

Flashover Life and Death **Decisions on the Fireground**

This presentation provides an in depth look at two incidents in which a flashover occurred. In the first incident a firefighter was operating at a private dwelling fire when a flashover occurred trapping and seriously injuring the firefighter.

The second incident occurred at a garden style apartment building trapping two firefighters in the structure seriously injuring one and Killing another firefighter.

Both of the firefighters that survived the incidents suffered serious burn injuries to various parts of their bodies. The emotional and physical scars of these injuries will last a life time. The goal of the program is to identify different things that could have been performed differently on the fireground in order to prevent these types of injuries in the future.

The program provides many lessons learned that Chiefs Officers and Firefighters with all levels of experience can bring back to their departments.

Even though the incident occurred in different areas of the country in different types of buildings many of the lessons learned are the same. I have combined some of the lessons learned for this handout.

Incident # 1

Huntington Manor Volunteer Fire Department Long Island New York

March 10, 2004

Report of a mattress fire on the first floor

Fire extends to the second and third floors

Lieutenant becomes trapped on the top floor as conditions deteriorate and evacuation of the building was commencing.

Lieutenant is removed from the structure with serious burn injuries approximately twenty percent of his body.

Lessons learned

Size up

- Always perform a size up at any type of incident

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Thirteen points of size up

- Construction (what type?)
- Occupancy
- Area (building size)
- Life hazard
- Water supply
- Auxiliary appliances (standpipes, sprinkler systems)
- Street conditions
- Weather conditions
- Exposures
- Apparatus
- Location of the fire
- Time of day or night
- Height

The acronym **Coal was wealth** will help you to remember the thirteen points of size up.

At this incident the building was a two and half story wood frame private dwelling.

- Balloon frame construction
- Aluminum siding

- Asbestos roof shingles

Communications

- All firefighters should be radio equipped
- Improve communications between inside teams and incident commander
- Improve communications between mutual aid departments
- Avoid unnecessary communications
 - Use the radio as a listening tool
- The importance of communicating the MAYDAY message
- MAYDAY messages are used in the following situations
 - Imminent collapse
 - Occurred collapse
 - Unconscious firefighter
 - Missing member
 - Lost or trapped member

The acronym **I Owe You My Life** will help you remember the situations that MAYDAY messages are to be given

Additional information that is helpful when transmitting a MAYDAY message

- Last known location
- Unit firefighter is assigned to
- Name
- Assignment
- Radio equipped?

The acronym LUNAR will help you remember this additional information that is needed.

Flashover Safety **Warning signs**

- High heat condition
- Rollover

- Free burning fire
- Thick dark smoke
- Discomfort through protective equipment

Always remember to test the atmosphere

If warning signs are observed use delay tactics

Other Lessons Learned

- Always bring the proper tools
- If possible leave someone at the door or top of the stairs
- When the nozzle team is backing out leave the line in operation
- Nozzle team should be last to exit
- Importance of rapid intervention teams
- Stay calm in extreme situations
- Properly wear your gear at all times
- Properly clean and maintain your PPE
- **Train everyday!!!**

Incident #2

Fraser Fire Department, Michigan

Responded to a reported fire in a garden apartment complex.

Two firefighters and a public safety officer responded in a work van with only PPE and SCBA. Upon arrival they had a known life hazard in the building and began a rescue attempt. During the rescue a flashover occurs trapping them in the structure.

Rob Kokko suffered severe burn injuries and firefighter David P. Sutton succumbs to his injuries.

Lessons learned

- Maintain and update equipment

- SCBA should all be the same type from the same manufacturer
 - Must have properly working pass devices
- Combine Public Safety Officers training with volunteer members
- Importance of accountability
- Must have better communications between departments
- Lack of radios hampered communications of trapped firefighters
- Do not use damaged protective gear
- Risk vs. Reward
- Possibly set up automatic mutual aid
- Always revert back to your training
- Stay calm
- Bathrooms are not an ideal place to seek refuge
- Staffing levels dictate what firefighters can perform

After suffering a serious burn injury there are many hurdles to overcome during the recovery process. During the process there are many different emotions that you will face. Rob and I cannot stress the fact that in order to recover it is of the utmost importance to have a great support network in order to do this.

Both of us endured many hours of physical therapy as well as some emotional therapy along the way. It was a very hard time for family and friends. Fortunately for both of us after many months of being out of work and long hard hours of therapy we were both able to return to actively fighting fires.

Any questions please feel free to E mail me. Thank you
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