National Fire Fighter Near-Miss Reporting System

These reports coincide with the new monthly podcast entitled *Communications* to be posted on Thursday, September 18, 2008.

For more information about other Near-Miss Reports, please visit the official National Fire Fighter Near-Miss Reporting System at www.firefighternearmiss.com.

Report Number: 08-0000095
Report Date: 02/18/2008 1543

Synopsis
Ladder Truck hits telephone pole

Demographics
Department type: Volunteer
Job or rank: Driver / Engineer
Department shift: Respond from home
Age: 43 - 51
Years of fire service experience: 27 - 30
Region: FEMA Region III
Service Area: Suburban

Event Information
Event type: Vehicle event: responding to, returning from, routine driving, etc.
Event date and time: 12/03/2007 2315
Hours into the shift: Volunteer
Event participation: Involved in the event
Weather at time of event: Clear and Dry
Do you think this will happen again? Yes

What do you believe caused the event?
- Teamwork
- Situational Awareness
- Human Error
- Communication
- Decision Making

What do you believe is the loss potential?
- Property damage

Event Description
While driving a ladder truck to a vehicle fire that had extended to a building, I collided with a telephone pole. The collision happened at a very low speed and resulted in minor damage to the ladder truck and the pole. Upon approach to the scene, we encountered a very difficult turn into an alley with a telephone pole on the inside radius of the turn. It was dark at the time and visibility was minimal. As I entered the alley, I could not see my right mirror (inside radius). I stopped and asked the officer how I was on the pole. I thought I heard him say "you're ok on the pole." Hearing this, I moved forward again and this time the officer said nothing at first and then said that I was "on the pole." At the same time I was consulting with the officer, he was on the radio getting an assignment. Being on the radio caused him to block my right mirror but this was of minimal consequence because I had very limited visibility of the mirror due to the darkness. Also because of his communication with the incident commander as well as other radio traffic, I believe I misunderstood his message to me when I asked about my position relative to the pole.

Lessons Learned

I should have gone with my instinct and not attempted the turn. If I would have made it, it would have been very difficult. If the vehicle were needed in this particular alley I could have gone down the street to a parking lot and turned around and approached the turn from the opposite direction making it much easier to negotiate. Communications between the driver and the officer needed to be much better. The communication model was not followed because of many things happening at once. Had I confirmed with the officer his answer to my question, this would not have happened. It might also be a good idea to have a policy of the officer getting out and assisting with movement of the vehicle in tight quarters or areas of limited visibility (just like backing).

Report Number: 07-0000713
Report Date: 01/31/2007 0920

Synopsis
Propane tanks explode during fire attack.

Demographics
Department type: Combination, Mostly paid
Job or rank: Battalion Chief / District Chief
Department shift: 24 hours on - 48 hours off
Age: 43 - 51
Years of fire service experience: 27 - 30
Region: FEMA Region III
Service Area: Suburban

Event Information
Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.
Event date and time: 12/29/2006 1700
Hours into the shift: 9 - 12
Event participation: Involved in the event
Weather at time of event: Clear and Dry
Do you think this will happen again? Yes

What do you believe caused the event?
- Decision Making
- Situational Awareness
- Teamwork
- SOP/SOG

What do you believe is the loss potential?
- Life threatening injury
- Property damage

Event Description
Units responded for a report of a structure fire; fire reported in an attached garage under renovation. Upon arrival of the first unit, there was heavy fire in the garage, with extension to the house. The first arriving unit reported propane tanks involved and on fire. Within the first 5 minutes of units arriving and operating on the scene, there were 3 large explosions, each involving a 100 lb. Propane cylinder. Units arrived out of their assigned running order, and jumped positions from the SOPs. This included the fourth due engine arriving and taking the second due engine's water supply responsibilities, and both trucks arriving late due to getting lost. In addition, there was a face-to-face miscommunication between the driver of the fourth due engine and the officer, who was detailed in from another station. This resulted in a several minute delay in the establishment of a sustained water supply for the first due engine. Initial actions were focused on ensuring evacuation of the houses on exposures B and D, and then defensive operations. The three explosions occurred while personnel were engaged in these activities. The explosions were powerful enough to knock several firefighters down, but due to their wearing PPE and not being in immediate proximity, there were no injuries.

Lessons Learned

Situational Awareness: The calling party reported to the 911 operator that there were propane tanks involved in the area of the fire. This information was never relayed to responding units. Teamwork: The driver and officer on the 4th due engine did not communicate effectively. According to our SOPs, the first responsibility of the second and fourth due engines is to "Ensure and expand upon the water supply as necessary for the first (or third) due engine. In this case, the officer gave instructions which were either not heard correctly or were misinterpreted by the driver/operator, the officer and the firefighter abandoned the apparatus driver/operator and went up to the fire, leaving the driver/operator to complete a labor-intensive water supply operation by himself. Especially when pairing personnel who are not used to working with each other (the officer was detailed in on overtime) it is imperative that two-way communications techniques be used to ensure that messages are understood and followed correctly. Area Knowledge: Unit officers and apparatus drivers must have greater familiarization with their response areas, not limited to just their "first due" area. They must also be able to get to any location from different directions of travel. Enhanced GPS mapping capabilities would be a welcomed addition to all responding apparatus. Standard Operating Procedures: Units must know and follow their SOPs. It is extremely difficult for units and personnel to readjust to last-second changes in assignments. Communications: When units will be delayed, they must notify the Incident Commander, so that consideration of the delays can be made, and adjustments made as necessary. Protective Clothing: Again, the importance of properly wearing all appropriate PPE is a lesson learned. The force of the explosions might well have caused serious injuries had personnel not been properly protected.

Report Number: 06-0000438
Report Date: 08/22/2006 0846

Synopsis
Moving engine hit by closing apparatus door.

Demographics
Department type: Combination, Mostly volunteer
Job or rank: Captain
Department shift: 10 hour days, 14 hour nights (2-2-4)
Age: 34 - 42
Years of fire service experience: 17 - 20
Region: FEMA Region II
Service Area: Suburban

Event Information
Event type: On-duty activities: apparatus and station maintenance, meetings, tours, etc.
Event date and time: 08/21/2006 0000
Hours into the shift: 13 - 16
Event participation: Involved in the event
Do you think this will happen again? Uncertain

What do you believe caused the event?
- Equipment

What do you believe is the loss potential?
- Life threatening injury
- Property damage
- Lost time injury

Event Description
While demonstrating a newly installed vehicle exhaust removal system, an overhead door in the up position was activated and came down on the moving apparatus. The vehicle was an engine being moved out of its bay to show how the tail pipe connection disengaged from the rig. When the driver entered the cab the sun visor was in the down position, the driver repositioned the visor and began to pull the apparatus out of the bay. The overhead door was activated and began to close. Members outside the rig made verbal notification to the operator who stopped the rig and the door came to rest just in front of the raised roof section of the cab and immediately stopped and shut down. The rig remained parked until the overhead door was re-energized and moved up and off the cab roof. The door seems to have been inadvertently activated from the remote opener located on the visor of the rig. Good communication between the operator and members watching the evolution proved timely, the operator had good situational awareness in not moving further forward or back and prevented damage to the door and the rig. The members had proper knowledge of the operation of the door to safely remove it from the cab roof and return it to service. The equipment worked properly except the door did not reverse directions once contact was made with the cab roof. It did stop its operation and locked out however.

Lessons Learned

Maintain overhead door safety systems. Minimize speed when exiting the apparatus bays with the rigs. Knowledge of building systems is valuable. Communication is always important. Relocate door openers to areas where inadvertent contact will not cause them to activate.

Report Number: 08-0000169
Report Date: 04/08/2008 1452

Synopsis
Sounding floor averts disaster

Demographics
Department type: Volunteer
Job or rank: Other: Fire Marshal
Age: 43 - 51
Years of fire service experience: 27 - 30
Region: FEMA Region II
Service Area: Suburban

Event Information
Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.
Event date and time: 03/08/2008 1938
Hours into the shift: Volunteer
Event participation: Told to and submitted by safety officer
Weather at time of event: Clear and Dry
Do you think this will happen again? Yes

What do you believe caused the event?
- Other
- Situational Awareness
- Command
- Decision Making

What do you believe is the loss potential?
- Other
- Life threatening injury
- Property damage

Event Description
At 1936 hrs on March 11, 2008 the [name deleted] department received an alarm for a reported fire from [name deleted]. It seemed the caller, a security guard on the premises, was unaware of his location other than [address deleted]. The dispatcher questioned the county to discover that the security guard was [address deleted]. The alarm was transmitted at 1938 hours and responding chiefs were on the road at 1939 hours. The dispatch center received additional Information at 1940 hours that [unit name deleted] was on the scene confirming a fire. Second assistant chief arrived on scene with the chief of department at 1941 hours and reported a working fire at the same address. The building is a 2 ½ story single family attached row frame newly constructed with wood open web truss floors and roof. The building was unoccupied, without any furnishings or appliances. Smoke detectors were hard wired interconnected and left with construction covers on the detectors. The following is a narrative from the second assistant chief: Approaching the scene, I noticed heavy smoke pushing from the rear of the townhouse. As I arrived on scene and was donning my gear, I performed a quick size up of the front of the townhouse. At this time, I noticed the second floor windows with heavy blistering on them. The front door

was forced open to find the 1st floor filled with smoke. I entered the townhouse about 10 feet into a hallway and was met with a heavy smoke and heat condition. I radioed the IC that we had a confirmed working fire. I exited the townhouse to inform the first engine crew that we had heavy smoke and heat condition on the first floor. Again I entered with the hose team and search team. We were advised by Command via fire ground radio through dispatch radio, that the townhouse was constructed with truss type floors and roof. Armed with this information, we proceeded with an aggressive offensive attack as is common practice. As the first hose line was making their way into the building, I took a left hand lead and discovered heavy fire in the first floor bathroom which appeared to be coming from the basement with extension to the second floor. I reported the conditions to command. The third assistant chief had made his way to the second floor stairwell and reported heavy smoke and heat on the second floor. The line that entered with me went to the basement stairwell to protect the interior stairs. The second or backup line was ordered to the second floor via the interior stairs to the second floor. We had one line pushing into the seat of the fire in the basement and one line operating on the second floor. As I made my way to the basement stairs to check the progress of the line in the basement, the captain with the line reported to command that fire appeared to be burning in the ceiling or first floor truss system. I noticed a hole in the first floor living room area along the back wall of the bathroom. The floor felt spongy and significantly sagging down towards the basement. Once again I gave this report to the hose lines in operation and command. The hose team on the second floor advised that similar conditions existed on the second floor. I radioed command of the imminent collapse situations that we had on both floors and requested that we evacuate building and reevaluate our options. We decided to cut a hole in the front room on the number one side and use the Bresnan distributor nozzle to knock down the fire in the basement. This tactic seemed effective. After regrouping and placing the distributor nozzle to knock down the fire, it was decided to reenter the basement to assess fire progress and the damage to the truss flooring on the first floor. Upon reentry, it was noted that the first floor was sagging even more than during our initial report. Progress was being made on knocking down the fire in the basement as crews were working on the second floor. All visible fire on the first floor was knocked down with no members working on the first floor due to the partial failure of the truss flooring and probable collapse. As the process of extinguishing the fire in the basement was conducted, an urgent message transmitted to command from interior operations for all units working inside to evacuate the building once again due to deteriorating smoke and fire conditions. A message was also transmitted to the crew on the second floor not to use to interior stair case and to exit through the windows onto ground ladders that were placed outside of the windows due to the possible collapse. The only way out for me and the crew working in the basement were the basement stairs. As I made my way to the top of the stairs, the first floor was now severely compromised and I felt the floor was beginning to give way. I was a few steps out of the basement stairwell onto the first floor when a firefighter assisted me and directed us to safety. I advised command that the basement operations had safely evacuated the basement and were safe outside. A team was sent into the building with a ladder placed over the partial collapse of the first floor to complete extinguishment and perform overhaul

operations with limited manpower as to not cause further truss failure. Brackets [ ] in this report denote identifying information removed by the reviewer.

Lessons Learned

Unprotected open web floor trusses can fail rapidly without warning. Pre-fire planning is imperative with truss construction. Fire departments must inspect all construction within its district. Good fireground communication and command and control can actually save firefighters lives. Accountability is a must. SOP or SOG must be in place for response to known truss type constructed buildings.