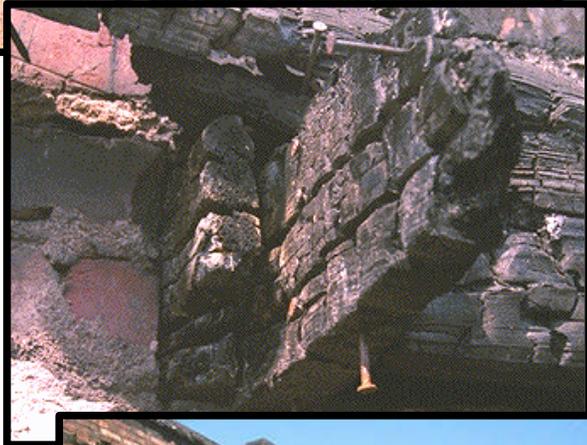


Fire Investigation Summary

Fire Fighter Fatalities



**Marks, Mississippi
August 29, 1998**

A fire that began outside in the rear of a block of buildings resulted in the deaths of two fire fighters.

The failure to establish a comprehensive Incident Management System that includes ongoing incident size-up, risk management, establishment of an accountability system, and the provision of sufficient resources can result in fire fighter injuries or fatalities.



**National Fire Protection Association
Fire Investigations Department**

At approximately 12:58 a.m. on Saturday, August 29, 1998, a fire was reported at the rear of the florist shop on Main Street in Marks, Mississippi. The fire reportedly began in a pile of cardboard and other combustible materials outside the rear of the florist shop. The fire then spread through the open eaves of a storage building behind the florist shop. The 20-ft × 30-ft. (6.1-m × 9.1-m) storage building was used to store floral packing and display materials and also contained a 6-ft × 6-ft. (1.8-m × 1.8-m) cooler unit. The building was connected to the main florist shop through a steel frame door. The florist shop was located in the middle of a block of buildings that contained a restaurant, a liquor store, dry cleaners, and a lounge. The block of buildings was approximately 140ft-(42.6 m) in length and 60 ft (18.3 m) deep.

Upon arrival of the first fire units, at 1:05 a.m. smoke and flame were showing from the eave line of the storage building. The fire department gained access to the storage building and began to extinguish the fire within the building. An additional hoseline was deployed to protect a youth club building located 15 ft (4.6 m) south of the fire building. The Marks fire chief requested mutual aid from the Lambert Fire Department at 1:09 a.m.

With the fire in the storage building extinguished, salvage and overhaul was begun in the storage building and the adjoining florist shop. When the Marks fire chief entered the florist shop with the owner at about 1:25 a.m., he reported light smoke in the building. Further investigation revealed smoke showing from the attic space of the florist shop. The chief then returned to the rear of the shop and ordered two Marks fire fighters

to access the roof and check on conditions to determine if ventilation would be necessary.

The two Marks fire fighters placed a ground ladder at the rear of the liquor store and began to climb to the roof. One fire fighter was equipped with breathing apparatus and the other was not. As they reached the roof, smoke conditions worsened, and the fire fighter without breathing apparatus returned to the ground to find breathing apparatus to don. The fire fighter remaining on the roof then proceeded to walk over to the area of the florist shop. When he stepped from the roof of the restaurant onto the roof at the rear of the florist shop, at approximately 1:40 a.m., the weakened roof structure collapsed and he fell into the store, landing in the southeast storage room in the shop. No one on the fire ground witnessed his falling through the roof. His location was unknown to the others on the fireground.

At the front of the florist shop, with smoke conditions worsening, a hoseline was stretched from the Lambert engine that had been positioned at the front of the restaurant. Two fire fighters (one from Marks and the other from Lambert) donned breathing apparatus and prepared to enter the front of the shop at about 1:55 a.m. The Marks fire fighter had also participated in the attack on the fire in the storage building and was on his third air cylinder. Within seconds of the two fire fighters' entry into the building, witnesses on the outside reported seeing the hoseline "jump." Immediately following this, the Lambert fire fighter stumbled out of the door and onto the sidewalk, stating that the fire fighter from Marks was still in the building. Fire fighters outside the shop, including

the fire fighter who had just exited, entered the building and began searching for the Marks fire fighter lost near the front of the shop. Numerous attempts were made to locate the fire fighter. Rescue efforts were hampered due to a lack of full air cylinders at the scene. A police officer had been dispatched to travel approximately 20 miles (32.2 km) to Batesville to refill the cylinders already depleted. The hoseline that was used was located. The fire fighter, however, was not with the line. During the rescue attempts, the Marks fire chief was injured by broken glass in an effort to ventilate the florist shop.

Additional mutual aid was requested from the Batesville Fire Department at 2:03 a.m. Upon arrival of Batesville units at 2:25 a.m., fire fighters from Batesville began to assist in the search for the lost Marks fire fighter in the front of the florist shop. The injured Marks fire chief turned command of the scene over to the Batesville chief while he sought medical attention for his injuries. At this point, additional mutual aid was requested from surrounding communities to assist in the search for the missing fire fighter and for help in extinguishing the fire.

Batesville fire fighters located the missing Marks fire fighter during the second search of the store, after 3:00 a.m. His body was found under a pile of debris within 24ft (7.3 m) of the front entrance.

During the search efforts, the fire spread to the adjoining establishments. When the body of the fire fighter lost in the front of the florist shop was located and removed, the focus was again turned to extinguishment of the fire. At this point, it was determined that another fire

fighter was missing, the Marks fire fighter who had gone to the roof in the rear of the block to ventilate. It was thought that he might be in the rear of the florist shop. Efforts were put forth to extinguish the fire in that and adjoining areas so that another search effort could be mounted.

The fire was under control at about 5:30 a.m., and the second missing fire fighter's body was found in a rear storage room of the florist shop around 6:00 a.m.

On the basis of the fire investigation and analysis, the NFPA has determined that the following significant factors directly contributed to the deaths of the two fire fighters:

- **Lack of a fireground accountability system**
- **Ineffective use of an established incident management system (IMS)**
- **Failure to equip fire fighters with personal alert safety systems (PASS)**
- **Lack of knowledge of the construction features of the building and how these features would affect the spread of fire in the concealed spaces, including the attic**
- **Insufficient resources (personnel and equipment such as self-contained breathing apparatus [SCBA] and spare cylinders) to mount interior fire suppression and rescue activities.**
- **Absence of an established Rapid Intervention Crew (RIC) and the lack of a standard operating procedure requiring a RIC**

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NFPA Fire Investigations Department

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Marks, Mississippi August 29, 1998

The National Fire Protection Association's Fire Investigations Department documents some of the most significant fires and incidents throughout the world. The objective of these investigations is to determine what lessons can be learned from these incidents. The information is then made available to the fire safety community to be used in developing future codes and standards. A complete listing of reports is available, either upon request or can be viewed on our web page.

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Related reports published by the NFPA Fire Investigations Department include:

Branford, CT – November 28, 1996
Chesapeake, VA – March 18, 1996
Seattle, WA – January 5, 1995
Albert City, IA – April 9, 1998

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