

This month's *Working Fire...*

© 2000 – Spirit Sports

Volume 00-12: December 2000
Approx. Program Length: 60:34

FIRELINE

Residence Fire & Rescue Lunenburg, MA

Approx. length: 13:40

An elderly woman was awakened by her dog after a candle set her home on fire, a large farmhouse. The fire was well underway when firefighters arrived who had to rescue the woman and her dog from an upper story window. Multiple hose lays of over 1500 yards were needed to access water. Interior attacking firefighters found the house filled with furniture and clutter which made progress difficult until the blaze forced their withdrawal. The woman had smoke alarms but they weren't installed. A fire investigation review of the blaze is included. For more information, contact Deputy Chief David Demers, Lunenburg Fire Department, 42 Highland Street, Lunenburg, MA 01462 or call him at 978-582-4816.

Airport Tankers on Fire Lumberton, NJ

Approx. length: 13:49

Apparent static electricity ignited hauling tankers used as permanent storage of aircraft fuels at a small airport. First-in companies attempted to knock down the flames on the first tanker until their initial water supply ran out. Tankers were used for subsequent water. Exposure protection of the adjacent tankers was a big issue but they, too, became involved. A mutual aid department with a foam system responded and resources were mounted to meet the threat. Some haz-mat operations were necessary for flaming fuel that flowed into sewers which was dealt with. New Jersey's system of local and regional fire coordinators is discussed. For more information, contact Chief Dean Rossi, Lumberton Fire Department, Lumberton, NJ 08048 or call him at 609-267-1133.

HANDS-ON

International Extrication Competition 2000 Part II – Symposium

Approx. length: 10:40

After last month's extrication competition, a training symposium was held where various scenarios were reviewed and discussed by extrication expert, Ron Moore. Most of the scenarios are unusual with tremendous informational value. Ron encourages departments to shoot photos of their extrication responses and to collect clippings of others from the newspaper for training discussions such as this. For more information, contact Ron Moore, Plano Fire Rescue, 1901 Avenue K, Plano, TX 75074 or call him at 972-941-7159.

This month's *Working Fire*...

HANDS-ON (cont.)

Accountability Technology: P.A.S.S. Radio System

Approx. length: 7:12

Working Fire tries to present the newest technology in areas which will become part of the fire service landscape. In accountability, there is a new radio-controlled P.A.S.S. device worn by firefighters which transmits a tracking signal back to a master base unit which displays the firefighters' names and their status. In the event of a firefighter going motionless for more than 20 seconds, the base unit gives a visual and audio alert. For more information, contact Senior Supervisor Greg Fox, Spring Volunteer Fire Department, 3915 FM 2920 Road, Spring, TX 77388 or call him at 281-355-1266. You may also contact the manufacturer, Grace Industries Inc., at 800-204-7277, for more information about their G.E.M.S. Employee Monitoring System.

FIRE MEDICS

PHTLS: Spinal Skills Part II

Approx. length: 9:08

Maryland Heights and the Pattonville Fire Protection Districts train jointly and review annually the Prehospital Trauma Life Support (PHTLS) refresher course provided by the National Association of Emergency Medical Technicians. This month, we present the second of a two-part, hands-on module on the rapid extrication of patients with spinal injuries with Battalion Chief Steve Rinehart instructing. You may contact him at Pattonville Fire Protection District, 13900 St. Charles Rock Road, St. Louis, MO 63044 or call him at 314-739-3118. For more information on the PHTLS refresher course curriculum, contact Corinne Curd at 800-94-PHTLS or PHTLS Chairman Will Chapleau at wchapleau@aol.com.

EVOLUTIONS 2000

Kramer vs. Kramer Technology in Accountability

Approx. length: 2:30

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 on new accountability technology, Bill debates the pros and cons of traditional and technology-based systems and whether firefighters' lives should be primarily entrusted to a computer. 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!

Residence Fire & Rescue/Lunenburg, MA ***Deputy Chief David Demers/Lunenburg Fire Department***

1. In this incident, the animal to be involved was benign. Are you prepared to rescue animals and will you if they are agitated or belligerent? At what point do you say "no" to animal rescues? Or do you rescue them at all costs?
2. If, on a call to a residence (perhaps for a medical response), a specific condition is noted that would pose a fire hazard or a threat to firefighter safety. Would you make a special effort to bring that up to the resident in order to remediate the problem?
3. What is the level of smoke alarm compliance in your jurisdiction? Is additional public awareness of smoke alarm installation and usage necessary?

Airport Tankers on Fire/Lumberton, NJ ***Chief Dean Rossi/Lumberton Fire Department***

1. Initial size-up is very important, especially in an incident where it is evident that additional resources (both apparatus and personnel) are going to be needed. Call for them early!
2. In a fuel fire, anticipate a long incident and prepare for extensive firefighter rehab.
3. Permanent storage of fuels in transportable tank vehicles can pose a fire hazard if the necessary ignition conditions occur. Question such arrangements on commercial site preplan visits and enforce the proper codes.

Enhanced Training

Extrication Symposium, Pt. I

Objectives

After watching this program, the student shall understand:

1. new extrication techniques and issues
2. how to start an extrication training collection of clippings and photos

Standards & Regulations

This training is consistent with NFPA 1500 and appropriate OSHA regulations. Appropriate extrication safety equipment should be used.

Training Outline

I. INTRODUCTION

These extrication scenarios were compiled from real-life situations encountered by various departments from around the country. Analyze them and discuss how your department would have handled them, be it in the same way or a different way. Use these exercises to increase your knowledge, awareness, and preplanning for similar responses. It's like training by "remote control!"

II. TRUCK ROLLOVER

A. The Incident/Response

1. An environmental materials disposal truck lost its brakes and turned to avoid another vehicle, rolling over on top of it. The occupant phoned in the incident from the vehicle!
2. The response involved stabilization through cribbing and the use of high-pressure air bags.

B. Training Points

1. Discuss how high-pressure air bags were utilized to rescue the trapped occupant.
2. Explain what additional tools and safety precautions were used during this rescue effort.
3. In cooperation with a truck company officer and crew, demonstrate the setup and complete a practice lift with a high-pressure rescue air bag system.

Extrication Symposium, Pt. I

III. SUSPENDED VAN

A. The Incident/Response

1. A van was suspended in between two highway overpass off-ramps, 25 feet above the ground. The driver was the only occupant.
2. The rescuers stabilized the vehicle, forced open the passenger door and dragged the driver across the seat for removal. He was in obvious pain.

B. Training Points

1. What are the safety considerations for this situation?
2. How would you stabilize the vehicle?
3. How would you remove the patient? Would you have done it as in the example?
4. Factors to weigh are the relative stability of the vehicle and the need to rapidly extricate the occupant versus the need to stabilize the patient first and execute a removal which would minimize further injury.

IV. 3 OR 4-DOOR VEHICLES

A. The Incident/Response

1. An insulin-dependent driver of a three- or four-door pickup became disoriented and crashed into a pole.
2. This was a fairly straightforward incident; the unusual thing were the rear compartment doors which more and more trucks are starting to employ.

B. Training Points

1. The third and fourth doors on such vehicles latch into the door in front of them.
2. These doors also secure into the roofline and the lower rocker channel. These three latches would have to be dealt with for occupant removal.
3. They also open "backwards" (like a Lincoln) with the hinge toward the rear.

V. BMW ROLLBARS

A. The Incident/Response

1. A BMW was struck by another car, forcing it off its wheels momentarily, deploying the car's rollbar system. Since the weather was cold, the rollbars broke the plastic around the back window which tipped off responders.
2. The rollbars remain retracted unless the vehicle senses weightlessness.

Answers to the questions on Page 7:

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

Extrication Symposium, Pt. I

B. Training Points

1. Is there a way to activate the rollbar system that hadn't actuated at a crash incident? The answer is "yes," but it should be done with extreme care.
2. This can present a real hazard to patients and rescuers alike if the rollbars should activate during a rescue involving the back seat.
3. Rollbars share the same energy system (capacitor and drain time) as the vehicle's airbags.
 - a. Even with capacitor drain, they can deploy accidentally.
 - b. If the airbags deploy up front, the rollbars should deploy as well, but they may not — so be cautious!
4. BMW, Mercedes, or any high-dollar convertible may be equipped with rollbars.
5. These rollbars can also be manually deployed from a switch on the dashboard. Therefore, rollbars could be also be inadvertently deployed by an occupant or responder in the front seat as well, causing a hazard for someone in the area of the back seat.

Extrication Symposium, Pt. I: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False Dragging a patient across a seat to extricate her is desirable most of the time because it allows a rescuer to use a more convenient exit.
2. True or False Training on other department's incidents is like training on remote control.
3. True or False If a BMW convertible's air bags have deployed, you can be sure the roll bars have as well.
4. With a three- or four door utility vehicle, its doors:
 - a. latch to the roofline
 - b. latch to the lower rocker channel
 - c. latch to the door in front of it
 - d. one of the above
 - e. all of the above
5. In what order should an extrication crew consider these operations?
 - a. size-up – use high-pressure air bags — stabilize—extricate
 - b. stabilize — crib – size-up — use high-pressure air bags
 - c. size-up —crib —stabilize —use cutters or spreaders — extricate
 - d. crib —extricate —use cutters or spreaders — stabilize
 - e. None of the above

(See answers at the top of page 6)

Enhanced Training

PASS Radio System

Objectives

After watching this program, the student shall:

1. be made aware of the new technology being used in accountability
2. understand how a radio-transmitted P.A.S.S. operates.

Standards & Regulations

This training is consistent with NFPA 1500, 1982 (1998 Edition for PASS devices) and appropriate OSHA regulations.

Training Outline

I. INTRODUCTION

Accountability is being revolutionized through the use of new technology applications. In this example, the G.E.M.S. Employee Monitoring System by Grace Industries is used to keep track of firefighters on the fireground and in staging situations. The system operates in the 920 mhz band and has a range of up to one mile. It is capable of monitoring hundreds of firefighters.

II. BASICS

1. The PASS device worn by the firefighter is battery-powered and clips to bunker gear in a variety of ways. It will signal that the firefighter is actively involved on the fireground or in a staging/rehab mode. This personal PASS device transmits a unique signal to a master base unit which displays each firefighters' signal by name and status (either "staging" or "active") so firefighters can be tracked from the moment they arrive at the incident, regardless of duty assignment.

III. STAGING/ACTIVE MODE

1. When the unit is on, it is in staging mode. To make the unit active, a clip is removed from the device and identifies the firefighter as being active. The clip can be hooked to another piece of gear such as a helmet so when the helmet is donned, the clip becomes automatically pulled and the device activated. The clip can also then be posted on an Accountability board.
2. The clip is reinserted by simultaneously pressing two buttons on the unit, putting the unit back into the staged mode.

Answers to the questions on Page 10:

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

PASS Radio System

IV. NORMAL OPERATION

1. The unit functions as a typical PASS device, activating with an audible alert in the immediate vicinity of the firefighter when:
 - a. no motion is detected for twenty seconds or
 - b. the device can be manually activated by the firefighter with a one-button push.
2. The personal PASS unit is also monitored at the master base unit where an LCD readout lists the PASS-protected firefighters by name.
3. When a PASS device sends an alert, the master unit emits tone and computer voice alerts and the LCD display scrolls to reveal the specific unit(s) involved.

V. SUPERVISION

1. An Accountability Officer or firefighter should be designated to monitor the master unit.
2. However, if manpower is limited (as it sometimes is in volunteer departments, for example), the unit will demand attention via audio alerts from someone nearby, perhaps at the Command Post.

VI. USAGE

1. Very simply, PASS devices can save lives if firefighters use them religiously and treat them with the same respect that they would give the rest of their equipment.
2. Eventually, firefighters may be able to be tracked by location on the fireground through a radar-like signal, much in the same way that air traffic controllers track airplanes in the sky.

PASS Radio System: Quiz

Date_____

Chief/T.O._____

Firefighter (print)_____

Education Credits/
Hours/Units_____

Signature_____

Select the best answer:

1. True or False The PASS Radio system can track firefighters by location on the fireground.
2. True or False If the unit is used correctly, the Accountability Officer will be able to tell if a firefighter is "in the fire" or not.
3. True or False The personal PASS device will function without the master base unit.
4. The master base unit communicates:
 - a. using a computer voice alert
 - b. via a fire siren
 - c. via an LCD display readout
 - d. using an audible toned alert
 - e. three of the above
 - f. all of the above
 - g. none of the above.
5. The master base unit can be monitored by:
 - a. a designated firefighter
 - b. an Accountability Officer
 - c. a baby sitter
 - d. someone within earshot, if necessary
 - e. three of the above
 - f. all of the above
 - g. none of the above.

(See answers at the top of page 9)

Evolutions 2000

University of Cincinnati Continuing Education Program

Accountability Technology

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 00-12

Kramer vs. Kramer: Accountability Technology

Complete written responses to the following three essay questions:

1. Which is preferable: a personnel accountability system with "gaps" or none at all? Why?
2. Compare a radio-based accountability system with a conventional "passport" system, listing advantages and disadvantages.
3. What accountability system is used by your fire department and how would you improve either the system or the procedure?

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.