National Fire Fighter Near-Miss Reporting System:

Reports Related to Automatic-Mutual Aid

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Report Number: 05-0000196

Synopsis: Quick exit prevents mayday situation.

Event Description: Dispatched as the mutual aid truck company on a working fire in a fire station. My unit, a Tower Ladder as 1st Due Truck, and a mutual aid Engine as 2nd Due Engine, arrived as the firefighters of the host department were evacuating their apparatus from the station. Heavy smoke was showing from the roof and fire venting from Side D. My crew was split into 2 groups. One group went to the roof while the second crew, including me, forced entry into the building on Side C along with 2 hand lines from the mutual aid engine company. Smoke conditions were down to the floor and fire could be seen on the Side C wall. As we started suppression activities, we began to hear some strange sounds in the building, banging and creaking. Our hand lines either were not reaching or were not having any effect on the fire. Conditions were rapidly becoming worse, high heat and smoke.

I ordered our crew to back out to the doorway. Just as we reached the doorway, the AC units which were in the ceiling above the banquet hall where we were operating fell into the room, crushing the tables and chairs and bringing the entire suspended ceiling down with it. We all narrowly escaped being crushed or entangled by the collapse.

Lessons Learned: We were unaware of the fire's exact location. Both crews, mutual aid departments, were familiar with the building's general layout, but did not know specifics like the fact that there was a 15' void space containing HVAC equipment above the suspended ceiling. We also didn't know that the fire was already in this void space. The roof crew had cut a hole in the roof and fire was venting from it prior to the collapse. This information was never relayed or announced on the radio. The fire started under the stage in the banquet hall, ran up the walls and had control of the void space over our heads. Under the heavy fire conditions and the weight of the multi-ton AC units, the ceiling and support system failed.

Better communication of what each crew was doing and the conditions they were experiencing would have made a big difference in this operation. Also the host department whose building was on fire was trying to maintain command while saving their assets. This action delayed fire suppression efforts and had some effect on the fire ground communication. The host department knew where the fire was and because of their intimate knowledge of the building probably knew where it was going and the hazards that existed. However, the host department was not actively involved in fire suppression at the time of collapse which kept information from being relayed to all personnel.

Report Number: 06-0000092

Synopsis: Crew sent to ventilate roof at working attic fire.

Event Description: My department responded to an automatic aid response, possible structure fire with our neighboring fire department. We responded with a ladder truck that had a driver, officer and two firefighters, a tanker truck with a driver, officer and one firefighter.

We approached the scene and being a firefighter in the jump seat of the ladder truck, I had no idea what we had, could not hear a word. We get out and are told to get a ladder and chain saw for possible roof

ventilation by our captain, who responded directly to the scene. They have us stop next to the tanker truck from the department we responded to assist. The tanker has a hydrant hook up and a 4-inch hose running up the driveway about 150 ft to another tanker. It took awhile to respond to the scene because of distance, so the department that received the call was on scene several minutes before we arrived.

We take a ladder to the back of the structure, a Type 111 ordinary brick ranch. There is smoke coming out of 4 roof vents and the chimney. There are firefighters in the structure from the responding 1st department. They tell us to hold up on cutting the hole in the roof.

I am on the roof with my partner and see a lot of smoke is coming out of the vents. I hear the interior pulling ceiling. I look over the roof at the tanker and see a firefighter changing out his air bottle. His gear is smoking. I look again and don't see a hoseline pulled off. This is the first truck on scene of this incident. I yell down to my Lieutenant at the bottom of the ladder and ask where the charged hoseline is. He said don't worry about it.

After several minutes they tell us to get down, they don't need us to vent. It was an attic fire and the IC told them they did not need to pull an attack line off. But they have a 4" and a hydrant hook up to that first-in truck.
On the way back to our station I ask my officer if he or someone else found out why there was not an attack line pulled. My officer told me not to stir things up with the department that we have automatic response with because they will not call us for other calls in the future.

Lessons Learned: Why does someone have to die before we get it? When I asked about this issue with my officers and my Chief they just told me, "See, our department is not that bad."

Attack lines must be in place prior to pulling ceilings and walls.

Automatic aid responses need to be coordinated through mutually-agreed SOPs.

Fire ground coordination and safety has to be held in higher regard than getting invited to another department's fire.

Report Number: 06-0000342

Synopsis: Firefighter falls through floor during structure fire.

Event Description: While on a mutual aid assignment to a neighboring town, 2 fellow fire fighters from my company and I were engaged in operations inside the structure. After being at work for about 5 minutes, our team was split and re-paired with another fire company at the order of the operations officer. I was paired with a fire fighter of the host town, and sent into a back room to hit hot spots in the ceiling. On arrival and after doing a 360 of building, it only appeared that the structure suffered from roof damage. However, after entering the rear room it was obvious that more extensive damage was visible inside. The rear room must have been a porch at one time and converted into a regular section of the house, just based on the construction and the way the room was laid out. My newly appointed partner remained in the doorway to feed the hose line in to me as I made my way about 5 feet into the room to hit hot spots in the ceiling above. The firefighters from my company were working in the next

room over. With a heavy smoke condition and conditions deteriorating fast, I felt it best that I evacuate the rear room. Further encouragement was realized when the floor started feeling spongy. Just prior to exiting the room, the floor boards burned from under me and I fell into the floor joists. One split the difference between my legs, and I held on to the other two with my arms, I lost the hose line, which had been shut down, and immediately began calling for help. Due to the heavy smoke condition, my partner was unable to see me right away. He was instructed not to enter the room, but I should be in arms' reach. After finding me just in front of the door dangling in the floor boards, I was pulled up by the straps of my SCBA pack and dropped in a puddle in the adjacent hallway. I had sustained minor burns to my ankle and leg from where the bunkers rolled up as I fell through and only my legs were left exposed. A company officer from the host town asked why we weren't relayed the message about the rear room being in unmanageable conditions. He was told politely that his command and operations officer directed us there and they had not received his message. He was the last unit working in that room and declared it uninhabitable approximately 15 minutes prior to our entering. Messages were never relayed. A breakdown of communication could have cost 1 or 2 firefighters (their lives) in this situation.

Lessons Learned: It was learned that I should trust instincts and training. Gut feelings will tell you when you need to vacate. Those feelings should have close attention paid to them. It was also learned that communication breakdowns to the simplest form could be a decisive factor in fire fighter safety.

Report Number: 06-0000585

Synopsis: Problems encountered during volunteer response.

Event Description: This is a rural fire department served by volunteers only. The week of Thanksgiving is known for shutting down schools and some businesses because of deer hunting season. This morning, the day before Thanksgiving, the alarm sounded for an MVA with entrapment. My department and another for mutual aid were dispatched. I, the safety officer of the first response station, was the first to radio enroute from my home and responded. While responding, I noted that I have heard no other units respond enroute either to their respective station or to the scene. I radioed for a second tone and requested a third station outside of the county to respond for mutual aid. Finally I heard one fire fighter from the first mutual aid station radio enroute to his station. At this point, two firefighters were responding to an MVA with (now) confirmed entrapment. The second mutual aid station from outside the county was responding but I had no radio contact with them so I was just hoping they had heard the alarm and were responding. In the end five members responded from the primary station, first mutual aid station was cancelled and the second mutual aid station arrived with an engine and rescue and six men. The primary station never got an engine on scene (only five firefighters in their POV). The point being made is that better planning to cover areas when rural departments are shorthanded needs to be looked at. If the units from outside the county had not responded, there would have been no engine on scene to fight any fire that could have started from spilled fuel and a spark. Three of the firefighters from the primary department were older women who gabbed at the side of the road. The two male Firefighters wore no TOG at all and assisted as best they could at the vehicle. All in all, it was not the finest showing for my department.

Lessons Learned: Better communications are needed between all members of the department so we all know who is available and who is not. More members need to be trained as drivers and pump operators in order to respond engines to incidents in our fire area or serve others through mutual aid.

Report Number: 09-0000116

Synopsis: Effective incident command structure pays off.

Event Description: Chief [1] arrived on the scene and assumed command. Chief [1] noted light smoke coming from the eaves. Engine [1] positioned past the building, Engine [2] positioned near Side Alpha Delta, Engine [3] performed a forward lay and supplied Engine [1] and Tanker [1] pumped the hydrant. Chief [1] directed Engine [1]'s crew to Division 2 (2nd floor) to attack the fire.
Chief [2] arrived and assumed command. Engine [2] was designated as the vent group and Chief [3] was ordered to take a 2nd 1 ¾" attack line to the structure.
The crew from Engine [1] advanced the hand line to the second floor in zero visibility conditions. At the top of the stairs, while using the thermal imaging camera, Firefighter [1] fell to the first floor. A civilian who was assisting in hose line advancement saw Firefighter [1] go down in the Side Alpha foyer. He notified Chief [3] who was performing a 360 survey for the IC. Chief [3] and the crew from Engine [2] removed Firefighter [1] from the home and made a radio call for a firefighter down in the front of the building. Command requested a second alarm and an additional command officer at the command vehicle.
Once Firefighter [1] was removed, Chief [3] and three additional firefighters advanced the line to Division 1 kitchen area and began to extinguish the fire. Command assigned Chief [4] as Division Charlie Supervisor and Chief [5] as Division Alpha Supervisor. RIT [1] was assigned to establish a safety zone. Command was notified by Division Charlie there was heavy fire and smoke coming from the back of the home. Command contacted Headquarters and was advised that 27 minutes have elapsed since dispatch. Decision was made to move to a defensive mode and evacuate the structure at. Crews continued fire suppression from the exterior, exposing the Division Charlie structure wall and suppressing the majority of the fire. Crews then conducted overhaul.

Lessons Learned: Effective Firefighting Force:
Add additional resources to 1st Alarm.
Expand duty crew program to ensure rapid response.
Modify unit response to all high risk structures.

Strategy and Tactics:
Standardize initial company assignments with mutual aid companies.
Ensure effective supervision with command officers.

Incident Command System:
Develop and reinforce written policy.
Coordinate with mutual aid by establishing a regional policy.
Develop command duty officer concept to ensure effective supervision during initial events.

Two-In/Two-Out:

Mandate policy with little exception.

Crew Integrity;
Insure reinforcement of qualified crew requirement.
Use the buddy system.
No freelancing – if done, then progressive discipline.

Situational Awareness:
Add additional command officers to CP / divisions

MAYDAY:
Implement written policy to follow county procedures

Emergency Evacuation:
Use 10 minute time marks to check progress
Reinforcement county policy

Rapid Intervention Team:
Development of Initial RIT on 1st Alarm
Development of RIT Group Concept

Acknowledging Task Assignments:
Reinforcement of basic radio procedures and operations

Personnel Accountability:
Reinforce county policy.

Entry level training:
Adopt and train to county MAYDAY policy.
Emphasize ongoing communications / radio discipline.

Ongoing and advanced:
Conduct mutual aid training on a quarterly basis.
Mandate a yearly “live fire’ training for every interior qualified member.

Firefighter Survival:
Mandate FF Survival course for all interior qualified members.

Building Construction:
Continue to reinforce the importance of light weight and unusual building configurations.

Officer Development:
Mandate minimum officer qualifications.
Conduct a minimum of two strategy and tactics courses each year.

Map Books:
Develop a policy to ensure regular updates.
Provide map books to mutual aid companies.

Building Codes:
Ensure compliance.

Water Supply:
Mandate that [water company] provide hydrant maps and pressures to all FC.

Report Number: 09-0000300

Synopsis: FF's narrowly escape flashover.

Event Description: Our department was dispatched to a residential structure fire. Upon arrival, light brown smoke and flames were showing from the B side of the structure, Entry was made into the structure via the A side with a 1-3/4 inch handline. One person was at the door feeding hose, a firefighter and I entered with a thermal imager, handline, and set of irons. The house was set up as an apartment style building, with a hallway and entry to the apartment directly to the right upon entry. Entry was forced into the apartment, and no noticeable smoke changes were noted. While progressing further into the living area, the temperature of the room, which was about 350 degrees F, rapidly climbed to approximately 800 degrees. Smoke conditions rapidly darkened, and we proceeded to immediately exit the structure. Heat conditions worsened and I began to feel burning on my arms, legs and neck. I turned around and noticed a wall of orange flame as the room began to flash. The firefighter and I made it to the hallway and rapidly exited the structure. Once outside, I noted that a layer of tar had covered my mask from the smoke, and my helmet had melt marks and bubbling in the paint. My SCBA had slight charring on the regulator, and my gloves had burned partially away.

Lessons Learned: We learned to be prepared. Even in the most routine of structure fires the situation can rapidly change. A RIT team was not in place in this event, and had something happened, we may have been trapped in that room with no outside assistance. Even with automatic mutual aid agreements, we were still short handed on this call. Smoke conditions gave no indication that a flashover was imminent, and when cues did indicate flashover was coming, it happened rapidly. Had we not been paying attention or had "tunnel vision," we may have been badly burned or worse.

Report Number: 09-0000485

Synopsis: Lightweight failure causes firefighter to fall.

Event Description: A total of seven personnel staffing 2 Engines, 1 Squad and a Chief Officer were dispatched to an automatic water flow alarm supported by a 911 telephone call at a local fast food restaurant. Once on scene, a cold smoke situation was encountered and two firefighters were assigned to locate and extinguish the fire. Visibility inside the building was zero and a thermal imaging camera

was used to identify the seat of the fire. It was determined that the fire was in the attic space above the kitchen. Due to the visibility issue it was determined that vertical ventilation needed to be conducted to support the attack. The interior crew exited the structure and one of the firefighters was reassigned to the roof for vertical ventilation. After ventilation was completed the initial two interior firefighters were ordered back into the structure to locate the seat of the fire. Visibility was still zero. The interior crew made several attempts to pull ceiling and locate the seat of the fire but were unsuccessful in their efforts. Two additional firefighters were assigned back to the roof to extinguish visible fire in the attic. While attempting to assess the extent of the fire in the attic, one of the firefighters operating on the roof fell through the weakened roof decking.

The firefighter suffered burn injuries as a result of this fall. His SCBA and face piece were torn off by the rafters during the fall. Thankfully, the firefighter landed feet first about 10 feet from an exit and walked out to safety. This firefighter had been assigned to the interior attack team, redirected to the roof for vertical ventilation and assigned once more to the roof for extinguishment at the time of this incident.

Lessons Learned: The limited staffing assigned to this incident required multiple tasks to be completed one after another without coordinated efforts. This allowed for a longer burn time. It also required that the firefighter who fell to be reassigned to multiple tasks without rehab. This problem can be solved with an automatic mutual aid agreement or increased staffing levels.

There was an activated sprinkler in the attic space that was confining the fire. This created a pressurized smoke condition at the floor level. Once the sprinkler system was shut down, the smoke vented as we would have expected and the visibility cleared up instantly. This issue could be corrected with better situational awareness.

The decision was made to make an attack on the fire from the roof on a fire that had been burning for at least 20 minutes. The building was made of lightweight truss construction and an offensive attack was contraindicated.

The firefighter who fell failed to continually sound the roof. This situation could have been averted by sounding a roof while you travel.

Report Number: 10-0000722

Synopsis: Interior crew hit with master stream.

Event Description: My engine company was called for mutual aid from a neighboring department to assist with a two story apartment complex fire (sixteen apartments). Upon our arrival, there were three aerial apparatus elevated and flowing water on the two story apartment complex that had heavy fire and smoke coming from the attic. We checked into command and were assigned to assist another crew with pulling ceiling and fire suppression if the fire had breached the firewall in the attic.

The first crew took the second story “A” side apartment and began their assignment and we took the second story “D” side apartment. Conditions of the apartments upon our entry were filled with light smoke and no fire was visible through thermal imaging cameras.

We entered the apartment in full PPE and SCBA carrying a 2 ½ inch attack line. When we got to the back bedroom and checked for extension, our camera showed that there were signs of possible fire coming through the firewall at the roof peak. We pulled the ceiling and started fire suppression. We notified command of the conditions and our actions. While performing fire suppression, a large section of firewall fell and we could see one of the towers flowing water. We noticed that they were moving their water stream through our area and we moved everyone back as the water stream came into the area in which we had just been standing.

We contacted command and had them contact the crews working on the trucks and make them aware of where we had crews working on the interior. We heard command make contact with the truck companies and inform them of where the interior crews were working. Unfortunately, the tower that had sprayed down our area was from a different mutual aid agency and was not monitoring the channel that the information was being broadcast on.

As we continued working on pulling ceilings, I had moved into a closet and was pulling the ceiling so we could get a better angle on the extension. As I was doing this, I heard a large amount of water flowing on the wall I was standing by and as I started moving out of the closet, I was hit by the elevated stream. I was thrown out of the closet, rolled into the bedroom and was pinned by the water against the bed and floor. The water hit me with enough force that it knocked my helmet off and water was forced into my SCBA mask. I had to pull my mask off enough to avoid breathing in water. I then gathered myself and crawled my way out of the apartment.

I was not seriously injured in this event but the potential was great and very real. I consider myself very lucky that I just felt stiff and sore from this incident. This type of event could possibly happen again if we don’t do something about it, for instance multi-agency/multi-company training.

Lessons Learned: I feel that the lesson learned here was that communication is key. Making sure that all agencies are getting all the information and it is being received up and down the chain of command correctly is vital for good situational awareness. I also feel that training with mutual aid companies will help work out the little problems and help prevent big ones. This should involve multiple companies from multiple agencies.

Report Number: 10-0000985

Synopsis: Radio problems and rapidly changing conditions.

Event Description: Units responded to a mutual aid call with a neighboring volunteer fire department for a building fire. We were requested approximately 10 minutes after the initial call. We were the second engine to arrive with light brown smoke showing from a lightweight construction type building. The first engine crew had already made entry into the building. We were requested by the incident commander to take a backup line into the kitchen area to assist the first entry team with a possible fire

in the kitchen. Due to the fact that we were operating on different radio systems, a request for a radio patch to fire dispatch was made so we would have communication with the incident commander.

We entered the building with an officer and two firefighters. Due to the smoke color, it was believed the fire had gotten into an area above the kitchen and was burning at the roof area. As we advanced to the kitchen area, tiles were removed from the drop down ceiling with pike poles to assure we were not advancing past the fire, as it had gotten into the ceiling. When we arrived at the kitchen area and met with the initial attack crew, we found light smoke down to the shoulder level. Ceilings were pulled and fire was seen in the inspection holes behind the fire crews where fire had not been seen earlier. Crews were unaware that command was attempting to contact them to evacuate because of deteriorating fire conditions that could be seen outside. The radio patch had failed. The building collapsed minutes after crews left the inside.

Lessons Learned: Due to radio problems with the patch, crews were unaware that incident command was trying to evacuate interior crews. A RIT team was being assembled to go get the interior crews out. SOPs were changed, so now, when crews go mutual aid, a duty chief also responds and acts as safety officer for our units. The chief also monitors communication on our radio channels so we don't have errors such as the radio patch being lost or other communication problems.

Report Number: 11-0000038

Synopsis: Officer initiates mayday at structure fire.

Event Description: We responded to a structure fire. While en route and when arriving on scene, we were getting reports of people trapped on the upper floors. We arrived on scene and size up revealed a working fire in a 2 1/2 story wood frame structure. First engine arrived on scene and stretched a 1 ¾" handline and a backup line was also deployed with ladders placed to the upper floors. An officer and a firefighter went up to the second floor to conduct a primary search. The first door they encountered and searched was a bathroom. When exiting, the officer went to the right into a bedroom and the firefighter coming out a couple seconds behind went straight into another bedroom. While the officer was conducting a search, he got turned around. The officer found the wall and started looking for an exit, not being able to find a window (one covered by sheet rock, the other a small kitchen window). He continued to try and find a means of egress, then started to become disoriented at which time he began to deplete the cylinder on his SCBA. He declared the MAYDAY and then completely depleted his air cylinder. The officer then took off his helmet and face piece and stayed as low to the floor as possible. Hearing the mayday, a firefighter equipped with a thermal imaging camera, descended onto the second floor and began a search for the mayday fire fighter (automatic mutual aid FAST team not on scene yet). At this point, the firefighter located the missing officer and was going to try to remove him, but the officer became unconscious. The rescue firefighter rolled the officer on his side and using his SCBA, pulled him to the stairway and down the stairs where he was assisted by other members. The officer came out of the structure unconscious, at which time members started first aid and turned him over to EMS. The officer was transported to the hospital and released later that morning with no injuries.

Lessons Learned: Team integrity: Slow down and look at the big picture. Push to have building and fire inspectors be diligent in their job as this residence was chopped up into four single room occupancies.