

This month's *Working Fire*...

© 2001 – Spirit Sports

Volume 01- 4: April 2001
Approx. Program Length: 60:55

FIRELINE

Barbieri Lumber Mill Fire
Great Barrington, MA

Approx. length: 12:02

Firefighters could see the glow of this fire from quite a distance and it was well underway upon their arrival. This building had been preplanned because of its fire load, but the fire's speed cut short much of their intended attack. An initial fire attack had to be aborted and eventually the effort went defensive. Cross-ventilation was critical as was using excavators to keep the base-ment accessible. Even with 5-degree temperatures, radiant heat was enormous, so exposure protection was a big issue. This fire eventually reached 12 alarms with departments from three states. For more information, contact Chief Mike Ordyna, Great Barrington Fire Department, 20 Castle Street, Great Barrington, MA 01230 or call him at 413-528-0788.

Tire Warehouse Fire
Louisville, KY

Approx. length: 8:56

There had been a fire at the same location a week earlier (thought to be electrically related) and a wood-burning stove on the premises might also have been the starting point of this blaze. The tire warehouse also provided a huge fire load — over 4,000 vehicle tires — and the possibility of an airborne and groundwater hazardous materials incident. Interior attacks were withdrawn and an accountability check was made before defensive aerial streams began. A TV news truck put a camera up in the air to assist Incident Commanders in getting an overall look at the scene. Haz-mat conditions were monitored and kept in control; good cooperation between mutual aid departments. For more information, contact Chief Rich Carlson, Okolona Fire Department, 8501 Preston Highway, Louisville, KY 40219 or call him at 502-964-5111.

HANDS-ON

Management Series: Waterloo 2000
Part I

Approx. length: 13:26

Working Fire continues with training aimed at the company officer/incident commander at the management level with the first of a multi-part series called Waterloo 2000, presented by Chief John Kriska of the Rock Hill (MO) Fire Department. In view of the new technology that has affected firefighting, Chief Kriska has reached some common-sense conclusions about how we fight fires — and how we need to recognize we have a new enemy. This month, the Chief gives an overall look at how we need to change our thinking in a number of areas. For more information, contact Chief John Kriska, Rock Hill Fire Department, 9620 Manchester Road, Rock Hill, MO 63119 or call him at 314-962-6254.

This month's *Working Fire*...

HANDS-ON (cont.)

Vehicle Extrication Techniques Part I

Approx. length: 11:39

Hands-On features the first in a series of vehicle extrication scenarios using the High-Lift jack produced by Jacksonville (FL) Fire Rescue. This month, we present a quick way to remove vehicle glass and windshields and a speedy technique to force a vehicle door. For more information, contact Captain Rob Sorensen, Jacksonville Fire Rescue, 2700 Firefighter Memorial Drive, Jacksonville, FL 32246 or call 904-645-0124.

FIRE MEDICS

EMS Task Force

Approx. length: 7:25

In southern New Jersey, jurisdictions have banded together to form an EMS Task Force to respond to large, mass-casualty incidents where multiple patients need treatment and transport. The concept of how it is employed in New Jersey is explained and its use illustrated during a 60-car, chain-reaction vehicle accident during a snowstorm. For more information, contact Bill Holstrom, President, Gloucester County Ambulance and Rescue Association, P.O. Box 126, Sewell, NJ 08080 or have him paged 856-589-0911.

EVOLUTIONS 2000

Kramer vs. Kramer Fire Department Preparation

Approx. length: 3:01

Working Fire and Professor/Chief Bill Kramer present our Continuing Education segment that's worth one credit from the University of Cincinnati. Looking at this month's *Hands-On* segment, Bill debates the relative importance of preparation using pre-incident planning vs. drilling to develop operational skill. For more information, contact Professor Bill Kramer at the Open Learning Fire Service Program, College of Applied Science, 2220 Victory Parkway, ML #103, Cincinnati, Ohio 45206 or call 513-556-6583.

This month's *Working Fire*...

From the Departments Involved...

DISCUSSION QUESTIONS FOR THIS MONTH'S INCIDENTS

The departments involved in this month's incidents pose some discussion questions that you can use as discussion-starters in your own department's training sessions. Let's kick it around!

Barbieri Lumber Mill Fire/Great Barrington, MA Chief Mike Ordyna/Great Barrington Fire Department

1. This fire was incredibly rapid, burning approximately one foot per minute. That kind of speed at a large structure fire should be an immediate alert to call for additional aid.
2. Ventilation was essential in this fire to lessen the internal pressure and let the fire reduce in intensity. This tactic eventually allowed a secondary interior fire attack after the interior became more tenable.
3. Excavation equipment were brought in to clear debris from around the basement. This helped firefighters avoid fire developing in the basement and not being able to reach it.

Tire Warehouse Fire/Louisville, KY Chief Rich Carlson/Okolona Fire Department

1. A structure containing such a dangerous fire load with high potential for a hazardous materials incident should be heavily preplanned and inspected often for OSHA regulation violations. A change in condition at such a site without inspection could raise the odds for a disaster.
2. A previous fire in such a potent structure should be an indicator of possible incendiary conditions. Fire investigators should be heavily involved in such a fire in order to identify a cause and origin.
3. Finding the seat of such a fire is essential for early knock-down and avoiding a "surround-and-drown" strategy later which will consume a lot of water. Use circular saws to cut viewing holes in garage doors or exterior walls to find it. Then send in attack teams. Ventilate to make the fire attack area tenable for firefighters.

Enhanced Training

Waterloo 2000, Pt. I

Objectives

After watching this program, the student shall understand:

1. there is a new enemy in the fire service
2. that continuing to do things “the way we’ve always done it” will continue to get firefighters killed.

Standards & Regulations

This training is consistent with NFPA 1500 and appropriate OSHA regulations.

Training Outline

I. INTRODUCTION

Even though we have the latest technology (protective clothing, thermal imaging cameras, new apparatus, etc.), new regulations like the four-person engine company and the two-in/two-out rule may jeopardize firefighters if we don’t change the way we think.

For example, the four-person engine company rule allows the Incident Commander to send in more firefighters to die if poor command decisions are made. In many cases, these decisions are the result of “old thinking.”

The fire service has reached a new “Waterloo” in that it has a new enemy: old thinking and procedures which serve inadequately in light of today’s technology and new knowledge.

II. “THE WAY WE’VE ALWAYS DONE IT...”

A. Fire Chiefs, Incident Commanders, Battalion Chiefs and Company Officers should understand that in today’s fire service:

1. “the way we’ve always done it” may be dangerous
2. the risks have increased and are greater than 30 years ago
3. that zero-visibility is dangerous and it also wastes time
4. that certain construction styles, when they fail, can kill firefighters
5. that systems must be developed to identify these styles.

Answers to the questions on Page 6:

1. True
2. False
3. False
4. c.
5. d.

Waterloo 2000, Pt. I

B. The Blinder Syndrome Mindset of Firefighting

What we do:

1. Upon arrival at the fire scene, we feel we must enter the structure as quickly as possible to put water on the fire.
2. We do a “windshield size-up” as history has taught us. But what does that tell us about the *rear* of the building?
3. We disembark and pull hose, then “John Wayne” the door.
4. We crawl through heat and toxic gases in zero visibility, wasting time.
5. We use the 30-degree fog pattern, creating steam and burning firefighters
6. Break a window for ventilation— way too late.

What we don't do:

1. An exterior size-up or walk-around.
2. Start ventilation early.
3. From the size-up, attempt to find the fire's location.
4. An interior size-up — access conditions inside the building.

III. WATERLOO 2000 — ISSUES TO BE COVERED

A. What we'll cover in this series:

1. Ventilation early, before crews enter, to increase visibility
2. A method for interior size-up
 - a. upon entering
 - b. as we progress through the structure
3. Using an interior fire stream other than the 30-degree fog pattern
4. Disorientation which leads to panic and non-thinking
 - a. Can happen anywhere, in almost any-sized space
 - b. Particularly in smaller, confined spaces such as smoky basements and residential structures where most of our fires are fought.

Waterloo 2000, Pt. I: Quiz

Date_____

Chief/T.O._____

Firefighter (print)_____

Education Credits/
Hours/Units_____

Signature_____

Select the best answer:

1. True or False New technology has prompted us to rethink our position
2. True or False “What we’ve always done” has worked, so why change it?
3. True or False Fire loads are not important for saving lives

4. Which of the following doesn’t belong?
History has taught us to:
 - a. do a “windshield size-up.”
 - b. “John Wayne” the Door
 - c. “Clark Gable” the gable
 - d. crawl through smoke and toxic gases.
 - e. All of the above

5. Which of the following doesn’t belong?
What we should do:
 - a. Ventilate early
 - b. Do an exterior size-up and/or walk-around
 - c. Do an interior size-up and assess conditions inside the building
 - d. Use the 30-degree fog pattern in close quarters
 - e. None of the above

(See answers at the top of page 5)

Enhanced Training

Vehicle Extrication/Hi-Lift Jack

Objectives

After watching this program, the student shall understand:

1. the correct procedure to remove window glass from a vehicle
2. the procedure to force a vehicle door using a hi-lift jack.

Standards & Regulations

This training is consistent with NFPA 1500 and appropriate OSHA regulations.

Training Outline

I. INTRODUCTION

This begins a series of vehicle extrication techniques using the Hi-Lift jack and about 10 to 15 feet of chain, two pieces of equipment found on nearly every apparatus and on all rescue trucks.

Because of its versatility, the Hi-Lift jack is a favorite of the Jacksonville (FL) Fire Rescue Department who conducted these scenarios.

II. PRE-SCENARIO CONSIDERATIONS

A. Safety

1. Maintain a 40-foot radius or square "hot zone" around the involved extrication vehicle.
2. Only those involved with specific extrication tasks should be in the hot zone. All others should remain outside.
3. Scene and personnel management should be conducted from outside the hot zone.

B. Trauma Alert

1. If a patient meets any of the following criteria, rescuers must declare a trauma alert via radio:
 - a. Systolic blood pressure is below 90
 - b. A penetrating wound of the head, neck, chest, abdomen, or groin.
 - c. Second- or third-degree burns greater than 15% of the body surface
 - d. Paralysis.

Vehicle Extrication Techniques, Pt. I

III. GLASS REMOVAL SCENARIO

A. Glass knowledge

1. Windshield glass: safety glass, laminated around a sheet of plastic so it will remain intact when broken.
2. Side and rear glass: tempered glass; will break into small pieces when shattered.
3. The quickest way to remove glass is with the flat-head ax.

B. Scene Preparation

1. A firefighter enters the vehicle if possible, conducting a primary and secondary size-up.
2. The patient undergoes C-spine immobilization and is covered for protection from flying glass.
3. If the patient is conscious or semi-conscious, the firefighter explains the situation and what is about to happen.
4. Glass should be compromised as far away from the patient as possible.

C. Side and Rear Glass Removal

1. Using the ax, make sure the majority of the ax head impacts the body of the car, with only the point of the ax being used to penetrate the glass.
2. Punching the glass in the center will shatter it badly, sending pieces everywhere, possibly injuring the patient.

D. Partially Rolled-Down Windows

1. Glass in windows gives strength to a door, so even partially rolled-down window glass must be removed.
2. Strike the glass on its upper edge to break it.

E. Windshield Glass Removal

1. Penetrate the glass and the plastic within it with short, chopping motions across the top edge and down the sides of the windshield.

IV. FORCING A DOOR USING A HI-LIFT JACK

A. General Knowledge

1. Always try before you pry.
2. The Hi-Lift jack only works where the door extends beyond the roof rail. If it doesn't (for example, in the event of a side impact or collision where the door is pushed inside the roof line), use the halligan tool or some other method.

Answers to the questions on Page 10:

1. False
2. True
3. False
4. c.
5. c.

Vehicle Extrication Techniques, Pt. I

V. FORCING A VEHICLE DOOR WITH THE HI-LIFT JACK

A. Step 1

1. Make a viewing "window" in the door body to expose and determine the locking mechanism type: either a Nader pin or a D-ring.
2. Position the halligan (adz end) in the door opening below the B-Post and angle it slightly toward the front of the vehicle so it misses the B-Post.
3. Strike the halligan with the ax, driving it into the door opening.
4. The halligan is then worked up and down, spreading the door opening and making a window so the locking mechanism can be accessed and identified.

B. Step 2

1. Take a Hi-Lift jack and place it in an inverted position in the open window.
2. Spread the jack so the base fits firmly against the roof line or upper window frame and the lifting plate is against the window sill.
3. Position a safety person with his back to the vehicle in front of the side-view mirror to hold the jack and protect the patient in case it slips out of position. The safety person also provides counter-pressure to the door should it spring open suddenly.
4. The jack operator stands on the opposite side of the jack from the safety person. *Do not stand directly in front of the jack!*
5. The jack is operated until the door bows out, spreading the door opening.

C. Step 3

1. Place an air chisel against the locking mechanism and use 300 lbs./sq. inch of pressure to push the Nader pin out of the back of the locking mechanism. Do not cut the Nader pin.
2. This should only take about three to five seconds. If not, reposition the air chisel, put more pressure against it, and try again.
3. Additional technique: it may be necessary to position the crow's-foot end of the halligan inside the edge of the door opening and use it as a pry bar, applying pressure to force the door outward as the chisel is operated.
4. The door will open easily once the Nader pin is dislodged.

D. Final Points

1. If Step 3 doesn't happen in five seconds, don't get frustrated; stay with it! In real life, these things don't always go smoothly.
2. The ultimate goal should be to achieve entry within one minute, from start to finish.

Vehicle Extrication Techniques, Pt. I: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False A Hi-Lift jack is a bad choice to use for extrication because not all rescue trucks carry one.
2. True or False The air chisel is used only to dislodge the Nader pin, not to cut it.
3. True or False The best position to operate the Hi-Lift jack is directly in front of it.
4. Which of the following is not part of the procedure to remove glass?
 - a. Short, chopping motions
 - b. Striking the car body with part of the ax to blunt its force, penetrating with the tip only
 - c. Using a baseball swing against the side of the glass to break a half-rolled-down window
 - d. Check for a Trauma Alert before glass removal begins.
 - e. All of the above
5. Which of the following is not part of the procedure to force a door?
 - a. Use the halligan to create a window for viewing the locking mechanism.
 - b. Position a safety person in front of the side-view mirror.
 - c. Work the halligan side-to-side to make the viewing window.
 - d. Spread the jack so the base is against the roof line.
 - e. None of the above

(See answers at the top of page 9)

Evolutions 2000

University of Cincinnati Continuing Education Program

Fire Department Preparation

If you're enrolled in the **Open Learning Fire Service Program** at the **University of Cincinnati**, here's your opportunity this month to earn one college credit hour for watching *Working Fire*.

VOLUME 01-4

Kramer vs. Kramer: Fire Department Preparation

Complete written responses to the following three essay questions:

1. Explain the importance of fire department preparation in the form of drills and practice with operational skills.
2. Explain the importance of fire department preparation in the form of pre-incident planning?
3. If forced to rank the above two in order of importance, which one would you place first and why?

Send your responses to:

**Mr. Bill Kramer
University of Cincinnati
College of Applied Science
2220 Victory Parkway, ML #103
Cincinnati, OH 45206**

ENROLLMENT INFORMATION:

For more information on enrolling in the Open Learning program to gain college credit, call *Working Fire* at 800-516-3473 for a brochure or, to register directly, call the University of Cincinnati at 513-556-6583. Associates and Bachelors programs are available. Call to have your transcripts evaluated.