

INTRODUCTION

Preface

The intent of the Performance Objectives, authorized by the Bureau of Fire Standards and Training (BFST), is to provide continuity of Minimum Standards for Fire Training Academies, Instructors, and Examiners throughout the State of Florida. The contents of this manual are formatted with practical skills, to assist fire students in developing and learning the basic essentials necessary to undertake the ardent tasks associated with firefighting. The Performance Objectives correspond with NFPA 1001, 2013 edition.

Performance Objectives

Procedures:

1. State Field Representatives shall administer practical skills examinations to evaluate the fire student's abilities to perform minimum standards, based on the Performance Objectives outlined in this manual.
2. On State Day examinations, the Training Center shall provide the following:
 - a. Drinks for State Representatives;
 - b. A certified Instructor, designated as the medical provider with adequate supplies, to administer BLS procedures for candidates when necessary.
3. All objectives shall be performed under simulated fire ground conditions.
4. Full PPE (Personal Protective Equipment) with SCBA (Self Contained Breathing Apparatus) shall be worn.
5. PPE shall be in operating condition, complying with NFPA, and NOT damaged or worn exposing skin.
6. All attachments (Buttons, Clips, Snaps, Velcro, Zippers) shall be fastened.
7. For all IDLH (Immediate Danger to Life & Health) situations, you must go on air prior to performing the necessary skills to achieve the objective. Simulating going on air shall NOT be acceptable.
8. Verbalizing: full PPE, on air, charged hose line, RIT (Rapid Intervention Team), shall NOT be required. However, these components are essential in the techniques involved with firefighting and should be understood by students.
9. All Performance Objectives, except Ropes & Knots and the ERG (Emergency Response Guidebook) exercise, shall be completed within 4 minutes and 40 seconds (4:40).
10. Ropes & Knots shall be completed within 2:00 minutes.
11. The ERG (Emergency Response Guidebook) exercise is an open book, 5 question, multiple choice, written test. This Performance Objective/Skill shall be completed within 20:00 minutes.
12. Before climbing any ladder, all safety requirements shall be verified and verbalized. This is detailed in the Ladder section of this manual.
13. In the fire service, back injuries are the most common due to improper lifting and carrying techniques. These occurrences are responsible for damaged equipment, ending careers, and are the most expensive type of accident in terms of Workers Compensation. Therefore, proper body mechanics shall be utilized when lifting any equipment, and is achieved by keeping your back straight and lifting with your legs, NOT your back. These techniques shall be evaluated throughout the entire testing process, regardless of the skill performed.

14. The BFST recognizes an objective can be accomplished by using different methods, and encourages additional instruction to broaden the knowledge of students. However, these methods shall NOT affect the safety of the students nor the outcome, with a different conclusion than the procedures outlined in this manual.
15. The Performance Objectives focuses on many fundamental skills pertaining to firefighting activities. Nonetheless, they do NOT address all incidents encountered in the fire service.

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PERSONAL PROTECTIVE EQUIPMENT

Performance Objective

Subject: PPE

Task: Donning

Note: All attachments (Buttons, Clips, Snaps, Velcro, Zippers) shall be fastened.

Procedure:

1. Don the protective hood, keeping it on top of head.
2. With pants in place over the boots, step into the boots, pull up pants and place suspenders on shoulders. Fasten attachments.
3. Put on the coat with thumbs through the gauntlets and fasten attachments. Pull up the collar and secure.
4. Slide the hood down from head around the neck.
5. Don the helmet with earflaps down and outside the collar. Properly attach and adjust chinstrap, then lower face shield/goggles.
6. Don the gloves with the wristlet over the coat wristlet.

Performance Objective

Subject: PPE

Task: Inspect SCBA for Proper Function

Note: If any of the following procedures are faulty, then the SCBA shall be placed “out of service” until the issues are corrected.

Procedure:

1. Checks and verifies air cylinder has been hydrostatically tested (As per manufacturers recommendations).
2. Checks air cylinder ensuring valve is operational and pressure is at least 90% capacity; if less than 90%, recommend changing cylinder.
3. Checks the harness assembly ensuring straps and attachments are functional.
4. Ensures the high-pressure hose fitting has an “O” ring present for proper seal when connecting to air cylinder valve. For quick disconnects, inspect the operation of the locking sleeve on the female quick disconnect and the male shaft (particularly the locking ridge) for signs of wear.
5. Securely attaches air cylinder to harness assembly.
6. Inspects high-pressure hose fitting and air cylinder valve assembly for signs of wear. Properly mates high pressure hose fitting to air cylinder valve, ensuring connection is secure prior to pressurizing.
7. Slowly opens air cylinder valve until low-pressure alarm activates, then quickly open valve completely checking:
 - a. No audible or visual air leaks present,
 - b. Low-pressure alarm functions correctly,
 - c. PASS device activates,
 - d. Air cylinder and Independent/Remote Pressure Gauge (IPG or RPG) readings are within 100 psi,
 - e. Regulator ensuring all valves (Bypass, Mainline) are functional.

Performance Objective

Subject: PPE

Task: Don SCBA utilizing “over the head” method

Note: SCBA should be checked and inspected prior to use.

Procedure:

1. Kneel at the end of the air cylinder opposite the valve.
2. Slowly open valve until low air alarm activates, then quickly open valve completely.
3. Pressure gauge numerical reading shall be announced.
4. Announce the PASS device is activated (PASS device should be integrated).
5. IPG/RPG numerical reading shall be announced.
6. Spread the harness shoulder straps out on both sides of cylinder.
7. With hands placed on cylinder inside of the harness straps, lift SCBA overhead and rest on upper portion of back.
8. With harness straps freely hanging, remove hands from cylinder and extend arms completely bringing hands through and on the outside of harness straps.
9. Fasten and adjust all straps.

Performance Objective

Subject: PPE

Task: Don SCBA utilizing “coat” method

Note: The following procedure pertains to left side mounted regulators. If the regulator is right side mounted, utilize this procedure grasping the right strap first. SCBA should be checked and inspected prior to use.

Procedure:

1. Kneel at the air cylinder valve end.
2. Slowly open valve until low air alarm activates, then quickly open valve completely.
3. Pressure gauge numerical reading shall be announced.
4. Announce the PASS device is activated (PASS device should be integrated).
5. IPG/RPG numerical reading shall be announced.
6. Spread the harness shoulder straps out on both sides of cylinder.
7. Grasp the upper left strap with the left hand holding the Regulator hose and the lower left strap with the right hand.
8. Lift the SCBA and swing it onto your back.
9. While maintaining contact with left hand on left strap, release the right hand and extend the right arm through the right strap.
10. Fasten and adjust all straps.

Performance Objective

Subject: PPE

Task: Don SCBA utilizing apparatus "seat mounted" method

Note: SCBA should be checked and inspected prior to use.

Procedure:

1. SCBA should be mounted onto seat rack.
2. Pressure gauge numerical reading shall be announced.
3. Pull SCBA forward to remove from seat mount...or...Extend arms through shoulder straps and lean forward to remove SCBA from seat mount (This method eliminates step 8).
4. Slowly open valve until low air alarm activates, then quickly open valve completely.
5. Announce the PASS device is activated (PASS device should be integrated).
6. IPG/RPG numerical reading shall be announced.
7. Extend arms through shoulder straps.
8. Fasten and adjust all straps.

Performance Objective

Subject: PPE

Task: Don Facemask utilizing “chin first” method

Note: Facemask should be checked and inspected prior to use.

Procedure:

1. With fingers inserted through the straps, place your chin into the chin cup. Pull the head harness back and spread the webbing around your head, ensuring the harness is centered and positioned on the back of your head.
2. Ensure any obstructions are not impeding the seal of the facemask (Hair, straps...).
3. Tighten the straps by pulling them backward, evenly, and simultaneously in the following order: Chin, Temple, Top (if necessary).
4. Perform a seal check by pulling the wristlet down exposing your palm, place your palm completely covering the regulator fitting and inhale. Any failing result shall be corrected before continuing.
5. Perform an exhalation valve check by placing your palm completely covering the regulator fitting and exhale. Any failing result shall be corrected before continuing.

Note: Steps 4 and 5 can be performed by connecting regulator to the facemask as the manufacturer recommends.

6. Pull the protective hood up, covering your head and any exposed skin. Ensure the exhalation valve and your vision is unobscured.
7. Place the helmet on your head, pulling the earflaps down and over the coat collar. Ensure the chinstrap is snug under the chin.

Performance Objective

Subject: PPE

Task: Don Facemask utilizing “ball cap” method

Note: Facemask should be checked and inspected prior to use.

Procedure:

1. With fingers inserted through the straps, pull the head harness back and spread the webbing centered around your head. This will leave the facemask on top of the head.
2. While placing a hand on the webbing behind the head, with the other hand, grasp the facemask and bring it down over the face placing your chin in the cup.
3. Ensure any obstructions are not impeding the seal of the facemask (Hair, straps...).
4. Tighten the straps by pulling them backward, evenly, and simultaneously in the following order: Chin, Temple, Top (if necessary).
5. Perform a seal check by pulling the wristlet down exposing your palm, place your palm completely covering the regulator fitting and inhale. Any failing result shall be corrected before continuing.
6. Perform an exhalation valve check by placing your palm completely covering the regulator fitting and exhale. Any failing result shall be corrected before continuing.

Note: Steps 5 and 6 can be performed by connecting regulator to the facemask as the manufacturer recommends.

7. Pull the protective hood up, covering your head and any exposed skin. Ensure the exhalation valve and your vision is unobscured.
8. Place the helmet on your head, pulling the earflaps down and over the coat collar. Ensure the chinstrap is snug under the chin.

Performance Objective

Subject: PPE

Task: Doff Facemask

Procedure:

1. Remove the helmet and pull the protective hood down around your neck.
2. Loosen the straps evenly and simultaneously in the following order: Top (if necessary), Temple, Chin.
3. Grasp the facemask and lift it over your head. Ensure all straps are fully extended.

Note: It is NOT necessary or required to present facemask to the examiner.

4. Place the helmet on your head, pulling the earflaps down and over the coat collar. Ensure the chinstrap is snug under the chin.

Performance Objective

Subject: PPE

Task: Changing Air Cylinder on SCBA

Procedure:

1. Close cylinder valve.
2. Bleed air from high-pressure hose line.
3. Disconnect high-pressure coupling from cylinder.
4. Detach and remove cylinder from harness assembly.
5. Inspect replacement air cylinder, ensuring bottle is at least 90% capacity.
6. Inspect high-pressure hose fitting for the presence of a serviceable "O" ring. For quick disconnects, inspect the operation of the locking sleeve on the female quick disconnect and the male shaft (particularly the locking ridge) for signs of wear.
7. Securely attach replacement cylinder in the harness assembly.
8. Connect high-pressure hose fitting to the air cylinder valve.
9. Slowly opens air cylinder valve until low-pressure alarm activates, then quickly open valve completely checking:
 - a. No audible or visual air leaks present,
 - b. Low-pressure alarm functions correctly,
 - c. PASS device activates,
 - d. Air cylinder and Independent/Remote Pressure Gauge (IPG or RPG) readings are within 100 psi,
 - e. Regulator ensuring all valves (Bypass, Mainline) are functional.
10. Don SCBA.

ROPES & KNOTS

Introduction

Subject: Ropes & Knots

Note: Parts of a Rope...Running, Working, Standing

1. The "Running" part of the rope is the end used for work such as hoisting, pulling or belaying.
2. The "Working" part of the rope is the end used to form the knot (Commonly referred to as the "Loose End" or "Bitter End").
3. The "Standing" part of the rope is between the Running and Working end.

Note: Elements of a Knot...Bight, Loop, Round Turn

1. A "Bight" is formed by bending the rope back on itself while keeping the sides parallel.
2. A "Loop" is formed by crossing the side of a Bight over the Standing part.
3. A "Round Turn" is formed by further bending one side of the Loop.

Note: All knots are formed with one or more of these elements.

After a Hitch or Knot is formed by the Working end, ensure the excess rope remaining (Referred to as the "Tail") is enough to tie an Overhand Knot (Safety).

Note: Knots may be formed by multiple procedures. We are assessing the knot and the urgency to tie it quickly, not the method it is formed.

Setup:

1. A rope shall be affixed at one end, to an elevated location. The other end shall be utilized to tie tools for hoisting.
2. A second rope shall be located on the ground for tying hand knots and tag lines. The diameter shall be a different size or color than the rope used for hoisting.
3. A second rope is NOT needed for a tag line, when tying tools in-line (in the middle of the rope).
4. All knots shall be tied within 2:00 minutes, regardless if tying a hand knot or a tool for hoisting.
5. All knots shall be dressed upon completion (Loose knots are NOT functional).
6. Safeties shall be tied and snug against the knot.

Performance Objective

Subject: Ropes & Knots

Task: Overhand Knot (Safety)

Procedure:

1. Form a Loop in the rope and pass the end through the Loop.

Note: To secure Hitches and Knots, a Safety shall be applied upon completion when necessary.

2. Take the "Tail" end and wrap it around the Standing part, passing it through the Loop created to complete the Safety.
3. The Safety must be snug against the Hitch or Knot.

Performance Objective

Subject: Ropes & Knots

Task: Clove Hitch in hand

Procedure:

1. Form an overhand Loop in the left hand.
2. Form an identical overhand Loop in the right hand.
or;
3. Cross your arms and grasp the rope.
4. Uncross your arms without losing your grip on the rope.
5. Place the left-hand Loop over the right-hand Loop.
6. Hold the 2 Loops together and slide over an object.
7. Pull the ends tight to form the Clove Hitch.
8. A Safety must be tied and snug against the Hitch.

Performance Objective

Subject: Ropes & Knots

Task: Clove Hitch around an object

Procedure:

1. Pass the Working end around an object.
2. Cross over the Standing part and pass around the object a second time in the same direction.
3. Thread the end under itself and pull the ends tight to form the Clove Hitch. The Working and Standing part of the rope should be in opposite directions (Visualize traffic traveling both directions under the overpass).
4. A Safety must be tied and snug against the Hitch.

Performance Objective

Subject: Ropes & Knots

Task: Clove Hitch on a Bight around an object

Note: This is the knot used to tie the Ladder Halyard

Procedure:

1. Form a large Bight.
2. Pass the Bight end around an object.
3. Cross over the Standing part of Bight and pass around the object a second time in the same direction.
4. Thread the Bight end under itself and pull the ends tight to form the Clove Hitch. The Working and Standing part of the Bight should be in opposite directions.
5. A Safety must be tied and snug against the Hitch.

Performance Objective

Subject: Ropes & Knots

Task: Becket Bend or Sheet Bend

Note: Joining two (2) ropes of unequal/different diameter.

Procedure:

1. Form a Bight with the larger diameter rope.
2. Pass the Working end of the smaller diameter rope through the Bight and around both sides (Standing parts) of Bight.
3. Thread the Working end of the smaller diameter rope under itself and around both sides of the Bight.
4. Pull the ends tight to form the Becket Bend.
5. A Safety must be tied with the Tail of both ropes and snug against the knot.

Performance Objective

Subject: Ropes & Knots

Task: Bowline

Procedure:

1. Form an overhand Loop in the Standing part of the rope.
2. Pass the Working end up through the Loop (Visualize rabbit jumps out of the hole).
3. Pass the Working end over the Loop, under and around the Standing part (Visualize rabbit runs around the tree).
4. Pass the Working end down through the Loop (Visualize rabbit jumps in the hole).
5. The Tail must be on the inside of the larger Loop created.
6. Pull the Tail tight and dress the knot to form the Bowline.
7. A Safety must be tied on the Loop and snug against the knot.

Performance Objectives

Subject: Ropes & Knots

Task: Bowline around an object

Procedure:

1. Form an overhand Loop in the Standing part of the rope.
2. Pass the Working end around the object.
3. Pass the Working end up through the Loop (Rabbit jumps out of the hole).
4. Pass the Working end over the Loop, under and around the Standing part (Rabbit runs around the tree).
5. Pass the Working end down through the Loop (Rabbit jumps in the hole).
6. The Tail must be on the inside of the larger Loop created.
7. Pull the Tail tight and dress the knot to form the Bowline.
8. A Safety must be tied on the Loop and snug against the knot.

Performance Objective

Subject: Ropes & Knots

Task: Figure Eight Stopper

Procedure:

1. Form a Loop.
2. Pass the Working end under and around the Standing part.
3. Thread the Working end through the Loop.

Performance Objective

Subject: Ropes & Knots

Task: Figure Eight on a Bight

Procedure:

1. Form a large Bight.
2. Form a Loop with the Bight.
3. Pass the Bight under and around the Standing part.
4. Thread the Bight through the Loop.
5. Pull on the Bight and the Standing part tight to form the knot.

Performance Objective

Subject: Ropes & Knots

Task: Figure Eight Around an Object (Follow Through)

Procedure:

1. Tie a loose Figure Eight.
2. Pass the Working end around an object.
3. Thread the Working end through the Figure Eight, following the entire knot in reverse. The Tail must be beside the Standing part.
4. Pull tight and snug to form the knot.

Performance Objective

Subject: Ropes & Knots

Task: Figure Eight Bend or Flemish Bend (Follow Through)

Note: Joining two (2) ropes of equal/same diameter.

Procedure:

1. Place two ropes of equal diameter lying parallel, with one rope above the other. Ensure the Working ends are pointing in opposite directions.
2. Tie a loose Figure Eight in one of the ropes.
3. With the second rope, place the Working end beside the Tail of the first knot.
4. Thread the Working end through the Figure Eight, following the entire knot in reverse. Both Tails must be beside the Standing part of both ropes (Opposite ends).
5. Using the Tails, Safeties shall be snug and tight against the knot on both ends.

Performance Objective

Subject: Ropes & Knots

Task: Handcuff

Procedure:

1. Form a Loop in the left hand.
2. Form an identical Loop in the right hand.
or,
3. Cross your arms and grasp the rope.
4. Uncross your arms without losing your grip on the rope.
5. Simultaneously pull the inner side of each Loop through the opposite Loop to form two new Loops.
6. Place the Loops over the victim's hands or feet.
7. Pull both Standing parts in opposite directions to tighten knot.
8. While maintaining tension, apply safeties to secure knot.

Performance Objective

Subject: Ropes & Knots

Task: Tag Line

Note: Utilized to control tools and equipment being hoisted.

Procedure:

1. With a second rope, tie a Clove Hitch with a Safety near or at the bottom of the object...or
2. If there's sufficient hoisting rope, a second rope is NOT needed. After tying the tool in-line, the excess rope is the tag line. You may need to tie a Clove Hitch on a Bight at the bottom of the tool.

Performance Objective

Subject: Ropes & Knots

Task: Prepare a Ladder for hoisting

Note: For hoisting—Rope should be between ladder and building.
For lowering—Rope should be on outside of ladder.

Procedure:

1. Tie a large Loop, Figure Eight on a Bight with a Safety.
2. Slip the Loop through the rungs $\frac{1}{3}$ the length of the ladder from the tip (4th rung).
3. Bring the Loop up and slip it over the tip of the ladder.
4. Tighten the Loop on the ladder by pulling the slack out. The Figure Eight should be in the area between the hooks and the top rung.
5. Attach a Tag Line on the bottom rung of the ladder, utilizing a second rope or in-line.

Performance Objective

Subject: Ropes & Knots

Task: Prepare any tool with an enclosed handle for hoisting

Procedure:

1. Tie a Bowline or Figure Eight with a Safety around the enclosed handle or opening.
2. Attach a Tag Line near the bottom of the tool, utilizing a second rope or in-line.

Note: The Tag Line can be tied with a Bowline or Clove Hitch.

Performance Objective

Subject: Ropes & Knots

Task: Prepare a Pick Head (Fire Axe) for hoisting

Procedure:

1. With the handle of the axe toward the building, tie a Clove Hitch with a Safety on the handle against the head of the axe.
2. Place a Half Hitch around the blade of the axe head.
3. Place a second (2nd) Half Hitch on the handle approximately 4 inches from the end.
4. Attach a Tag Line near the bottom of the tool, above the Clove Hitch, utilizing a second rope or in-line.

Performance Objective

Subject: Ropes & Knots

Task: Prepare a Pike Pole for hoisting

Procedure:

1. With the head of the pike pole toward the building, tie a Clove Hitch with a Safety on the handle $\frac{3}{4}$ the length of the pike pole from the head ($\frac{1}{4}$ from the end of the handle).
2. Place a Half Hitch midway between the Clove Hitch and the head of the pike pole.
3. Place a second (2nd) Half Hitch on the head of the pike pole.
4. Attach a Tag Line near the bottom of the tool, above the Clove Hitch, utilizing a second rope or in-line.

Performance Objective

Subject: Ropes & Knots

Task: Prepare a Charged Hose Line for Hoisting

Procedure:

1. Tie a Clove Hitch with a Safety approximately 12 inches from the coupling of the hose and nozzle.
2. Place a Half Hitch through the bale and around the nozzle.
3. Place a second (2nd) Half Hitch around the tip of the nozzle.
4. A Tag Line is NOT needed.

Performance Objective

Subject: Ropes & Knots

Task: Bagging a rope for storage

Note: Utilizing a bag preferably constructed of canvas, measuring 12 x 32 inches, and having a drain hole in the bottom.

Procedure:

1. With the Working end, tie a Figure Eight Stopper and pass enough of the Tail through the drain hole and tie another Figure Eight Stopper.
2. Shove the rope into bag so as to avoid tangling and twisting.
3. Secure remaining end of rope to bag handle or drawstring with a Figure Eight Stopper.

GROUND LADDERS

Introduction

Subject: Ground Ladders

Note:

1. When deploying a ladder, the scene shall be surveyed for any terrain or overhead obstructions (Must be verbalized).
2. Students shall always remain in contact with the ladder while:
 - a. Deploying
 - b. Raising
 - c. Extending the Fly
 - d. Until properly relieved and heeled by other personnel
 - e. Until secured by an approved method
3. While keeping your back straight, lifting and lowering techniques shall be performed with your legs, not your arms and back.
4. For carries, candidates will be positioned at the heel and tip of the ladder. For two and three candidate carries, the individual located at the heel or butt shall give commands to achieve all movements and placements. For four or more candidate carries, the heel person located on the right side in the direction of travel shall give the commands. The following are the commands given:
 - a. The 1st command is preparatory, such as, "Prepare to **Lift** ladder"
 - b. The 2nd command is the action, such as, "**Lift** ladder"
 - c. Other commands involve the type of carry, such as, "Prepare to lift ladder, **Arms-length carry**"
5. When carrying tools up a ladder, both hands slide along the beams and shall remain in contact with the beams, NOT the rungs. While climbing, the free hand shall slide up the beam, ensuring NOT to remove the hand and re-grasp the beam.
6. When assisting a conscious victim down a ladder, both hands shall remain in contact with the back of the beams, NOT the rungs. While descending, the hands shall slide down the beams, ensuring NOT to remove hands and re-grasp the beams.
7. When removing a leg lock, candidates shall place both feet on the same rung (neutral position) before descending the ladder.

Performance Objective

Subject: Ground Ladders

Task: Deploy a 24' Extension Ladder (One Firefighter Raise)

Note: Proper body mechanics shall be used when lifting and lowering ladders.

Procedure:

1. Disengage the locking devices securing the ladder on the apparatus.

Note: Some apparatus does not have ladders secured on the outside, and are contained in a compartment. These ladders are deployed by sliding them out of the compartment from the rear of the apparatus.

2. Remove the roof ladder and place it on the ground, ensuring it is not directly exposed to the exhaust of the apparatus.
3. Remove the extension ladder, utilizing a low-shoulder carry and with the bed section against your body. Face the butt end of the ladder and carry with the butt slightly lowered.
4. Verify and verbalize for any overhead or ground obstructions in the area.
5. Carry the ladder to the desired location, kneel and remove the ladder from your shoulder.
6. Place the ladder on its beam and lay the ladder flat, with the bed section down on the ground.
7. Position yourself at the tip of the ladder, slide the butt of the ladder into the building, and raise the ladder to a vertical position with the fly section against the building.

Note: When carrying the ladder, you may “stick/spike” the butt into the building and directly raise the ladder while standing. Replaces steps 5-7.

8. Reposition the butt a safe distance from the building from the building.
9. Grasp the halyard and extend the fly section completely, without touching the building. Ensure both dogs are locked and press the tips into the building.
10. Grasp the excess halyard lying on the ground, lift the ladder leaving the tips on the building for stability, and reposition the butt approximately six (6) feet from the building. This shall be done without walking backwards.
11. Place a foot on the bottom rung, then pass the excess halyard through the ladder (approximately waist high) between the rungs.
12. Grasp the excess halyard underneath the rung it was passed through and form a bight. Pull the slack out of the halyard and keep it taut.

13. Tie a Clove-Hitch on a bight around the upper rung the halyard was passed through, with a Safety.
14. Rotate the ladder so the fly section is positioned out.

Note: Metal and fiberglass extension ladders shall be positioned with the fly section “out” for climbing. Wooden extension ladders shall be positioned with the fly section “in” for climbing.

15. After rotating the ladder, a proper climbing angle will be achieved and verified by utilizing the following methods:
 - a. The toes of both feet should touch the butt;
 - b. Stand erect with arms extending straight out and at shoulder level;
 - c. The hands should be positioned between the beams as if grasping a rung;
 - d. Maintain this position without leaning to compensate an incorrect angle.
16. Before climbing any ladder, verify and verbalize “Ladder is safe to climb.”
17. After verifying the ladder, heel the ladder by positioning yourself using one of the following methods:
 - a. Underneath: Stand with feet offset for stability, grasp both beams at eye level below a rung, apply constant pressure against the building while looking straight ahead.
 - b. Outside: Stand with one foot placed on the bottom rung, grasp both beams and press the ladder against the building.
18. While heeling the ladder, remain alert for falling objects and descending personnel.
19. Continue heeling the ladder until properly relieved.

Performance Objective

Subject: Ground Ladders

Task: Climb a Ladder

Procedure:

1. Verify ladder is safe for climbing and heeled.
2. Grasp the rungs with the palms down and the thumbs underneath the rungs.
3. Arms shall be extended straight out. Ensure not to reach upward and pull with the arms. This will keep the body away from the ladder, allowing the knees to move freely.
4. While ascending the ladder, grasp and step on alternate rungs simultaneously, so both hands and feet do not occupy the same rung at any time.
5. Climb using your legs, do NOT use your arms.
6. Keep your eyes straight ahead with an occasional glance toward the tip of the ladder.
7. Climb the ladder smoothly, so there is a minimum amount bounce and movement in the ladder.

Performance Objective

Subject: Ground Ladders

Task: Leg Lock on a Ladder

Procedure:

1. Verify ladder is safe for climbing and heeled.
2. Climb the ladder and stop at the designated height where work is to be performed.
3. Step up one (1) rung, and slide the opposite leg from the working side over the next rung (Up 1, Over 2).
4. Step down one (1) rung. With the leg wrapped around the locking rung, hook the foot on the beam (NOT the rung).
5. You should be standing on the rung initially stopped to perform work, with the opposite leg locked in place.
6. When removing a leg lock, candidates shall place both feet on the same rung (neutral position) before descending the ladder.

Performance Objective

Subject: Ground Ladders

Task: Lock on a Ladder with a Harness (Truck Belt)

Note: Instructional purposes only for individuals who are physically unable to perform a leg lock. Training Centers are NOT required to purchase a Truck Belt. These circumstances will be considered and understood for the state exam.

Procedure:

1. Verify ladder is safe for climbing and heeled.
2. The harness shall be fastened snug around the waist.
3. The locking device should be positioned to the side while ascending the ladder.
4. Climb the ladder and stop at the designated height where work is to be performed.
5. Reposition the locking device to the front and center.
6. Attach the locking device to the rung nearest the waist.

Performance Objective

Subject: Ground Ladders

Task: Climb a Ladder Carrying a Tool

Procedure:

1. Verify ladder is safe for climbing and heeled.
2. Grasp the tool needed to perform the work.
3. Place the free hand on the backside of the beam.
4. While ascending the ladder, slide the free hand on the backside of the beam maintaining continuous contact with the beam.
5. If possible, the hand carrying the tool is slid along the opposite beam.
6. Climb the ladder and stop at the designated height where work is to be performed.
7. Make a leg lock on the opposite side work is to be performed or use a harness, as previously instructed.
8. Alert personnel below of work to be performed.

Performance Objective

Subject: Ground Ladders

Task: Climb a Ladder with an Uncharged Hose Line

Procedure:

1. Verify ladder is safe for climbing and heeled.
2. Flake hose on the ground near the base of the ladder.
3. Facing the ladder, bring the hose up under the arm on the side work is to be performed.
4. Lay the hose across your chest and over the opposite shoulder, resting the nozzle at the small part of your back.
5. Ascend the ladder grasping the rungs until reaching the designated height where work is to be performed.
6. Make a leg lock on the opposite side work is to be performed or use a harness, as previously instructed.
7. Bring the nozzle over the shoulder in front of you, ensure the bale is closed, and signal for water to charge the hose line.
8. Alert personnel below of work to be performed.
9. Direct the nozzle down and away from the fire, then bleed the hose line and set the desired fog stream pattern if necessary.

Note: Do NOT direct the nozzle across the body to the opposite side work is being performed. This defeats the purpose of having a leg lock on the opposite side.

Performance Objective

Subject: Ground Ladders

Task: Assist a Conscious Victim down a Ladder

Procedure:

1. Verbally contact the victim, identify yourself, and inform them of the process about to occur.
2. Verify ladder is safe for climbing and heeled.
3. Ascend the ladder grasping the backside of the beams with both hands, and stop on the rung directly below the victim.
4. Maintain continuous contact with the beams throughout the entire process.
5. Before descending the ladder, explain the process of stepping down.
6. Descend the ladder only one (1) rung each time, bringing both feet to the neutral position. (Lower your right foot 1 rung, then lower your left foot even with the right).
7. Do NOT alternate your foot pattern, begin each step with the same foot.
8. Continuously assure the victim throughout the process.
9. Repeat this process until reaching the ground with the victim.

Performance Objective

Subject: Ground Ladders

Task: Deploy a Roof Ladder

Procedure:

1. Carry the Roof Ladder, in a low-shoulder carry, with the butt forward.

Note: The Roof Ladder can be carried with the tips forward.

2. Place the Roof Ladder on the ground at the base of the ladder to be climbed.
3. Open the hooks and ensure they're facing outward (away from you).
4. Raise the Roof Ladder and hook it to a rung on the ladder to be climbed.
5. With one (1) hand on the Roof Ladder, place the free hand on the backside of the opposite beam and slide the hand while ascending the ladder. Maintain continuous contact with the beam.
6. Ascend the ladder until your shoulder is approximately $\frac{2}{3}$ the height of the Roof Ladder ($\frac{1}{3}$ from the tips).
7. Insert your hand through the rungs of the Roof Ladder and place it on your shoulder.
8. When the Roof Ladder is placed on the shoulder, ascend the ladder grasping the rungs with both hands.
9. Stop at the designated height where work is to be performed.
10. Make a leg lock on the opposite side work is to be performed or use a harness, as previously instructed.
11. Remove the Roof Ladder from your shoulder, place it on the roof, and slide it on its beam to the peak of the roof.
12. When the hooks are beyond the peak, lay the Roof Ladder flat with hooks down, and pull back to catch the hooks on the roof.

HOSE

Introduction

Subject: Hose

Note:

1. All evolutions which involve making connections and couplings, require inspection of a gasket being present and the swivel being functional. This shall be done prior to deployment and after use.
2. "Gasket, Swivel" must be verbalized.
3. Visually inspect by looking down into the swivel section of the female coupling.
4. Physically inspect by placing a finger inside the swivel section of the female coupling to remove. Bend and pinch gasket while observing for any discrepancies.
5. When inserting or replacing a gasket, ensure it is seated properly in the groove of the female couplings by pressing the edges of the gasket down.
6. Hose and Appliances shall NOT be used without a gasket present.
7. When loading hose in the bed of the engine, connect couplings "hand tight."
8. If couplings are leaking water excessively, utilize spanner wrenches to tighten couplings.
9. When loading large diameter supply hose, all couplings shall be laid allowing them to deploy without flipping over. To achieve this, make a "Dutchman" (a reverse bend or short fold in the hose, ensuring the coupling is laid toward the front of the hose bed).
10. When loading attack hose lines, the total length of hose shall be one hundred fifty (150) feet for the state practical exams.
11. All hose loads should be loaded uniformly and evenly with the edge of the bed.
12. Adjustments for hose loads may be necessary, due to the location of discharge outlets and the configuration of hose beds.

Performance Objective

Subject: Hose

Task: Coupling Hose; Foot Tilt Method

Procedure:

1. With the hose lying flat on the ground, place the arch of your foot directly behind and touching the male coupling.

Note: Folding the male coupling over and lying on top of the hose is accepted.

2. Push your foot down pinning the male coupling against the ground. This will secure, stabilize, and cause the coupling to face upward.
3. Grasp the female coupling and position it facing the male coupling.
4. Align the Higbee cuts utilizing the Higbee indicators located on the male shank and the female swivel.
5. If the Higbee indicators are not visible, place the female coupling against the male coupling and turn counterclockwise until the Higbee cuts mate.
6. Turn the swivel clockwise to complete the connection.

Performance Objective

Subject: Hose

Task: Uncoupling Hose; Knee Press Method

Procedure:

1. Position the connected coupling perpendicular to the ground, with the male on the bottom and the female on top.
2. Place your knee directly behind the female and press downward using your body weight. This relieves pressure exerted on the connected coupling.
3. Quickly snap the swivel in a counterclockwise direction, breaking and loosening the seal of the connected coupling.
4. Remove your knee and body weight from the female.
5. Utilize a foot tilt to continue and complete the uncoupling process.
6. Inspect and verbalize "Gasket, Swivel."

Performance Objective

Subject: Hose

Task: Flat Load

Procedure:

1. Arrange fire hose in which the hose lies flat with successive layers (tiers) one upon the other.
2. Lay the 1st length of hose flat against the side of the bed, with the coupling 12-18 inches from the front of the bed for LDH. This space is reserved for couplings.

Note: In a split hose bed, start the load against the partition (baffle) with the coupling hanging below the bed. This allows the coupling to connect with the last coupling of the load on the opposite side of the partition.

3. Fold the hose back laying on itself and bring it toward the front of the bed.
4. Fold the hose at an angle and bring the hose back to the rear of the bed. Ensure it is laid next to the first section loaded.
5. Continue loading the hose in this manner to the other side of the bed, creating the 1st tier of the load.
6. Continue to load the hose in succession creating multiple tiers.

Note: Every other tier should be loaded approximately two (2) inches shorter than the previous tier. This helps the load maintain a flat appearance throughout the entire process. It also presents a visual aid in identifying the different tiers to unload the hose correctly.

Performance Objective

Subject: Hose

Task: Accordion Load

Procedure:

1. Arrange fire hose in which the hose lies on edge with successive folds adjacent to each other.

Note: The advantage of this load is firefighters can easily grasp several folds and place them on one (1) shoulder to carry.

2. Lay the 1st length of hose on its edge and against the side of the bed, with the coupling at the rear of the bed.

Note: In a split hose bed, start the load against the partition (baffle) with the coupling hanging below the bed. This allows the coupling to connect with the last coupling of the load on the opposite side of the partition.

3. Create a bend at the front of the bed and bring the hose back to the rear lying against the 1st length.
4. Fold the hose so the bend is even with the rear edge of the bed.
5. Lay the hose back to the front of the bed and continue loading in this manner to the other side of the bed.

Note: Stagger every other fold approximately two (2) inches from the previous fold. This helps the load maintain an accordion appearance throughout the entire process.

6. When the 1st tier is completed, angle the hose up from last bend at the front of the bed toward the rear to begin the 2nd tier.
7. Make the 1st fold of the 2nd tier directly over the last fold of the 1st tier at the rear of the bed.
8. Continue with the 2nd and subsequent tiers in the same manner.

Performance Objective

Subject: Hose

Task: Horseshoe Load

Procedure:

1. Arrange fire hose in which the hose lies on edge, in a U-shaped configuration, around the perimeter of the hose bed working toward the center.

Note: The advantage of this load is it has fewer sharp bends in the hose than the Accordion and Flat loads.

2. Lay the 1st length of hose on its edge and against the perimeter of the bed.

Note: In a split hose bed, start the load against the partition (baffle) with the coupling hanging below the bed. This allows the coupling to connect with the last coupling of the load on the opposite side of the partition.

3. At the rear of the bed, fold the hose so the bend is even with the rear edge of the bed, then lay the hose back around the perimeter inside the previous length.
4. Lay succeeding lengths progressively inward toward the center until the entire space is filled, completing the 1st tier.
5. Lay the hose from the last fold of the 1st tier flat, bringing it over to a front corner of the bed to start the 2nd tier.
6. Continue with the 2nd and subsequent tiers in the same manner.

Performance Objective

Subject: Hose

Task: Hydrant Connection

Procedure:

1. While working with the hydrant, do not stand in front of any outlet cap or lean over the top of hydrant.
2. Using a hydrant wrench, ensure caps not being utilized are tight before removing the cap to be used (Tighten, Tighten, Loosen). Remove the necessary cap.
3. Inspect the hydrant for damage or debris.
4. Open the hydrant by turning the operating nut counter-clockwise.
5. Flush hydrant verifying adequate water source, ensuring outlet port has full orifice of water flow and water is clear.
6. Close (shut down) the hydrant by turning the operating nut clockwise.
7. Inspect the hose verifying the presence of a gasket and the swivel is functional.

Note: If additional hose is needed other than the supply line, a hydrant valve can be attached (to one of the other ports) to utilize lines without closing the hydrant.

8. Attach the hose to hydrant and await signal to charge the hose. DO NOT open the hydrant and charge the hose until signaled by the apparatus operator.
9. After opening the hydrant fully, proceed to the apparatus bringing the hydrant wrench with you. DO NOT leave the hydrant wrench at the hydrant.
10. While returning to the apparatus, remove any kinks in the hose line and tighten any couplings leaking water.

Performance Objective

Subject: Hose

Task: Apply a Hose Clamp

Note: Hose clamps are utilized to stop the water flow without shutting down the water source for the following applications: To prevent charging the hose remaining in the bed during a forward lay; Replacing a burst section of hose; Extending a hose line; To prevent discharge of water prior to making connections during a reverse lay.

Procedure:

1. Apply the clamp at least twenty (20) feet behind the apparatus.
2. Apply the clamp no closer than five (5) feet from the coupling and on the supply side.
3. Position yourself on the side of the hose facing the incident.
4. Place the hose centered in the jaws to avoid pinching the hose.
5. Using a “press down” clamp, position yourself on the supply side of the clamp.
6. Using a “screw” clamp, position yourself on the latched side (opposite the hinged side) and on the supply side of the clamp.

Performance Objective

Subject: Hose

Task: Forward Hose Lay

Note: This objective is performed by two (2) individuals (Hydrant person and Apparatus operator) simultaneously.

Procedure:

1. Traveling in the direction of the incident, the apparatus should stop approximately ten (10) feet past the hydrant.

Hydrant person:

2. Take tools and appliances needed to complete hydrant connection.
3. At the rear of the hose bed, grasp the female or sexless coupling and enough hose (approximately 30 feet) to reach the hydrant.
4. Pull the hose from the bed, then pass the hydrant on the street side and wrap the hydrant in a manner to restrain the hose when the apparatus proceeds to the incident.
5. After opening and flushing the hydrant, signal the driver to proceed to the incident and close the hydrant.
6. When sufficient hose is laid on the ground, complete the hydrant connection as previously instructed.

Apparatus operator:

7. When apparatus has arrived at the incident, apply a hose clamp behind the apparatus as previously instructed.
8. Signal the hydrant person to charge the hose line.
9. Remove enough hose from the bed to reach the intake of the apparatus.
10. Break the coupling and place the unused end back in the hose bed.
11. Attach the male or sexless coupling to the intake of the apparatus and remove the hose clamp.

Performance Objective

Subject: Hose

Task: Reverse Hose Lay

Note: This objective is performed by two (2) or more personnel (Incident scene personnel and Apparatus operator) simultaneously.

Procedure:

1. Traveling in the direction of the water source, the apparatus will stop at the scene of the incident.

Incident scene personnel:

2. All equipment needed for the incident shall be removed and staged. Ensure enough hose is removed to accomplish necessary tasks.
3. Safely anchor the supply hose line, by kneeling or standing on the hose.
4. Signal the apparatus operator to proceed to the water source.
5. On scene, apply a hose clamp as previously instructed.
6. Signal the apparatus operator to charge the hose line.

Apparatus operator:

7. When the apparatus has arrived at the water source, complete the hydrant connection as previously instructed.
8. Make all necessary hose and appliance connections for the incident.

Performance Objective

Subject: Hose

Task Hydrant Connection with Hard-Suction Hose and/or a short Large Diameter Hose (LDH)

Procedure:

1. Spot the pumper near the hydrant keeping in mind the length of the hard-suction hose (Generally 10 feet).
2. Perform steps 1-6 of Hydrant Connection, as previously instructed.
3. Remove the large intake cap on the apparatus, ensuring all valves are closed.
4. Remove the hard-suction hose/LDH from the apparatus, and inspect the hose verifying the presence of a gasket and the swivel is functional.
5. Attach the hose to the hydrant using the appropriate adapters if necessary.
6. While holding the hard-suction hose and standing on the approach side, slowly move the apparatus toward the hydrant.
7. Position the apparatus as necessary, and attach the hard-suction hose to the intake.
8. Open the hydrant completely and place chafing blocks as necessary.

Performance Objective

Subject: Hose

Task: Pulling/Advancing Hose Lines from a Flat or Accordion load; Shoulder Load

Procedure:

1. Stand on the tailboard or ground to reach the hose load.
2. Facing the hose bed, grasp the nozzle or coupling, with several folds using both hands. Pull the folds out of the hose bed, approximately four (4) feet.
3. While still grasping the load, turn to face away from the hose bed. Twist the load on your shoulder so the nozzle or coupling will be positioned against your body, and in front of you at the waist.
4. Walk away from the apparatus until enough hose has been removed on your shoulder to complete the operation.

Performance Objective

Subject: Hose

Task: Pre-connect attack line; Flat Load

Procedure:

1. Connect three (3) sections of hose together and connect the female coupling to the discharge. Lay the 1st length of hose flat in the hose bed.
2. Make a fold in the hose even with the edge of the bed and continue loading the hose with each tier on top of the previous fold.

Note: This can be loaded double stacked (side by side), to accommodate the configuration of the hose bed. Angle the hose and make a fold laying adjacent to the 1st fold, ensuring all tiers of folds are evenly stacked. Continue loading the hose in the same manner.

3. At approximately one-third (1/3) the total length of the hose load, make a fold which extends beyond the hose bed, to serve as a handle to assist deploying the hose.
4. Continue loading the hose in the same manner, building each tier with folds stacked evenly. At approximately two-thirds (2/3) the total length of the hose load, make another fold which extends beyond the hose bed, to serve as a second handle to assist deploying the hose.
5. Upon completion, connect the nozzle and lay it on top of the hose load at the rear of the bed.

Performance Objective

Subject: Hose

Task: Deploy a Pre-connect Flat Load

Procedure:

1. Slide one arm through the larger hose handle and grasp the smaller hose handle with the same hand.
2. Grasp the nozzle with the opposite hand.
3. Pull the entire hose load completely from the hose bed.
4. Advance hose toward the fire or entry point of structure.
5. As hose becomes taut, release the smaller handle, and continue to deploy.
6. Again as hose becomes taut, release the larger handle, and continue to deploy.
7. When hose is fully deployed, signal the driver operator for water and be prepared for a backward force (nozzle reaction) in the hose line due to pressure.
8. Bleed hose line of any air before continuing.

Performance Objective

Subject: Hose

Task: Pre-connect attack line; Minuteman Load

Procedure:

1. Connect the female coupling of one (1) section of hose to the discharge. Lay the hose flat in the bed, and place remaining section of hose at the front and out of the bed.
2. Connect the other two (2) sections of hose together with the nozzle.
3. Place the nozzle on top of the 1st hose, at the rear of the bed.

Note: This can be loaded double stacked (side by side), to accommodate the configuration of the hose bed. Angle the hose and make a fold laying adjacent to the nozzle, ensuring all tiers of folds are evenly stacked. Continue loading the hose in the same manner.

4. Load the hose to the front, then back to the rear of the bed, making folds evenly with the nozzle. Continue loading the hose in the same manner until the female coupling is reached.
5. Connect the female coupling to the male coupling of the 1st hose section loaded.
6. Load the remainder of the 1st section of hose in the same manner.

Performance Objective

Subject: Hose

Task: Deploy a Pre-connect Minuteman Load

Procedure:

1. While facing the hose bed, grasp the nozzle, and pull the entire stack approximately one-third (1/3) from the hose bed.
2. Rotate your body facing the direction of travel, allowing the hose stack to rest on your shoulder, with the nozzle at your waist.
3. Walk away from the apparatus, pulling the remainder of the hose completely from the hose bed.

Note: When performed properly, the hose should be evenly distributed on your shoulder.

4. While advancing toward the fire or entry point of structure, deploy the hose by flaking each fold separately, off your shoulder.
5. When hose is fully deployed, signal the driver operator for water and be prepared for a backward force (nozzle reaction) in the hose line due to pressure.
6. Bleed hose line of any air before continuing.

Performance Objective

Subject: Hose

Task: Pre-connect attack line; Triple Layer Load (S Load)

Procedure:

1. Connect the female coupling to the discharge and extend the hose in a straight line away from the apparatus.
2. Pick up the hose approximately two-thirds (2/3) of the distance from the apparatus to the nozzle, and carry it back to the apparatus. This will form three layers of hose, stacked one on the other, with a fold at each end.
3. Pick up the entire length of the three layers, and begin loading the hose by folding the three layers into the hose bed.
4. Fold the layers at the front and the rear of the bed, laying them on top of the previously laid hose. Make all folds at the rear even with the edge of the hose bed.

Note: This can be loaded double stacked (side by side), to accommodate the configuration of the hose bed. Angle the hose and make a fold laying adjacent to the nozzle, ensuring all tiers of folds are evenly stacked. Continue loading the hose in the same manner.

5. Continue to lay the hose in the bed in an "S" shape configuration until the entire length is loaded.
6. A fold can be secured to the nozzle with a rope or strap, or by inserting the fold through the bale of the nozzle (The fold must be removed from the bale prior to charging the hose line).

Performance Objective

Subject: Hose

Task: Deploy a Pre-connect Triple Layer Load (S Load)

Procedure:

1. While facing in the direction of travel, place the nozzle and fold of the first tier over your shoulder.
2. Walk away from the apparatus, pulling the remainder of the hose completely from the hose bed.
3. Flake the hose fold off your shoulder.
4. Advance toward the fire or entry point of structure.
5. Signal the driver operator for water and be prepared for a backward force (nozzle reaction) in the hose line due to pressure.
6. Bleed hose line of any air before continuing.

Note: The Triple Layer is the quickest to deploy and load. It provides less stress (weight) on the individual, limiting physical exertion and exhaustion in using the load.

Performance Objective

Subject: Hose

Task: Advance Hose up a Ladder

Note: It is easier, faster, and safer to advance a dry, uncharged hose line up a ladder, than a charged hose line.

Procedure:

1. Flake hose on the ground near the base of the ladder.
2. Facing the ladder, bring the hose up under the arm and across the chest.
3. Lay the hose over the shoulder, resting the nozzle at the small part of your back, on the opposite side work is to be performed.
4. After verifying ladder is safe to climb, ascend the ladder grasping the rungs until reaching the desired height.

Note: When advancing hose above the 2nd floor, position additional personnel every 10 feet on the ladder. There should be enough hose between personnel, with the hose over the shoulder on the working side, to allow maneuverability without affecting other personnel.

5. Apply a leg lock (or attach a harness) on the opposite side work is being performed, as instructed in the Ladder Performance Objective.
6. If available/needed, attach a hose rope tool or a hose strap to secure the hose to the ladder.
7. Bring the nozzle over the shoulder in front of you, ensure the bale is closed, and signal for water to charge the hose line.
8. Alert personnel below of work to be performed.
9. Direct the nozzle down and away from the fire, then bleed the hose line and set the desired fog stream pattern if necessary.

Note: Do NOT direct the nozzle across the body to the opposite side work is being performed. This defeats the purpose of having a leg lock on the opposite side.

Performance Objective

Subject: Hose

Task: Interior Standpipe Connection and Advance Hose up a Stairway

Procedure:

1. After confirming order with command, bring hose, tools and appliances needed for the operation (a minimum of 100 feet of hose).
2. Connect to the standpipe one (1) floor below the fire floor (If fire is located on the 5th floor, connect to standpipe on the 4th floor).
3. Remove the cap from the standpipe outlet and inspect for any debris or tampering.
4. Open the valve and flush the standpipe to ensure adequate water source, then close the valve.
5. Attach a gated wye ("Gasket, Swivel") to the standpipe outlet. This appliance allows for a 2nd attack hose line to be attached. A reducer ("Gasket" only) can be used, but is limited to one (1) attack line.
6. Attach the hose line ("Gasket, Swivel") to the gated wye.
7. The entire hose load should be placed on the shoulder next to the outside wall of the stairway, with the nozzle against your body.
8. Advance up the stairway beyond the fire floor, deploying the hose and laying it against the outside wall.

Note: You may pull the hose up, through the center of an open stairway to minimize hose usage.

9. At a desired point, create a loop in the hose and advance down the stairway returning to the fire floor (when descending, deploy the hose to the inside of the stairway).
10. When positioned at the door of the fire floor, signal for water to charge the hose line.
11. Check the door for heat with the back of an ungloved hand. Start at the bottom of the door and move your hand toward the top.
12. Bleed the hose line and set the desired fog stream pattern if necessary.
13. Position personnel at every floor and landing (or any point of resistance), to aid in advancing the charged hose line.

Performance Objective

Subject: Hose

Task: Replace a Burst Section

Note: Inspect and verbalize “Gasket, Swivel” for every female coupling throughout the entire process.

Procedure:

1. Bring two (2) sections of equal diameter hose to replace one (1) section. Both sections should be donut rolls, which provides the easiest and quickest method to replace hose.
2. Apply a hose clamp no closer than five (5) feet from the coupling and on the supply side. Stand on the supply side of the clamp, when applying to the hose.
3. Place the hose centered in the jaws to avoid pinching the hose, then close the clamp to shut off the water supply.

Note: Closing a valve to shut off the water supply is the preferred and safest method.

4. After the water flow has stopped, break the 1st (nearest) coupling using the knee press method, as previously instructed. Toss the female coupling of the burst section to the side opposite from the replacement hose rolls.
5. Unwrap the female coupling of the 1st hose roll, exposing the male coupling. Connect the female coupling to the male coupling of the clamped hose.
6. Unwrap the female coupling of the 2nd hose roll, exposing the male coupling. Connect the female coupling to the male coupling of the 1st hose roll.
7. Grasp the male coupling and the connected coupling of the hose rolls, then advance to the 2nd coupling of the burst section (this will unroll the replacement hose).
8. Break the 2nd coupling using the knee press method, as previously instructed. Toss the male coupling of the burst section to the side opposite from the replacement hose.
9. Connect the male coupling to the female coupling to complete the task. Ensure the nozzle bale is closed, then open and remove the hose clamp from the hose.

Performance Objective

Subject: Hose

Task: Extend a Hose Line; With same Diameter Hose

Note: Inspect and verbalize "Gasket, Swivel" for every female coupling throughout the entire process.

Procedure:

1. Bring additional sections of equal diameter hose and a hose clamp to the nozzle.
2. Open the nozzle slightly, to allow trickling of water flow.
3. Apply the hose clamp no closer than five (5) feet from the nozzle, as previously instructed.

Note: Closing a valve to shut off the water supply is the preferred and safest method.

4. After the water flow has stopped, remove the nozzle, attach additional hose line(s), and reattach the nozzle at the end of the additional hose line.
5. Open and remove the hose clamp from the hose.

Performance Objective

Subject: Hose

Task: Extend a Hose Line; With smaller Diameter Hose

Note: Inspect and verbalize “Gasket, Swivel” for every female coupling throughout the entire process.

Procedure:

1. Bring additional sections of smaller (1¾ inch) diameter hose, a smaller nozzle, a hose clamp, and a gated wye to the nozzle of the larger diameter hose. The gated wye allows for a 2nd hose line to be attached. A reducer (“Gasket” only) can be used, but is limited to one (1) attack line.
2. Open the nozzle slightly, to allow trickling of water flow.
3. Apply the hose clamp no closer than five (5) feet from the nozzle, as previously instructed.

Note: Closing a valve to shut off the water supply is the preferred and safest method.

4. After the water flow has stopped, remove the nozzle on the larger diameter hose. Attach the gated wye or reducer, additional 1¾ inch hose line(s), and the smaller nozzle(s) at the end of the additional hose line(s).

Note: If a breakaway nozzle is used on the larger diameter hose, the nozzle tip shall be removed, and the smaller diameter hose will be attached directly to the breakaway nozzle. The hose clamp and gated wye or reducer, is not needed for this method.

5. Open and remove the hose clamp from the hose.

Performance Objective

Subject: Hose

Task: Establish and Operate a Large Handline (2½ or 3-inch) Exposure Loop;
Keli-Coil

Procedure:

1. Grasp the nozzle and make a large loop in the hose. The loop should be approximately fifteen (15) feet in diameter. Approximately forty-five (45) feet of the hose line will be utilized.
2. The hose line should cross five (5) feet from the coupling, on the discharge side.
3. Pass the nozzle under the hose approximately two (2) feet, to achieve the appropriate working position.
4. Directly behind the nozzle, approximately ten (10) feet of the hose line should be straight to aid in controlling the fire stream.
5. Sit on the hose line where it crosses to operate the nozzle.
6. Incidents involving long durations, use a rope or strap to tie a clove hitch where the hose line crosses, to secure the hose in place.

Performance Objective

Subject: Hose

Task: Supply an FDC (Fire Department Connection)

Note: Inspect and verbalize "Gasket, Swivel" for every female coupling throughout the entire process.

Procedure:

1. After confirming order with command, bring hose, tools and appliances needed for the operation.
2. Using 2½ or 3-inch diameter hose, lay the hose with the male coupling toward the FDC and female coupling at the apparatus.
3. Remove the plugs on the FDC, then inspect for any damage, debris, and clapper valve is present. Connect the male coupling to the left side of the FDC.
4. Remove the caps on the discharge of the apparatus, then connect the female coupling to the discharge. Charge the hose line to supply water to the FDC.
5. Connect a 2nd hose line to the right side of the FDC and to the discharge of the apparatus. Charge the 2nd hose line to adequately supply the FDC.
6. If the swivels on the FDC are rusted or do not operate freely, there are two (2) options to rectify:
 - a. Utilize double-male and double-female adaptors to create a functional swivel; or if adaptors are not available,
 - b. Rotate the male coupling of the hose line counterclockwise five (5) turns, then thread the male coupling into the FDC. The hose will lay flat without any twists or kinks.
7. For a reverse hose lay, the double-male adaptor must be utilized at the FDC and the double-female adaptor must be utilized at the discharge of the apparatus.

Performance Objective

Subject: Hose

Task: Establish and Deploy a Foam Line from the Apparatus

Note: Inspect and verbalize "Gasket, Swivel" for every female coupling throughout the entire process.

Procedure:

1. After confirming order with command, bring hose, tools and appliances needed for the operation.
2. Identify and select the correct foam concentrate necessary for the type of fire indicated.
3. Remove the cap on the discharge of the apparatus, then connect a reducer ("Gasket" only). A gated wye is NOT applicable for this evolution.
4. Attach the in-line eductor to the apparatus or in the hose line. Adjust the eductor metering valve to the same percentage rating indicated for the foam concentrate.
5. Attach the proper length of hose, at least fifty (50) feet and no more than two hundred (200) feet, to the discharge of the in-line eductor.
6. Attach the nozzle at the end of the hose line.
7. Place the eductor suction hose into the foam concentrate. The in-line eductor should not be more than six (6) feet above the liquid surface of the foam concentrate.
8. Charge the hose line and open the nozzle fully.
9. Increase the water supply pressure as required to effect finished foam.

Performance Objective

Subject: Hose

Task: Establish and Deploy a Courtyard Lay

Note: Inspect and verbalize “Gasket, Swivel” for every female coupling throughout the entire process.

Procedure:

1. After confirming order with command, bring hose, tools and appliances needed for the operation.
2. Remove the cap on the discharge of the apparatus.
3. Connect the required length of 2½ or 3-inch diameter hose to the discharge of the apparatus, utilizing a minimum of one hundred (100) feet of hose.
4. Extend the hose to the desired location.
5. Attach a gated wye to the end of the supply hose line, ensuring the valves are closed. This appliance allows for a 2nd attack hose line to be attached.
6. Charge the supply hose line.
7. Connect a 1¾ inch attack hose line to the gated wye, utilizing a minimum of fifty (50) feet of hose.
8. Open the gated wye valve to charge the attack hose line.

Performance Objective

Subject: Hose

Task: Establish and Deploy a portable Master Stream Device; Ground Monitor

Note: Inspect and verbalize “Gasket, Swivel” for every female coupling throughout the entire process.

Procedure:

1. After confirming order with command, bring hose, tools and appliances needed for the operation.
2. Place the portable monitor at the desired location on a solid, level surface.
3. Secure the monitor as necessary.
4. Remove the cap on the discharge of the apparatus.
5. Connect the required length of 2½ or 3-inch diameter hose to the discharge of the apparatus.
6. Extend and connect the hose line(s) to the portable monitor.
7. Position yourself behind the portable monitor to operate properly.
8. Signal for water to charge the hose line.
9. Adjust the nozzle elevation and direction as needed.

Performance Objective

Subject: Hose

Task: Straight Hose Roll

Procedure:

1. Lay the hose out straight and flat on a clean surface.
2. Inspect and verbalize "Gasket, Swivel"
3. Roll the male coupling over onto the hose to start the roll.
4. Form a coil that is open enough to allow your fingers to be inserted.
5. Continue to roll the coupling over onto the hose forming an even roll. As the roll increases in size, keep the edges aligned to make a uniform roll.
6. Lay the completed hose roll on its side.
7. With your foot, lightly tamp any protruding coil edges down into the roll.

Performance Objective

Subject: Hose

Task: Donut Roll

Procedure:

1. Lay the hose out straight and flat on a clean surface.
2. Inspect and verbalize "Gasket, Swivel"
3. Grasp the male coupling and flip it over creating a bend in the hose. Continue to carry the male to the female coupling, keeping the hose flat.
4. Place the male coupling evenly next to the female.
5. Return to the bend in the hose and face the couplings.
6. From the bend, measure approximately 2½ feet on the male side of the hose.
7. Grasp the hose on the male side and start rolling toward the male coupling.
8. Form a coil that is open enough to allow your fingers to be inserted.
9. While rolling the hose, pull the female side of the hose back a short distance to relieve the tension.
10. When the roll approaches the male coupling, lay the roll on its side.
11. To complete the roll, bring the female coupling around the roll covering the male coupling.
12. The female coupling should be positioned directly across (180 degrees) from the male coupling.

Performance Objective

Subject: Hose

Task: Twin Donut Roll

Procedure:

1. Lay the hose out straight and flat on a clean surface.
2. Inspect and verbalize "Gasket, Swivel"
3. Grasp the male coupling and turn toward the female coupling. Do NOT flip the male coupling over.
4. Continue carrying the male to the female coupling, creating a curve in the hose. This should resemble a curve on a "race track."
5. Place the male coupling evenly next to the female.

Note: The couplings can be offset approximately one (1) foot to connect them together when the roll is completed. This will protect the threads on the male coupling.

6. Return to the curve in the hose and face the couplings.
7. Push the curve end over toward the couplings, creating a triangle shape in the hose, and start rolling the hose.

Note: A rope or strap can be inserted in the center of the roll, utilized to secure the shape and for carrying the roll.

8. Continue rolling the hose to the couplings to complete the roll.

Performance Objective

Subject: Hose

Task: Damaged Hose Roll

Procedure:

1. Lay the hose out straight and flat on a clean surface.
2. Inspect and verbalize "Gasket, Swivel"
3. Roll the female coupling over onto the hose to start the roll.
4. Form a coil that is open enough to allow your fingers to be inserted.
5. Continue to roll the coupling over onto the hose forming an even roll. As the roll increases in size, keep the edges aligned to make a uniform roll.
6. Lay the completed hose roll on its side.
7. With your foot, lightly tamp any protruding coil edges down into the roll.

Note: The following is an alternate method. Tie a rag on the hose (usually where the damage is located on the hose) to easily identify it is damaged. Then make a straight roll as previously noted.

FORCIBLE ENTRY

Introduction

Subject: Forcible Entry

Note:

1. Forcible Entry refers to the techniques used to gain access into a compartment, structure, facility, or site when the normal means of entry is locked or blocked.
2. When applicable, the “Try before you Pry” method shall be performed prior to Forcible Entry. This refers to trying to open the access point by normal means.
3. There are multiple locking devices, which involve various tactics and tools, to force open.
4. The “Forcible Entry” procedures are NOT comprised of all the circumstances confronted in the ever-changing environments we experience. Nonetheless, the basic skills necessary to execute forcible entry are presented.
5. There are numerous categorized tools to achieve forcible entry, and some are specific to relevant applications.
 - a. Cutting Tools
 - b. Prying Tools
 - c. Pushing/Pulling Tools
 - d. Striking Tools
6. Whenever possible, the “Through-the-Lock” method utilizing a K-Tool or A-Tool, should be attempted first. This technique is effective and does minimal damage to the door.
7. All glass panes are plate glass. There are two basic types:
 - a. Regular plate: usually found in residential occupancies.
 - b. Tempered plate: usually found in commercial occupancies.
8. Hurricane windows are becoming more popular and are usually found in coastal states.
9. When breaking glass, hands must be above the point of impact and outside the door or window frame.
10. Turn your face down/away from the window and loudly verbalize “BREAKING GLASS” to alert individuals of your actions.
11. Using a tool, remove all remaining glass from the window frame.
 - a. Top
 - b. Side nearest to you
 - c. Side away from you
 - d. Bottom

Performance Objective

Subject: Forcible Entry

Task: Outward Swinging Doors (opens toward you)

Procedure:

1. Select the appropriate tool(s).
2. If outside, approach from the windward side.
3. Check the conditions of the building (Example: Possible Backdraft). Pull a glove down and use the back of your hand to feel the door for heat.
4. Try before you Pry.
5. Position yourself with a shoulder or foot against the door.
6. Place the Adz or blade of the Halligan between the door and the jamb near the locking mechanism.
7. Another individual will strike and force the blade against the jamb.
8. Pry the tool away from the door, separating the door from the jamb. As you rotate your body, use the wall for protection.
9. Open the door when the lock has cleared the "Keeper".

Performance Objective

Subject: Forcible Entry

Task: Inward Swinging Doors (opens away from you)

Procedure:

1. Select the appropriate tool(s).
2. If outside, approach from the windward side.
3. Check the conditions of the building (Example: Possible Backdraft). Pull a glove down and use the back of your hand to feel the door for heat.
4. Try before you Pry.
5. Secure the door by attaching a rope or webbing prior to forcing.
6. Position yourself using the wall for protection.
7. Insert the Adz or blade of the Halligan between the door and jamb near the locking mechanism.
8. Make short pries to separate the door and jamb to create an access window.
9. To open the door, alternate the fork end to pry and push the door until the lock has cleared the "Keeper".

Performance Objective

Subject: Forcible Entry

Task: Inward Swinging Doors (Wood Frame)

Procedure:

1. Select the appropriate tool(s).
2. Try before you Pry.
3. Secure the door by attaching a rope or webbing prior to forcing.
4. Remove the "Stop Jamb" exposing the lock.
5. Position yourself using the wall for protection.
6. Insert the fork of the Halligan between the door and frame near the "Keeper".
7. Pry the tool away until the bolt has cleared the "Keeper".

Performance Objective

Subject: Forcible Entry

Task: Double Swinging Doors

Procedure:

1. Select the appropriate tool(s).
2. If outside, approach from the windward side.
3. Check the conditions of the building. Pull a glove down and use the back of your hand to feel the door for heat.
4. Try before you Pry.
5. Position yourself with a shoulder or foot against the door.
6. Place the Adz or blade of the Halligan between the doors near the locking mechanism.
7. Pry the tool away, separating the doors until the bolt has cleared the "Keeper".

Performance Objective

Subject: Forcible Entry

Task: Tempered Plate Glass Doors

Procedure:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building.
4. Try before you Pry.
5. Using a pointed striking tool, strike the bottom corner of the glass panel.
6. Clear remaining glass from the door edge.
7. Remove any obstructions from the opening.

Performance Objective

Subject: Forcible Entry

Task: Sliding Doors

Procedure:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building.
4. If the door is barred or blocked, the glass must be broken or another point of entry must be found.
5. Try before you Pry.
6. Doors that slide into an adjacent wall, should be pried in a manner similar to a swinging door. Although, it must be pried straight back from the frame.
7. Patio Sliding Doors, a panel should be pried up or lifted out of its track and removed in one piece.
8. If unable to pry and remove panel, then breaking the glass must be accomplished to gain entry.
9. Remove any obstructions from the opening.

Performance Objective

Subject: Forcible Entry

Task: Overhead Sectional Doors

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building.
4. Try before you Pry.
5. Determine if the door has a separate motor drive or remote control.
6. Pry upward at the bottom of the door.
7. If unsuccessful, break and remove a panel out of the door. Reach in and use the internal mechanism to open.
8. If unsuccessful, use a rotary saw to make a triangular shaped cut of sufficient size to gain entry.
9. After entering, unlock and open the door.
10. Use a wedge, vice grips or any device, to effectively block and keep the door open so it will not close.

Performance Objective

Subject: Forcible Entry

Task: Overhead Rolling Steel Doors

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building.
4. Try before you Pry.

Note: "Rolling Steel Doors" are among the toughest forcible entry challenges faced by firefighters.

5. Use a rotary saw to make a triangular shaped cut of sufficient size to gain entry.

Note: A square or rectangular shaped cut can be made, however it is more labor intensive and time consuming.

6. If possible, unlock and open the door.
7. Use a wedge, vice grips or any device, to effectively block and keep the door open so it will not close.

Performance Objective

Subject: Forcible Entry

Task: Through the Lock Method; K-Tool

Note: Instructional purposes only. Training Centers are NOT required to purchase a K-Tool.

Procedures:

1. Approach from the windward side.
2. Check the conditions of the building.
3. Try before you Pry.
4. Slide K-Tool over the lock cylinder on the door.
5. Tap the K-Tool down with the Halligan or flat head axe.
6. Insert the Adz of the Halligan into the stirrup of the K-Tool.
7. Pry upward causing the cylinder to pull out of the door.
8. Determine the type of locking mechanism.
9. Use a key tool to manipulate the lock device.
10. When latch is released, open the door.

Performance Objective

Subject: Forcible Entry

Task: Through the Lock Method; A-Tool

Note: Instructional purposes only. Training Centers are NOT required to purchase an A-Tool.

Procedures:

1. Approach from the windward side.
2. Check the conditions of the building.
3. Try before you Pry.
4. Slide V notch of the A-Tool over the lock cylinder on the door.
5. Tap the A-Tool, with a flat head axe, firmly behind the lock cylinder.
6. If necessary, insert the blade of the axe behind the head of the A-Tool to prevent damaging the door while prying.
7. Pry upward causing the cylinder to pull out of the door.
8. Determine the type of locking mechanism.
9. Use a key tool to manipulate the lock device.
10. When latch is released, open the door.

Performance Objective

Subject: Forcible Entry

Task: Fixed Glass Panel; Regular Plate

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building and look inside the window.
4. Using the blunt end of a tool, strike the top corner of the pane.
5. Using a tool, remove all remaining glass from the window frame.
6. Remove any obstructions around the window.
7. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objective

Subject: Forcible Entry

Task: Fixed Glass Panel; Tempered Plate

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building and look inside the window.
4. Using the pick or point end of a tool, strike the bottom corner of the pane.
5. Using a tool, remove all remaining glass from the window frame.
6. Remove any obstructions around the window.
7. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objective

Subject: Forcible Entry

Task: Checkrail Windows; Wood Frame

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Remove the window screen.
4. Check the conditions of the building and look inside the window.
5. Try before you Pry.
6. Pry upward in the center of the bottom sash. This should dislodge the locking device from the wood sash allowing the window to open.
7. If unsuccessful, break the glass of the lower pane in the top corner.
8. Using a tool, remove all remaining glass from the window sash.
9. Unlock the window and slide the lower sash upward.
10. Remove any obstructions around the window.
11. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objectives

Subject: Forcible Entry

Task: Checkrail Windows; Metal Frame

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Remove the window screen.
4. Check the conditions of the building and look inside the window.
5. Try before you Pry.
6. Attempt to gently pry upward in the center of the bottom sash, in case window is not properly secured.

Note: Applying too much force when prying metal frame windows usually will prematurely break the glass.

7. If unsuccessful, break the glass of the lower pane in the top corner.
8. Using a tool, remove all remaining glass from the window sash.
9. Unlock the window and slide the lower sash upward.
10. Remove any obstructions around the window.
11. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objective

Subject: Forcible Entry

Task: Casement Windows

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building and look inside the window.
4. Try before you Pry.
5. Attempt to pry outward in the center of the sash.
6. If unsuccessful, break the glass of the lowest pane closest to the crank (use the blunt end of the tool).

Note: If a crank is not present, break the pane closest to the lock.

7. Using a tool, remove all remaining glass from the window sash.
8. Cut through the screen and unlock the window.
9. Operate the crank to open the window.
10. Remove the screen and any obstructions around the window.
11. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objectives

Subject: Forcible Entry

Task: Awning Windows

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building and look inside the window.
4. Try before you Pry.
5. Attempt to pry outward in the bottom center of the sash.
6. If unsuccessful, break the glass of the lower awning in the top corner (use the blunt end of the tool).
7. Using a tool, remove all remaining glass from the window sash.
8. Remove the screen and operate the crank to open the window.
9. Using the fork of the Halligan, pry the sash from the hinge and remove the frame.
10. Remove any obstructions around the window.
11. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objective

Subject: Forcible Entry

Task: Jalousie Windows

Note: These windows are commonly found on doors.

Procedures:

1. Select the appropriate tool(s).
2. Approach from the windward side.
3. Check the conditions of the building and look inside the window.
4. Try before you Pry.
5. Remove all window panes by breaking glass from top to bottom.
6. Remove the screen and any obstructions around the window.
7. Sweep and Sound the floor for structural integrity before entering structure.

Performance Objective

Subject: Forcible Entry

Task: Hurricane Windows

Note: These windows are commonly found in coastal states.

Procedures:

- 1.

VENTILATION

Introduction

Subject: Tactical Ventilation

Note:

1. Tactical ventilation is the planned, systematic and coordinated removal of heated air, smoke, gases and other airborne contaminants from a structure, replacing them with cooler/fresher air to meet the incident priorities of life safety, stabilization and property conservation.
2. Confirmation with the Incident Commander (IC) to perform tactical ventilation must be accomplished.
3. Coordination with interior crews and other fire ground activities is vital.
4. The type of tactical ventilation (Horizontal vs. Vertical, and Natural vs. Mechanical) performed, must be the most appropriate for the conditions and situation.
5. Availability of existing openings (Skylights, Ventilator Shafts, Monitors, Hatches) should be utilized whenever possible.
6. If necessary, inspection holes should be used to locate the fire. There are two primary types:
 - a. Kerf cut (Single cut the width of the saw blade).
 - b. Triangle cut

Performance Objective

Subject: Tactical Ventilation

Task: Horizontal (Natural)

Procedure:

1. Confirm with the IC.
2. Determine the wind direction.
3. Provide an opening on the leeward side at the highest point.
4. Remove any obstructions (blinds, curtains, drapes, screens).
5. Provide an opening on the windward side at the lowest point.
6. Remove any obstructions.

Performance Objective

Subject: Tactical Ventilation

Task: Hydraulic

Procedure:

1. Select the opening to be utilized.
2. Remove any obstructions.
3. At the opening, set the nozzle on a wide fog pattern (Approximately 60 degrees).
4. Back away from the opening until the fog stream almost touches the outside edges.
5. Ensure the fog stream covers 85-90% of the opening.
6. Continue to flow water through the opening to effect ventilation.

Performance Objective

Subject: Tactical Ventilation

Task: Positive Pressure

Procedure:

1. Confirm with the Incident Commander (IC) and coordinate with the interior crew.

Note: Coordination is imperative to ensure only one outlet is utilized and NOT have multiple outlets created.

2. The outlet should be smaller than the size of the inlet.

Note: Effect is achieved by creating greater air pressure than the surrounding air. If outlet is too large, positive pressure will not be maintained.

3. Remove any obstructions impeding or around the outlet.
4. Position fan approximately 6 feet from inlet, with blower turned 90 degrees away from inlet.
5. If possible, inlet should be on windward side.
6. Start the fan, then reposition blower toward the inlet.
7. Ensure the cone of air is covering 100% of inlet. If necessary, adjust the distance of the fan to obtain full coverage of inlet.
8. Coordinate with interior crew the opening/closing of doors and windows. This will confine/control the movement of smoke and gases.
9. Effectiveness can be increased by placing a second fan in line with the first fan. Larger fan should be in front of smaller fan.

Performance Objective

Subject: Tactical Ventilation

Task: Negative Pressure

Procedure:

1. Confirm with the IC.
2. Determine the wind direction.
3. Provide an opening on the leeward side at the highest point.
4. Remove any obstructions.
5. Place the "Smoke Ejector" (exhaust fan) on the leeward side at the highest point.

Note: If necessary, place a salvage cover around the ejector, covering the entire opening to prevent recirculation of smoke and gases into the structure.

6. Provide an opening on the windward side.

Performance Objective

Subject: Tactical Ventilation

Task: Vertical; Pitched Roof

Procedure:

1. Confirm with the IC.
2. Determine wind direction. Work on windward side if possible.
3. Ensure ladder is safe to climb and ascend ladder with tool(s) selected (Pick-Head Axe, Pike Pole, Roof Ladder, Saw).

Note: If using a Power saw, ensure the saw is operational prior to ascending ladder. Ascend ladder with ONE tool only.

4. Sound the roof for structural integrity prior to stepping on roof.
5. If using a roof ladder, ensure weight distribution.
6. Select a second means of egress (Escape Route).
7. Locate roof supports (Rafters, Trusses) by sounding at highest point possible and as directly over the fire safely.
8. Remove roof material as necessary.
9. Using a pick-head axe, mark or outline the hole to be cut. Must be at least a 4X4 foot opening.
10. If needed, create an inspection hole.
11. Make cuts in the following order:
 - a. Top cut; horizontal starting at farthest point.
 - b. Farthest cut; perpendicular to top cut, from top to bottom.
 - c. Nearest cut; perpendicular to top cut, from top to bottom.
 - d. Bottom cut; horizontal starting at farthest cut.
12. Ensure NOT to cut through the roof supports.
13. Pry up and remove roof decking.
14. Using the blunt end of a Pike Pole, if necessary, push in the ceiling working from the top of ventilation opening toward bottom.
15. Notify IC when task is completed, remove all tools and descend the ladder.

Performance Objective

Subject: Tactical Ventilation

Task: Vertical; Flat Roof

Procedure:

1. Confirm with the IC.
2. Determine wind direction. Work on windward side if possible.
3. Ensure ladder is safe to climb and ascend ladder with tool(s) selected (Pick-Head Axe, Pike Pole, Roof Ladder, Saw).

Note: If using a Power saw, ensure the saw is operational prior to ascending ladder. Ascend ladder with ONE tool only.

4. Sound the roof for structural integrity prior to stepping on roof.
5. If using a roof ladder, ensure weight distribution.
6. Select a second means of egress (Escape Route).
7. Locate roof supports (Rafters, Trusses) by sounding as directly over the fire safely.
8. Remove roof material as necessary.
9. Using a pick-head axe, mark or outline the hole to be cut. Must be at least a 4X4 foot opening.
10. If needed, create an inspection hole.
11. Make cuts in the following order:
 - a. Farthest cut; downwind from your position.
 - b. Side cut #1; perpendicular to first cut starting at farthest point.
 - c. Side cut #2; parallel to side cut #1 starting at farthest point.
 - d. Nearest cut; parallel to farthest cut.
12. Ensure NOT to cut through the roof supports.
13. Pry up and remove roof decking.
14. Using the blunt end of a Pike Pole, if necessary, push in the ceiling working from the farthest side of ventilation opening.
15. Notify IC when task is completed, remove all tools and descend the ladder.

Performance Objectives

Subject: Tactical Ventilation

Task: Trench Cut; Strictly a Defensive Operation

Procedure:

1. Confirm with the IC.
2. Determine wind direction. Work on windward side if possible.
3. Ensure ladder is safe to climb and ascend ladder with saw.

Note: Ensure the saw is operational prior to ascending ladder.

4. Sound the roof for structural integrity prior to stepping on roof.
5. Select the location to perform cut, advanced far enough from fire to cut off or stop the fire spread.
6. Select a second means of egress (Escape Route).
7. First cut should be on the fire side, and perpendicular to the exterior wall extending to the opposite exterior wall.
8. Second cut should be on the escape route (windward) side, must be parallel to and at least 4 feet from the 1st cut.

Note: Due to the time necessary to execute the trench cut, multiple firefighters shall be required.

9. Ensure NOT to cut through the roof supports.
10. Pry up and remove roof decking.
11. Notify IC when task is completed, remove all tools and descend the ladder.

SALVAGE & OVERHAUL

Introduction

Subject: Salvage & Overhaul

Note:

1. Salvage refers to methods and operating procedures by which firefighters attempt to save property and reduce further damage from water, smoke, heat, and exposure, during or immediately after a fire. This may be accomplished by removing property from a fire area, by covering property, or by other means.
2. Overhaul refers to operations conducted once the main body of fire has been extinguished. These consists of: searching for and extinguishing hidden or remaining fire; placing building and its contents in a safe condition; determining the cause and origin of a fire; recognizing and preserving evidence of arson.
3. Candidates will be required to explain, "proper salvage techniques can begin at the time of initial fire attack or anytime during fire suppression."
4. There are four (4) classifications of Fire Cause: Accidental; Natural; Incendiary; Undetermined.
5. Recognize evidence of Fire Cause and Arson such as: Multiple fires or points of origin; Trailers; Matches or lighters; Flammable or combustible liquids; Bottles or containers; Rubber or latex items; Candles or oily rags; Electrical sources or modified equipment; Fire patterns; Missing household property or personal items; Forced entry by anyone other than firefighters.
6. Potential or suspected evidence should be kept in place (unless situation or condition necessitates moving) and maintained in the condition found. Perimeter should be inspected for evidence as well.
7. Techniques to preserve and protect evidence:
 - a. Follow department SOP's.
 - b. Establish a perimeter and secure the scene.
 - c. Restrict access to emergency personnel and investigators.
 - d. Isolate items.
 - e. Prevent contamination (tainted) and spoliation (damaged or destroyed).
8. Try to avoid contact or communicating with the property owner(s), renters, news media, or other bystanders. If necessary, a sufficient reply to any questions concerning fire cause shall be, "The fire is under investigation."
9. Detailed and precise documentation is imperative.
10. Several different control valves are utilized in fire suppression systems. Types of indicating control valves include the following: Outside stem & yoke (OS&Y) valve; Post indicator valve (PIV); Wall post indicator valve (WPIV); Post indicator valve assembly (PIVA). Closing a valve to shut off the water supply is the preferred and safest method.

Performance Objective

Subject: Salvage & Overhaul

Task: Open a Ceiling and Check for Hidden Fire

Note: Shall be conducted under IDLH

Procedure:

1. Secure utilities.
2. Select the appropriate tool(s).
3. Must convey proper actions.
4. Sound the floor for structural integrity prior to entering the building.
5. Demonstrate proper use of tool(s).
6. At the plane of entry, create an inspection opening in the ceiling between the beams/trusses (usually two feet apart). To achieve effectively, insert Pike Pole, rotate hook 90 degrees (hook shall be positioned at 3 or 9 o'clock), pull down and away.
7. While advancing in the building, keep Pike Pole pointed up and stand between area being pulled with back toward the means of egress (Escape Route).
8. Establish a second means of egress whenever possible.
9. Look for indicators of possible fire:
 - a. Charring
 - b. Cracks
 - c. Discolored and bubbled paint
 - d. Light fixtures and ceiling fans burned
 - e. Smoke
 - f. Sounds of fire burning wood
10. At every inspection opening, search for concealed fire, burning ember or sparks, to ensure fire is completely extinguished.
11. Locate the heaviest burned area or starting point of fire.
12. Pull enough ceiling down exposing burned area, until clear or unburned wood is visible.

Performance Objective

Subject: Salvage & Overhaul

Task: Open a Wall and Check for Hidden Fire

Note: Shall be conducted under IDLH

Procedure:

1. Secure utilities.
2. Select the appropriate tool(s).
3. Must convey proper actions.
4. Sound the floor for structural integrity prior to entering the building.
5. Demonstrate proper use of tool(s).
6. Look for indicators of possible fire:
 - a. Charring
 - b. Cracks
 - c. Discolored and bubbled paint
 - d. Electrical outlets and light switches burned
 - e. Smoke
 - f. Sounds of fire burning wood
7. While advancing in the building, keep your back toward the means of egress (Escape Route).
8. Establish a second means of egress whenever possible.
9. Create an inspection opening in the wall between the studs (usually 16 inches apart). Create a second opening on the opposite side of fire stops (above & below).
10. At every inspection opening, search for concealed fire, burning ember or sparks, to ensure fire is completely extinguished.
11. Remove baseboards, casings, and framings, when necessary.
12. Locate the heaviest burned area or starting point of fire.
13. Pull enough of the wall down exposing burned area, until clear or unburned wood is visible.

Performance Objective

Subject: Salvage & Overhaul

Task: Preserve and Protect Evidence of Fire Cause and Origin

Procedure:

1. Must convey proper actions.
2. Follow the direction of the OIC.
3. Recognize potential evidence and classification of fire cause.
4. Preserve and Protect evidence:
 - a. Avoid damaging, touching, disturbing, or tramping;
 - b. Avoid using excessive water during extinguishment when fire is under control;
 - c. Leave evidence in place (unless situation or condition necessitates moving) and maintain in the condition found.
5. Establish a perimeter, secure the scene, and restrict access.
 - a. Avoid contact with bystanders and reply to any questions with, "The fire is under investigation";
 - b. Maintain security until an investigator arrives on scene.
6. Prevent contamination and spoliation.
7. Document all findings and actions regarding evidence:
 - a. Record location, appearance, and time when found;
 - b. Record location, appearance, and time if moved;
 - c. Record actions involving events conducted at the scene, around and with evidence;
 - d. Record actions and information involving inability to preserve or protect;
 - e. Initiate chain of custody record and times.
8. Provide evidence and records to investigator before leaving the scene.

Performance Objective

Subject: Salvage & Overhaul

Task: Water Chute

Procedure:

1. Selects two (2) Pike Poles.

Note: Can be constructed without Pike Poles to use on stairwells.

2. Unfolds Salvage Cover completely and positions the finished side facing down.
3. Place Pike Poles on the edge of both sides in the same direction, lying parallel to each other.
4. Ensure Pike Pole heads are beyond the top edge.
5. Wrap the Salvage Cover tightly around the Pike Poles while rolling toward the center.
6. Leave space between the Pike Poles for required width of application (Usually 2-3 feet).
7. Turn the Salvage Cover over, so the finished side is facing up.
8. Deploy the Water Chute by placing the hooks on a ladder rung, or another object, to secure in place.
9. Extend the Water Chute to desired location (Through a door, window, or in a catchall) for drainage.

Performance Objective

Subject: Salvage & Overhaul

Task: Water Catchall

Procedure:

1. Unfolds Salvage Cover completely and positions the finished side facing up.
2. Roll the sides of the longer edges inward approximately three (3) feet.
3. At each corner (4), fold over toward the center at a ninety (90) degree angle.
This will create an arrow shape at each end.
4. At each end, tightly roll until covering the arrow completely and ends are resting on top of side rolls.
5. Tuck the end rolls under the side rolls to lock the corners.

Performance Objective

Subject: Salvage & Overhaul

Task: One Firefighter Salvage Cover Roll

Procedure:

1. Unfolds Salvage Cover completely and positions the finished side facing up.

Note: This objective is performed with two (2) firefighters simultaneously at opposite ends of the Salvage Cover.

2. Position yourself in the center at the end.
3. Grasp the cover midway between the center and the edge to be folded.
4. Using the other hand as a pivot, bring the midway point to the center.
5. Grasp the outside edge.
6. Using the other hand as a pivot, fold the outside edge over to the center and place it on top of the previous fold. Ensure all edges are in-line and dressed.

Note: If folded correctly, "Grommets" should be on top of folds.

7. On the other half of the Salvage Cover, repeat steps 3 thru 6.
8. Fold both ends over 12 inches.
9. Roll one end toward the other end to complete.

Performance Objective

Subject: Salvage & Overhaul

Task: One Firefighter Salvage Cover Fold

Procedure:

1. Unfolds Salvage Cover completely and positions the finished side facing up.

Note: This objective is performed with two (2) firefighters simultaneously at opposite ends of the Salvage Cover.

2. Position yourself in the center at the end.
3. Grasp the cover midway between the center and the edge to be folded.
4. Using the other hand as a pivot, bring the midway point to the center.
5. Grasp the outside edge.
6. Using the other hand as a pivot, fold the outside edge over to the center and place it on top of the previous fold. Ensure all edges are in-line and dressed.

Note: If folded correctly, "Grommets" should be on top of folds.

7. On the other half of the Salvage Cover, repeat steps 3 thru 6.
8. With both firefighters at one end, grasp the corners and fold toward the center. Ensure to stop approximately 2 inches from center.
9. Continue to fold end in halves, placing it on top of the previous fold, until the width of the folds are approximately 12 inches. Ensure all folds are in-line and dressed.
10. On the other end of the Salvage Cover, repeat steps 8 & 9. You should have a gap of 4 inches between the two folded ends. The gap acts as a hinge.
11. Place one folded end on top of the other to complete. The hinge allows the completed fold to lie flat.

Performance Objective

Subject: Salvage & Overhaul

Task: Deploy a Salvage Cover Roll

Procedure:

1. Start at one end of the object(s) to be covered.
2. Unroll a sufficient amount to cover the end of the object(s).
3. Lay the remaining roll on the end of the object(s), and continue to unroll toward the other end.
4. At one end grasp the top grommets, on the open edges, in each hand.
5. Snap the edges up and out, creating a balloon effect, to cover the object(s).
6. At the other end, use the same method.

Note: Steps 4 & 5 can be performed with two (2) firefighters simultaneously at opposite ends of the Salvage Cover.

7. Tuck in loose edges.

Performance Objective

Subject: Salvage & Overhaul

Task: Deploy a Salvage Cover Fold

Procedure:

1. Lay the fold on top and in the center of the object(s) to be covered.
2. Unfold both sides to the opposite ends of the object(s).
3. At one end grasp the top grommets, on the open edges, in each hand.
4. Snap the edges up and out, creating a balloon effect, to cover the object(s).
5. At the other end, use the same method.

Note: Steps 3 & 4 can be performed with two (2) firefighters simultaneously at opposite ends of the Salvage Cover.

6. Tuck in loose edges.

Performance Objective

Subject: Salvage & Overhaul

Task: Stop Water Flow from a Sprinkler Head

Procedure:

1. Confirm with the Incident Commander (IC).
2. Identify:
 - a. Pendant;
 - b. Upright;
 - c. Sidewall.
3. If an individual sprinkler head is flowing water, utilize wedges or tongs by inserting into the sprinkler head between the arms.
4. Wedges must be positioned with the flat sides facing up and down (opposite direction). Slide the wedges toward each other to stop the water flow.
5. Tongs must be opened by clamping the handles together to stop the water flow. Lock the tongs in the open position, with the keeper pulled toward the end of the handles. With Swivel-type tongs, turn the locking knob clockwise to lock in the open position.

Note: Water will still leak from the sprinkler head. Utilize one of the following methods to collect the leaking water beneath the sprinkler head: a bucket; construct a catchall; construct a water chute; hang a fire hose directly under the sprinkler head and place the other end out of the building.

6. If the sprinkler system and multiple heads are flowing water, locate and close the control valve.

Note: Bolt cutters may be needed to remove locks and chains on control valves.

7. Notify the IC task is completed.

MISCELLANEOUS

Performance Objective

Subject: Fire Extinguishers

Task: Identify and Extinguish Incipient Fire

Note:

1. Classifications of extinguishers and fire:
 - a. Class A – ▲ ordinary combustibles
 - b. Class B – ■ flammable & combustible liquids and gases
 - c. Class C – ● energized electrical equipment
 - d. Class D – ★ combustible metals and alloys
 - e. Class K – ◆ kitchen, combustible cooking oils (extremely high temperatures)
2. Extinguishing methods:
 - a. Cooling – reducing the burning material below its ignition temperature
 - b. Smothering – excluding oxygen from the burning process
 - c. Chain breaking – interrupting the chemical chain reaction burning process
 - d. Saponification – forming an oxygen excluding soapy foam surface
3. Extinguishing agents:
 - a. Water – Class A only
 - b. AFFF (Aqueous Film Forming Foam) – Class A & B
 - c. CO₂ (Carbon Dioxide) – Class B & C
 - d. Clean Agent – Class A, B, & C; replacements for Halon 1211 (Bromochlorodifluoromethane) & 1301 (Bromotrifluoromethane)
 - i. FE-36 (Hexafluoropropane)
 - ii. HFC (Hydrofluorocarbon)
 - iii. HCCF (Hydrochlorofluorocarbon)
 - iv. PFC (Perfluorocarbon)
 - e. Dry Chemical – Class A, B, & C
 - i. Sodium bicarbonate
 - ii. Potassium bicarbonate
 - iii. Potassium chloride
 - iv. Monoammonium phosphate
 - f. Dry Powder (Metal type dependent) – Class D only
 - g. Wet Chemical (Potassium Acetate) – Class K only

Procedure:

1. Quickly identify the type of fire.
2. Determine the proper extinguisher needed.
3. To operate the extinguisher, utilize the PASS technique:
 - a. P – pull the pin
 - b. A – aim the nozzle
 - c. S – squeeze the handle
 - d. S – sweep the agent to completely cover the width of the fire
4. Prior to applying the agent onto the fire, test the extinguisher to ensure proper operation:
 - a. Point nozzle in a safe direction
 - b. Discharge the agent with quick, short burst
5. Approach fire from the windward side.
6. Verify a path of egress.
7. Discharge agent at the base of the fire.

Note: Discharge AFFF allowing it to gently rain down onto the fuel surface, or deflect foam off a nearby object or surface. Do NOT apply foam directly onto the fuel.

8. Although Class C extinguishing agents are nonconductive, use extreme caution when combating electrical fires. Whenever possible, disconnect or turn off the power supply, and combat as a Class A or B fire.
9. After fire is extinguished, back away from the fire area.
10. Tag extinguisher for recharge and inspection.

Performance Objective

Subject: Confined Space

Task: Exit a Constricted Opening

Note: This skill is conducted under IDLH conditions. You will be in full PPE and on air throughout the entire evolution. You are alone, in a confined space, and must escape without going off air or breaking the seal of your mask. Resources available are a radio, tool, and flashlight. Dimensions of the opening are 16(w) x 18(h) inches. The width represents studs which are 16 inches on center. This makes the actual space 15(w) inches.

Procedure:

1. Maintain contact with wall.
2. Navigate through confined space and obstacles.
3. Attempt to pass through constricted opening.
4. Make radio transmission of "MAYDAY" and notify command with "LUNARS."
5. Activate PASS device to audibly alert others of your location.
6. Use your tool to clear and remove any obstructions in the constricted opening. Sound the floor beyond the opening to ensure it is safe to pass through.
7. Loosen harness straps and doff SCBA from your back. Maintain contact with SCBA by grasping the upper left shoulder strap with your left hand, securely holding the regulator pressure hose.
8. Pass the SCBA through the opening. Do NOT remove your left hand from the shoulder strap.
9. Navigate your body through the constricted opening.
10. After clearing the opening, don the SCBA. If possible, exit the building.
11. Turn on the flashlight and direct the light up toward the ceiling to visibly alert others of your location.

Performance Objective

Subject: Sprinkler Systems

Task: Identify Sprinkler System and Components

Note:

1. An automatic sprinkler system is an integrated system of pipes, sprinkler heads, and control valves.
2. The system is designed to activate during fires by automatically discharging enough water or extinguishing agent, to extinguish the fire or prevent its spread.
3. These systems are recognized as the most reliable of all fire protection devices. It is essential for candidates/firefighters to know and understand the types of sprinkler systems, including the components and operation of the system.
4. The following are components of a sprinkler system: Water main, control valve, FDC, one-way check valve, riser, main drain, alarm test valve, retard chamber, alarm valve, feed main, cross main, branch lines, sprinkler heads.
5. Control valves are used to stop supplying water to the system, to replace sprinklers, perform maintenance, or interrupt operations. Most main water control valves are of the indicating type and are manually operated. An indicating valve shows at a glance whether it is open or closed.
6. The following are types of indicating control valves: OS&Y (outside stem and yoke) valve, PIV (Post indicator valve), WPIV (Wall post indicator valve), PIVA (Post indicator valve assembly).
7. The following are types of sprinkler systems: Wet-pipe, Dry-pipe, Deluge, Pre-action, Residential, Special Extinguishing (Wet chemical, Dry chemical, Clean agent, Carbon dioxide, Foam).

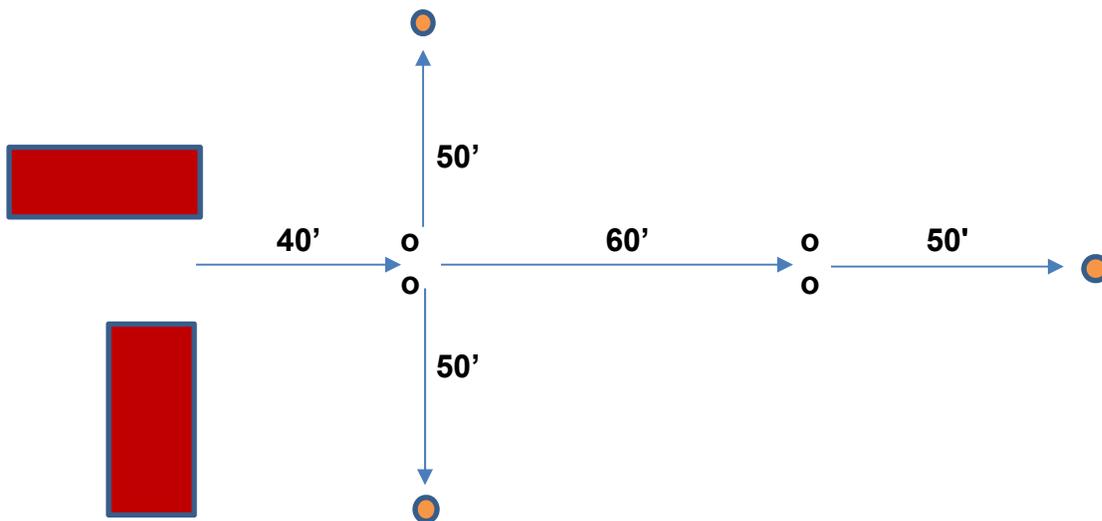
BIG 2
EVOLUTIONS
&
FIRE GROUND
SKILLS

Introduction

Subject: Big 2 & Fire Ground Skills

Note: Setup

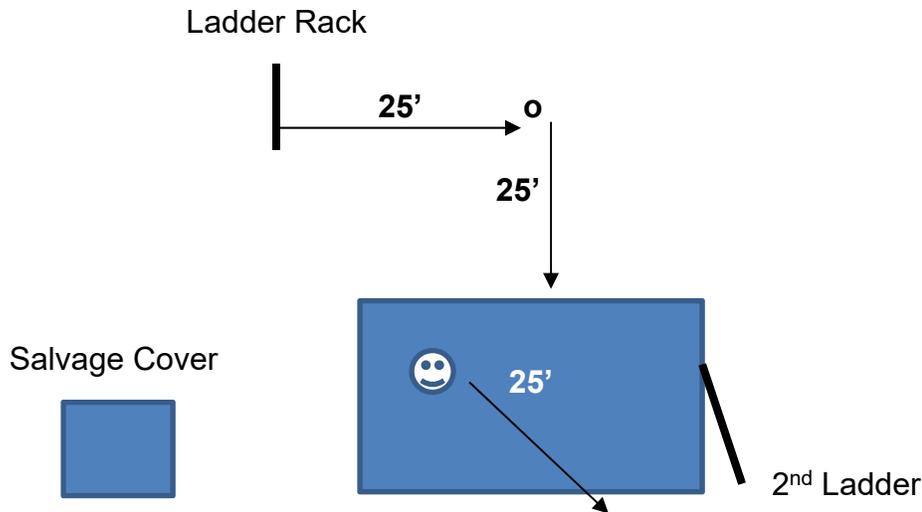
1. PPE, SCBA, HOSE shall be the 1st evolution.
2. The layout shall be as follows:
 - a. The apparatus will be parked at a designated point.
 - b. The attack hose lines shall be loaded with 150 feet of 1¾ inch hose, using the Flat, Minuteman, and Triple Layer loads. The hose shall be properly loaded with a nozzle attached. The hose shall NOT be hanging out of the hose bed in a manner which would allow the hose to fall from the apparatus while traveling to an emergency.
 - c. The 1st entry point, of a structure, will be forty (40) feet from the apparatus (Rear or Side for cross lays). The entry will be thirty-six (36) inches wide.
 - d. Two (2) cones will be positioned fifty (50) feet from the edge of the entry, one (1) cone on each side.
 - e. The 2nd entry point, inside the structure, will be sixty (60) feet from the 1st entry point. The entry will be thirty-six (36) inches wide.
 - f. The 3rd and final cone will be positioned fifty (50) feet from the 2nd entry point.
3. Diagram:



4. Ladder, Search & Rescue shall be the 2nd evolution.
5. The layout shall be as follows:
 - a. The ladder rack will be positioned at a designated point.
 - b. A twenty-four (24) foot extension ladder, and a fourteen (14) foot roof ladder will be secured with locking devices on the ladder rack.
 - c. A cone will be positioned perpendicular to the ladder rack and building, and twenty-five (25) feet from the ladder rack and building.
 - d. A 2nd ladder will be positioned and secured at a designated point on the building. This ladder will be utilized for climbing to the 2nd floor entry point/window, to complete the Search & Rescue portion of the evolution.
 - e. A rescue victim will be positioned at a designated point on the ground floor inside the building, and twenty-five (25) feet from the exit point/door. If the building configuration does not allow 25 feet between the victim and exit, place tape or another marker beyond the exit creating the 25 feet to the threshold.

Note: Candidate must walk a minimum of fifty (50) feet from the ladder extended to the 2nd ladder. The 2nd ladder does NOT need to be positioned fifty (50) feet from the 1st ladder. A cone can be placed twenty-five (25) feet away (in the opposite direction) from the 1st ladder. The candidate will walk to and around the cone, then proceed to the 2nd ladder totaling fifty (50) feet.

6. Diagram:



7. Fire Ground skills will have tools, equipment, hose, and appliances stationed on a salvage cover (can be located on an apparatus) at a designated point.

Performance Objective

Subject: Big 2

Task: PPE, SCBA, HOSE

Note: Running or walking backwards is prohibited throughout the entire evolution. When operating a charged hose line, open/close the bale of the nozzle slowly/fully. Any time a candidate enters or exits a structure, a radio transmission (PAR) shall be completed.

Procedure:

1. Candidate will perform pre-evolution functionality and safety checks, on PPE and SCBA. When completed, place the SCBA in the assigned jump seat and stage your PPE for testing.
2. Testing begins when the evaluator assigns a pre-connected hose load for the candidate to utilize during the evolution. The candidate will inspect and verify the hose load, then the evaluator will assign a cone knockdown sequence.
3. The timed portion of the test shall be completed within 4 minutes and 40 seconds (4:40). Time begins when the candidate touches and dons their PPE. All attachments (Buttons, Clips, Snaps, Velcro, Zippers) shall be fastened.
4. Board the apparatus, don and turn on the SCBA verbalizing: bottle pressure, low pressure alarm, remote pressure, PASS activated. You will don the face mask and execute a proper seal check (You can don the face mask and turn on the SCBA at the 1st entry point).
5. After donning and securing PPE properly, dismount the apparatus and proceed to the assigned pre-connect hose load.
6. Pull the entire hose load completely out of the hose bed. Deploy the hose as necessary, to the 1st entry point. Lay the hose in a manner to avoid excessive kinks when the hose is charged with water.
7. Before breaking the plane of entry: Signal for water and bleed the charged hose line; Make radio transmission to enter (PAR); Go on air.

Note: When opening/closing the bale of the nozzle, it shall be done slowly/fully to prevent water hammer and possible damage to the apparatus. The BFST recommends utilizing a three (3) second count to ensure this is accomplished.

8. Enter the structure and knock down the cones in the order assigned. Do NOT advance the hose line while water stream is flowing.

Note: If it is determined the water stream is inadequate due to excessive kinks in the hose and the decision is made to leave the structure, a radio transmission to exit (PAR) shall be made. After correcting the issues, a radio transmission to enter (PAR) shall be made. It is imperative to transmit PAR whenever entering and exiting a structure. This can be accomplished while walking and it is NOT necessary to stop moving while transmitting.

9. After knocking down both the cones, close the bale, advance the hose line to the 2nd entry point (inside the structure), and knock down the final cone. Time stops after final cone falls.
10. You are still graded on the following: make radio transmission (PAR) confirming fire is extinguished, PPE, doffing mask.

Performance Objective

Subject: Big 2

Task: Ladder, Search & Rescue

Note: Proper body mechanics shall be used when lifting and lowering ladders. Three (3) ladder guards will be utilized for this evolution. Candidates shall always remain in contact with the ladder while: Deploying; Raising; Extending the fly section; Until properly relieved and heeled by ladder guards. Any time a candidate enters or exits a structure, a radio transmission (PAR) shall be completed.

Procedure:

1. Candidate will perform pre-evolution functionality and safety checks on both ladders.
2. The timed portion of the test shall be completed within 4 minutes and 40 seconds (4:40). Time begins when the candidate touches any part of the ladder or locking device.
3. Disengage the locking devices securing the ladder on the apparatus.
4. Remove the roof ladder and place it on the ground, ensuring it is not directly exposed to the exhaust of the apparatus.
5. Remove the extension ladder, utilizing a low-shoulder carry and with the bed section against your body. Face the butt end of the ladder and carry with the butt slightly lowered.
6. Verify and verbalize for any overhead or ground obstructions in the area.
7. Carry the ladder twenty-five (25) feet toward the cone, walk around the cone and advance twenty-five (25) feet toward the building at the designated location (a left and right turn shall be performed).
8. Stop just short of the building, ensuring NOT to hit the building with the butt of the ladder.
9. Kneel and remove the ladder from your shoulder, place the ladder on its beam and lay the ladder flat, with the bed section down on the ground.
10. Position yourself at the tip of the ladder, slide the butt of the ladder into the building, and raise the ladder to a vertical position with the fly section against the building.

Note: When carrying the ladder, you may “stick/spike” the butt into the building and directly raise the ladder while standing. Replaces steps 7-10.

11. Reposition the butt a safe distance from the building.
12. Grasp the halyard and extend the fly section completely, without touching the building. Ensure both dogs are locked and press the tips into the building.
13. Grasp the excess halyard lying on the ground, lift the ladder leaving the tips on the building for stability, and reposition the butt approximately six (6) feet from the building. This shall be done without walking backwards.
14. Place a foot on the bottom rung, then pass the excess halyard through the ladder (approximately waist high) between the rungs.
15. Grasp the excess halyard underneath the rung it was passed through and form a bight. Pull the slack out of the halyard and keep it taut.
16. Tie a Clove-Hitch on a bight around the upper rung the halyard was passed through, with a Safety.
17. Rotate the ladder so the fly section is positioned out.
18. After rotating the ladder, a proper climbing angle will be achieved and verified by utilizing the following methods:
 - a. The toes of both feet should touch the butt;
 - b. Stand erect with arms extending straight out and at shoulder level;
 - c. The hands should be positioned between the beams as if grasping a rung;
 - d. Maintain this position without leaning to compensate an incorrect angle.
19. Verify and verbalize:
 - a. Four points of contact;
 - b. Both dogs are locked;
 - c. Halyard is tied and secured;
 - d. Proper climbing angle;
 - e. Ladder is safe to climb.
20. After verifying the ladder, heel the ladder by positioning yourself using one of the following methods:
 - a. Underneath: Stand with feet offset for stability, grasp both beams at eye level below a rung, apply constant pressure against the building while looking straight ahead.
 - b. Outside: Stand with one foot placed on the bottom rung, grasp both beams and press the ladder against the building.
21. Instruct ladder guards to take control of the ladder (Do NOT remove your hands until guards grasp the ladder).
22. Walk fifty (50) feet, proceed to the 2nd ladder, and instruct ladder guard to heel the ladder. Verify and verbalize ladder (Step 19).
23. Don your face mask and execute a proper seal check. Before breaking the plane of entry, make radio transmission (PAR) and go on air.
24. Ascend the ladder with a tool to the 2nd floor. Slide the free hand on the backside of the beam, maintaining continuous contact with the beam. Before dismounting the ladder onto the window sill, sound the floor and enter the building.

25. Conduct a search inside the building and descend to the ground floor.
26. When the victim is located, make radio transmission, and notify command of rescue attempt.
27. Remove the victim from the building, using one of the following approved rescue methods:
 - a. 1st Method: Stand behind the victim, place your arms under the victim's arms, then drag the victim out of the building.
 - b. 2nd Method: Stand behind the victim, place a rope or webbing around the victim's chest and under the arms, then drag the victim out of the building.
28. Exit the building, ensuring the victim is completely removed from the structure. Time stops when victim's feet crosses the threshold.
29. You are still graded on the following: gently lay the victim down so the head does NOT hit the ground, make radio transmission (PAR) confirming victim rescue, PPE, doffing mask.

Performance Objective

Subject: Fire Ground Skills

Task: ERG, Knot, Two (2) Practical Skills

Procedure:

1. Fire Ground Skills consists of four (4) components. Each component is worth twenty-five (25) points.
2. The ERG (Emergency Response Guide) exercise is an open book, 5 question, multiple choice, written test. This Performance Objective/Skill shall be completed within 20:00 minutes. The Examiner will decide if this test is conducted prior to the outside practical evaluations, or after completing the outside skills.
3. The Knot skill shall be performed between the Big 2 evolutions. All knots shall be tied within 2:00 minutes, regardless if tying a hand knot or a tool for hoisting. A rope shall be affixed at one end, to an elevated location. The other end shall be utilized to tie tools for hoisting. A second rope shall be located on the ground for tying hand knots and tag lines. The diameter shall be a different size than the rope used for hoisting. A second rope is NOT needed for a tag line, when tying tools in-line (in the middle of the rope). All knots shall be dressed upon completion (Loose knots are NOT functional). Safeties shall be tied and snug against the knot.

Note: A valuable resource is “animatedknots.com.” (Although the BFST authorizes the use of additional resources, the BFST does not endorse this website.)

4. The remaining two (2) components shall involve any combination of the following performance objectives:
 - a. Forcible Entry
 - b. Ground Ladders
 - c. Hose, Tools, and Appliances
 - d. Salvage and Overhaul
 - e. Ventilation
 - f. Miscellaneous
5. Individual skills shall be completed within 4 minutes and 40 seconds (4:40).
6. For IDLH conditions, candidates shall go on air to perform the skill.