescue: Trench training opportunities have been expanded with the construction of a simulated concrete trench at our live-fire facility. This training prop was constructed by the training division staff at minimal cost thanks to a generous donation of the pre-cast concrete wall panels from Superior Precast Products of Portage, MI. The team added ten new members to replace those lost over the last few years. Many of these were leadership positions due to retirements, the last being that of Special Operations Battalion Chief Daniel Caillouet who invested many years building the GRFD Special Ops team into the highly capable unit that it is today.





South Battalion - Battalion Fire Chief Margaret Felix

Fire Match Juvenile Fire Starter Program

In 2013, 15 children were identified as playing with fire or suspected as the primary cause of a fire. Attempts to contact the primary caregiver for these families resulted in seven children being interviewed for fire setting behavior. For 2013, the average fire setter is an 11 year old male child. These fires resulted in property losses of \$100,913 and content losses of \$18,385.

The regional Fire Match phone number was changed over to GRFD administration number (456-3028). This phone line allows the parents to call and receive information on the program or speak with a trained screener. GRFD participates in this region wide program and assisted with several hours of fire education and support. The West Michigan Fire Match phone line accepted four phone calls from parents seeking assistance for their child, as well as assisted the Kentwood and Wyoming fire departments with interviewing cases in their respective jurisdictions.

Firehouse Record Management System & National Fire Incident Reporting System (NFIRS)

2013 saw continued work with Firehouse, and represented the first full year of utilizing the software for incident reporting. With the diligent work of the Firehouse team consisting of Lt. Dave Marchinda, FF Mike Waldron, FF Justin Holmes, and IT support specialist Jordan Van Overloop, the GRFD was able to import 21,422 incidents with a success rate of 99.5%. Several key data elements are now being captured and utilized on a daily basis within the organization.

Leadership Training & Incident Preplanning for South Battalion "A" Shift

In addition to the regular training and duties that take place on a daily basis, the South battalion held several unique training sessions for it's company officers. These men and women participated in simulations that challenged not only their creative thinking abilities and stressed teamwork, but also required tactical decision making on buildings within their district.



The left picture displays a training that took creative thinking to meet a seemingly impossible goal...something our officers face on a frequent basis.

To the right, the officers embarked on an in-depth discussion of potential hazards located in the jurisdiction to ensure better management with on-scene operations.





South Battalion - Battalion Fire Chief Dan Stoddard

Dispatch Liaison

2013 saw continued personnel changes in dispatch, and specifically our ECO III operators who work directly with our suppression personnel on a daily basis. Upgrades to training, equipment, and software consumed many hours and necessitated a large amount of interaction in the dispatch center. Even with the numerous challenges, the dispatchers continuously operate at a highly efficient level, maintain a high level of effort and service to their customers (us). Numerous case files were opened and investigated, requiring review of the procedures used, listening to actual recorded call taking and incident dispatches. This often resulted in delivering recommendations for improvement, resulting in additional training for either the dispatchers or our operational crews.

Awards Committee

The Awards Committee consists of an eleven person, voluntary committee that reviews award nominations and then investigates the facts surrounding the nomination. This leads to determining what award, if any, that nominee should be given based on the criteria set forth in GRFD policy #119. In 2013, we recognized 22 promotions, 46 years of service awards, and 3 citizen fire service awards. We also awarded 3 Live Birth Awards, 9 Medical Save Awards, 4 Unit Citation Awards, 1 Fire Department Achievement Medal, 1 Medal of Commendation, and 2 Medal of Merit Awards; over 150 awards in total.

The awards ceremony was held on October 23, 2013 at the John F. Donnelly Conference Center on the campus of Aquinas College, which also honored Equipment Operator Michael Uzarski as Firefighter of the Year. The major event of 2013 was the flood that affected West Michigan in April. A multitude of crews were recognized for their efforts during this crisis for their tireless efforts protecting the citizens of not only Grand Rapids, but also Walker and Wyoming.





Fire Chief-Training Dennis Haisma

GRFD Training – GRFD Regional Training Center

The Training Division underwent a large amount of personnel changes during 2013, with the Training Chief of six years, Chief Sehlmeier, returning to operations. After assistance from acting officers Jason Druckenmiller and Kevin Fox, the final roster included Fire Chief—Training Dennis Haisma, Fire Captain—Training Lee Finlayson, EMS Coordinator Mark Fankhauser, and Fire Lieutenants—Training Wes Kelley and Dan Witwer. This is the most personnel ever assigned to training in the history of the GRFD, showing the commitment of the department to having well trained firefighters.

2013 started out busy for the Training Division with the addition of a new apparatus type for the department. In depth training for the members that drew the Squads commenced to ensure they were competent in the use of their new apparatus and the Compressed Air Foam System (CAFS). This training included additional classroom instruction and hands-on use at the live-fire facility.

Departmental Residential Safety Program training also took place early in the year, preparing our crews to deliver a high quality service to our citizens. During the same time frame, our crews conducted their annual Standard Operating Guideline review and a 40-hour rope operations class was held for new members assigned to Rescue 5 and Engine 8.

The forcible entry simulator obtained through a grant several years ago saw heavy use as it went mobile and visited every fire station. Each member had the opportunity to force both an inward and outward swinging door with both hand tools and a K-12 saw.

Several media and testing opportunities also took place during 2013, and the Training Division



accommodated the requests for vehicle extrication, high angle rescues, and searching drills for Fox 17 news anchors. Additional hose testing took place under live fire conditions for the single jacket hose in use on the squad units.

Departmental air consumption tests were conducted at both the training center and fire stations to reinforce air management techniques and SCBA equipment attributes.

The summer months saw company level skill evolutions consisting of water supply, pump operations, ladders, ropes and knots, forcible entry and fire stream management. The Training Division made good use of the mild summer



weather by acquiring several structures scheduled for demolition and had crews practice ladders, vent-enter-search and vertical roof ventilation.

In September, the Training Division hosted the International Society of Fire Service Instructors (ISFSI) Fixed Facility Live Fire Instructor Credentialing Program. This was a three day class which focused on preparing fire instructors conducting live-fire training to safely follow the requirements



of the NFPA 1403 Live Fire Standard. The course was attended by 22 students, including 8 GRFD personnel, and represented fire departments from West Michigan, Indiana, and Puerto Rico.

In October, the Training Division facilitated a 40-hour Equipment Operators Course for 17 personnel to become certified EO's. This program was instructed by Lt. Hayden, Lt. Freeman and EO Beurkens Sr. with assistance from Lt. Davis, Asst. Fleet Maintenance Supervisor Steve Chicklon and the Training Division staff.

GRFD-Regional Training Center (RTC)

The GRFD-RTC hosted the 5th Pre-Service Fire Academy beginning March 5, 2013. This was a 12 week, 384 hour program that went well above the state requirements, giving these students the best firefighter training experience in the state. The GRFD-RTC staff prides itself in the excellent instruction given by over 40 GRFD personnel and the real life learning environment created through intensive hands on training. The 6th pre-service academy began on October 5th, 2013 and was delivered in an alternative schedule: two nights a week and every other Saturday for those students seeking certification while working fulltime.

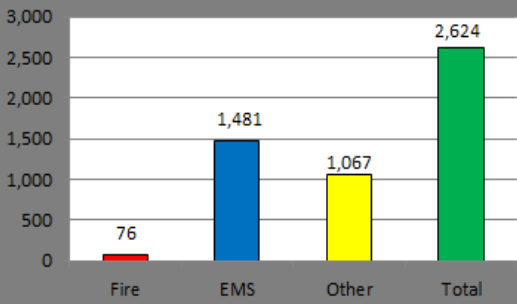
The GRFD-RTC facility also provided opportunities for various users including: State Police Canine Team, GRPD SRT, GRPD K-9 Unit, MUSAR Search Dogs, CERT, and the Michigan Volunteer Defense Force.

Finally, after a tremendous amount of work by Fire Lieutenants—Training Witwer and Kelley, the GRFD was pleased to announce that the GRFD-RTC is now approved by the U.S. Department of Veteran Affairs to accept G.I. Benefits for those veterans wishing to pursue training and a career as a firefighter.

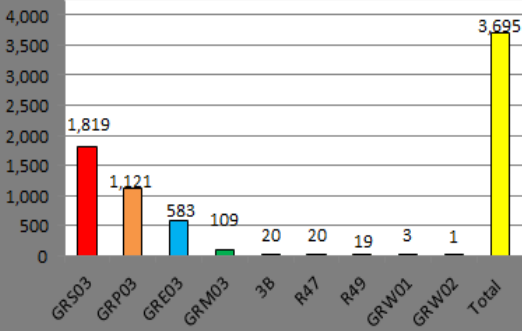


Bridge Street Fire Station

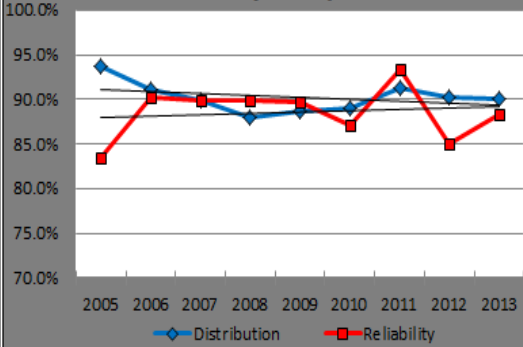
Bridge St. Station 2013 Incidents in District



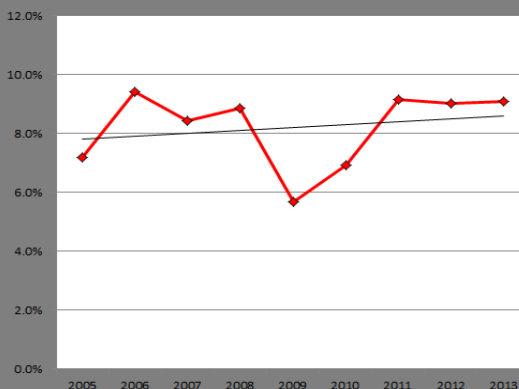
Bridge St. Station 2013 Apparatus Responses



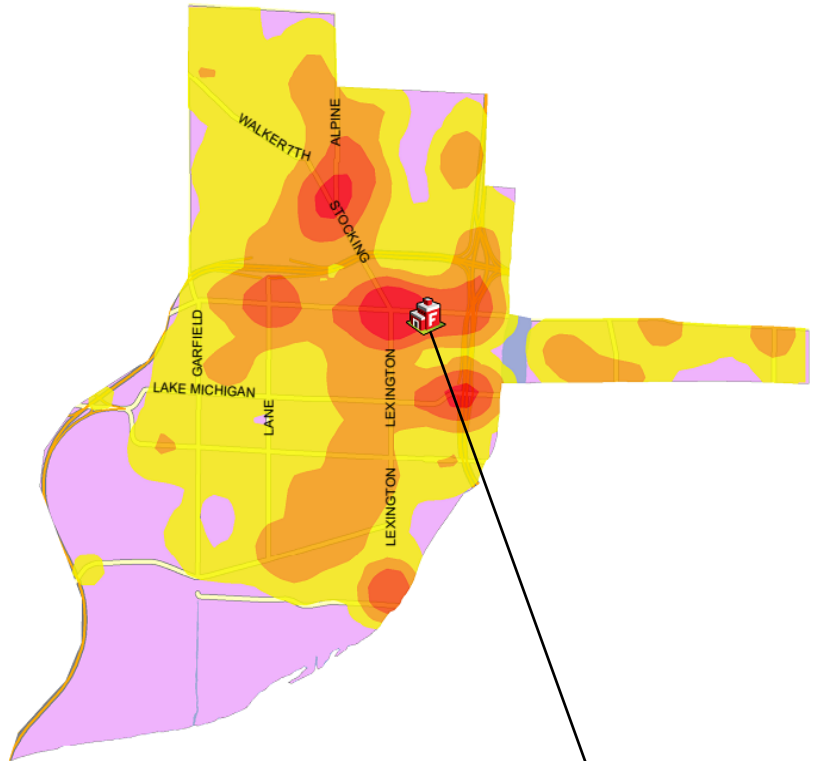
Bridge Distribution & Reliability Compliance



Bridge St. Station Simultaneous Calls



Hot Spot of Bridge St. Station's 2013 Incidents



Legend

- Fire Stations

**Hot Spot of Bridge 2013
Concentration of Incidents**

- Very High (Red)
- High (Orange)
- Moderate (Yellow)
- Low (Light Yellow)
- None (White)

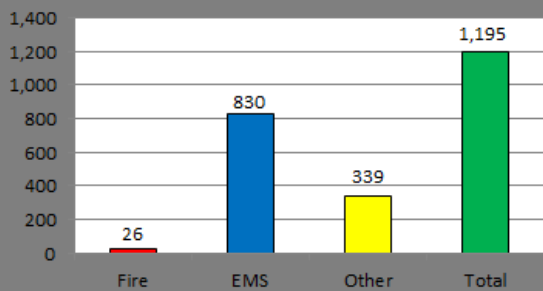


Temporal Analysis-2013 EMS Bridge								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	5	5	11	4	14	15	13	67
01:00-01:59	4	8	5	3	9	11	10	50
02:00-02:59	8	9	7	6	6	6	8	50
03:00-03:59	0	3	5	2	5	5	10	30
04:00-04:59	1	4	3	4	2	3	6	23
05:00-05:59	3	5	0	3	2	2	2	17
06:00-06:59	5	1	2	3	3	2	1	17
07:00-07:59	4	4	4	2	6	5	2	27
08:00-08:59	10	5	6	9	8	6	9	53
09:00-09:59	10	14	6	8	10	10	4	62
10:00-10:59	16	16	6	17	18	10	4	87
11:00-11:59	12	12	7	13	14	11	6	75
12:00-12:59	8	6	9	12	14	7	9	65
13:00-13:59	10	12	14	12	12	8	10	78
14:00-14:59	14	12	14	11	14	12	15	92
15:00-15:59	11	18	12	11	14	9	6	81
16:00-16:59	9	9	12	13	6	7	7	63
17:00-17:59	7	11	16	16	9	13	9	81
18:00-18:59	14	11	8	15	5	12	18	83
19:00-19:59	5	9	11	12	16	15	14	82
20:00-20:59	11	13	11	8	14	17	8	82
21:00-21:59	8	7	9	11	16	8	9	68
22:00-22:59	12	12	4	13	14	10	14	79
23:00-23:59	6	16	6	9	12	10	10	69
Total	193	222	188	217	243	214	204	1,481

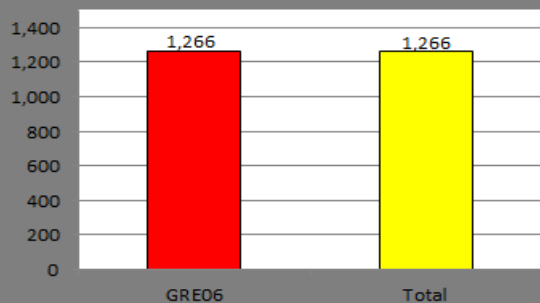
Temporal Analysis-2013 Fire Bridge								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	1	0	0	0	0	0	1	2
01:00-01:59	1	0	0	0	1	1	1	4
02:00-02:59	0	0	1	0	2	0	0	3
03:00-03:59	0	0	1	1	0	0	0	2
04:00-04:59	0	0	0	0	0	0	0	0
05:00-05:59	1	0	0	0	0	1	0	2
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	1	0	0	1
08:00-08:59	0	0	0	2	0	0	0	2
09:00-09:59	0	1	0	0	0	1	0	2
10:00-10:59	0	1	0	0	1	0	0	2
11:00-11:59	1	0	0	1	0	0	1	3
12:00-12:59	0	1	0	3	3	1	1	9
13:00-13:59	0	0	1	0	1	0	0	2
14:00-14:59	1	0	0	0	0	0	0	1
15:00-15:59	0	2	0	1	0	1	1	5
16:00-16:59	1	2	2	0	0	0	0	5
17:00-17:59	1	0	2	0	3	0	1	7
18:00-18:59	1	1	1	1	1	0	2	7
19:00-19:59	1	1	0	0	1	0	0	3
20:00-20:59	0	0	0	0	2	0	2	4
21:00-21:59	0	4	0	0	1	0	1	6
22:00-22:59	0	0	0	1	0	0	0	1
23:00-23:59	0	0	1	1	0	0	1	3
Total	9	12	9	11	17	5	12	76

Burton Street Fire Station

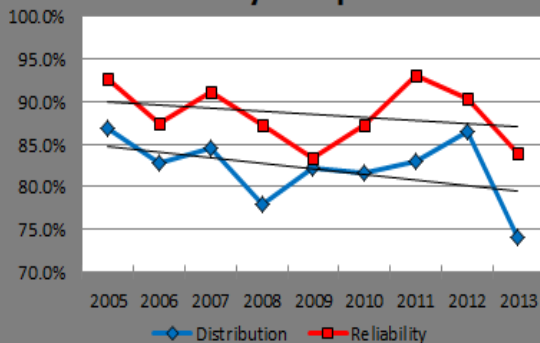
Burton St. Station 2013 Incidents in District



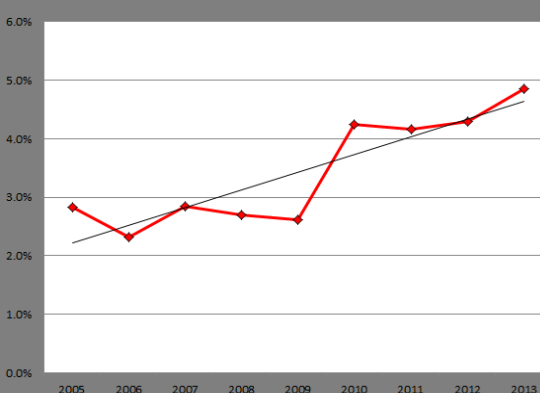
Burton St. Station 2013 Apparatus Responses



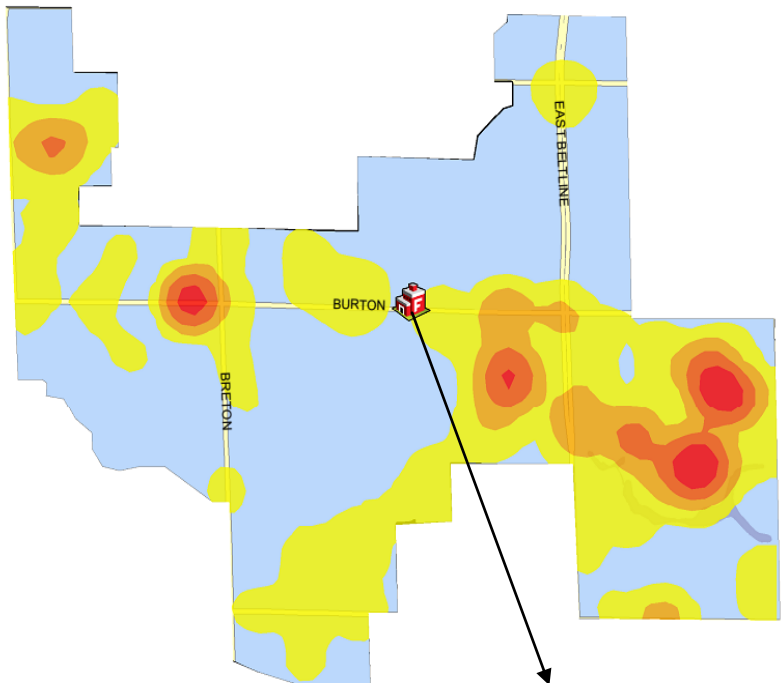
Burton Distribution & Reliability Compliance



Burton St. Station Simultaneous Calls



Hot Spot of Burton St. Station's 2013 Incidents



Legend



Hot Spot of Burton 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None

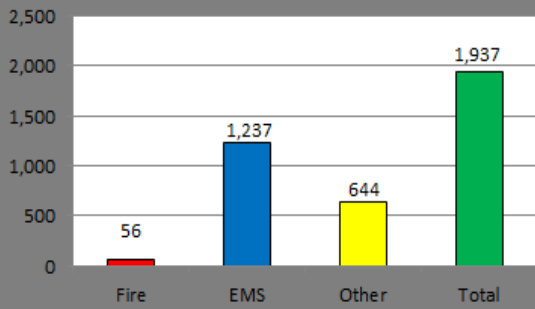


Temporal Analysis-2013 EMS Burton								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	3	5	4	3	3	3	2	23
01:00-01:59	1	1	2	4	1	4	6	19
02:00-02:59	1	6	4	2	3	3	4	23
03:00-03:59	3	2	3	4	0	2	3	17
04:00-04:59	3	5	1	1	2	1	2	15
05:00-05:59	1	3	3	2	1	4	2	16
06:00-06:59	1	1	2	1	4	1	4	14
07:00-07:59	6	6	3	2	3	3	4	27
08:00-08:59	5	9	8	9	4	4	7	46
09:00-09:59	12	5	6	9	5	8	7	52
10:00-10:59	10	9	9	10	5	6	3	52
11:00-11:59	8	7	4	13	4	6	5	47
12:00-12:59	5	11	4	8	16	7	4	55
13:00-13:59	10	3	9	10	6	4	4	46
14:00-14:59	12	8	4	5	7	7	5	48
15:00-15:59	6	8	3	0	4	5	3	29
16:00-16:59	4	5	12	5	5	2	6	39
17:00-17:59	6	9	10	10	5	4	4	48
18:00-18:59	6	6	5	6	4	3	3	33
19:00-19:59	6	4	7	6	4	9	7	43
20:00-20:59	8	8	8	4	7	3	3	41
21:00-21:59	8	4	6	8	8	6	8	48
22:00-22:59	7	4	5	3	3	6	2	30
23:00-23:59	0	3	1	2	6	1	6	19
Total	132	132	123	127	110	102	104	830

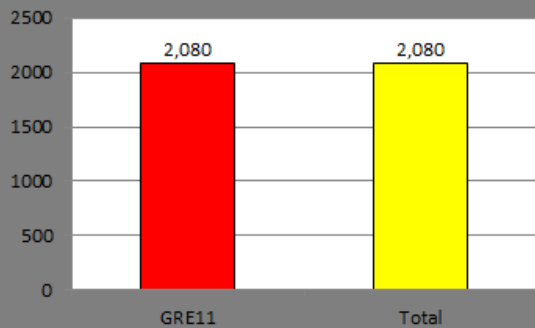
Temporal Analysis-2013 Fire Burton								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	0	0	1	0	0	1
01:00-01:59	0	0	0	0	0	0	0	0
02:00-02:59	0	0	0	0	0	0	0	0
03:00-03:59	0	0	0	0	0	0	0	0
04:00-04:59	0	1	0	0	0	0	0	1
05:00-05:59	0	1	0	0	0	0	0	1
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	1	1	0	0	2
08:00-08:59	0	0	1	0	0	0	0	1
09:00-09:59	0	0	0	1	0	0	0	1
10:00-10:59	0	0	0	0	0	0	1	1
11:00-11:59	1	0	0	0	0	0	0	1
12:00-12:59	0	0	0	0	0	0	0	0
13:00-13:59	0	0	0	0	0	1	1	2
14:00-14:59	2	0	0	0	0	0	0	2
15:00-15:59	0	2	0	0	0	0	0	2
16:00-16:59	0	0	0	0	1	1	0	2
17:00-17:59	1	0	0	0	0	1	0	2
18:00-18:59	0	2	0	0	0	0	1	3
19:00-19:59	0	0	1	0	0	0	0	1
20:00-20:59	0	0	0	0	0	0	0	0
21:00-21:59	0	0	0	0	0	0	0	0
22:00-22:59	0	1	0	0	0	0	1	2
23:00-23:59	0	0	0	0	1	0	0	1
Total	4	7	2	2	4	3	4	26

Chester Street Fire Station

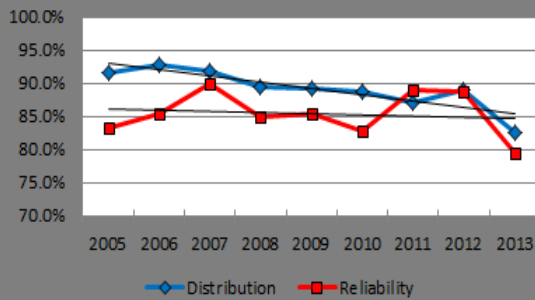
Chester St. Station 2013 Incidents in District



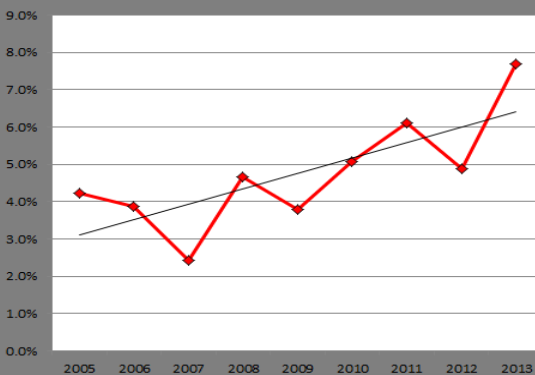
Chester St. Station 2013 Apparatus Responses



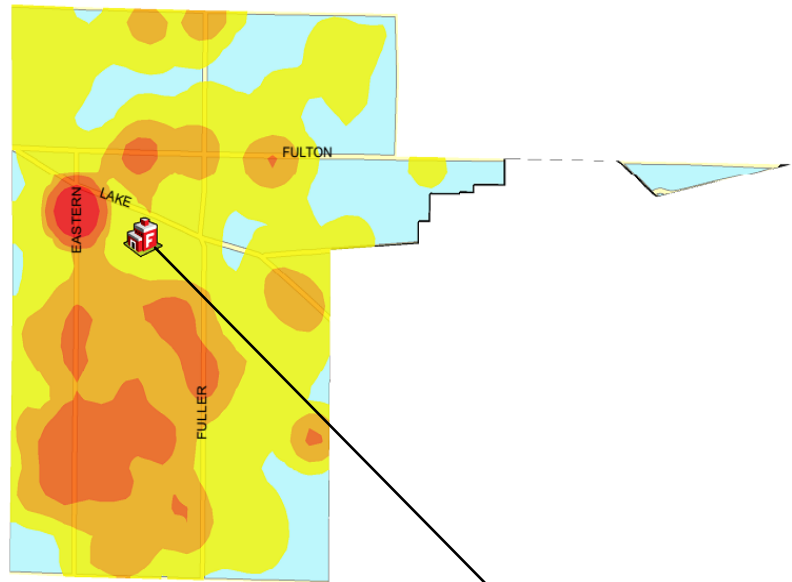
Chester Distribution & Reliability Compliance



Chester St. Station Simultaneous Calls



Hot Spot of Chester St. Station's 2013 Incidents



Legend



Hot Spot of Chester 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None

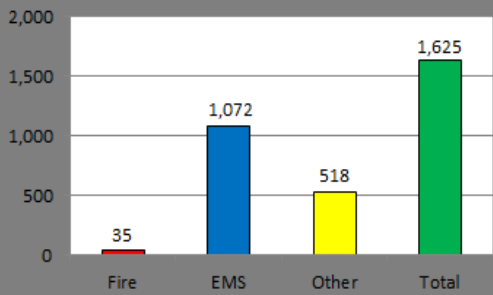


Temporal Analysis-2013 EMS Chester								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	4	4	4	5	6	4	5	32
01:00-01:59	2	11	4	5	8	12	8	50
02:00-02:59	6	8	2	8	6	14	8	52
03:00-03:59	1	2	0	2	1	5	2	13
04:00-04:59	4	1	5	4	3	6	7	30
05:00-05:59	3	4	6	5	2	3	4	27
06:00-06:59	5	4	4	9	4	8	4	38
07:00-07:59	7	7	6	3	4	5	4	36
08:00-08:59	4	3	9	7	9	2	5	39
09:00-09:59	4	7	10	4	6	5	5	41
10:00-10:59	5	9	18	9	13	6	5	65
11:00-11:59	9	5	12	10	11	7	6	60
12:00-12:59	11	13	7	9	6	7	8	61
13:00-13:59	7	8	17	13	7	7	10	69
14:00-14:59	20	11	6	8	5	6	5	61
15:00-15:59	10	10	14	12	6	6	7	65
16:00-16:59	15	7	15	8	10	11	3	69
17:00-17:59	10	11	7	13	12	12	7	72
18:00-18:59	7	11	10	10	9	6	9	62
19:00-19:59	7	6	5	3	7	9	7	44
20:00-20:59	14	13	8	12	7	14	10	78
21:00-21:59	11	6	10	8	7	8	10	60
22:00-22:59	3	9	5	9	9	9	8	52
23:00-23:59	13	6	4	10	6	11	11	61
Total	182	176	188	186	164	183	158	1,237

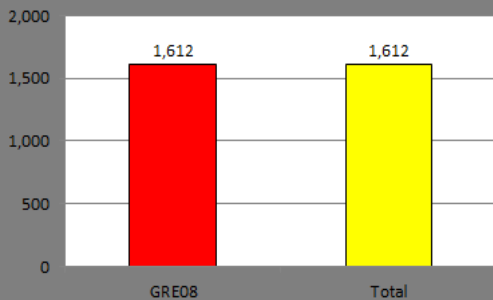
Temporal Analysis-2013 Fire Chester								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	1	0	0	2	0	0	0	3
01:00-01:59	0	2	0	0	0	0	1	3
02:00-02:59	0	0	1	1	1	0	0	3
03:00-03:59	0	0	0	0	0	0	0	0
04:00-04:59	0	1	1	0	0	0	1	3
05:00-05:59	1	0	0	1	0	0	0	2
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	0	1	0	1
08:00-08:59	0	0	0	0	1	1	0	2
09:00-09:59	1	0	1	0	0	0	0	2
10:00-10:59	0	0	0	0	0	0	0	0
11:00-11:59	0	1	0	0	0	2	1	4
12:00-12:59	1	0	0	0	0	0	0	1
13:00-13:59	0	0	0	0	1	1	2	4
14:00-14:59	0	0	0	0	0	0	0	0
15:00-15:59	1	1	0	0	1	1	0	4
16:00-16:59	0	0	1	0	1	0	0	2
17:00-17:59	1	0	1	0	2	1	0	5
18:00-18:59	0	0	0	0	3	1	0	4
19:00-19:59	0	1	0	0	0	0	1	2
20:00-20:59	0	1	0	0	1	0	0	2
21:00-21:59	0	0	0	0	0	1	1	2
22:00-22:59	3	0	1	1	1	1	0	7
23:00-23:59	0	0	0	0	0	0	0	0
Total	9	7	6	5	12	10	7	56

Covell Avenue Fire Station

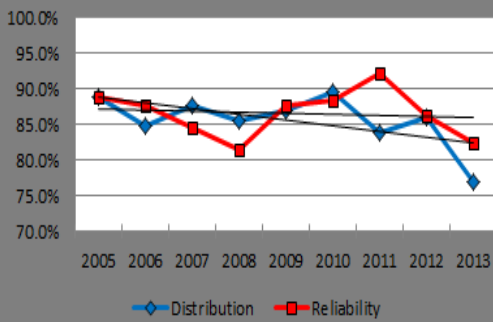
Covell Ave. Station 2013 Incidents in District



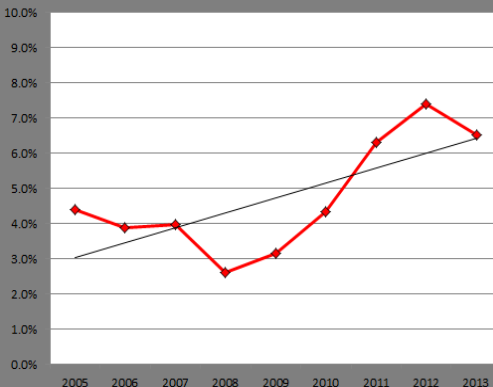
Covell Ave. Station 2013 Apparatus Responses



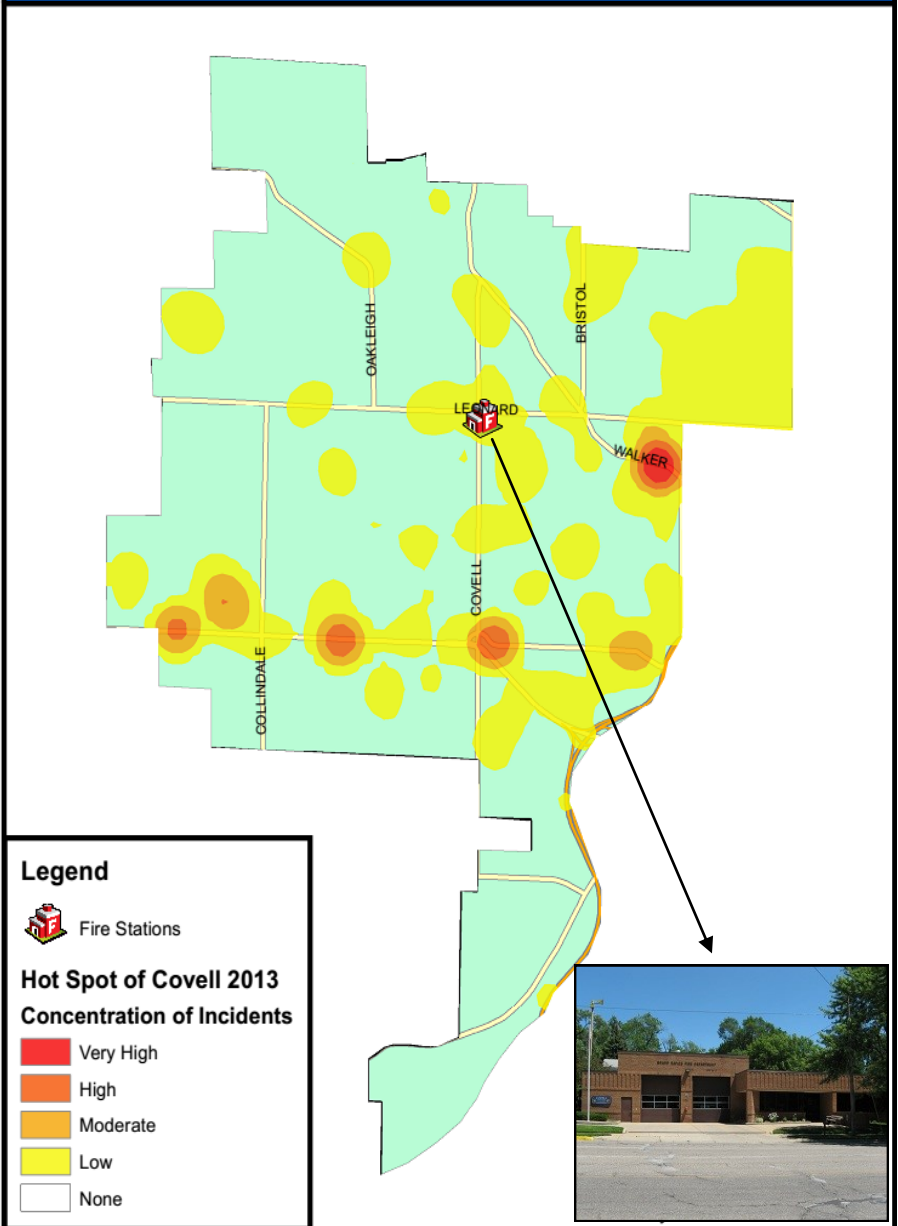
Covell Distribution & Reliability Compliance



Covell Ave. Station Simultaneous Calls



Hot Spot of Covell Ave. Station's 2013 Incidents



Legend



Hot Spot of Covell 2013 Concentration of Incidents

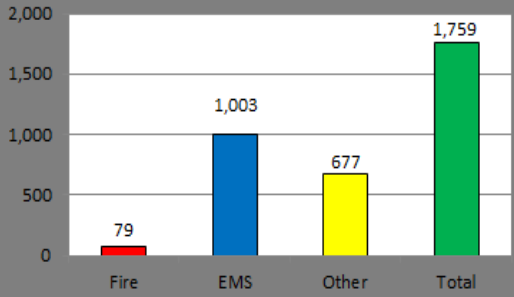
- Very High
- High
- Moderate
- Low
- None

Temporal Analysis-2013 EMS Covell								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	2	1	7	3	5	5	3	26
01:00-01:59	1	6	2	5	2	8	2	26
02:00-02:59	1	0	2	7	3	7	3	23
03:00-03:59	4	2	0	5	6	7	4	28
04:00-04:59	1	3	3	3	4	1	5	20
05:00-05:59	6	5	5	3	4	3	1	27
06:00-06:59	5	4	4	4	3	1	4	25
07:00-07:59	7	6	7	7	5	5	3	40
08:00-08:59	12	7	12	7	6	7	14	65
09:00-09:59	11	14	4	10	7	6	5	57
10:00-10:59	8	14	11	6	2	8	15	64
11:00-11:59	11	12	6	10	13	4	7	63
12:00-12:59	9	7	3	4	10	4	7	44
13:00-13:59	4	13	13	12	7	9	5	63
14:00-14:59	6	6	13	8	4	5	8	50
15:00-15:59	9	10	4	12	6	6	12	59
16:00-16:59	10	8	5	4	8	4	6	45
17:00-17:59	8	11	8	4	8	11	7	57
18:00-18:59	14	6	7	11	8	7	9	62
19:00-19:59	5	4	6	10	8	5	5	43
20:00-20:59	8	11	8	7	11	6	9	60
21:00-21:59	7	8	5	5	9	5	12	51
22:00-22:59	7	4	3	7	8	5	5	39
23:00-23:59	5	4	8	4	6	7	1	35
Total	161	166	146	158	153	136	152	1,072

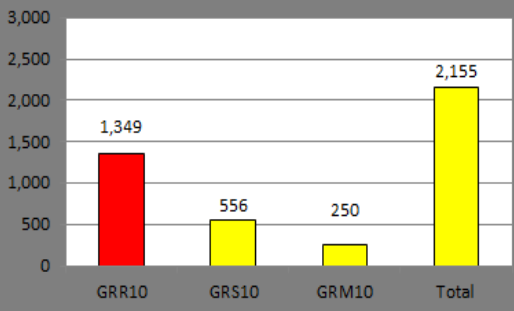
Temporal Analysis-2013 Fire Covell								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	0	0	0	0	0	0
01:00-01:59	0	0	0	0	0	0	0	0
02:00-02:59	0	0	0	0	0	1	0	1
03:00-03:59	0	0	0	0	0	0	0	0
04:00-04:59	0	1	2	0	0	0	1	4
05:00-05:59	0	0	0	0	0	0	0	0
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	0	1	0	0	0	1	2
09:00-09:59	0	1	0	1	0	0	0	2
10:00-10:59	0	1	0	0	1	0	0	2
11:00-11:59	1	0	0	0	0	1	1	3
12:00-12:59	0	0	1	0	0	0	0	1
13:00-13:59	0	0	0	0	0	0	2	2
14:00-14:59	0	0	0	1	1	0	0	2
15:00-15:59	1	1	0	0	1	0	0	3
16:00-16:59	0	0	0	0	1	0	1	2
17:00-17:59	0	0	0	0	0	1	1	2
18:00-18:59	0	1	0	0	2	0	0	3
19:00-19:59	0	1	0	1	0	0	0	2
20:00-20:59	1	0	1	0	0	0	0	2
21:00-21:59	0	0	0	0	0	0	1	1
22:00-22:59	0	0	0	0	0	0	1	1
23:00-23:59	0	0	0	0	0	0	0	0
Total	3	6	5	3	6	3	9	35

Division Avenue Fire Station

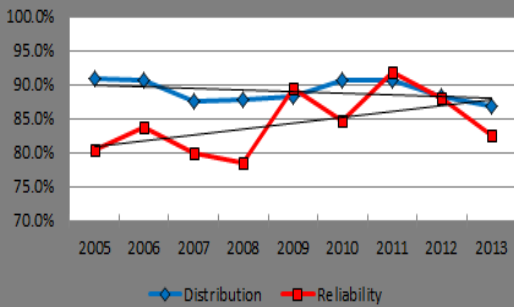
Division Ave. Station 2013 Incidents in District



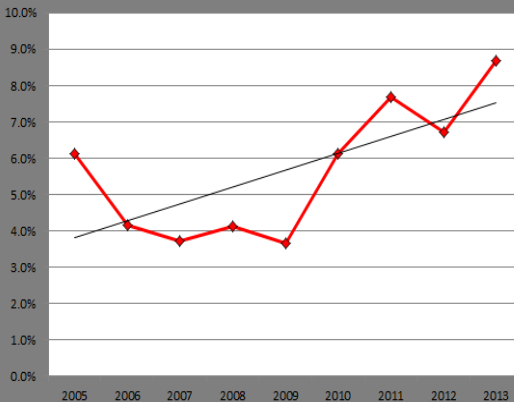
Division Ave. Station 2013 Apparatus Responses



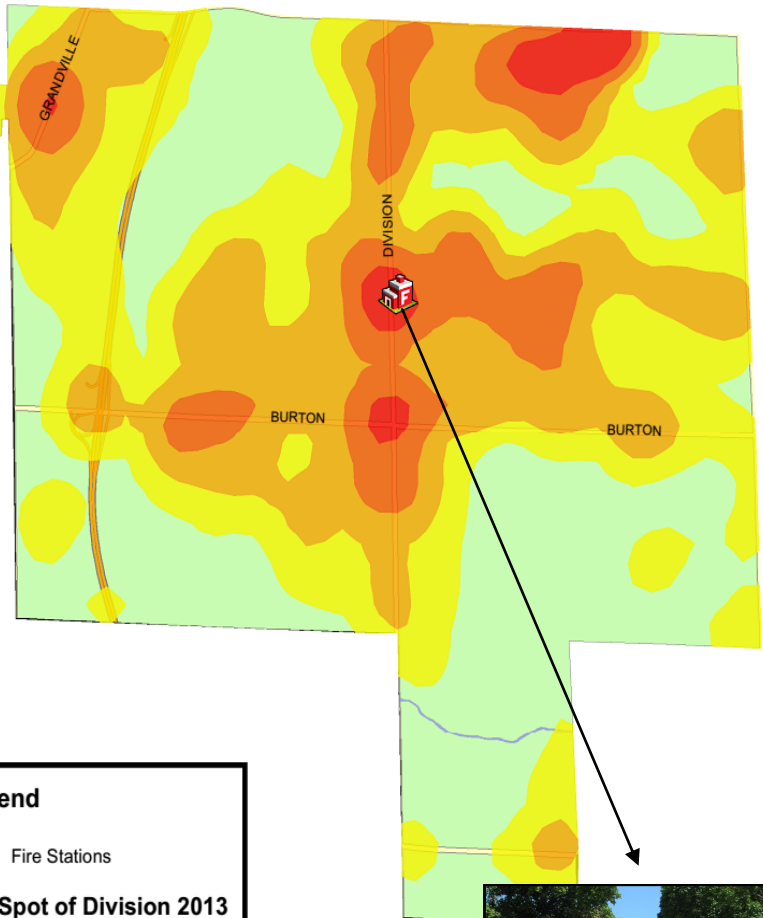
Division Distribution & Reliability Compliance



Division Ave. Station Simultaneous Calls



Hot Spot of Division Ave. Station's 2013 Incidents



Legend

- Fire Stations

**Hot Spot of Division 2013
Concentration of Incidents**

- Very High
- High
- Moderate
- Low
- None

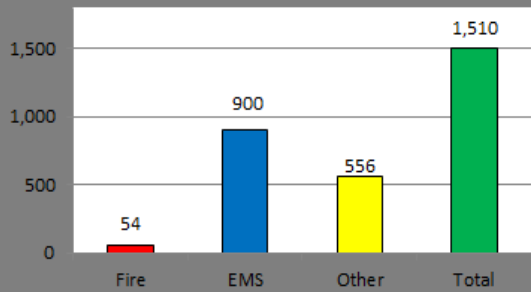


Temporal Analysis-2013 EMS Division								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	5	5	6	5	5	6	3	35
01:00-01:59	5	4	3	4	2	4	5	27
02:00-02:59	5	5	3	4	2	5	3	27
03:00-03:59	3	6	1	2	4	6	7	29
04:00-04:59	4	3	1	7	5	4	5	29
05:00-05:59	0	5	1	2	2	2	2	14
06:00-06:59	2	2	1	3	0	2	5	15
07:00-07:59	1	8	2	5	2	4	3	25
08:00-08:59	4	5	5	9	5	4	3	35
09:00-09:59	4	5	3	11	5	4	4	36
10:00-10:59	12	7	10	5	8	3	3	48
11:00-11:59	4	14	4	7	13	4	6	52
12:00-12:59	8	5	2	3	7	7	7	39
13:00-13:59	4	9	10	5	11	6	8	53
14:00-14:59	11	9	8	7	10	5	7	57
15:00-15:59	9	5	11	13	5	5	12	60
16:00-16:59	2	11	11	8	9	9	7	57
17:00-17:59	6	12	4	9	7	7	4	49
18:00-18:59	8	7	4	7	16	10	8	60
19:00-19:59	11	6	11	2	7	9	12	58
20:00-20:59	10	8	9	7	4	3	9	50
21:00-21:59	6	9	7	12	6	7	6	53
22:00-22:59	7	8	8	2	7	10	3	45
23:00-23:59	8	5	5	10	11	7	4	50
Total	139	163	130	149	153	133	136	1,003

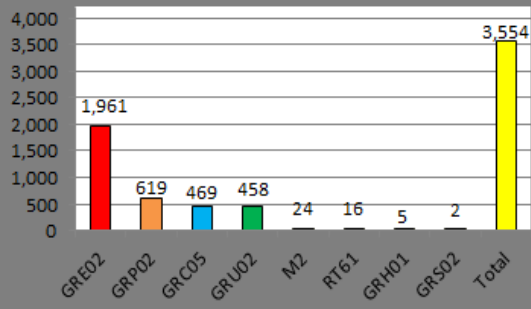
Temporal Analysis-2013 Fire Division								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	1	0	0	2	0	0	0	3
01:00-01:59	0	0	0	0	0	0	0	0
02:00-02:59	1	0	0	1	3	0	1	6
03:00-03:59	0	0	0	1	1	0	2	4
04:00-04:59	0	2	0	0	2	0	0	4
05:00-05:59	1	0	0	0	1	0	0	2
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	1	1	0	0	0	0	1	3
08:00-08:59	0	0	1	0	0	0	0	1
09:00-09:59	0	0	0	0	0	1	0	1
10:00-10:59	0	1	0	0	1	0	1	3
11:00-11:59	1	0	0	1	0	0	1	3
12:00-12:59	0	1	2	0	0	0	0	3
13:00-13:59	0	3	0	0	0	0	1	4
14:00-14:59	0	0	0	1	0	1	0	2
15:00-15:59	0	0	0	0	1	0	0	1
16:00-16:59	0	1	1	0	0	1	0	3
17:00-17:59	1	0	0	0	2	0	0	3
18:00-18:59	0	0	0	0	1	0	1	2
19:00-19:59	1	2	1	1	0	0	3	8
20:00-20:59	1	1	1	0	0	1	0	4
21:00-21:59	1	0	0	1	1	2	5	10
22:00-22:59	0	2	0	2	1	1	1	7
23:00-23:59	0	1	0	0	0	0	1	2
Total	9	15	6	10	14	7	18	79

Franklin Street Fire Station

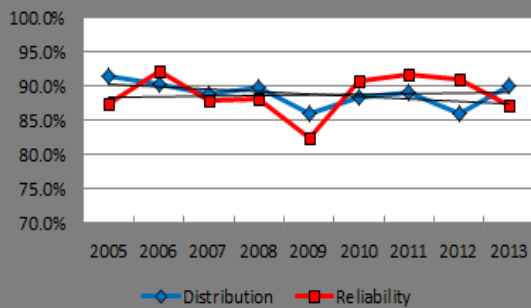
Franklin St. Station 2013 Incidents in District



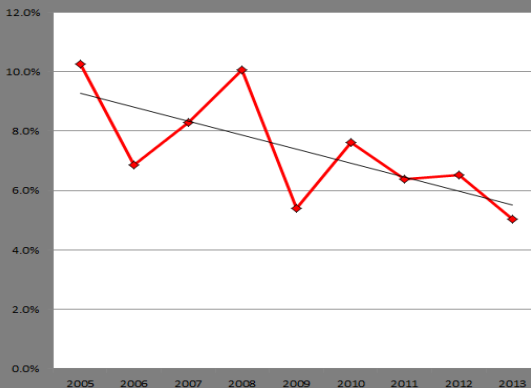
Franklin St. Station 2013 Apparatus Responses



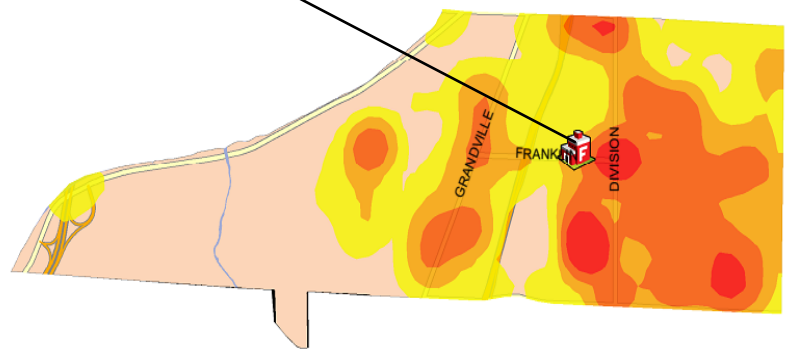
Franklin Distribution & Reliability Compliance



Franklin St. Station Simultaneous Calls



Hot Spot of Franklin St. Station's 2013 Incidents

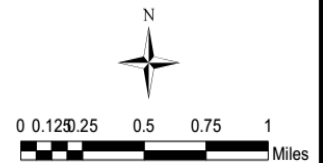


Legend



Hot Spot of Franklin 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None



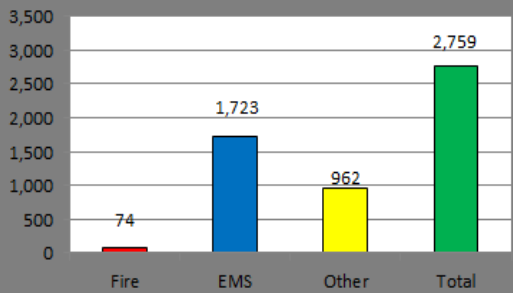
Map Produced by GRFD SPO

Temporal Analysis-2013 EMS Franklin								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	2	4	3	10	4	9	6	38
01:00-01:59	6	3	4	2	5	8	7	35
02:00-02:59	2	3	7	4	5	8	10	39
03:00-03:59	4	3	0	5	3	2	6	23
04:00-04:59	3	5	2	0	1	2	3	16
05:00-05:59	2	3	2	2	3	4	8	24
06:00-06:59	5	4	3	4	2	6	2	26
07:00-07:59	5	1	6	3	5	6	4	30
08:00-08:59	6	3	2	5	6	2	1	25
09:00-09:59	9	7	2	4	3	4	6	35
10:00-10:59	6	4	3	1	5	1	6	26
11:00-11:59	6	3	10	10	9	6	6	50
12:00-12:59	10	9	6	4	5	6	3	43
13:00-13:59	2	7	5	7	8	5	7	41
14:00-14:59	4	3	7	8	5	4	7	38
15:00-15:59	5	15	7	4	6	9	7	53
16:00-16:59	4	11	7	8	8	2	6	46
17:00-17:59	8	7	2	4	6	8	5	40
18:00-18:59	9	13	3	7	7	5	5	49
19:00-19:59	2	10	7	4	4	8	4	39
20:00-20:59	10	7	5	5	5	7	8	47
21:00-21:59	9	8	3	5	8	9	9	51
22:00-22:59	5	8	5	5	8	8	5	44
23:00-23:59	5	4	3	4	9	7	10	42
Total	129	145	104	115	129	136	141	900

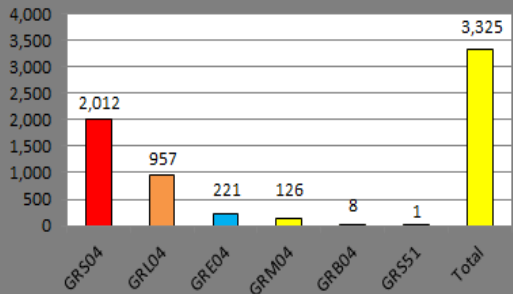
Temporal Analysis-2013 Fire Franklin								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	1	0	0	0	0	1	0	2
01:00-01:59	0	0	0	0	2	0	0	2
02:00-02:59	0	0	2	0	0	0	0	2
03:00-03:59	1	0	0	0	0	0	1	2
04:00-04:59	0	1	1	0	0	0	0	2
05:00-05:59	0	0	0	0	0	0	0	0
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	0	0	1	0	0	1	2
09:00-09:59	0	0	0	0	0	0	0	0
10:00-10:59	0	0	1	0	0	1	1	3
11:00-11:59	1	0	0	0	1	0	1	3
12:00-12:59	0	0	0	0	1	0	0	1
13:00-13:59	0	0	4	0	0	0	0	4
14:00-14:59	1	0	0	0	1	0	0	2
15:00-15:59	1	3	0	0	1	1	1	7
16:00-16:59	1	1	0	1	0	0	0	3
17:00-17:59	1	1	0	1	0	0	0	3
18:00-18:59	0	0	0	0	0	1	0	1
19:00-19:59	0	0	0	0	1	2	1	4
20:00-20:59	0	0	0	0	1	1	1	3
21:00-21:59	1	0	0	1	0	2	0	4
22:00-22:59	1	0	1	0	0	1	0	3
23:00-23:59	0	1	0	0	0	0	0	1
Total	8	8	9	4	8	10	7	54

Kalamazoo Ave. Fire Station

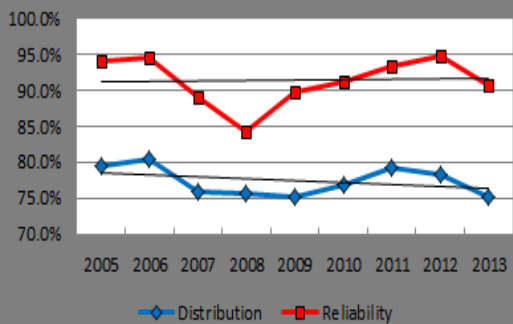
Kalamazoo Ave. Station 2013 Incidents in District



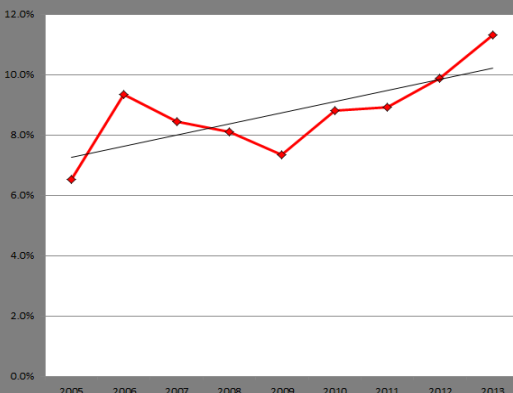
Kalamazoo Ave. Station 2013 Apparatus Responses



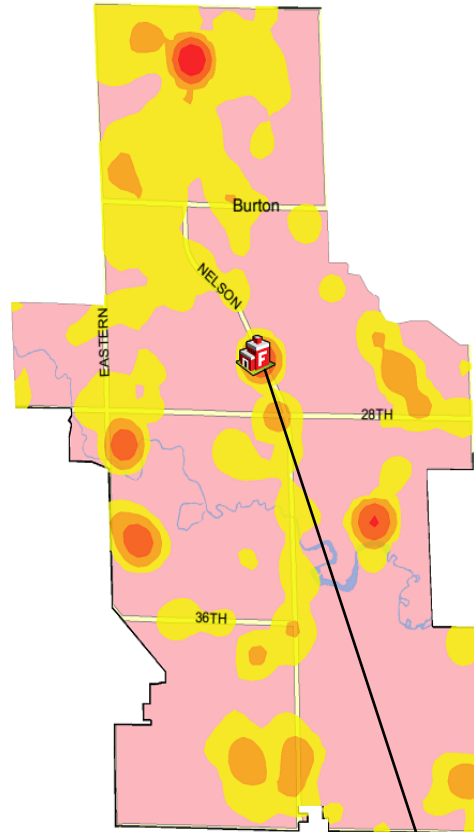
Kalamazoo Ave. Station Distribution Compliance



Kalamazoo Ave. Station Simultaneous Calls



Hot Spot of Kalamazoo Ave. Station's 2013 Incidents



Legend



Hot Spot of Kalamazoo 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None

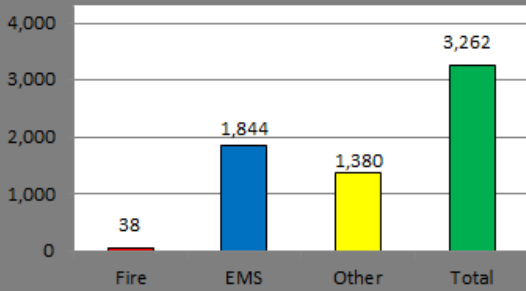


Temporal Analysis-2013 EMS Kalamazoo								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	4	6	4	4	9	10	10	47
01:00-01:59	9	3	8	4	8	6	8	46
02:00-02:59	5	2	6	9	6	8	10	46
03:00-03:59	8	2	5	6	6	3	5	35
04:00-04:59	4	2	2	8	8	8	9	41
05:00-05:59	4	5	7	4	2	3	6	31
06:00-06:59	7	4	3	8	9	5	5	41
07:00-07:59	5	7	4	10	10	8	7	51
08:00-08:59	10	6	10	5	6	6	10	53
09:00-09:59	16	9	8	17	16	10	10	86
10:00-10:59	14	16	13	16	16	9	13	97
11:00-11:59	16	19	19	13	12	16	19	114
12:00-12:59	16	9	9	14	19	25	15	107
13:00-13:59	10	10	10	18	8	12	11	79
14:00-14:59	8	17	11	12	20	11	8	87
15:00-15:59	12	15	12	11	7	18	9	84
16:00-16:59	6	12	12	14	8	15	6	73
17:00-17:59	11	16	17	7	10	9	15	85
18:00-18:59	16	17	16	15	11	8	18	101
19:00-19:59	12	11	12	12	23	19	20	109
20:00-20:59	11	10	16	14	13	14	18	96
21:00-21:59	8	8	23	10	7	11	11	78
22:00-22:59	7	11	6	13	9	15	12	73
23:00-23:59	9	7	7	5	10	15	10	63
Total	228	224	240	249	253	264	265	1,723

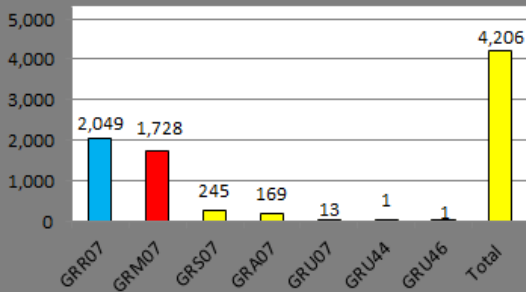
Temporal Analysis-2013 Fire Kalamazoo								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	1	1	0	0	0	0	3	5
01:00-01:59	1	0	0	1	0	0	0	2
02:00-02:59	0	0	1	1	0	0	0	2
03:00-03:59	0	0	0	0	0	0	1	1
04:00-04:59	0	0	0	0	0	0	0	0
05:00-05:59	0	0	0	0	0	0	1	1
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	1	0	0	1
08:00-08:59	1	0	0	0	0	0	0	1
09:00-09:59	0	0	0	0	1	1	0	2
10:00-10:59	0	0	0	0	0	0	1	1
11:00-11:59	0	1	0	1	0	0	0	2
12:00-12:59	0	0	0	0	0	0	0	0
13:00-13:59	0	1	1	1	2	0	2	7
14:00-14:59	0	0	0	0	0	3	2	5
15:00-15:59	0	1	0	1	0	0	1	3
16:00-16:59	0	0	0	1	1	0	0	2
17:00-17:59	2	1	1	0	0	4	0	8
18:00-18:59	0	2	0	1	0	1	2	6
19:00-19:59	1	0	1	1	0	0	2	5
20:00-20:59	1	1	1	4	2	0	1	10
21:00-21:59	1	1	1	1	0	0	2	6
22:00-22:59	1	1	0	1	0	0	0	3
23:00-23:59	0	0	1	0	0	0	0	1
Total	9	10	7	14	7	10	17	74

LaGrave Avenue Fire Station

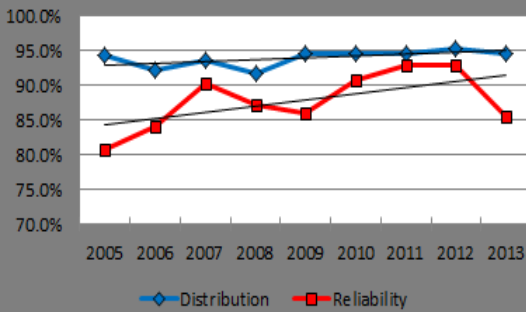
LaGrave Ave. Station 2013 Incidents in District



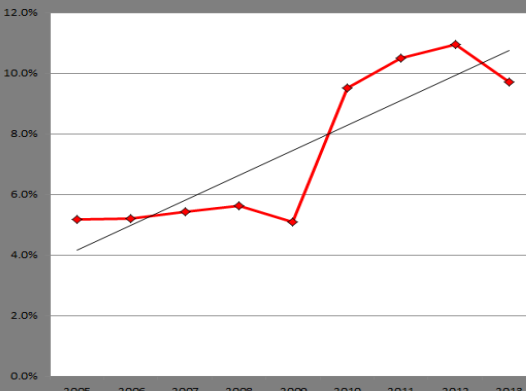
LaGrave Ave. Station 2013 Apparatus Responses



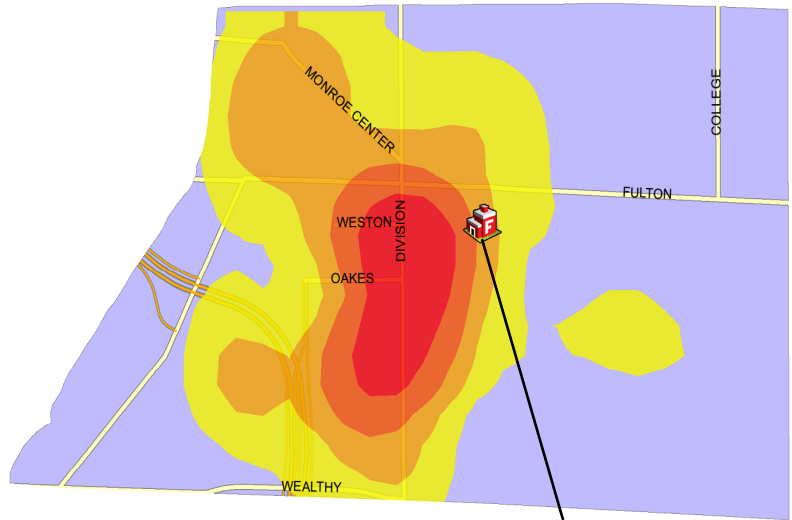
LaGrave Distribution & Reliability Compliance



LaGrave Ave. Station Simultaneous Calls



Hot Spot of LaGrave Ave. Station's 2013 Incidents



Legend



Hot Spot of LaGrave 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None

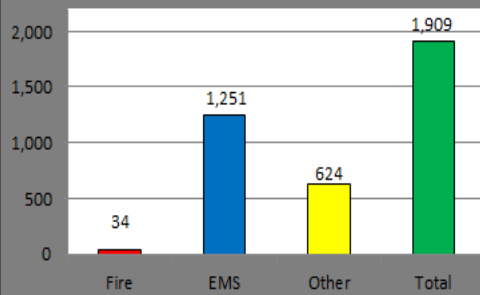


Temporal Analysis-2013 EMS LaGrave								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	6	12	4	8	5	11	18	64
01:00-01:59	2	3	12	8	10	13	30	78
02:00-02:59	5	3	8	6	5	12	19	58
03:00-03:59	3	3	3	6	6	5	9	35
04:00-04:59	8	1	7	4	6	4	5	35
05:00-05:59	2	2	3	2	5	2	3	19
06:00-06:59	3	1	6	4	3	5	6	28
07:00-07:59	8	5	7	4	6	2	3	35
08:00-08:59	7	4	7	10	9	1	6	44
09:00-09:59	9	11	11	16	12	6	7	72
10:00-10:59	12	15	11	10	11	10	4	73
11:00-11:59	12	7	16	14	14	18	5	86
12:00-12:59	13	22	23	12	13	17	11	111
13:00-13:59	17	20	13	10	14	14	12	100
14:00-14:59	8	13	14	19	13	10	4	81
15:00-15:59	18	17	16	18	19	12	10	110
16:00-16:59	7	15	11	14	12	10	15	84
17:00-17:59	9	16	9	10	21	21	11	97
18:00-18:59	21	21	17	15	21	21	22	138
19:00-19:59	15	17	11	13	19	16	17	108
20:00-20:59	10	11	18	9	19	15	18	100
21:00-21:59	10	13	21	13	21	17	16	111
22:00-22:59	8	14	10	16	8	18	13	87
23:00-23:59	10	16	11	14	15	13	11	90
Total	223	262	269	254	287	273	275	1,844

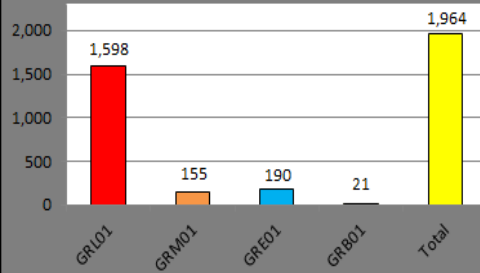
Temporal Analysis-2013 Fire LaGrave								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	0	0	0	0	0	0
01:00-01:59	0	0	0	0	0	0	0	0
02:00-02:59	0	0	0	0	0	0	0	0
03:00-03:59	0	0	0	1	1	0	0	2
04:00-04:59	0	0	0	0	0	1	0	1
05:00-05:59	0	0	0	0	0	0	0	0
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	0	1	0	1	0	0	2
09:00-09:59	0	0	0	1	0	0	1	2
10:00-10:59	0	0	0	0	0	0	1	1
11:00-11:59	1	1	0	2	0	0	0	4
12:00-12:59	0	0	0	0	1	0	0	1
13:00-13:59	0	0	0	0	1	0	0	1
14:00-14:59	1	0	0	0	0	1	0	2
15:00-15:59	1	1	1	0	0	1	0	4
16:00-16:59	1	0	0	0	0	0	0	1
17:00-17:59	0	0	0	0	0	2	1	3
18:00-18:59	1	1	0	2	1	0	0	5
19:00-19:59	0	0	0	0	0	0	1	1
20:00-20:59	1	0	1	0	0	0	0	2
21:00-21:59	1	0	0	0	0	3	1	5
22:00-22:59	0	0	0	0	0	0	1	1
23:00-23:59	0	0	0	0	0	0	0	0
Total	7	3	3	6	5	8	6	38

Leonard Street Fire Station

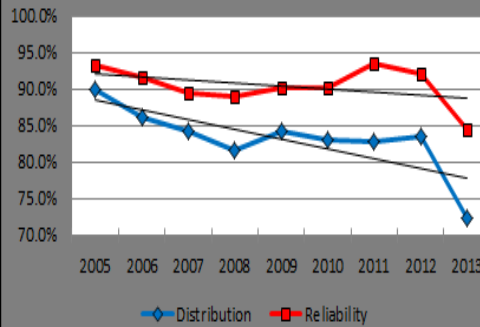
Leonard St. Station 2013 Incidents in District



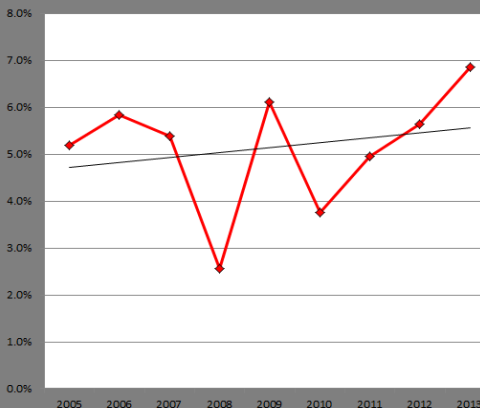
Leonard St. Station 2013 Apparatus Responses



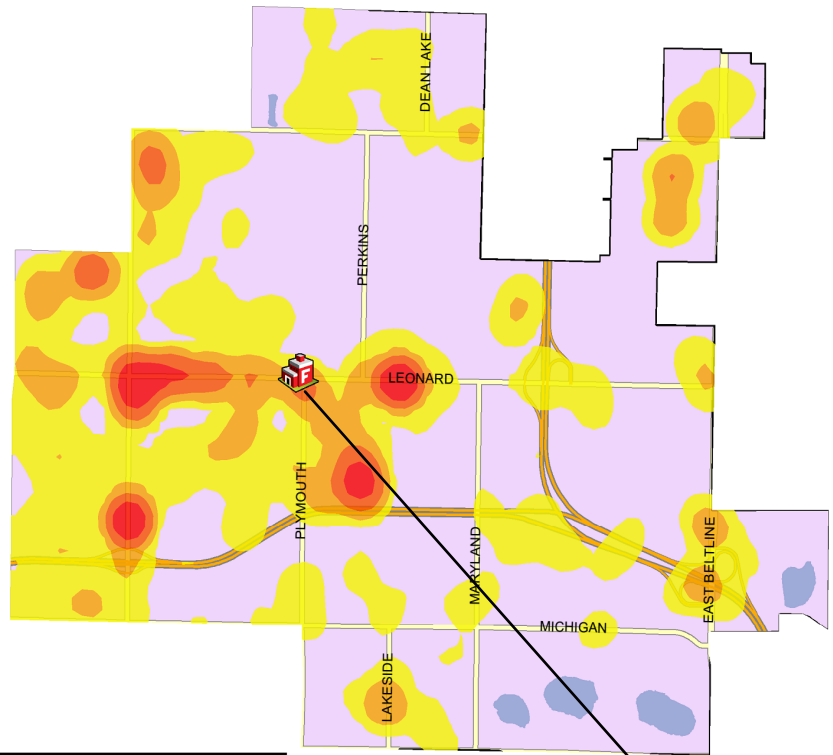
Leonard Distribution & Reliability Compliance



Leonard St. Station Simultaneous Calls



Hot Spot of Leonard St. Station's 2013 Incidents



Legend



Hot Spot of Leonard 2013 Concentration of Incidents

- Very High
- High
- Moderate
- Low
- None

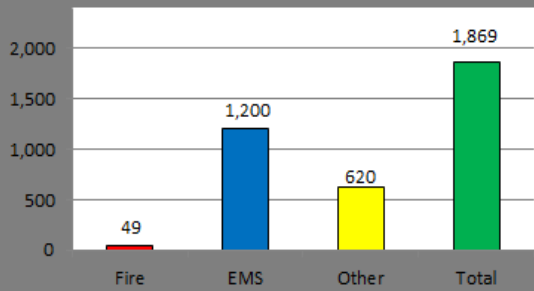


Temporal Analysis-2013 EMS Leonard								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	6	6	6	6	4	6	3	37
01:00-01:59	6	1	2	5	4	3	6	27
02:00-02:59	6	7	4	2	3	7	3	32
03:00-03:59	2	4	2	2	4	5	9	28
04:00-04:59	2	3	3	3	6	2	4	23
05:00-05:59	3	2	5	2	5	3	2	22
06:00-06:59	4	7	5	3	2	1	6	28
07:00-07:59	5	4	6	6	6	3	6	36
08:00-08:59	10	12	5	8	3	7	6	51
09:00-09:59	9	9	9	9	8	9	6	59
10:00-10:59	15	13	10	13	7	7	2	67
11:00-11:59	9	9	13	14	10	8	5	68
12:00-12:59	5	8	12	6	6	10	14	61
13:00-13:59	16	14	9	11	17	6	15	88
14:00-14:59	10	12	13	9	14	7	7	72
15:00-15:59	12	13	13	13	12	9	12	84
16:00-16:59	8	12	15	8	14	3	8	68
17:00-17:59	13	13	7	7	8	9	8	65
18:00-18:59	9	13	8	8	9	13	8	68
19:00-19:59	12	10	8	16	6	5	7	64
20:00-20:59	9	7	5	8	11	5	5	50
21:00-21:59	9	7	5	6	12	4	8	51
22:00-22:59	6	9	9	7	7	6	6	50
23:00-23:59	5	10	9	1	7	14	6	52
Total	191	205	183	173	185	152	162	1,251

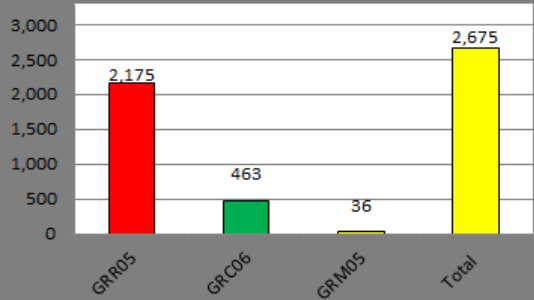
Temporal Analysis-2013 Fire Leonard								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	1	0	0	0	0	1
01:00-01:59	0	0	0	0	0	0	0	0
02:00-02:59	0	0	0	0	0	1	0	1
03:00-03:59	0	0	1	0	0	0	0	1
04:00-04:59	1	0	0	0	0	0	0	1
05:00-05:59	0	0	0	0	1	0	0	1
06:00-06:59	1	0	0	0	0	0	0	1
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	0	0	0	0	0	0	0
09:00-09:59	0	0	0	0	0	1	0	1
10:00-10:59	1	0	0	0	0	0	0	1
11:00-11:59	1	0	0	0	0	1	0	2
12:00-12:59	0	0	0	0	1	1	1	3
13:00-13:59	0	0	0	0	0	1	0	1
14:00-14:59	0	0	0	1	0	0	1	2
15:00-15:59	1	2	1	1	1	2	0	8
16:00-16:59	1	0	0	0	0	1	0	2
17:00-17:59	0	0	0	0	0	0	0	0
18:00-18:59	0	0	0	0	0	0	2	2
19:00-19:59	0	0	0	0	0	0	0	0
20:00-20:59	0	0	2	0	1	0	0	3
21:00-21:59	0	0	0	0	0	0	1	1
22:00-22:59	1	0	0	0	0	0	0	1
23:00-23:59	0	0	0	0	0	0	1	1
Total	7	2	5	2	4	8	6	34

Monroe Avenue Fire Station

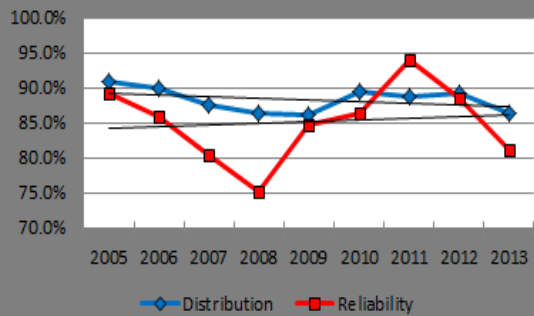
Monroe Ave. Station 2013 Incidents in District



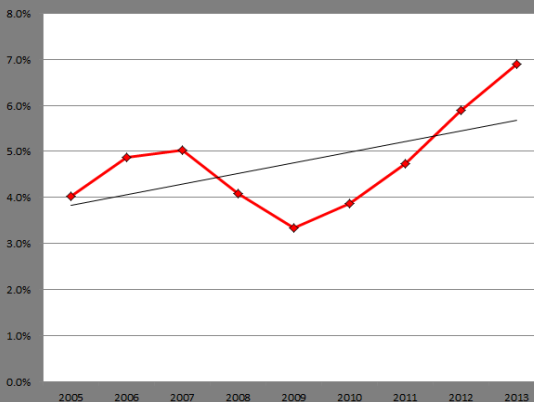
Monroe Ave. Station 2013 Apparatus Responses



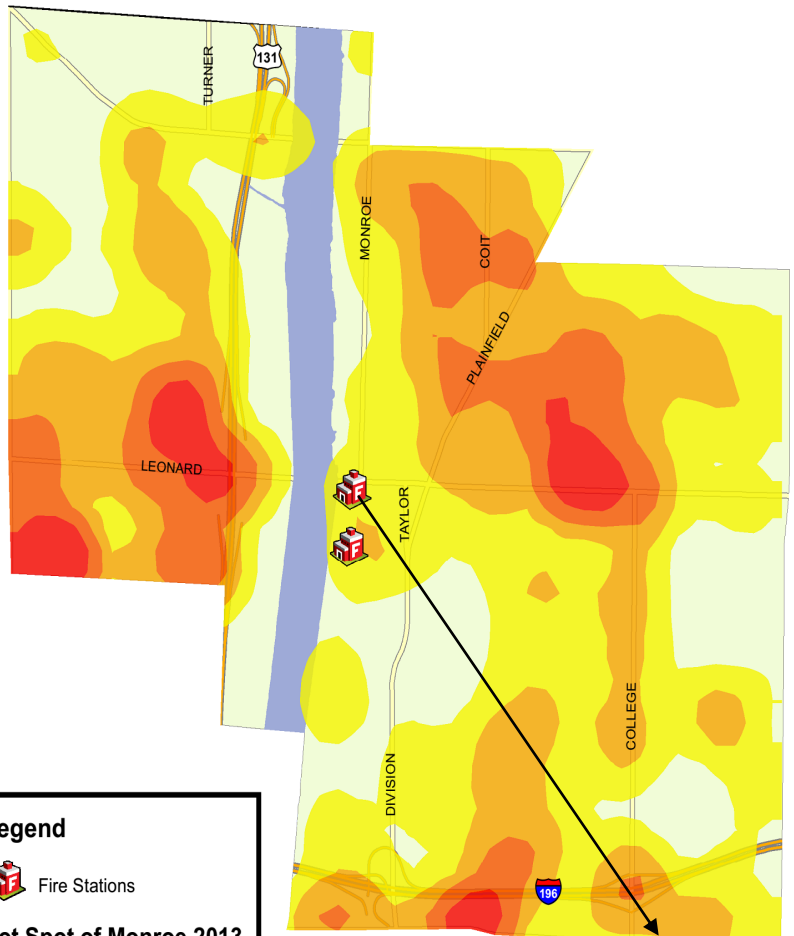
Monroe Distribution & Reliability Compliance



Monroe Ave. Station Simultaneous Calls



Hot Spot of Monroe Ave. Station's 2013 Incidents



Legend

- Fire Stations

**Hot Spot of Monroe 2013
Concentration of Incidents**

- Very High
- High
- Moderate
- Low
- None

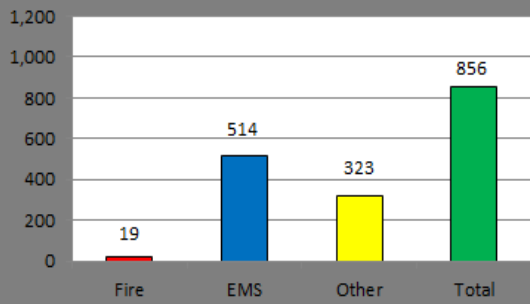


Temporal Analysis-2013 EMS Monroe								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	8	8	2	6	8	5	11	48
01:00-01:59	4	5	3	7	4	11	11	45
02:00-02:59	9	3	4	5	3	7	7	38
03:00-03:59	3	1	4	6	7	4	4	29
04:00-04:59	5	3	7	0	3	8	5	31
05:00-05:59	2	6	1	3	4	4	2	22
06:00-06:59	3	4	3	4	3	5	5	27
07:00-07:59	2	10	4	5	4	1	3	29
08:00-08:59	10	5	6	3	2	6	5	37
09:00-09:59	3	3	4	6	8	5	5	34
10:00-10:59	5	12	8	5	3	9	7	49
11:00-11:59	8	4	5	8	4	1	10	40
12:00-12:59	7	6	5	5	8	7	10	48
13:00-13:59	9	6	9	11	14	15	2	66
14:00-14:59	7	10	7	3	5	9	6	47
15:00-15:59	7	5	13	12	9	6	8	60
16:00-16:59	9	8	8	7	8	15	7	62
17:00-17:59	9	12	13	9	12	6	9	70
18:00-18:59	14	9	13	8	14	7	18	83
19:00-19:59	11	12	9	13	9	10	8	72
20:00-20:59	8	12	13	7	8	8	11	67
21:00-21:59	7	9	9	5	7	12	13	62
22:00-22:59	7	12	10	7	11	5	13	65
23:00-23:59	8	11	14	4	8	14	10	69
Total	165	176	174	148	166	180	190	1,200

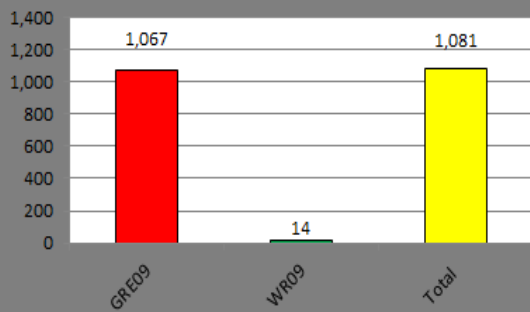
Temporal Analysis-2013 Fire Monroe								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	0	0	0	0	0	0
01:00-01:59	0	0	1	0	0	0	0	1
02:00-02:59	0	0	1	0	0	0	2	3
03:00-03:59	2	1	0	1	0	0	0	4
04:00-04:59	0	0	1	0	0	0	1	2
05:00-05:59	0	0	0	0	0	0	0	0
06:00-06:59	0	0	0	0	1	0	0	1
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	0	0	0	0	0	0	0
09:00-09:59	0	0	0	0	0	0	2	2
10:00-10:59	0	0	1	0	0	0	0	1
11:00-11:59	0	0	0	1	0	0	0	1
12:00-12:59	0	0	0	0	2	0	0	2
13:00-13:59	0	0	0	0	0	0	0	0
14:00-14:59	0	0	0	1	1	1	0	3
15:00-15:59	1	1	0	0	0	0	0	2
16:00-16:59	0	0	1	1	0	0	0	2
17:00-17:59	1	1	0	0	1	0	2	5
18:00-18:59	0	0	0	2	0	1	0	3
19:00-19:59	0	1	0	0	0	2	1	4
20:00-20:59	1	1	1	2	1	0	0	6
21:00-21:59	1	1	1	0	0	0	0	3
22:00-22:59	1	1	0	0	0	1	0	3
23:00-23:59	1	0	0	0	0	0	0	1
Total	8	7	7	8	5	5	8	49

Plainfield Avenue Fire Station

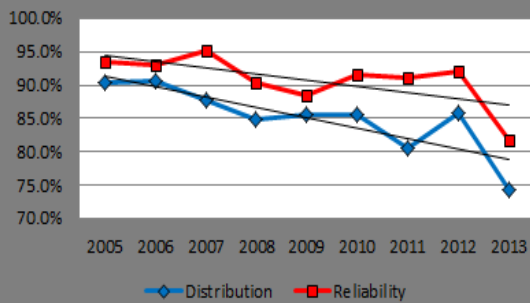
Plainfield Ave. Station 2013 Incidents in District



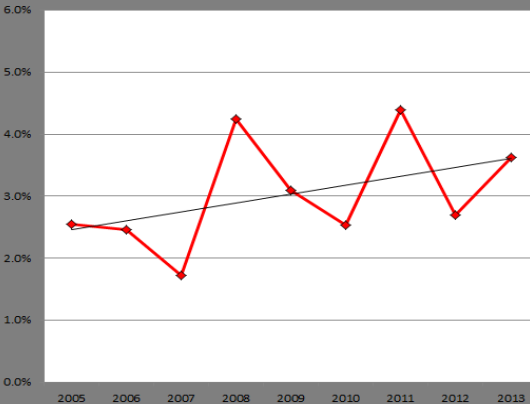
Plainfield Ave. Station 2013 Apparatus Responses



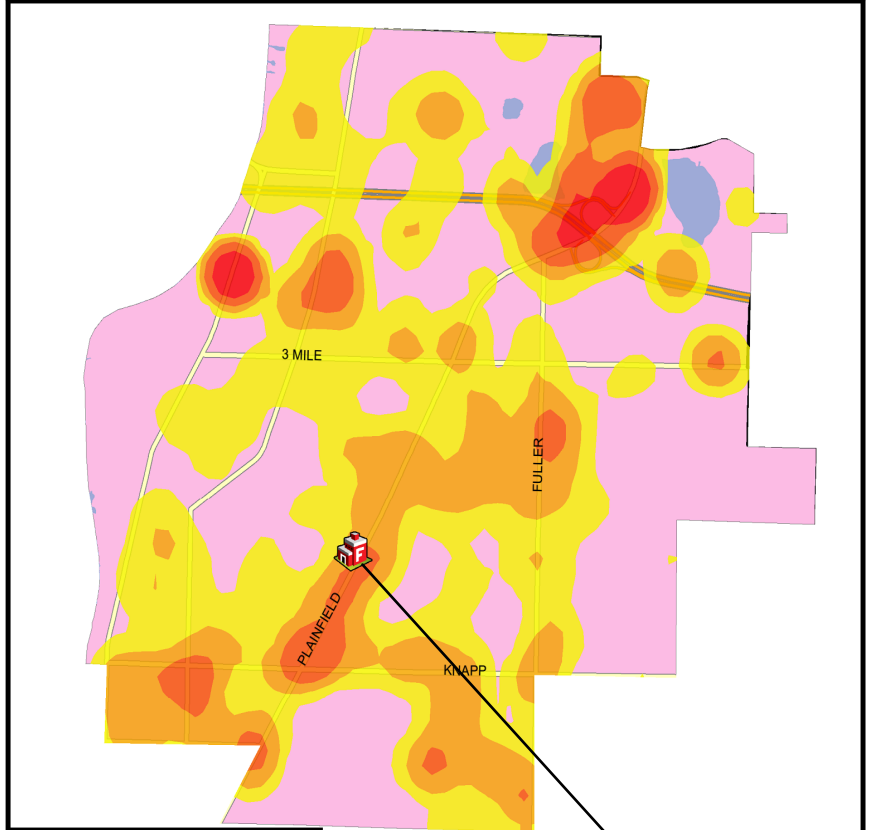
Plainfield Distribution & Reliability Compliance



Plainfield Ave. Station Simultaneous Calls



Hot Spot of Plainfield Ave. Station's 2013 Incidents



Legend



Hot Spot of Plainfield 2013 Concentration of Incidents

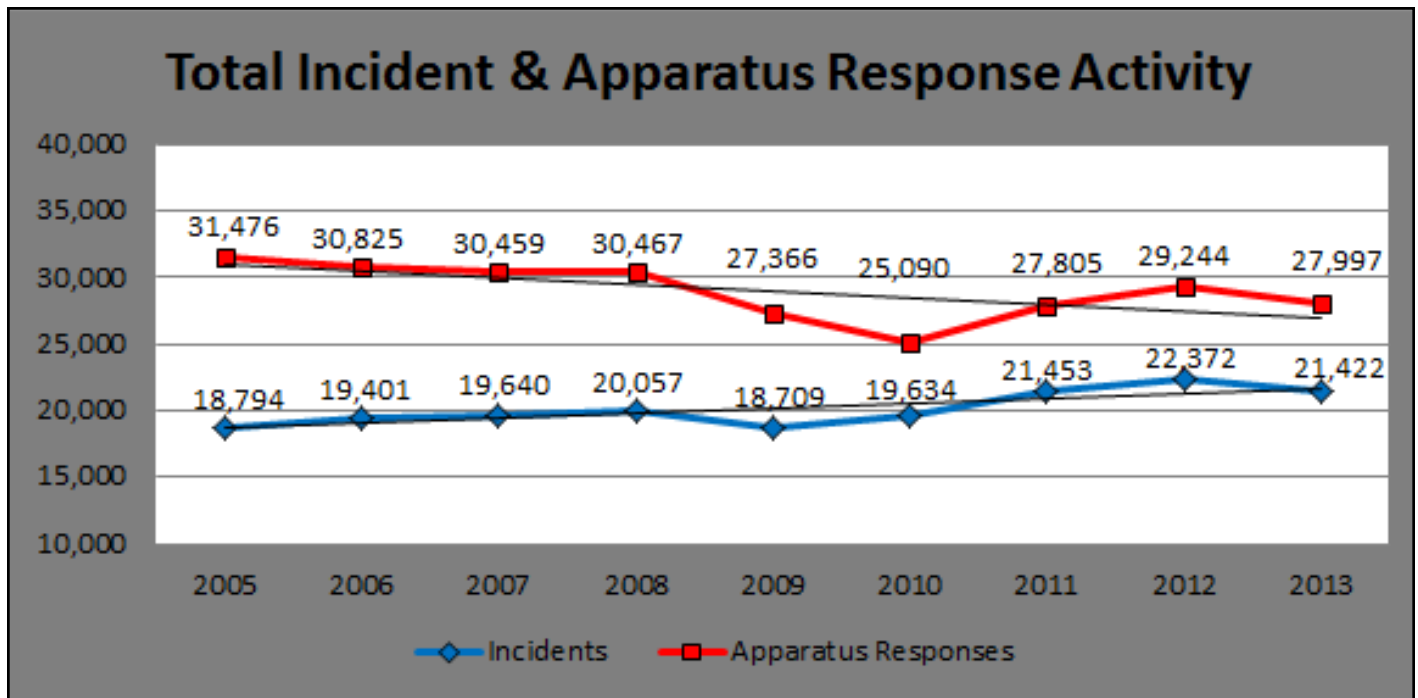
- Very High
- High
- Moderate
- Low
- None



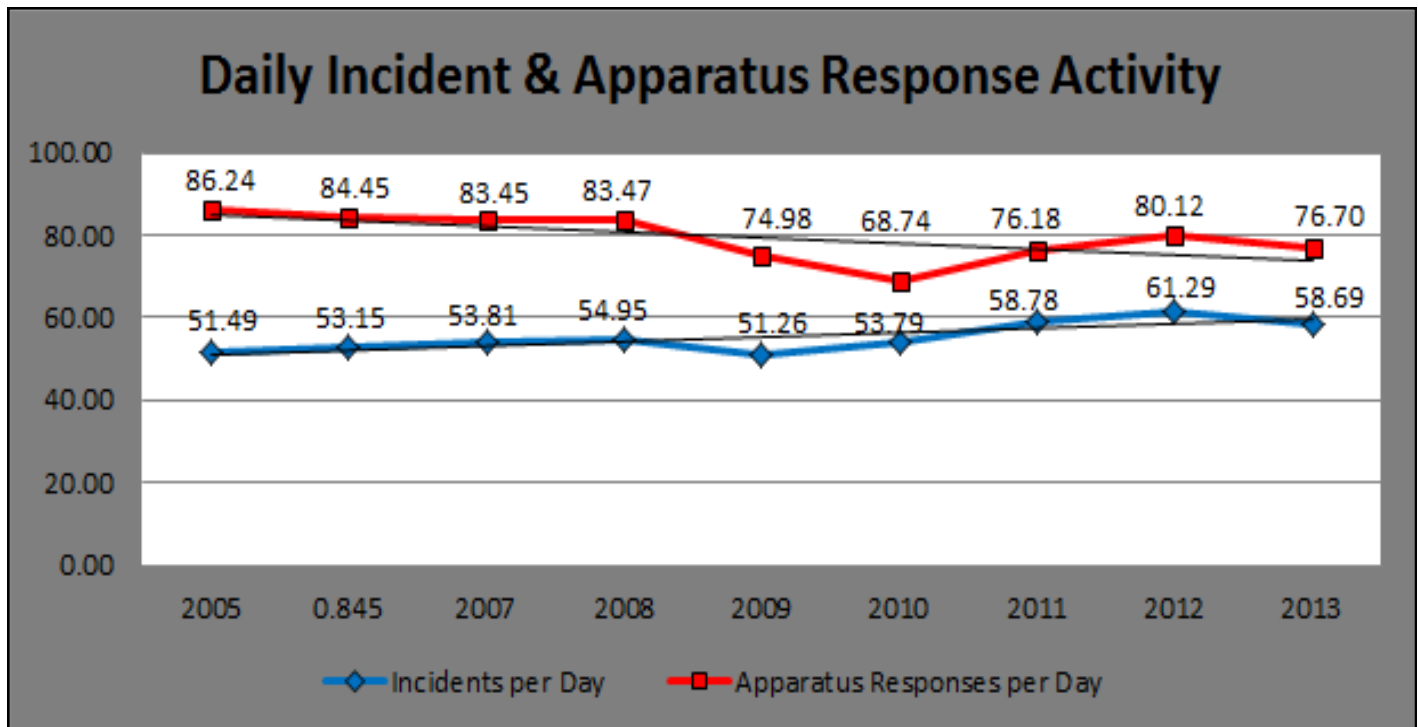
Temporal Analysis-2013 EMS Plainfield								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	3	2	3	3	1	1	1	14
01:00-01:59	1	1	3	1	0	3	1	10
02:00-02:59	2	1	3	2	3	1	2	14
03:00-03:59	1	1	2	2	2	1	2	11
04:00-04:59	0	2	0	1	1	3	2	9
05:00-05:59	0	4	2	0	3	1	0	10
06:00-06:59	3	1	2	3	2	5	3	19
07:00-07:59	5	3	2	3	3	2	4	22
08:00-08:59	2	0	3	5	2	2	3	17
09:00-09:59	2	3	4	4	6	3	1	23
10:00-10:59	1	6	5	1	3	2	6	24
11:00-11:59	7	3	6	6	3	4	2	31
12:00-12:59	4	3	3	4	4	3	3	24
13:00-13:59	4	4	3	4	2	6	5	28
14:00-14:59	4	4	6	2	4	5	3	28
15:00-15:59	5	3	0	4	10	5	5	32
16:00-16:59	3	4	4	5	3	6	1	26
17:00-17:59	4	5	3	6	5	4	3	30
18:00-18:59	6	5	7	4	5	5	4	36
19:00-19:59	3	2	5	7	3	6	4	30
20:00-20:59	1	2	6	1	7	4	4	25
21:00-21:59	1	2	4	4	3	1	1	16
22:00-22:59	3	3	3	1	3	4	1	18
23:00-23:59	2	0	7	1	2	2	3	17
Total	67	64	86	74	80	79	64	514

Temporal Analysis-2013 Fire Plainfield								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	0	0	0	0	0	0	0	0
01:00-01:59	0	0	0	0	1	0	0	1
02:00-02:59	0	0	0	0	0	0	0	0
03:00-03:59	0	0	0	0	0	0	0	0
04:00-04:59	0	0	0	0	0	0	0	0
05:00-05:59	0	0	0	0	0	0	0	0
06:00-06:59	0	0	0	0	0	0	0	0
07:00-07:59	0	0	0	0	0	0	0	0
08:00-08:59	0	1	0	0	0	0	1	2
09:00-09:59	1	0	0	0	0	0	0	1
10:00-10:59	0	0	0	0	0	0	0	0
11:00-11:59	0	0	0	0	0	0	0	0
12:00-12:59	0	0	0	0	0	1	0	1
13:00-13:59	0	0	0	1	0	0	0	1
14:00-14:59	1	0	0	1	0	0	0	2
15:00-15:59	0	1	0	0	0	0	0	1
16:00-16:59	0	0	0	0	0	0	0	0
17:00-17:59	0	0	0	0	0	0	0	0
18:00-18:59	0	0	2	0	0	0	1	3
19:00-19:59	1	0	1	0	0	0	1	3
20:00-20:59	0	0	0	0	0	1	0	1
21:00-21:59	0	0	0	0	0	1	0	1
22:00-22:59	0	0	0	0	1	0	1	2
23:00-23:59	0	0	0	0	0	0	0	0
Total	3	2	3	2	2	3	4	19

2013 Overall Performance Statistics



The GRFD experienced a 4.33% decrease in emergency incidents during 2013. Although a positive indicator, this is well within the normal yearly fluctuations. As one would expect, the correlating apparatus responses also dropped by a similar amount with a 4.24% reduction.

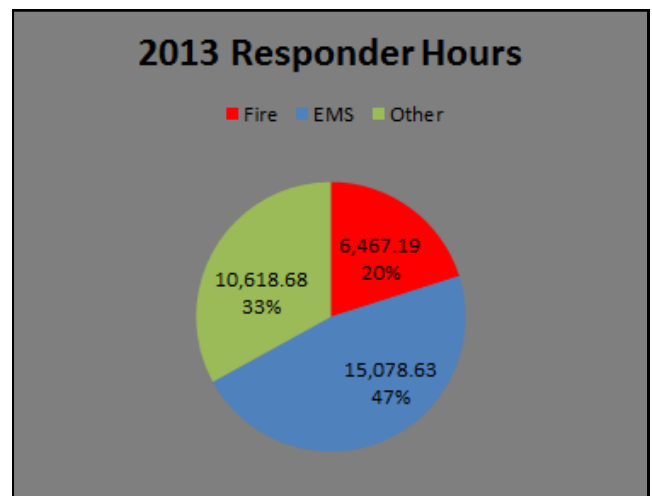


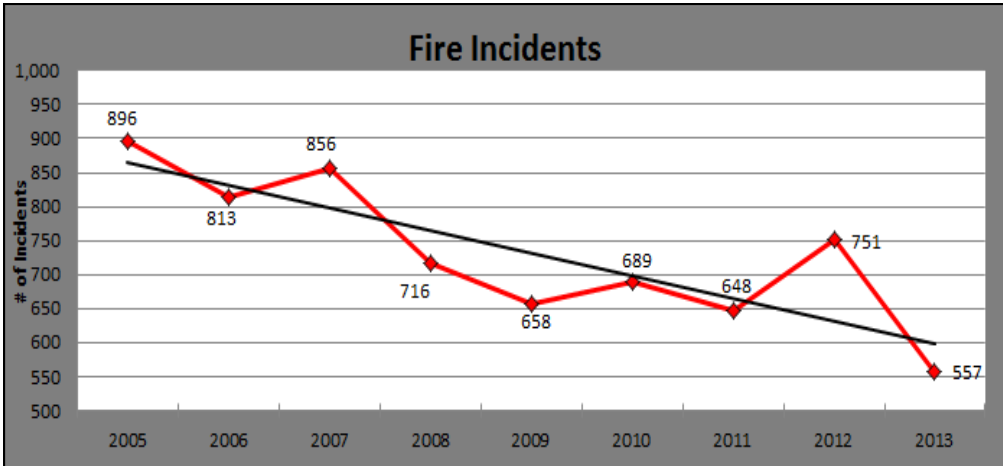
Total Incidents by Type	2005	2006	2007	2008	2009	2010	2011	2012	2013
Fires	896	813	856	716	658	689	648	751	557
Overpressure/Rupture	39	39	66	48	46	36	43	36	36
EMS	12,682	13,425	13,328	13,864	12,649	12,601	13,672	13,749	13,085
Hazardous Conditions	1,047	1,035	982	1,108	686	747	791	647	1,035
Service Call	1,032	995	988	864	1,263	1,653	1,921	2,366	2,037
Good Intent	1,565	1,639	1,911	1,867	1,970	2,294	2,679	3,193	3,085
False Alarm/Calls	1,508	1,421	1,494	1,554	1,424	1,581	1,670	1,609	1,579
Severe Weather	8	14	2	20	5	16	12	2	3
Special Incident	17	20	13	16	8	17	17	19	5
Total	18,794	19,401	19,640	20,057	18,709	19,634	21,453	22,372	21,422

With the conditional formatting in the above chart, it readily depicts which incident types have increased or decreased since 2005. Fires are at their lowest level in GRFD history at 557. A 25% decrease from 2012, however that year to year comparison was elevated due to the dry/hot conditions and resulting brush fires. The largest increase within these categories was related to hazardous conditions. After several years of below average counts for wires down, 2013 saw a 59.97% increase. During November 155 hazardous condition calls for assistance were experienced with 87 in a single day and during December there was 196 hazardous condition calls with 97 in a single day, both storm related. Although severe weather and special incidents also saw extremely large fluctuations on a percentage basis, their sample size is historically small and varies widely from year to year.

Total Incidents by Type	% Change from Previous Year	% of Total Incidents
Fires	-25.83%	2.60%
Overpressure/Rupture	0.00%	0.17%
EMS	-4.83%	61.08%
Hazardous Conditions	59.97%	4.83%
Service Call	-13.91%	9.51%
Good Intent	-3.38%	14.40%
False Alarm/Calls	-1.86%	7.37%
Severe Weather	50.00%	0.01%
Special Incident	-73.68%	0.02%
Total	-4.25%	100.00%

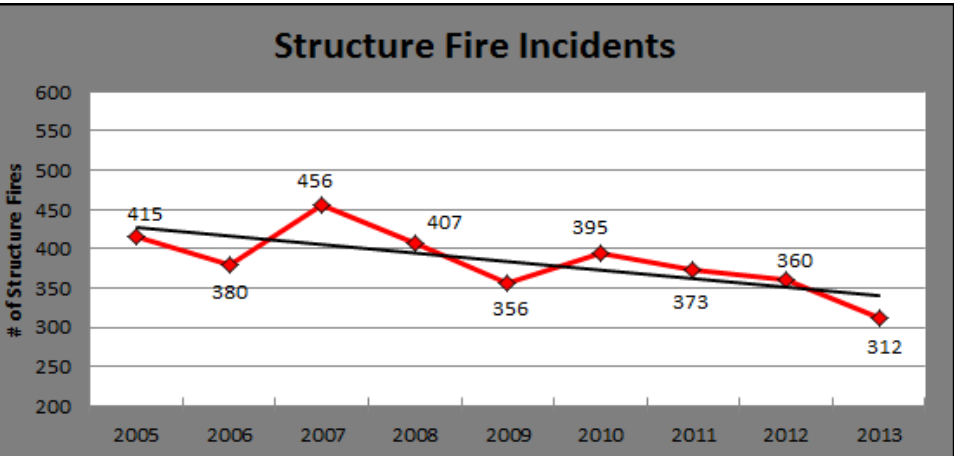
Although EMS runs account for just over 61% of the emergency incidents in the city, they account for 47% of the time spent on emergency scenes by the first responders. Fires only accounted for 2.6% of our incidents during 2013, but required just over 20% of the on-scene time, highlighting the severity of a fire and the associated resources required to mitigate.





Fire incidents are still trending downward which solidifies the investment in prevention initiatives such as the Residential Safety Program, public education presentations and commercial fire inspections.

2013 saw the largest single year drop in structure fires since 2009, with a 13.3% decline. Although consistently trending downward, the citizens and business owners still experienced over \$4.7 million in fire loss (a 22.9% decrease from the previous year).



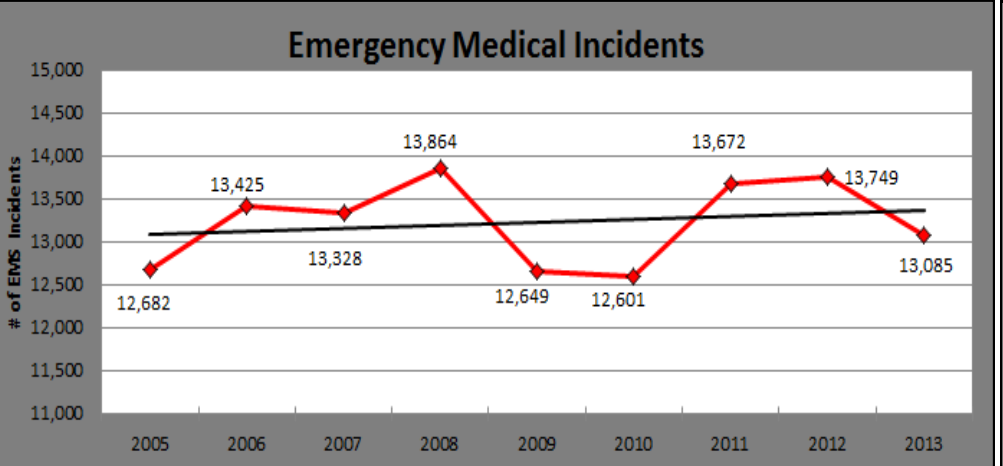
The GRFD averaged .85 structure fires per day in 2013, but averages do not tell the entire story. The department experienced 185 days with multiple fires ranging from 2, all the way to 7 fires in a single day.

2013 Structure Fires

# Per Day	Frequency	Total
1	127	127
2	49	98
3	20	60
4	5	20
7	1	7
		312

2013 Simultaneous Structure Fires

Description	Count	%
2 Structure Fires at Same Time	12	4%
3 Structure Fires at Same Time	0	0%
4 Structure Fires at Same Time	0	0%



Although the trend has somewhat stabilized in terms of its rapid growth, EMS remains a large portion of the services delivered by the GRFD. Proactive work by the EMS committee assisted with the drop in incidents in 2013, keeping our crews available.

Critical Performance Measures

Simultaneous incidents are one of the critical performance measures that determines how many units are located within a single fire station. The Kalamazoo station continues to trend upward and actually had highest simultaneous call rate since tracking this metric beginning in 2005. Franklin continues its lower percentage of simultaneous calls, but provides critical backup units for both LaGrave and Division who experience higher than normal simultaneous call loads.

Simultaneous Call Percentage by Station District

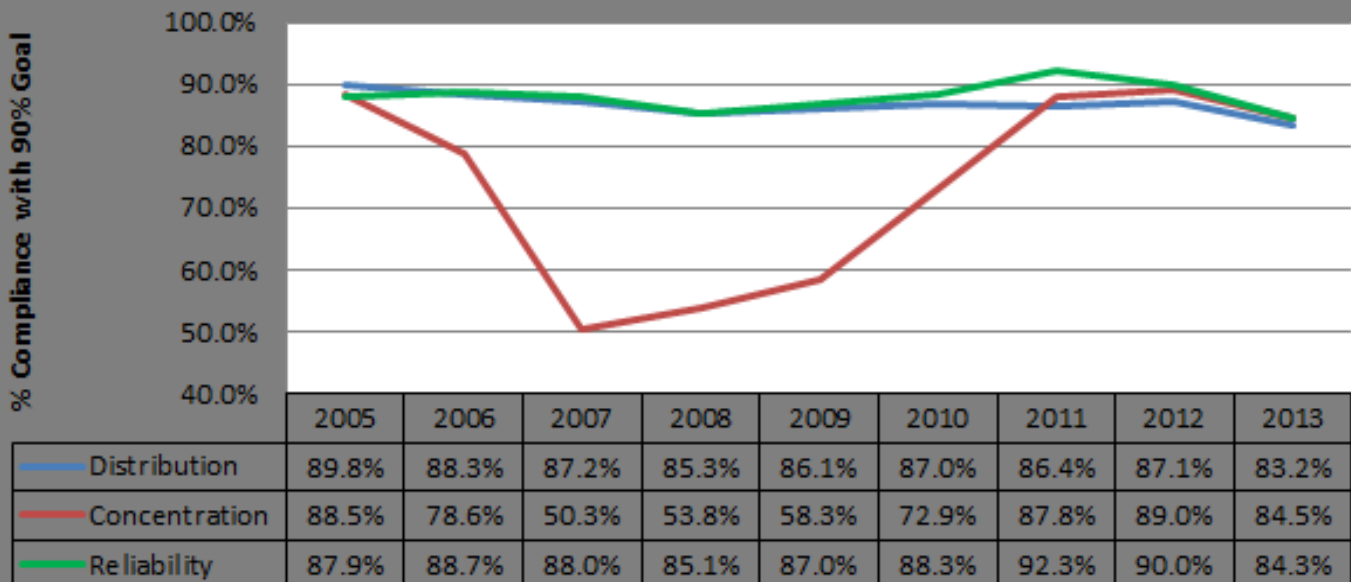
Station	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bridge	7.2%	9.4%	8.4%	8.9%	5.7%	6.9%	9.14%	9.00%	9.07%
Burton	2.8%	2.3%	2.8%	2.7%	2.6%	4.2%	4.16%	4.29%	4.85%
Chester	4.2%	3.9%	2.4%	4.6%	3.8%	5.1%	6.12%	4.88%	7.69%
Covell	4.4%	3.9%	4.0%	2.6%	3.2%	4.3%	6.31%	7.40%	6.52%
Division	6.1%	4.1%	3.7%	4.1%	3.7%	6.1%	7.69%	6.72%	8.70%
Franklin	10.3%	6.9%	8.3%	10.1%	5.4%	7.6%	6.39%	6.52%	5.03%
Kalamazoo	6.5%	9.4%	8.4%	8.1%	7.4%	8.8%	8.92%	9.87%	11.31%
LaGrave	5.2%	5.2%	5.4%	5.6%	5.1%	9.5%	10.50%	10.97%	9.72%
Leonard	5.2%	5.8%	5.4%	2.6%	6.1%	3.8%	4.95%	5.64%	6.86%
Monroe	4.0%	4.9%	5.0%	4.1%	3.3%	3.9%	4.74%	5.89%	6.90%
Plainfield	2.5%	2.5%	1.7%	4.2%	3.1%	2.5%	4.39%	2.69%	3.62%

City Wide Simultaneous

2005	52.32%
2006	51.77%
2007	52.88%
2008	53.74%
2009	50.16%
2010	51.94%
2011	54.80%
2012	56.04%
2013	51.81%

Distribution, Concentration, and Reliability are the critical metrics that define how the GRFD deploys its resources. Performance in 2013 saw downward trends for a variety of factors. Deployment changes, units training, an increased focus on prevention, and other daily activities had our crews busier than ever providing value added services to our customers. These measures will be closely monitored throughout 2014 to ensure the deployment model maintains it's high level of performance to the citizens.

Critical Performance Measures



Temporal Analysis (Depicts time of day/day of week demand)

Temporal Activity-2013 All Calls								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	86	92	97	97	100	133	137	742
01:00-01:59	85	79	79	82	86	121	148	680
02:00-02:59	83	78	81	79	88	141	139	689
03:00-03:59	56	47	47	68	70	80	106	474
04:00-04:59	57	55	56	51	61	75	87	442
05:00-05:59	51	64	53	54	61	53	66	402
06:00-06:59	68	56	66	62	56	66	79	453
07:00-07:59	94	88	81	85	84	68	80	580
08:00-08:59	133	98	118	123	113	81	106	772
09:00-09:59	149	136	114	155	140	111	103	908
10:00-10:59	157	169	159	137	140	116	110	988
11:00-11:59	174	149	145	177	167	144	121	1077
12:00-12:59	150	160	144	154	179	172	149	1108
13:00-13:59	155	158	163	172	186	152	141	1127
14:00-14:59	167	161	148	162	160	135	132	1065
15:00-15:59	172	187	165	177	161	168	146	1176
16:00-16:59	136	169	166	149	147	160	124	1051
17:00-17:59	174	198	181	156	176	176	145	1206
18:00-18:59	184	194	150	175	173	159	202	1237
19:00-19:59	142	147	154	158	169	174	196	1140
20:00-20:59	165	167	176	148	170	153	199	1178
21:00-21:59	138	145	148	138	168	151	167	1055
22:00-22:59	122	156	119	125	156	163	135	976
23:00-23:59	109	133	116	110	135	173	120	896
Total	3,007	3,086	2,926	2,994	3,146	3,125	3,138	21,422

Temporal Activity-2013 EMS								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	48	58	54	57	64	75	75	431
01:00-01:59	41	46	48	49	54	83	94	415
02:00-02:59	50	47	50	55	45	78	77	402
03:00-03:59	32	29	25	42	44	45	61	278
04:00-04:59	35	32	34	35	41	42	53	272
05:00-05:59	26	44	35	28	33	31	32	229
06:00-06:59	43	33	35	46	35	41	45	278
07:00-07:59	55	62	51	51	55	44	43	361
08:00-08:59	81	59	73	77	60	47	69	466
09:00-09:59	90	87	67	99	87	70	60	560
10:00-10:59	104	122	105	94	91	71	68	655
11:00-11:59	102	96	102	118	107	86	77	688
12:00-12:59	96	99	84	80	108	102	92	661
13:00-13:59	94	106	114	111	106	92	89	712
14:00-14:59	104	105	103	92	101	81	75	661
15:00-15:59	106	119	105	110	98	90	91	719
16:00-16:59	78	102	112	94	91	84	72	633
17:00-17:59	91	123	96	95	105	105	82	697
18:00-18:59	124	119	100	107	109	97	121	777
19:00-19:59	89	91	92	98	106	112	105	693
20:00-20:59	100	102	109	82	106	96	103	698
21:00-21:59	84	81	102	87	104	88	103	649
22:00-22:59	72	94	68	83	87	96	82	582
23:00-23:59	72	82	75	64	92	101	82	568
Total	1,817	1,938	1,839	1,854	1,929	1,857	1,851	13,085

Sunday evenings were quite active between 6 P.M. and 10 P.M. This is consistent with 2012, but 2013 saw an increase in certain call types due to storms and the resulting hazardous conditions and good intent calls.

A spike was experienced on Tuesdays between 3 P.M. and 4 P.M. , but upon further research, was determined to be an outlier. This specific time period did rise from 11 fires in 2011 and 9 fires in 2012. The surrounding days and time periods also experienced significant drops, compounding the change from last year. The fires were of various types, times of the year, and dispersed throughout the jurisdiction.

The Battalion Fire Chiefs utilize this information to deploy resources as effectively as possible.

Temporal Activity-2013 Fires								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
00:00-00:59	5	1	1	4	1	1	4	17
01:00-01:59	2	2	1	1	4	1	2	13
02:00-02:59	1	0	7	3	6	2	4	23
03:00-03:59	3	1	2	4	2	0	4	16
04:00-04:59	1	6	5	0	2	1	3	18
05:00-05:59	3	1	0	1	2	1	1	9
06:00-06:59	1	0	0	0	1	0	0	2
07:00-07:59	1	1	0	1	3	1	1	8
08:00-08:59	1	2	4	4	2	1	3	17
09:00-09:59	2	2	1	3	1	4	3	16
10:00-10:59	1	3	2	0	3	2	4	15
11:00-11:59	7	3	0	6	2	4	6	28
12:00-12:59	1	1	3	3	8	3	2	21
13:00-13:59	0	4	7	2	6	3	8	30
14:00-14:59	5	1	0	5	3	6	3	23
15:00-15:59	6	15	2	3	6	6	3	41
16:00-16:59	4	4	5	3	5	3	1	25
17:00-17:59	8	3	4	2	7	9	6	39
18:00-18:59	2	7	3	7	8	4	9	40
19:00-19:59	5	6	4	3	2	4	10	34
20:00-20:59	5	5	7	6	8	3	5	39
21:00-21:59	5	8	2	3	2	9	12	41
22:00-22:59	7	5	2	5	3	4	5	31
23:00-23:59	1	2	2	1	1	0	4	11
Total	77	83	64	70	88	72	103	557



FIRE DISPLACES THREE FAMILIES IN GRAND RAPIDS

BACK IN BUSINESS

TWO-PLATE STATE?







**FOR FURTHER INFORMATION ON THIS ANNUAL REPORT
PLEASE CONTACT US.
GRAND RAPIDS FIRE DEPARTMENT
STRATEGIC PLANNING OFFICE
616-456-3900
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