

# This month's *Working Fire*...

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**Volume 02- 5: May 2002**  
**Approx. Program Length: 61:00**

## **FIRELINE**

### **Car-Truck Crash Newark, DE**

**Approx. length: 7:19**

Christiana responders found what appeared to be a near-head-on collision with a pickup truck positioned on top of a car: the pickup driver was ejected and found dead on-scene; the other driver was pinned in her vehicle under the truck. As EMS attempted to evaluate her, rescuers stabilized the truck on top of the car by chaining it to a command vehicle; this made the scene more secure for the driver and the paramedic working with her. Her legs were pinned by the dash; ultimately, she became paralyzed from the waist down. The dash was finally lifted enough to extricate the woman. For further information, contact Chief Brian Reeder or Steve Catalano, Deputy Chief of EMS, Christiana Fire Co, 2 East main Street, Newark, DE 19702 or call them at 302-737-2433.

### **Car Wash Entrapment Mt. Ephraim, NJ**

**Approx. length: 13:47**

A car wash attendant was trying to push a car, whose keys were locked inside, off the car wash line. His foot slipped into the pulley track and he was unable to remove it. Mt. Ephraim responders fully sized-up the apparatus and the patient's condition before deciding on a course of action. There was no way to disassemble the track so Saws-Alls were used to cut some of the metal apparatus but the process was slow. It was then decided to bring in an exothermic "Slice Pack" torch which the department had but hadn't yet put in service. To avoid heat transfer to the man's foot, a hose line kept water on the foot while the torch was used (such a torch can cut under water if necessary). This plan worked extremely well. *For training on using an exothermic torch, see Working Fire Volume 00-05.* For more information, contact Fire Chief Jim Sylvester, Mt. Ephraim Fire Department, Station 1, 121 South Black Horse Pike, Mt. Ephraim, NJ 08058 or call him at 856-931-6532.

## **HANDS-ON**

### **Cold water Rescue: Part I**

**Approx. length: 12:38**

As the recreational season approaches, Working Fire presents the first of a two-part series on cold water rescue with the Washington Township (NJ) Fire Department; many of the techniques can be applied in ice rescues as well. In this segment we review the necessary equipment and how to use it, scene management, and contact with the rescue patient. Next month we feature a surprise nighttime water rescue scenario. For more information, contact District Fire Chief John Hoffman, Washington Township Fire District, P.O. Box 653, Turnersville, NJ 08012 or contact him at 856-863-4011.

## **This month's *Working Fire*...**

### **Tic Tracer Demonstration**

**Approx. length: 9:00**

Always on the lookout for equipment that can help firefighters and responders do their work more safely and efficiently, Working Fire features a training piece produced by Jacksonville (FL) Fire-Rescue. It's a device called the Tic Tracer which will identify whether or not exterior power lines are "live" or not. This would be extremely useful in the event of a natural disaster or an incident involving downed power lines. Additional information is also included regarding the relative safety of different styles of pike poles and their suitability to be used with live power lines -- important information for your department! For more information, contact Captain Bruce Kodatt, Haz-Mat Commander, Jacksonville Fire-Rescue, 2700 Firefighter Memorial Drive, Jacksonville, FL 32246 or contact him at 904-398-1429.

### **FIRE MEDICS**

#### **Asthma Education Part II**

**Approx. length: 13:08**

Following up on our introductory segment last month covering basic information about asthma and its treatment, this month an asthma specialist covers disease modalities and specific treatments that EMS can use in the field. *Be sure to note the EMS section later in these Training Materials covering the various generic and brand-name medications that are available for Asthma treatment.* For more information, contact Dr. Lee M. Armstrong, Pediatric Hospitalist, Southeast Missouri Hospital, 1701 Lacy Street, Cape Girardeau, Missouri 63701 or page him at 573-334-4822.

### **EVOLUTIONS 2000**

#### **Kramer vs. Kramer Dedicated vs. General Rescue Training**

**Approx. length: 3:02**

*Working Fire* and Professor/Chief Bill Kramer present our Continuing Education segment that's worth one credit from the University of Cincinnati. This month the Chief and Professor debate a issue that's been around for a long time: What's more important...how you look or how you perform? What impact does a dress code have, if any? 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!

#### **Car-Truck Crash/Newark, DE**

**Chief Brian Reeder/Steve Catalano, Deputy Chief of EMS/Christiana Fire Co.**

1. Are your personnel willing to put themselves at reasonable risk to help a patient?
2. Do you formulate more than one extrication plan so if Plan A goes bad you can switch to Plan B quickly?
3. Sometimes a seemingly small or confined incident grows in size involving many agencies. Are you able to scale up your command system to handle it?

#### **Car Wash Entrapment/Mt. Ephraim, NJ**

**Fire Chief Jim Sylvester, Mt. Ephraim Fire Department**

1. Would you have had the appropriate tools to handle this incident? How willing is your department to acquire new tools and technology?
2. Do you take the time to completely size-up an incident before taking a course of action?
3. Being aware of available resources can save valuable time in an emergency. As you become aware of new equipment that your department doesn't have, do you check with your mutual aid partners to see if they do?

# Enhanced Training

## Cold Water Rescue, Part I

### Objectives

After watching this program, the student shall understand:

1. the basic equipment necessary for cold water rescues
2. procedures necessary for rescuing a patient.

### Standards & Regulations

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

### Training Outline

#### I. EQUIPMENT OVERVIEW

##### A. Rescue Suit

1. Used for ice and cold water rescues.
2. Will allow rescuer to float in the water.
3. It has O-rings to allow tethering to shore.
3. A whistle is attached to it, used for communication with shore.
4. There should be a communications guide on the forearm for communicating using the whistle or hand signals.

##### B. Life Vest

1. Worn by all rescuers in the Hot Zone on shore as a safety precaution.
2. These also have whistles for communication.

##### C. Noodle

1. To be worn around the rescuer's body as he attempts the rescue.
2. A hook hangs underneath the noodle and is tethered to shore.
3. The noodle is eventually placed over the head of and secured to the patient with velcro straps. The patient can then be hauled to shore.

##### D. Shepherd's Hook

1. A long foam hook attached to a pole used in the "reach" part of the "reach-throw-go" progression of ice/water rescue.
2. Used to safely reach a person in the water close to shore.

## Cold Water Rescue, Part I

### E. Rope Bag

1. A rope with a weighted ball and a carabiner on the end, packed into a bag.
2. Used for the “throw” part of “reach-throw-go.”
3. For use where a person is within throwing distance of shore.

### F. Rescue Sled

1. For ice or cold water rescue where there is an excessive distance between the patient and shore. It makes sense to keep rescuers out of the water if possible, especially over a long distance.
2. Used for the “go” part of “reach-throw-go” and is tethered to shore.
3. It is paddled like a surfboard in water or used with sharp pegs for digging into ice.
4. The patient is placed on board; the rescuer then positions himself behind the patient.
5. The sled is then hauled in by shore crew.

### G. Rope

1. Stays on shore with the shore crew.
2. Used to tether the rescuer with a hook.
3. A loop in the rope is then attached to the hook on the noodle when used.

## II. RESCUE PROCEDURES

### A. Using the Shepherd’s Hook

1. The rescuer, on his knees on the shore or dock, slides the hook to the patient if within reach.
2. Preferable to the rescuer going in the water.

### B. Throwing the Rope

1. The weighted ball and hook are held in one hand while the rope bag is tossed out underhanded to the patient with the other.
2. Used to reach someone too far out to be reached with the shepherd’s hook but within throwing distance.

### C. Hooking Up the Sled - Three Attachments

1. The sled is attached to the rescuer’s O-ring by a rope.
2. The noodle is attached to the ground line from shore using the noodle’s hook to a carabiner attached to the rescue line.
3. The ground line is also attached to the sled using a cable.
4. When the patient gets pulled in, the sled and rescuer come, too.
5. The sled can also be used if the patient is close enough to be hooked or thrown to, but a C-spine injury is suspected.

Answers to the questions on Page 7:

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

## Cold Water Rescue, Part I

### D. Hooking up the Rescuer without a Sled

1. Hook the ground line carabiner through the O-ring on the back of the rescuer's suit.
2. Hook the loop in the ground line to the hook on the noodle.

### E. Making Contact with the Patient in the Water

1. The rescuer grabs the patient's forearm; if the patient is conscious, he may grab the rescuer's forearm; this is a natural impulse of someone who's frightened or in trouble.
2. The rescuer slides the noodle over his own head, down his arm, over the patient's arm, and down around his waist.
3. While still holding the patient's forearm the rescuer tightens the noodle around the patient using the velcro straps on the noodle.
4. The rescuer and patient, now both attached to the ground line, can be hauled to shore.

### F. Floating Patient; possible C-Spine Injury

1. The rescuer comes up to the head of the patient and holds his hands on both sides of the patient's head, simulating a C-spine block immobilization while floating underneath the patient.
2. The rescuer ends up in that position by virtue of being hauled to shore with the patient.

### G. Struggling Patient

1. The rescuer should hold a noodle or piece of equipment between himself and the patient; **NEVER let the patient grab you!**
2. The natural impulse will be for the patient to grab the noodle and hang on to it, calming down in the process.
3. Remember that the patient is just looking for something solid to hang on to. You are providing that so take advantage of it.
4. The rescuer and patient are hauled to shore.

### H. Arriving on Scene

1. Establish command and set up a command center.
2. Assign a spotter to observe and communicate with the patient.
  - a. Verbal communication is important; it establishes the physical state of the patient, relative consciousness, injuries, numbness, etc.
3. This information is relayed to the Operations Officer or Incident Commander.

## Cold Water Rescue, Part I: Quiz

Date \_\_\_\_\_

Chief/T.O. \_\_\_\_\_

Firefighter (print) \_\_\_\_\_

Education Credits/  
Hours/Units \_\_\_\_\_

Signature \_\_\_\_\_

### Select the best answer:

1. True or False      Noodles are still great to eat during cold water rescues.
2. True or False      Communications between the rescuer and the shore crew are important.
3. True or False      Follow the progression of "Throw-Go-Slow."
4. Which of the following facts are **not** correct?
  - a. Keep rescuers out of the water as much as possible.
  - b. A rescue sled is paddled like a surfboard
  - c. The rescuer simulates a C-spine immobilization in the water.
  - d. None of the above
5. Which of the following **is (are)** correct?
  - a. You can always use a hook to grab the carabiner hanging under the noodle.
  - b. After putting a patient on the sled, the rescuer hangs on to the back of the sled in the water as the sled is hauled in.
  - c. Be careful when throwing a rope that the hook on the end of it doesn't hit the patient.
  - d. It's okay to initially strike a struggling patient to show him who's in control.
  - e. Two of the above
  - f. None of the above

*(See answers at the top of page 6)*

# Enhanced Training

## Tick Tracer Demonstration

### Objectives

After watching this program, the student shall understand:

1. the basic construction of the device and how to use it
2. which pike poles are safest to use around power lines.

### Standards & Regulations

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

### Training Outline

#### I. TIC TRACER

##### A. Main Function

1. To identify the presence of electricity in downed power lines.
  - a. Used by local electrical utilities.
2. Used with outside power lines primarily, not household voltage.
3. Where possible, let the local electrical utility determine whether lines are powered or not.
4. This is not always possible if there is no time to wait for such a determination or if lives are at stake.

##### B. Construction

1. It's powered by a 9-volt battery.
2. It has three switch positions: off, low, and high
3. It can indicate two voltage ranges:
  - a. low voltage: 30-1500 VAC
  - b. high voltage: over 1500 VAC

##### C. Usage

1. In the "on" position, the device will "tick" or chirp, signifying it is ready for operation.
2. It is first tested on a lower voltage: a florescent light or AC source known to be flowing current.
3. It detects the electromagnetic fields around the these electrical components.

Answers to the questions on Page 10:

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

## Tick Tracer Demonstration

4. If the line is powered, the ticking increases and becomes rapid or a steady tone.
5. Some positional manipulation of the unit in relation to the power line might be necessary to get a strong reading.
6. To begin usage, start in the “low” position and then move to “high.”
7. **BE SURE TO READ THE INSTRUCTION MANUAL!**

## II. PIKE POLES

### A. Test Results

A test was conducted by the Jacksonville Florida Electrical Authority to determine the relative conductivity of different pike poles should they be used to remove power lines. All poles were tested using 75,000 volts.

1. Poles that were tested:
  - a. 15-foot fiberglass pole
  - b. A shorter, standard fiberglass pole
  - c. 15-foot wooden pole
2. The results:
  - a. All fiberglass poles passed.
  - b. The wooden pole “leaked out” in areas where the surface of the pole was nicked or dirty.
  - c. Fiberglass poles, even if wet, will not conduct electricity **UNLESS** they are dirty or grimy!
  - c. **ALWAYS KEEP PIKE POLES CLEAN!**
3. **Always wear lineman’s gloves with fiberglass pike poles in situations where electricity may be present!**

## Tick Tracer Demonstration: Quiz

Date \_\_\_\_\_

Chief/T.O. \_\_\_\_\_

Firefighter (print) \_\_\_\_\_

Education Credits/  
Hours/Units \_\_\_\_\_

Signature \_\_\_\_\_

### Select the best answer:

1. True or False      If power lines are down, one can assume that the power is off.
2. True or False      Keep extra 9-volt batteries on the apparatus.
3. True or False      Test the Tic Tracer on a known power source before you use it.
4. Which of the following facts **are** correct?
  - a. The Tick Tracer should be kept clean
  - b. Constant ticking means it's working correctly.
  - c. The Tick Tracer is meant to be used on external power lines.
  - d. All of the above
5. Which of the following are **not** correct?
  - a. You should never use wooden pike pools.
  - b. Dirt on a pike pole is like a badge of honor.
  - c. If a Tick Tracer emits a steady tone, it's okay to remove the power line with a wooden pike pole.
  - d. Fiberglass pike poles are unsafe if they are wet.
  - e. Two of the above
  - f. All of the above

*(See answers at the top of page 9)*

# Fire Medics

## Asthma Education, Part II

### Available Asthma Medications

*Follow the EMS SOPs for the pharmaceutical treatment of choice for you department. For your information, here are the treatment categories and available medications that apply.*

#### GENERIC

#### BRAND-NAME

#### Long-Term Control Medications

##### *Inhaled ("ICS")*

Beclomethasone

Vanceril, Vanceril DS, Qvar

Budesonide

Pulmicort

Flunisolide

Aerobid, Aerobid-M

Triamcinolone

Azmacort

Mometasone

Amanex (not yet approved in U.S.)

##### *Systemic*

Methylprednisolone

Medrol (but often referred to generically)

Prednisone

(usually referred to generically) Deltasone

Prednisolone

(usually referred to generically) Prelone, Pediapred

##### *Cromolyn sodium and Nedocromil*

Cromolyn sodium

Intal

Nedocromil

Tilade

##### *Long-acting beta-2 agonists, Inhaled ("LABA")*

Salmeterol

Serevent

Formoterol

Foradil

##### *Long-acting beta-2 agonists, Oral*

Albuterol, sustained-release

Proventil Repetabs, Volmax

##### *Methylxanthines*

Theophylline

(usually referred to generically) Theo-Dur, Uni-Dur,  
Uniphyll, Aerolate

##### *Leukotriene modifiers*

Montelukast

Singulair

Zafirlukast

Accolate

Zileuton

Zyflo

## Available Asthma Medications

### GENERIC

### BRAND-NAME

#### Quick-Relief Medications

##### *Short-acting inhaled beta-2 agonists (“SABA”)*

Albuterol	Ventolin, Proventil, generic
Bitolterol	Tornalate
Pirbuterol	Maxair
Terbutaline	Brethine (often referred to generically)

##### *Anticholinergics*

Ipratropium bromide	Atrovent
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##### *Corticosteroids*

Methylprednisolone	Medrol, Solu-Medrol (but often referred to generically)
Prednisone	(usually referred to generically) Deltasone
Prednisolone	(usually referred to generically) Prelone, Pediapred

##### *Combination Products*

Fluticasone plus salmeterol	Advair
Ipratropium plus albuterol	Combivent

##### *Others*

Levalbuterol	Xopenex (SABA nebulizer solution)
Isoetharine	(generic) (SABA nebulizer solution)
Metaproteronol	Alupent (SABA pMDI)
	Alupent, generics (nebulizer solution)
Isoproterenol	Isuprel, generics (injection)
Epinephrine	Adrenalin, others (SABA nebulizer solution)
	Primatene, AsthmaHaler (SABA pMDI, nonprescription)
	Adrenalin, generic (injection)

# **Evolutions 2000**

## **University of Cincinnati Continuing Education Program**

### **Clothing vs. Job Performance**

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 02-5**

#### **Kramer vs. Kramer: Clothing vs. Job Performance**

**Complete written responses to the following three essay questions:**

1. Do you feel that the type of uniform or clothing worn by fire department personnel in the station affects job performance? Why and how, or why not?
2. Do you think that the type of uniform or clothing worn by emergency responders matters to the citizens being served?
3. How would you change or upgrade the dress code of either your organization or some other in need of improvement?

**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.