

This Month's *Working Fire Training*...

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Volume 06-9: September 2006
Approx. Program Length 59:53

Fireline Incident Analysis

FIRELINE

High-Rise Fires: Similarities & Differences (*Expanded Segment*) **Approx. length: 22:37**
Wilmington, DE

The City of Wilmington, Delaware responded to two high-rise fires within a month of each other. Both did not have sprinkler systems. We present coverage of both fires, a low-income housing apartment house, and a predominantly white, older-resident condominium structure, with their similarities and differences. We also hear from the mayor of Wilmington on the City's attempt to grapple with this issue of non-sprinklered buildings which has affected many other cities, perhaps even yours. See *Volume 04-12* for a similar story in Davenport, IA. Use this segment in conjunction with the *Working Fire Training* series on Hotel Response, featured on volumes 06-4, 06-5, and 06-6. For more information, contact Deputy Chief Joseph Kalinowski, Wilmington Fire Department, 300 N. Walnut Street, Wilmington, DE 19801 or call him at (302) 576-3950.

HANDS-ON

IRECA, Part III: **Approx. length: 8:01**
High-Angle Rescue Training Scenario

We've been viewing various teams at the International Rescue & Emergency Care Association (IRECA) regional competition over the last two months. We now take a select team of responders and run a training scenario with instruction. *This is an abbreviated portion of a much longer DVD dealing with IRECA techniques that will be made available to Working Fire Training subscribers.* For more information, contact Randy Tanner, IRECA President, at 281-421-6606 or email him at tannerc@cpchem.com.

TERC, Part II: **Approx. length: 10:47**
Vehicle Extrication Flipped Vehicles Scenario

The Transportation Emergency Rescue Committee (TERC) also held one of their regional competitions with the International Rescue & Emergency Care Competition (IRECA) in Puyallup, WA This month we wrap up the vehicle extrication competition with a team competing in the unlimited class (hydraulic tools and a live BLS patient) scenario with a 20-minute time limit: two vehicles upside-down, with one sandwiching the other against a Jersey barrier with a guard rail through the inside vehicle. As with IRECA, these scenarios are judged on various criteria. For more information, contact Event Coordinator Brice Johnston at 253-732-3046 or go to the TERC web site: <http://www.terc.org/>.

Fireline Incident Analysis

FIRE MEDICS

IRECA, Part III: Writing EMS Training Scenarios

Approx. length: 11:30

Someone had to write the IRECA EMS competitions scenarios we've been watching for the past two months. That someone is Kimberly Bemenderfer of the IRECA staff. In this segment designed for the EMS trainer, we look at how a well-designed EMS training scenario should be put together. For more information, contact Randy Tanner, IRECA President, at 281-421-6606 or email him at tannerc@cpchem.com.

EVOLUTIONS 2000

Kramer vs. Kramer: Sprinklered vs. Non-Sprinklered Buildings

Approx. length: 2:19

Working Fire Training and Professor/Chief (RET.) Bill Kramer presents our Continuing Education segment that's worth one credit from the University of Cincinnati. This month's expanded Fireline segment on high-rise building fires prompted this month's Kramer vs. Kramer debate on sprinklered vs. non-sprinklered buildings. 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.

Fireline Incident Analysis

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Fireline Analysis

High-Rise Fires: Similarities & Differences Crestviw Apts., Wilmington, DE (Expanded Segment)

Training Outline

I. Dispatch

1. It was dispatched as an alarm in Room 601.
2. The response for this is a "tactical box" alarm which brings 3 engines, two ladder trucks, a heavy rescue truck, and two chiefs.

II. Response

1. Due to another fire finishing up elsewhere, arriving companies consisted of three engines, one ladder truck, and one chief. Engine 3 arriving from the east reported heavy smoke coming from the 6th floor.

III. Command

1. Incident Command set up the command post in the lobby. Engine 4 was the first-in, Engine 3 from the east was the standpipe company, and Engine 5 from the west was the RIT company.
2. The south stairwell was designated as the attack stairwell and the north stairwell was used as egress for occupants.
3. Two additional engine companies were requested. Command was transferred to Chief of Operations. Accountability and Safety Officers were appointed.

IV. Strategy & Tactics

1. Strategy and tactics were discussed.
 - a. A chief was designated to head up Division 6, the fire floor.
 - b. The first-in IC went to Division 7, just above the fire floor.
 - c. Staging took place on the 5th floor.
2. Engine 4 took a 5th floor standpipe on the south side and began stretching hose to the fire floor.
 - a. They were met with numerous occupants trying to escape, so they simultaneously evacuated rooms and got occupants into the stairwells.
3. Engine 3 also took a hose pack to the 5th floor and hooked into a standpipe. They also encountered escaping occupants.
4. Ladder Crews
 - a. Ladder 1, with a two-man crew, were evacuating occupants from the 6th floor at the rear (C side) of the building.
 - b. Ladder 2 set up in the front (A side) and began evacuations.
5. Manpower
 - a. Additional manpower needs became evident and a 3rd alarm was struck.
 - b. An additional two engines and a ladder were requested to the scene.

Fireline Analysis

High-Rise Fires: Similarities & Differences Crestviw Apts., Wilmington, DE (Expanded Segment)

Training Outline

6. Rehab was set up for first-in crews outside the building using BLS and ALS crews who were also used for the occupants.

V. EMS

1. A first-in EMS crew encountered a woman who was unresponsive with breathing problems.
 - a. She was intubated and transported.
2. An occupant triage area was set up about 40 feet from the building.
 - a. Ten BLS and four ALS units were on-scene.
 - b. All 22 transported patients were accounted for and documented as to destination.
 - c. All non-transported occupants were taken to a nearby church where the apartment building staff and social services attended to their needs.
3. With 2nd and 3rd alarms being struck, EMS had its assignments divided into EMS Command function, a triage function, medical communications with area hospitals and a medical transport staging operation. The incident eventually had 15 BLS, 3 paramedics units, 2 EMS lieutenants, 3 paramedic sergeants, and 2 senior staff members.
4. Mutual aid ambulances were also sent from Delaware County, Pennsylvania with a medical supervisor who also interfaced with a Delaware County hospital where some patients were transported.
5. A Level 2 MCI was declared, covering from 11-20 patients.
 - a. It involves notifications of area hospitals which all monitor the same radio channel for assignments and updates.

VI. Events

1. The outside of the building was becoming very congested with arriving units and other assisting agencies, so Command was set up in the lobby.
2. As Incident Command was being set up, the scene became very busy. Smoke was starting to emit from A and C sides, occupants were hanging from the windows.
3. As Incident Command took shape, things on the fire floor were deteriorating. Fire attack teams on the sixth floor were faced with fleeing occupants.
4. Floors 7 and 8 were starting to fill up with smoke as conditions deteriorated. Additional manpower was needed.
5. Off-duty firefighters and battalion chiefs began arriving and relief crews were set up in the lobby.

Fireline Analysis

High-Rise Fires: Similarities & Differences Crestviw Apts., Wilmington, DE (Expanded Segment)

Training Outline

6. Fire crews on the 6th floor (Engine 4) overshot the fire room, due in part to heavy smoke and interruptions for evacuation.
 - a. Engine 6 came up the north stairwell (now that occupants were evacuated) with a 2.5" from the 5th floor standpipe and extinguished the fire.

VII. Remarks

1. Ladder placement was difficult because the front of the building was 50 feet from the street and due to terrain and a narrow road in the rear. The ladder on the A side had to set up in the grass, and because of the narrow road and terrain in the back, only one ladder was set up. However, once they were, evacuations were made.
2. The occupancy demands in this building were high. There were many elderly, disabled, and non-ambulatory who had to be evacuated. This was complicated by smoke in the stairwells. Ninety percent went down the stairwells, ten percent were evacuated by ladder.
3. Overall, communications were good. Incoming mutual aid companies could switch frequencies and be in touch without problems. Radio traffic from the fire floors became very busy, but that was typical.
4. Water supply was very good. The standpipes supplied plenty of water to fight the fire.
5. Manpower was sufficient for this incident. The entire Wilmington Fire Department was called out and mutual aid departments from the surrounding counties backfilled the station houses. Some mutual aid companies ended up at the fireground as well. There were almost too many people there and accountability became a bit of a problem.
6. Wilmington's 24-on/24-off staffing policy meant some first-in crews had two fires in their first 15 hours on the job. They got some relief and rehab from mutual aid and callbacks.
7. There was one firefighter who had to be removed from the 7th floor by ladder which was revealed after the incident, but he is recovering well.

VIII. Lessons Learned

1. Probably should have brought in the County Unified Command communications van.
2. Could have put an Operations officer in place a little sooner.

Fireline Analysis

High-Rise Fires: Similarities & Differences Devon Condominiums, Wilmington, DE (Expanded Segment)

Training Outline

I. Dispatch

1. Automatic fire alarm: 15-story condominium high-rise, 200' X 75'.
2. Initial response: 3 engine companies, 2 ladder companies, heavy rescue, and 2 battalion chiefs.

II. Response

1. First-in engine saw no smoke; next-in ladder truck saw light smoke showing from the 11th floor as did the first-arriving battalion chief.
2. Shortly thereafter, a window broke out showing heavy fire conditions. This was initially reported as the 10th floor.

III. Command

1. Two additional engines were ordered. Eventually, all on-duty apparatus in the city were on-scene.
2. IC was transferred to Deputy Chief. ICS assignments were made; division officers appointed.
3. A 2nd alarm was struck.
 - a. An administrative officer started recalling firefighters.
 - b. Local dispatch (fire board) notified local volunteer companies to come in for backfill.
 - c. However, many of these were diverted directly to the fire staging area.
4. This applied to the third alarm as well.

IV. Strategy/Tactics

Rescue:

1. Crews were sent to the upper floors to remove occupants.
 - a. Search crews were split and one was sent to the 9th floor for S&R.
2. Aerials were positioned in front of the building and extended to the 9th floor.
 - a. Attempts were made to extend an aerial on Side D, but due to the grade being a couple of levels lower, this wasn't possible.

Fire Suppression:

1. Initial engine company took high-rise equipment to the 11th floor, stretching hose from a standpipe on the 10th floor.
2. Another crew was dispatched to the 12th floor with 2.5" hose.
3. Aerials around the building were used for rescue or firefighter escape, if necessary.
 - a. They were not used for fire suppression since fire crews were in the building; that might have created a steam hazard.

Fireline Analysis

High-Rise Fires: Similarities & Differences Devon Condominiums, Wilmington, DE (Expanded Segment)

Training Outline

V. Events:

1. Occupants were seen congregating on balconies and were ordered to descend via the north stair tower.
2. A hose crew on 11th floor encountered some problems opening the 10th floor standpipe riser valve.
3. There was one occupant fatality which occurred before firefighters arrived.
4. Auto-exposure led to the fire spreading from the 11th floor to the 12th floor. Before hose crews arriving on the 12th floor could be put into service, the fire auto-exposed to the 13th floor (actually, the 14th floor; the building doesn't have a named 13th floor). It was met there and extinguished.
5. Building management helped with the accountability of the residents. An area was set up where all residents went for checking in.

VI. Remarks:

1. Both standpipes in the building were used; however, water supply was slow in developing.
2. Auto-exposure led to a rapid spread of the fire.
3. Evacuating occupants was very strenuous, although many self-evacuated. Over 100 occupants were helped from the building. Aerials around the building were used for evacuation, not fire suppression.
4. Initially, there wasn't enough manpower with only 38 per shift for the whole city. As callbacks and mutual aid added to staging, staffing levels became sufficient to fight the fire.
5. Accountability was a problem for residents and firefighters. Building management helped with accounting for the residents.

VII. EMS

1. Initial EMS response was for basic ALS standby support.
2. A 2nd alarm increased the EMS assignment to include staff from the EMS division.
3. BLS and ALS units made up a forward staging area in the lobby.
4. Eventually, an EMS division officer stayed at the incident command post and an assistant EMS chief remained in the forward staging area, acting as a liaison with IC.
5. A couple of patients were transported with possible smoke inhalation/breathing issues.
 - a. One occupant was pronounced dead at the scene.

VIII. Lessons Learned

1. The building was regularly preplanned and critiqued strongly after the incident, but there are always issues; in this incident, they were very correctable:
2. Hose-stretching on the upper floors was a problem. Probably should have broken the line, hooked into the standpipe, and hit the fire room faster.
3. The standpipe system was slow to develop pressure but checked out otherwise.

Fireline Analysis

High-Rise Fires: Similarities & Differences Devon Condominiums, Wilmington, DE (Expanded Segment)

Training Outline

IX. Sprinklering of Buildings

1. Chief Kalinowski thinks that had the building been sprinklered, it would have made a huge difference in terms of fire spread and containment until crews could arrive.
2. Mayor James M. Baker would like to work with the property owners in assisting with the installation of sprinklers which will probably cost \$1 million per building. It could be ordered by state law but he foresees some administrative action being done such as abatements, which would alleviate the payment of various fees, and would assist the property owners in such a project.
3. As it turns out, the Crestview Apartments are due for renovation which would be the logical time to add sprinklers.
4. Most of the buildings that are a part of the Wilmington Housing Authority, to which the Crestview Apartments belong, are sprinklered.

Fireline Analysis

Discussion Questions

Training Outline

From the Departments Involved...

DISCUSSION QUESTIONS FOR THIS MONTH'S INCIDENTS

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

High-Rise Fires: Similarities & Differences (*Expanded Segment*) / Wilmington, DE Deputy Chief Joseph Kalinowski, Wilmington (DE) Fire Department

1. High-rise fires are a great way to put NIMS to work. Its divisions work well in a vertical structure such as the Crestview and Devon buildings. Do you place fire command two floors below the fire floor? What is your SOG?
2. Use of aerials was challenging at these fires, however, terrain and access may not always make it possible to get close enough to use them. With fire crews actively working on fire floors, caution must be used in deploying aerials. The rule of thumb: avoid opposing streams, especially if one might create steam for an interior crew.
3. Our fire crews initially missed the fire room at the Crestview Apartments fire, partly due to heavy smoke and evacuation distractions. It CAN happen in the heat of the battle. In buildings of this size, it might be wise to keep fire suppression and search and rescue crew duties completely separate. If a fire crew finds an occupant, hand them off to the other crew and stay focused on finding the fire. For more tips on finding the fire room, review Hotel Response featured on volumes 06-4, 06-5, and 06-6.
4. Radio communications can become even more difficult during high-rise fires. Rules to keep in mind: only use the radio if absolutely necessary; otherwise, keep communications brief and to the point. Wherever possible, try to assign specific functional and command areas to specific channels.
5. Automatically assume that a high-rise fire will mean much more EMS. EMS command will become its own division with scalability depending upon incident size and need. Plan an MCI scenario that's heavy on EMS and practice putting your own EMS command into action.
6. Wilmington has a 24-on/24-off personnel policy. This meant crews had two fires in the first 15 hours of their shift. It doesn't happen often, but we had to bring in relief people to help cover the balance of the shift. Based on your shift policy, would your department have to do that?

Hands-On Training

IRECA, Part III: High-Angle Rescue Training Scenario

Objectives/Outcomes

After watching this segment, the student shall understand:

1. the organization and execution of a well-managed rescue team
2. the coordination and task deployment of the team members who participated in this training exercise.

Codes, Standards and Regulations

This training is consistent with NFPA 1670 & 1006;
OSHA CFR 1910.146

Training Outline

(IRECA is the International Rescue & Emergency Care Association)

I. RESCUE EXERCISE BRIEFING

- A. The team captain or rescue commander briefs the team on what they're about to do. A man is down in a sewer in a factory/industrial environment.
 1. Assignments are given to team members:
 - a. Do a 360 size-up, checking for any additional hazards, crowd control, and possible resources that might be used.
 - a. Check the team's equipment to make sure everything is available and ready for deployment.
 2. The team will take a portable combustible gas meter to check air safety in the sewer.

II. RESCUE EXERCISE PREPARATION

- A. Recon Report
 1. Barricades are in place; vehicles secured, equipment checked and ready to go.
 2. Victim has been located.
- B. New Assignment
 1. Two responders are to establish contact with the victim.
 2. Other responders are to haul equipment to the sewer opening and find strong anchor points.

Hands-On Training

IRECA, Part III: High-Angle Rescue Training Scenario

Training Outline

III. RESCUE EXERCISE PREPARATION

- A. Contact is made with the patient which leads to a patient medical assessment.
 - 1. His name is Jose and he's suffering from heat exhaustion.
 - 2. One responder stays with the patient, rendering psychological support.

- B. Equipment, including a tripod, is put into place.
 - 1. The captain reminds his crew not to be too close to the hole and to work safely.
 - 2. Constant safety reminders are good management technique.
 - 3. The atmosphere in the sewer is continuously monitored.

- C. Strategy & Deployment
 - 1. The strategy is to lower a rescuer into the sewer using two anchors, for the main and belay line.
 - 2. Deployment includes one responder working on each anchor and two responders setting up the tripod. Each anchor is load-tested for safety.
 - 3. The lowered rescuer will put a harness on the patient and bowtie him to the haul system.

IV. RESCUE EXERCISE

- A. Rigging
 - 1. Rescuer's harness and all carabiners are checked out for safety and integrity.
 - 2. The belay and main lines are affixed to the harness.
 - 3. CONTINUED SAFETY WARNINGS! The captain reminds the rescuer not to step back into the hole!
 - a. The hole is dressed with edge protection.
 - 4. With the tripod set up, the captain orders a 3:1 mechanical advantage haul system for retrieval.
 - a. With the IRECA method, no pre-built systems are used - all are built on-scene - to avoid system tampering or "borrowing" of devices between rescues.
 - 5. The rescuer is lowered into the hole without the tripod; just using a rack-style friction device on the main and belay lines for braking the descent.
 - a. A Munter hitch could also have been used instead of the rack.
 - b. Another option could have been use of the tripod over the hole for the rescuer descent. The method used is easy to implement with a well-trained team.
 - 6. Notice a redirect is used for the main haul line.
 - 7. The belay line goes straight over the edge, not through the tripod.

Hands-On Training

IRECA, Part III: High-Angle Rescue Training Scenario

Training Outline

B. Rescue

1. Once the rescuer is in the hole another assessment of the patient is conducted while the tripod is put in place over the hole.
2. The captain advises the haul team not to bring the patient out beyond the legs of the tripod once he comes out of the hole, but to sit him on the edge of the hole.
 - a. This maintains the center of gravity of the haul system and avoids the possibility of tipping the tripod.
3. A Gibbs ascender is used to catch the rope and hold it during haul stopping.
 - a. Other devices or techniques that might be used could include a Petzl GriGri or a Prusik wrap system.
4. Note the smooth communication between the captain and the haul team.
5. The patient is seated on the edge of the hole and then lifted off to the side once the harness is unhooked from the system.
6. His condition is then reassessed by the rescue team.

C. Rescuer Retrieval

1. The haul team gives slack so the rescuer can hook up in the hole to be lifted out.
2. On command he is lifted out via the tripod as was the patient and also stops in a sitting position on the edge of the hole.
3. He then grasps the legs of the tripod as the haul team lifts him to a standing position.
4. The captain again warns of safety issues and the danger of working around the open hole as the equipment is broken down.
5. If possible, cover the hole to avoid an accident.

V. EXERCISE POST-BRIEFING

A. Reporting

1. Team members report in order, covering areas of responsibility:
 - a. Team member injury reports
 - b. Report of condition of equipment consisting of a rope log and an equipment log
 - c. An incident commander's log
 - d. Accountability of team members
 - e. Patient disposition report.

B. Scene Safety

1. The hole is reconned and covered.
2. All barricades are removed.
3. Scene is returned to prior condition.

Answers to the quiz on page 14:

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

Hands-On Training

IRECA, Part III: High-Angle Rescue Training Scenario

Training Outline: Quiz

Date _____

Chief / T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: Sewers should never be covered after a rescue; that's the city's responsibility.
2. True or False: Main haul and belay lines must always be rigged the same way on the same haul.
3. True or False: Rope log reports are important to keep after every rescue.
4. Which of the following **doesn't** belong?
 - a. Munter hitch
 - b. 3:1
 - c. Rope rack
 - d. Glocken release
 - e. All of the above
 - f. None of the above
5. Which of the following belong together?
 - a. Team member injury reports
 - b. Report of condition of equipment consisting of a rope log and an equipment log
 - c. An incident commander's log
 - d. Patient disposition report
 - e. All of the above.

(Answers can be found at the bottom of page 13.)

Hands-On Training

TERC, Part II: Vehicle Extrication Flipped Vehicles Scenario

Objectives/Outcomes

After watching this segment, the student shall:

1. observe a rescue performed using hydraulic tools and a BLS patient to be extricated
2. learn the considerations of the incident commander which change depending upon the needs of the scenario.

Codes, Standards and Regulations

This training is consistent with NFPA 1670 and 1006 and appropriate OSHA codes and standards.

Training Outline

(TERC is the Transportation Emergency Resource Committee)

I. PRE-BRIEFING

- A. Team: Browns Point Fire Department, Pierce County, WA
Location: Best Western Hotel, Puyallup, WA
Scenario: Two flipped cars, one on top of the other and one up against a Jersey barrier
Time Limit: 20 minutes, Unlimited Class (all hydraulic tools are available and a live BLS patient)
- B. Rules
 1. The scenario will be judged.
 2. The commander will call "time" upon completion of the scenario.
- C. Scenario to be addressed
A car has flipped on its roof up against a Jersey barrier, sandwiched in by another vehicle also on its roof. There is a patient to be extricated from the first car. A guard rail is running up through the car holding the patient. Time limit: 20 minutes.

Hands-On Training

TERC, Part II: Vehicle Extrication Flipped Vehicles Scenario

Training Outline

II. SCENARIO BEGINS

The team receives its scenario assignment and team members are assigned duties.

A. Scene Size-up

1. Team arrives on scene, does inner and outer circle.
2. Outer circle crew members deploy cones, delineating the scene perimeter.
 - a. They check with bystanders to see if they can learn what happen or any additional information about the accident.
3. Inner circle crew checks the condition of the vehicles looking for any live wires, anything charged or on fire.
 - a. They bring an extinguisher with them just in case.
4. In a real incident, have a charged hoseline standing by.
5. Crew members kneeling close to the vehicle and who might be within its collapse zone should it shift, always keep one knee up for a fast exit.
6. Anything unusual is reported to the Incident Commander immediately.

B. Initial Patient Contact

1. One person, preferably a paramedic, establishes contact with the patient if he/she is conscious and provides psychological support.
2. If the patient can communicate, the paramedic tries to find out the extent of injuries and lend psychological support.
 - a. The medic can lie on the ground to talk with the patient as long as he isn't in the collapse zone.
3. The medic reports patient condition to the Incident Commander.

II. RESCUE EXECUTION

A. Stabilization

1. The patient is located as stabilization begins.
2. Cribbing/crib boxes are used to stabilize the vehicles to avoid shifting and restrict as much movement as possible.
3. Stabilization is checked periodically.

B. Incident Commander Responsibilities

1. The Incident Commander must perform multiple tasks on-scene. He must:
 - a. ensure vehicle security and stabilization.
 - b. oversee scene safety for the patient and the responders by working with a Safety Officer
 - c. develop Plans A & B for executing the extrication
 - d. anticipate the needs of his team making sure resources are available.

Hands-On Training

TERC, Part II: Vehicle Extrication Flipped Vehicles Scenario

Training Outline

C. Extrication Plan

1. Plan "A" is developed and communicated to the crew.
 - a. They will try to gain access between the Jersey barrier and the vehicle by using spreaders to pop the door and then cut the hinges.
2. A logical Plan "B" would be to tunnel through the backside of the vehicle.
3. Stabilization is periodically rechecked. (In the competition, judges will occasionally tap the cribbing with their foot to see if it is functioning appropriately. Points are deducted if it isn't.)
4. The medic becomes the "inside person" for the extrication crew, almost a part of interior stabilization.
 - a. If there's any interior maneuvering to be done, such as protecting the patient with blankets, he'd/she'd be the one to do it.
5. The guard rail is more of a distraction or inconvenience if it is not directly impinging on the patient. If it isn't, rescuers should ignore it.
6. Prior to hydraulic tools being used, a Halligan bar and a sledge hammer are used to create a purchase point for the tools.
 - a. Use the least invasive technique possible to do this for patient protection.
7. Once that is achieved, the team uses a spreader to pry open the door.
 - a. This is made more difficult by having to work over the Jersey barrier and spread the door over the guard rail involved.
8. The extrication team was having difficulty cutting the hinges of the door as the Jersey barrier was keeping the door from being opened to allow good access to the hinges.
9. At that point, time was called.

D. Personal Protection & Safety

1. Always wear multiple layers of PPE; that might include safety goggles as well as a face shield and latex patient gloves under extrication gloves. It's more protection for you, the rescuer.
2. In the same vein, "hard" protection for patients can come in many forms: blankets, street signs, backboards, etc.
3. Always protect the patient from work activity which also should include eye and ear protection if necessary.
 - a. For example, extrication equipment can be very loud - be ready to supply earplugs to the patient.

Hands-On Training

TERC, Part II: Vehicle Extrication Flipped Vehicles Scenario

Training Outline

III. POST-RESCUE

A. Goals & Objectives

1. The ultimate goal is quick but safe patient access.
2. Take the shortest route possible to most easily and safely reach and remove the patient.
3. Use as little maneuvering of the patient as possible so as not to exacerbate any patient injuries.

B. Analysis

1. As it turned out, cramped working conditions up against the Jersey barrier slowed the progress of this scenario.
2. Even though time ran out in the competition, this approach would still be valid in an actual incident.
 - a. Although the real world doesn't impose time limits per se, there are Golden Hour considerations depending upon the patient's situation.
 - b. Therefore, extrications should be practiced to be done as quickly as possible.
3. Because of the positioning of the door to the Jersey barrier, the I.C. would have to make the call as to whether Plan "B" could have been executed any quicker, even though it might have encountered more obstacles.

Answers to the quiz on page 19:

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

Hands-On Training

TERC, Part II: Vehicle Extrication Flipped Vehicles Scenario

Training Outline: Quiz

Date _____

Chief / T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: You must stabilize the wreck as a unit.
2. True or False: You can purchase an entry point for tools but it's pretty expensive.
3. True or False: A medic may lie on the ground if necessary to talk to a patient. He can even lie under the vehicle.
4. Protection at vehicle extrication scenes can come in many forms. Which of the following would you **not** find there?
 - a. Blankets
 - b. Street signs
 - c. Eye protection
 - d. A truss
 - e. None of the above
5. In a vehicle extrication incident, a medic performs which roles?
 - a. Medical assessor
 - b. Psychological support giver
 - c. "Inside person" of the extrication team
 - d. Caregiver
 - e. All of the above

(Answers can be found at the bottom of page 18.)

Fire Medics

IRECA, Part III: Writing EMS Training Scenarios

Objectives/Outcomes

After watching this segment, the student shall understand:

1. for trainers, what considerations are part of developing a challenging scenario
2. for students, how a well-designed scenario helps translate book knowledge into street knowledge through critical thinking.

Standards and Regulations

U.S. Department of Transportation, State Departments of Health and/or EMS, and other local bodies such as Regional Medical Advisory Committees.

Training Outline

(IRECA is the International Rescue & Emergency Care Association)

I. INTRODUCTION

There is a large amount of information to be taught in nearly any subject area involving EMS training - probably too much to communicate in the time available. But more important is the task of teaching people to think critically.

There are a lot of tools available to teach someone to think critically but it's one of the hardest things to teach. And that is compounded by not having enough time for training in the first place. One of IRECA's solutions is to use scenario-based training such as that which has been featured over the last couple of months.

II. OVERVIEW

- A. What do students need to know?
- B. Benefits - Better patient care
 1. The challenge is, how do you integrate all the skills the student should learn and turn it into better patient care?
- C. Book vs. Street Skills
 1. What do students need to pass the test and what do they need to work on the street?
 2. Scenario-based training should take both those skills and integrate them in such a way that the book learning is still fresh but translated into a usable, actionable set of knowledge that the student can use on the street.

Fire Medics

IRECA, Part III: Writing EMS Training Scenarios

Training Outline

D. Applicability

1. The transition from the classroom to that first ride-along can be shocking for the student.
2. Training needs to work on making that transition less traumatic. We need to work on helping students quickly apply what they've learned in class to the real world.

III. WRITING GUIDELINES

Scenario details and instructions need to be specific enough for any trainer to meet the training objectives desired.

A. Real Life, Real Benefits

1. Scenarios can be based on the trainer's direct field experience.
2. We remember the variables from our own experience and can draw on that picture we have in our head and use it to communicate lessons to the student.
3. Scenarios can be placed in various locations to enhance realism.
 - a. If you want to simulate a school shooting, go do it at a school.
 - b. Simulating a car accident? Hook up an IV pump that spurts blood.
 - c. Realism like that really helps make the lessons memorable.
4. Encourage meticulous attention to detail in the scenario to make it as real as possible.

B. Assessment

1. Design score sheets to evaluate the student as would be used in a textbook assessment.

C. Scenario Objectives

1. Create objectives of the scenario in terms of learning outcomes that you want the student to come away with.
2. Create a list.
 - a. These objectives will also form the basis of your assessment of what the student has learned.
3. Can there be multiple objectives?
 - a. Absolutely. Scenarios can be designed to send students down different roads to see where they go.
4. Can critical thinking be developed?
 - a. Multiple objectives is one way to help develop critical thinking skills as students are faced with alternatives and options they must choose.
 - b. Provide outcomes in review so the student sees what potentially could have happened from an incorrect decision.

Fire Medics

IRECA, Part III: Writing EMS Training Scenarios

Training Outline

5. Specific Skills to be Practiced
 - a. Scenarios can be very focused to test for skill-set acquisition.
 - b. If you want to be sure your students can handle splints, then design scenarios where splinting will be crucial and build in enough variety and repetition so splinting becomes second-nature.

- D. Scenario Based on Standards
 1. NREMT Skill Sheet National Registry Skill Sheets are one set of nationally recognized standards by which you can assess and evaluate your students' progress.
 - a. With a little creativity, you can integrate such skill sheets into your scenario and make it work for what you are wanting to teach.
 2. DOT Curriculum Objectives
 - a. Another accepted set of standards and specific criteria you can use to build scenarios around.
 3. State Requirements/Medical Director Requirements
 - a. These can also be used to test areas that perhaps don't fit in the national registry or DOT skills and objectives which are equally important.
 4. Training Needs
 - a. Just observing that certain tasks and skills covered in training are just not being understood
 - b. Remedial scenarios can be developed to build mastery in weak areas.

- E. Remember Scenario Details - These can emphasize critical thinking skills!
 1. Scene Size-up
 - a. Are there scene problems?
 - b. How can I get to my patient after size-up?
 - c. What are my options? This requires critical thinking.
 2. ABCs
 - a. Again, based on what the student finds, he/she will have to work through the critical thinking of choosing the various options available.
 3. The acronym S-A-M-P-L-E:
 - S - Signs and symptoms
 - A - Allergies
 - M - Medications
 - P - Past pertinent medical history
 - L - Last oral intake
 - E - Events leading up to the call

Fire Medics

IRECA, Part III: Writing EMS Training Scenarios

Training Outline

4. Make sure your scenario addresses this list so the proper critical thinking skills take place.
 - a. If you were to hand off the writing of the scenario to someone else halfway through, one of the above might be missed.
 - b. Following the list means the new person can just pick up where you left off.
5. Likewise, be sure the following questions are addressed as outlined by this mnemonic:
 - O - Onset (What were you doing when the symptoms began?)
 - P - Provokes (Does anything make it better or worse?)
 - Q - Quality (Is the pain dull, throbbing, or stabbing?)
 - R - Radiation (Does the pain move or go anywhere?)
 - S - Severity (On a scale of 1 - 10, how great is your pain?)
 - T - Time (How long has the pain been going on?)
6. These are the basic questions that we always talk about and they should be covered in every scenario.
7. Now, our scenarios may not address EVERY wild question or event that could come up, but they should certainly deal with the basic issues.

F. Vitals - Verify Information

1. When writing these, look them up, check with a doctor, and then ask two or three other people as a reality check.
2. If they are not accurate, you may send the student down a path that was not intended.
3. Can there be different outcomes for different treatments?
 - a. Based on treatment, the student has to be provided with different outcomes based on treatment choice.
 - d. If the student renders poor patient care, the patient should go downhill. With good care, the patient might stay the same, stabilize, or get better.
4. The outcome reflects the treatment resulting from critical thinking.
 - a. This teaches the student that his/her choices have consequences and he/she gets accustomed to the feeling of success when making correct choices.

IV. THE BOTTOM LINE

A. Communicate experience

1. Give providers a sense of experience before treating real patients.
2. With live patients, the outcome is much more serious and stressful.
3. Giving students those experiences in a controlled setting will prepare them that much better.

Answers to the quiz on page 24:

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

Fire Medics

IRECA, Part II: ALS Cardiac Shock Scenario

Training Outline: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False: Patients will benefit from good training scenarios by ultimately getting better patient care.
2. True or False: Everything you need to know is in the book; if there were anything else to learn, it would be in there, too.
3. True or False: Critical thinking is one of the best things you can learn from scenario training.
4. What components should a well-designed training scenario **not** have?
 - a. Standards
 - b. Objectives
 - c. Deployment
 - d. Measurement
 - e. Skills to be practiced
5. Which of the following would **not** include what should be covered by training scenarios?
 - a. DOT Curriculum
 - b. National Registry skill sheets
 - c. State requirements
 - d. Additional training needs
 - e. None of the above

(Answers can be found at the bottom of page 23)

Evolutions 2000

University of Cincinnati Continuing Education Program

Kramer vs. Kramer

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 Training.

VOLUME 06-9

Sprinklered vs. Non-Sprinklered Buildings

Complete written responses to the following three essay questions:

1. List the similarities and differences in the two high-rise fires from Wilmington, Delaware featured this month.
2. What differences do you think automatic sprinklers would have made in the outcome of both of these?
3. Compare and contrast fire spread in conventional "compartmentalized" commercial buildings without sprinklers and modern sprinklered buildings with continuous open floors and lighter partitioning.

Submit your responses to:

**Mr. Bill Kramer, Ph. D.
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 Training at 800-516-3473, go to www.workingfire.com/c_e_credits.html 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.