

This Month's *Working Fire*...

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Volume 05-8 August 2005
Approx. Program Length: 59:40

Incident Analysis

FIRELINE

Mall Fire Beaumont, TX

Approx. length: 9:50

Police answered a burglar alarm in a city mall structure and found some smoke in the area, then called back to report active fire in the mall jewelry store. That immediately raised the response to a full first alarm including an aerial. Crews found an overhead utility space or cockloft connecting all the stores on the first floor of the mall was already full of fire. A thermal imaging camera was taken down to a Dollar General store, somewhat further removed from the jewelry store which revealed that fire was well into the utility space. The mall's building plans gave Incident Command a location where the fire could be cut off: at a fire wall near the end of the mall. Repositioned aerials and deluge guns helped bring the fire under control at that point. Eventually 12 engine companies and three aerial companies responded. For more information, contact Fire Chief Mickey Bertrand, Beaumont Fire Rescue, 400 Walnut, Beaumont TX 77701 or call him at 409-880-3901

Car vs. Concrete Abutment Galesburg, IL

Approx. length: 9:38

An older vehicle without airbags struck a bridge abutment at a high rate of speed with lots of mechanism of injury. The impact and subsequent inertia pushed the occupant into the steering wheel, killing him. First-in crews performed an inner- and outer-circle size-up. They used cutters and spreaders to attack the door at the hinge and remove it for access. Then used two chains plus the chain come-along to pull the seat away from the steering wheel, allowing the victim to be removed. Ladder cribbing was used on the trunk to keep it from collapsing. For more information, contact Captain Harold W. Timmons, Jr., Galesburg Fire Department, 150 South Broad Street Galesburg, IL 61401 or call him at 309-345-3756.

HANDS-ON

Transportation & Emergency Rescue Committee (TERC) Annual Competition, Part II

Approx. length: 12:17

Working Fire Training attended this year's TERC Vehicle Extrication and IRECA Technical Rescue competitions in Ft. Lauderdale, Florida. In this segment, a team from Tallahassee, Florida is presented with a car-sideways-through-a-van scenario. The team has a time limit and is judged on a number of criteria as they compete against teams from all over the world. For more information, contact competition organizer Division Chief Dave Sweet, North Lauderdale Fire Rescue, 2100 South State Road 7, North Lauderdale, FL 33068 at 954 978-9276 or at dsweet@nlauderdale.org. Also visit www.terc.org.

Incident Analysis

FIRE MEDICS

Miami-Dade Antivenom Response Unit

Approx. length: 6:22

Miami-Dade Fire Rescue houses one of the foremost antivenom response units in the world. This group will send or bring venom to just about anywhere, 24/7, 365 days a year. Great information for your receiving hospitals if they don't already know about it. For more information, contact Captain Ernie Jillson or Program Director Al Cruz at the Anti-Venom Response Unit, (786) 331-4444 or visit <http://www.miami-dadefirerescue.com/modules/cjaycontent/index.php?id=6>

The emergency number is (305) 596-8576

EVOLUTIONS 2000

CERT Competition

Approx. length: 14:41

As part of the TERC/IRECA International Competition was a competition for CERTs from around the country. CERT stands for Community Emergency Response Teams (formerly Neighborhood Emergency Response Teams or NERT) and have been forming all over the country over the last two years. In this segment, teams are given a scenario and then graded on performance, following specific SOGs that CERT teams must follow. This is an inside look at how a CERT team operates. This might be something your department should sponsor. For more information, contact competition organizer Division Chief Dave Sweet, North Lauderdale Fire Rescue, 2100 South State Road 7, North Lauderdale, FL 33068 at 954 978-9276 or at dsweet@nlauderdale.org. To learn more, also visit <http://training.fema.gov/EMIWeb/CERT/>

Kramer vs. Kramer

Approx. length: 3:00

Handling of Patients vs. Deceased Victims

Working Fire Training and Professor/Chief Bill Kramer presents our Continuing Education segment that's worth one credit from the University of Cincinnati. This month, Bill debates whether or not fatal victims should be treated any differently than live patients during extrications. For more information, contact Bill at the Open Learning Fire Service Program, College of Applied Science, 2220 Victory Parkway, ML #103, Cincinnati, Ohio 45206 or call 513-556-6583.

Incident Analysis

From the Departments Involved...

DISCUSSION QUESTIONS FOR THIS MONTH'S INCIDENTS

The commanders involved in this month's incidents pose some discussion questions that you can use as discussion-starters in your own department's training sessions.

Mall Fire / Beaumont, TX

Fire Chief Mickey Bertrand / Beaumont (TX) Fire Rescue Services

1. Does your department own or have access to a thermal imaging camera? That was a big factor in helping us get ahead of this fire. If so, use it to verify fire spread.
2. Based on new information learned during a fire operation, be prepared to move apparatus and your command post.
3. Building plans helped us find a structural place where we could cut this fire off. Do you have access to commercial building plans in your jurisdiction? This is all a part of preplanning.

Car vs. Concrete Abutment / Galesburg, IL

Capt. Harold W. Timmons, Jr. / Galesburg (IL) Fire Dept.

1. We approached this incident just as if the victim were alive. You could call it an on-the-job training exercise. We held to the Golden Hour and removed the body with all reasonable speed. We don't believe such a procedure is irreverent to the deceased. What is your SOG regarding the extrication of bodies versus live patients? Do you have one?
2. When executing a chain and come-along technique through the rear window, be sure and use ladder cribbing across the trunk to relieve the pressure on it when winching from the rear anchor point. You don't want the trunk to crumple.
3. Pick an anchor somewhere on the car's frame or axle. Attach the chain as low on the seat as possible. The position of the seat in this case prevented us from attaching as low as we would have liked.

Hands-On Training

TERC Competition, Pt. II

Objectives

After watching this program the student shall:

1. understand how a vehicle extrication competition is conducted.
2. learn the importance of teamwork and communication between team members
3. see and evaluate the decisions of other teams and compare them to your department.

Standards and Regulations

This training is IFSTA-based and is consistent with NFPA 1500 and appropriate OSHA regulations and practices.

Training Outline

I. TERC COMPETITION OVERVIEW

A. Competition Rules

1. 40-minute time limit.
2. Unlimited Class -- all tools are allowed. (Some scenarios are "limited" where only certain tools are allowed.)
3. Teams are judged on a variety of measures including communication, approach, time management, etc.

B. The Scenario

1. Two vehicles involved in a teenage drinking and driving incident:
 - a. A car has gone airborne through the middle of a van.
 - b. A patient is in the driver's seat of the car.

II. SCENARIO BEGINS - City of Tallahassee (FL) Fire Rescue

A. Initial Response

1. Initial size-up
2. Deployment of warning cones.
3. Incident Commander performs inner and outer circle survey.
4. This includes assessment of airbag deployment

Answers to the quiz on page 6:

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

TERC Competition, Pt. II

B. Stabilization

1. Team begins initial cribbing to stabilize vehicles.

TRAINING TIP: Never work with both knees down. In case the vehicle shifts, you will be slow to react. Always keep one foot in contact with the ground.

2. All glass is removed as accidents put stress on glass that could blow out unexpectedly, injuring patients as well as rescuers.

3. Stabilization continues as plan is developed.

C. Creating a Plan

1. I.C. decides on Plan A: Back seat removal and patient removal through trunk.

III. OPERATIONS

A. Verifying Status - Extrication Sector

1. The I.C. should constantly be checking with his team and checking for safety hazards.

2. As team members finish tasks, they inform the I.C.

B. Patient Interaction - EMS Sector

1. Establishes initial verbal contact with patient.

2. When it is possible, paramedic enters vehicle to attend to patient.

3. Use soft protection to help protect patient and paramedic inside vehicle.

C. Extrication Timeline

1. Team elects to start with spreader and cutter hydraulic tools.

2. Hatchbacks: Beware of rear deck lid pistons!

3. Verify airbag deployment – if not deployed, maintain a safe working distance

a. Know your car construction.

4. Be careful of metal recoiling when popping locks. You may want to secure the hatch with webbing.

5. As you remove metal, recheck cribbing to make sure the weight hasn't redistributed and stabilization is still secure.

6. Don't let the surroundings or the uniqueness of an accident force you to lose focus. No matter how bizarre an extrication may look like, it can almost always be boiled down to the basics – sometimes applied in unusual ways or in unusual places.

7. For rescuer safety, sweep all debris away as you work.

D. EMS Hand-off

1. EMS should be ready to receive the patient upon extrication.

TERC Competition, Pt. II: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: A car wedged into another vehicle doesn't need stabilization.
2. True or False: If deployed correctly, warning cones will not be a trip hazard.
3. True or False: Doing extrication work with both knees on the ground makes you more stable as you do stabilization work.
4. What of the following **don't** belong
 - a. Beware of rear deck lid pistons on hatchbacks.
 - b. Verify airbag deployment
 - c. Be careful of metal recoiling when popping locks.
 - d. As you remove metal, recheck cribbing.
 - e. All of the above
 - f. They all belong.
5. Your I.C. gives you an order to perform task. The first thing you do is:
 - a. You jump to it and perform the order immediately.
 - b. You go up to the I.C. and ask him/her to repeat the order.
 - c. Respond to the order so he/she knows you heard it.
 - d. Respond that you'll do it right after you finish what you're currently doing.
 - e. None of the above

(Answers can be found at the top of page 5)

Fire Medics

Miami-Dade Antivenom Response Unit

Objectives

After watching this program the student shall:

1. learn about the Miami-Dade Antivenom Response Unit
2. know something about the issues involved with envenomation that may confront EMS.

Standards and Regulations

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

Training Outline

I. HISTORY

A. When it began and why

1. Back in 1998 there was a need for Black Mamba snake venom. It took 17 different agencies to put together enough venom to treat the patient who was critical.
2. It became obvious that there was a need for an antivenom resource that could supply venom in sufficient quantities within a reasonable amount of time.

II. ANTIVENOM RESPONSE UNIT

A. Staffing

1. Began in 1998 with a three-man staff on duty 24/7, 365 days a year.
2. The Miami-Dade staff is licensed and permitted.
3. All members have had a longtime interest in herpetology and other poisonous creatures.
4. The Unit has treated over 800 patients and has never lost a patient, many of whom were bitten by some of the most venomous creatures in the world.
5. They maintain 42 different types of antivenom in their anti-venom bank and keep enough antivenom to treat three severe envenomations by each species at any given time.

B. Information on envenomation

1. The Antivenom Response Unit has sufficient venom to treat nearly 90% of anything venomous in the world.
 - a. This includes fish, arachnids, scorpions, and nearly any reptile.
 - b. For example, with a snake like a cobra or a mamba, you'll be paralyzed in 15 minutes and will die without treatment.

Miami-Dade Antivenom Response Unit

2. Antivenom is specific to the species. You must know the source of the envenomation in order to respond with the correct antivenom.

C. Delivery

1. The antivenom is housed at a central location in Dade County
2. It is air-deployable within 30-60 minutes time and can be sent just about anywhere in the continental U.S. and internationally
3. Paramedics are capable of deploying with the antivenom as not all caregivers are trained to administer it. They have flown to Toronto, Canada in the north and Guiana in South America.
4. People have been flown in from Mexico and numerous times off cruise ships where the patient was bitten while on shore.

D. Shelf Life, Costs & Doses

1. Antivenom has a shelf life and an expiration date. It's a struggle to keep new supplies shipped in.
2. They get antivenom from about 12 different countries including Australia, South Africa, Mexico, Central and South America and Thailand.
3. Antivenom runs anywhere from \$50 to \$1500 a vial. On average, a patient may receive from 10 to 50 vials of anti-venom, so the costs of keeping the antivenom in stock are very high.
4. Any entity who uses the antivenom bank or consumes antivenom must pay for the antivenom, the shipment, the treatment, and the administration involved. Nothing is marked up.

III. LOCAL ENVIRONMENT

A. Local Hospitals

1. Most hospitals will have stocks of antivenom for the indigenous poison animals in their area.
2. The problem comes with the introduction of exotic animals from other parts of the world. In these cases, hospitals can't get what they need anywhere else.

B. Local Laws

1. Many states still do not have laws regulating the maintenance of exotics.
2. It is possible to buy a cobra on the internet and have it shipped to the purchaser, without the purchaser having any qualifications for caring for or keeping the snake – or having any antivenom.

Answers to the quiz on page 10:

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

Miami-Dade Antivenom Response Unit

IV. AWARENESS

A. Hot-line Phone Number

1. The Antivenom Response Unit has been featured on various cable channels.
2. Give your receiving hospitals the Unit's emergency number if they don't already have it:
(305) 596-8576.

B. Contact Information

1. The non-emergency number is (786) 331-4444
2. The emergency number is (305) 596-8576
3. The web site is:
<http://www.miami-dadefirerescue.com/modules/cjaycontent/index.php?id=6>

Miami-Dade Antivenom Response Unit: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: Hospitals who administer the antivenom must pay for it.
2. True or False: If you want to use the antivenom, you have to come get it.
3. True or False: Over 800 patients have been successfully treated.
4. Which of the following is **not** true?
 - a. Antivenom has a shelf life and an expiration date.
 - b. They get antivenom from about 12 different countries including Australia, South Africa, Mexico, Central and South America and Russia.
 - c. Antivenom runs anywhere from \$50 to \$1500 a vial. On average, a patient may receive from 10 to 50 vials of anti-venom.
 - e. None of the above
 - f. All of the above.
5. Which of the following **is** true?
 - a. The Antivenom Response Unit can handle envenomation from fish, arachnids, scorpions, and nearly any amphibian.
 - b. The Unit maintains 55 different types of antivenom in their anti-venom bank.
 - c. If you get bitten by a snake like a cobra or a mamba, you'll be paralyzed in 35 minutes.
 - d. Most hospitals won't have stocks of antivenom for the indigenous poison animals in their area.
 - e. None of the above.

(Answers can be found at the top of page 9)

Evolutions 2000

TERC / IRECA International Competition

CERT Competition

I. CERT COMPETITION OVERVIEW

A. Competition Rules

1. No time limit.
2. Teams are judged on a variety of measures including communication, approach, and specific CERT rules and guidelines.
3. Some of the guidelines are:
 - a. Members may not reach under vehicles or perform duties which may endanger themselves. For example, they may not enter collapsed structures.
 - b. In competition, they may only use materials found on-scene as tools and aids.

B. The Scenario

1. A vehicle crashes into a fence:
 - a. Two occupants are thrown from the car.
 - b. One ends up under the vehicle.

II. SCENARIO BEGINS

A. Initial Response

1. Initial size-up
2. Deployment of warning cones.
3. CERT Leader performs inner- and outer-circle survey.
4. Ascertainment of occupant condition and position.

III. OPERATIONS

A. Stabilization

1. While cribbing is acquired, a CERT member attends to the occupant away from the vehicle.
2. Once cribbing is acquired, two members begin building a box crib.

B. Patient Attention

1. The occupant away from the vehicle is assessed and given C-spine mobilization.
2. A backboard is fashioned from part of the broken fence.
3. The patient is carried on the backboard clear of the scene.
4. One CERT member stays with this patient, providing psychological support.

Answers to the quiz on page 13:

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

CERT Competition

C. Cribbing/Extrication

1. A lifting lever is fashioned from fence debris.
2. Based on the height of car bumper, an appropriate box crib is built at the end of the vehicle.
 - a. CERT guidelines advise that a box crib should not be built more than three levels high.
 - b. However, in this case, a fourth level was built with safety precautions being taken.
3. Lifting of the vehicle begins with the vehicle being cribbed at each higher level.

D. Removal

1. Lifting and cribbing until sufficient clearance is obtained. Cribbing was necessary on both sides of the vehicle to free the patient.
2. The patient is then dragged out.
 - a. Points are deducted from reaching under the vehicle. CERT rules do not allow this.
3. Again, the patient is immobilized and moved from scene.

IV. SCENARIO CONCLUDES

A. Cleanup

1. CERT rules demand that the accident scene must be restored to its original condition prior to the beginning of the scenario.
2. The scenario is concluded when this is accomplished.

IV. CERT INFORMATION

A. Team Member Qualifications

1. Members can be of any age and physical ability/condition.
 - a. Members who are less physically able are given more sedentary duties.
 - b. No one is turned away.
2. It is advised that Emergency Services members not be part of CERT teams.
 - a. Because of their specialized training, they will probably be needed in more demanding situations.

CERT Competition: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: It is advised that CERT members not build a box crib taller than three levels.
2. True or False: CERT members can do anything that fully-trained rescue responders can do.
3. True or False: Anybody can be member of a CERT team.
4. True or False: A CERT member must stay with injured patients until help arrives.
5. True or False: CERT members should use hydraulic tools wherever possible.

(Answers can be found at the top of page 12)

Evolutions 2000

University of Cincinnati Continuing Education Program

Handling of Patients vs. Deceased Victims

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 05-8

Handling of Patients vs. Deceased Victims

Complete written responses to the following three essay questions:

1. Should there be any difference in the way obviously deceased accident victims are handled, compared to those still alive?
2. What are the advantages and disadvantages of treating a body recovery as if it were a rescue?
3. Compose a brief protocol explaining how your agency is to handle accident victims who are obviously deceased.

Submit 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. Associate and Bachelors programs are available. Call to have your transcripts evaluated.