Tower Rescue Lesson Three Tower Rescue: Operations

DOMAIN: AFFECTIVE / PYSCHOMOTOR

LEVEL OF LEARNING: COMPREHENSION / APPLICATION

MATERIALS

Classroom; computer, projector; screen; whiteboard or equivalent; Highline Productions, Tower Rescue for Emergency Responders.

TERMINAL OBJECTIVE

The tower rescue candidate when given a written exam shall demonstrate knowledge of structure-based and ground-based tower rescue operations.

ENABLING OBJECTIVES

1. The tower rescue candidate shall correctly describe in writing an understanding of tower based and ground based rescue operations.

2. The tower rescue candidate shall correctly demonstrate a working knowledge of rope commands commonly used in the tower rescue environment.

3. The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a clinging victim from a tower utilizing a ground based rigging system.

4. The tower rescue candidate when given a written exam and/or practical skill shall demonstrate

knowledge and technique in safely removing a victim from a tower utilizing patient packaging and a ground based rigging system.

5. The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a suspended victim from a tower utilizing a tower based rigging system.

6. The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a victim from a tower utilizing patient packaging and a tower based rigging system.

7. The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a victim from a tower utilizing a tower based and ground based rigging system.

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MOTIVATION

By now you should have received an abundance of information regarding tower rescue including its uniqueness, difficulty, and required skill to ensure a safe tower rescue. This lesson is where the rubber meets the road and you get to practice what you've been taught.

PRESENTATION

ENABLING OBJECTIVE #1

The tower rescue candidate shall correctly describe in writing an understanding of tower based and ground based rescue operations.

1. Explain the difference between tower based and ground based rescues.

2. Compare and contrast the advantages and disadvantages of using each type of rescue.

PRESENTATION

ENABLING OBJECTIVE #2

The tower rescue candidate shall correctly demonstrate a working knowledge of rope commands commonly used in the tower rescue environment.

1. Demonstrate basic rope rescue commands.

2. Define "On Belay"

3. Define "Off Belay"

4. Define "On Repel"

5. Define "Off Repel"

6. Define "Climbing"

7. Define "Climb On"

8. Define "Up Rope"

9. Define "Slack"

Reference: Tower Rescue for Emergency Responders, pages 90.

PRESENTATION

ENABLING OBJECTIVE #3

The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a clinging victim from a tower utilizing a ground based rigging system.

1. Lead a discussion in how to safely perform a ground-based rescue of a clinging victim. The discussion shall include the following as a minimum:
    a. Perform a tower risk assessment.
    b. Identify and establish Incident Commander.
    c. Identify a Safety Officer.
    d. Create and verbalize a primary rescue plan.
    e. Create and verbalize a secondary rescue plan.
    f. Identify rescuers and assignments.
    g. Identify equipment needed and available.
    h. Establish communications between rescuers.
    i. Ensure fall protection for climbers (climbing lanyard, establish a climb line, etc.).
    j. Secure victim to the tower.
    k. Establish a change-of-direction above the victim.
    l. Establish ground-based primary and belay lines.
    m. Perform a post-incident briefing.

2. Discuss in detail the concept, setup, and advantage of utilizing a skate-block system.

Reference: Tower Rescue for Emergency Responders, page 150.

PRESENTATION

ENABLING OBJECTIVE #4

The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a victim from a tower utilizing patient packaging and a ground based rigging system.

1. Lead a discussion on how to safely perform a ground-based rescue of a victim requiring patient packaging. The discussion shall include the following as a minimum:
    a. Perform a tower risk assessment.
    b. Identify and establish Incident Commander.
    c. Identify a Safety Officer.
    d. Create and verbalize a primary rescue plan.
    e. Create and verbalize a secondary rescue plan.
    f. Identify rescuers and assignments.
    g. Identify equipment needed and available.
    h. Establish communications between rescuers.
    i. Ensure fall protection for climbers (climbing lanyard, establish a climb line, etc.).
    j. Secure victim to the tower.
    k. Establish a change-of-direction above the victim.
    l. Package the victim according to department guidelines.
    m. Establish ground-based primary and belay lines.
    n. Perform a post-incident briefing.

PRESENTATION

ENABLING OBJECTIVE #5

The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a suspended victim from a tower utilizing a tower-based rigging system.

1. Review why tower-based systems would be used.
    a. Victim at a height of over 125'.

b. Ground-based system length will be maxed at much over 125'.

c. Rescuers performing tower-based rescues over 125' will be utilizing as little equipment as possible.

2. Lead a discussion on how to safely perform a tower-based rescue of a suspended victim. The discussion shall include the following as a minimum:

   a. Perform a tower risk assessment.
   b. Identify and establish Incident Commander.
   c. Identify a Safety Officer.
   d. Create and verbalize a primary rescue plan.
   e. Create and verbalize a secondary rescue plan.
   f. Identify rescuers and assignments.
   g. Identify equipment needed and available.
   h. Establish communications between rescuers.
   i. Ensure fall protection for climbers (climbing lanyard, establish a climb line, etc.).
   j. Secure victim to the tower.
   k. Establish tower-based primary and belay lines.
   l. Discuss locking the victim off and relocating the main lower and belay lines verses switching victim to a second main and belay line.
   m. Perform a post-incident briefing.

PRESENTATION

ENABLING OBJECTIVE #6

The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a victim from a tower utilizing patient packaging and a tower based rigging system.

1. Lead a discussion on how to safely perform a tower-based rescue of a suspended victim, requiring victim packaging. The discussion shall include the following as a minimum:

   a. Perform a tower risk assessment.
   b. Identify and establish Incident Commander.
   c. Identify a Safety Officer.
   d. Create and verbalize a primary rescue plan.
   e. Create and verbalize a secondary rescue plan.
   f. Identify rescuers and assignments.

g. Identify equipment needed and available.
h. Establish communications between rescuers.
i. Ensure fall protection for climbers (climbing lanyard, establish a climb line, etc.).
j. Secure victim to the tower.
k. Establish tower-based primary and belay lines.
l. Package victim in accordance with available equipment and recommended practices.
m. Safely lower victim.
n. Discuss locking the victim off and relocating the main lower and belay lines verses switching victim to a second main and belay line.
o. Perform a post-incident briefing.

PRESENTATION

ENABLING OBJECTIVE #7

The tower rescue candidate when given a written exam and/or practical skill shall demonstrate knowledge and technique in safely removing a victim from a tower utilizing a tower based and ground based rigging system.

1. Compare and contrast the benefits of utilizing a combination tower-based to ground-based lowering system.
    a. When a victim is located 125' or lower, a ground based skate-block system is usually the most efficient rescue technique.
    b. When a skate-block system is used, steps must be taken to ensure that the belay line is rigged in a way that will prevent the rescue package from swinging back into the tower if a main line failure were to occur.
    c. When a victim is located higher than 125', a tower-based rescue technique is required.
    d. Tower-based rescue techniques are accomplished with minimal equipment and manpower, and therefore are more time consuming.
    e. Combination tower-based to ground-based systems require two separate rescue systems and teams.
    f. Combination tower-based to ground-based systems require more equipment.

2. Lead a discussion on how to safely perform a tower-based rescue of a suspended victim utilizing a combination tower-based to ground-based lowering system. The discussion shall include the following as a minimum:
   a. Perform a tower risk assessment.
   b. Identify and establish Incident Commander.
   c. Identify a Safety Officer.
   d. Create and verbalize a primary rescue plan.
   e. Create and verbalize a secondary rescue plan.
   f. Identify rescuers and assignments.
   g. Identify equipment needed and available.
   h. Establish communications between rescuers.
   i. Ensure fall protection for climbers (climbing lanyard, establish a climb line, etc.).
   j. Secure victim to the tower.
   k. Establish tower-based primary and belay lines.
   l. Establish ground-based primary and belay lines.
   m. Safely lower victim.
   n. Discuss locking the victim off and relocating the main lower and belay lines verses switching victim to a second main and belay line.
   o. Perform a post-incident briefing.

Summary

Tower rescue as with all rescues must be accomplished with safety in mind, ensuring proven techniques and safety standards are always used and met. Each tower rescue event will be unique, and rescuers should be prepared to select the best rescue technique for the specific incident at hand.