



Skills USA NC Firefighting Update 2024

Greetings, Advisors, and Skills USA NC Firefighter Contestants.

As the Contest Chairperson, NC SkillsUSA, NCDPI, I want you to have the most up-to-date information regarding the Firefighting contests and any changes. There are three contests at this year's State Competition: Firefighting Basic, Intermediate, and Firefighting National. There is also a Post-Secondary National contest.

Only the Secondary National and Post-Secondary National First Place winners will have the opportunity to represent NC at the National Contest in Atlanta, GA, held June 24-28, 2024. In the event that the first-place winner cannot go to the National Contest, the 2nd place winner will be offered that opportunity.

Advisors, please ensure your students know which contest they are signed up for. Contest Score Cards are included to assist you as you prepare them for their specific competition.

We have assembled a Judging Team (Cadre) from NC OSFM and Fire Departments around the state, and we are looking forward to seeing you at the Orientation meeting at 1300 hours on April 23rd at the Greensboro Coliseum. We have contestants from all over the state in the three firefighting contests.

CLOTHING: For the contestants competing in the National Division for the interview and written test, we recommend wearing a Class A uniform if you have one or professional dress, and all contestants on the contest day should wear the SkillsUSA Conference T-shirt and navy blue or black pants and duty boots or shoes. Contestants should have a set of Turnout Gear and Face Mask for SCBA. Structural Firefighting Gloves are required (i.e., not mechanic gloves).

Resumes: All contestants must turn in a hard copy of their resume. This should be completed at Orientation. If a contestant misses Orientation, the resume must be turned in to the judges scoring table prior to the start of the competition. This applies to All Contestants – All Divisions.

Interview Assessment: Interview Assessment (*Applies to Firefighting National Contest and Post-Secondary ONLY*) will be assessed by the interview panel using a rubric for the interview. For the State Contest, only general interview questions will be asked. *Note: For the national contest in Atlanta, GA, the state winner will have to prepare for Topics that include a general knowledge of heat, heat transfer, fires, firefighting equipment, firefighting procedures, and NFPA standards Firefighting I curriculum by NFPA.*

Written Exam (*Applies to Firefighting National and Post-Secondary Contest ONLY*) will be created from Jones & Bartlett Test items and scored by the judges. The Exam material will be a 30-question test from IFSTA 6th edition and will not cover HazMat or Fire Control. There is a 45-minute time limit based on OSFM standards. This will be taken after Orientation and prior to Interviews being conducted.

SKILLS CONTESTS

Rapid Dress of Personal Protective Equipment

All Contestants

This Skills test will see how **quickly** and **correctly** the Contestant can don all required PPE in preparation to enter a burning structure. This is a timed event with more points awarded for speed and accuracy. This contest will simulate donning PPE from a ready state at the Fire Station. **A T-shirt, Long pants, and shoes or duty boots will be worn to start. No Crocs or sandals are permitted.**

The Contestant will remove footwear, don trousers, boots and suspenders, flash hood, coat, SCBA facepiece, adjust hood over face piece so that no skin is showing, their hood is under the coat, don SCBA and adjust correctly, don a helmet, deploy ear flaps, cinch helmet chin strap, and finally don gloves. Ensure that all fasteners, snaps, buckles, etc., are fastened, coat collar up and storm flap sealed, and all adjustments are made before the Clapping of gloved hands, which signals the completion of this physical skills test. Contestants will hold their hands up while the judge conducts the inspection.

A time penalty will be assessed for each infraction. Even though the overall time will determine the score, it is better for the equipment to be correct than to be super-fast on this event. The penalties will hurt your time.

*NOTE: Contestants will **NOT** be required to breathe bottled air nor connect the regulator to the facepiece. Judges Will be looking for the simulation of the regulator connection.*

Advisors, please bring one or more SCBA and multiple facepieces and decontamination materials – contestants will provide a face mask or clean and use another contestant facepiece. There may be contestants that do not have SCBA or facepiece. This is the Fire Service – we will make it work. Thank You in advance!

There is a possibility that the Contestant may compete with others simultaneously at this event. Penalties are as follows and result in time added to the Contestant's overall time.

Rapid Dress Penalties

| | |
|----------------------------------------------------------------------------------|------------------|
| Missed the storm flap closure or did not fully close | 3 seconds added |
| Missed any hook exterior closure | 2 seconds added |
| Missed collar tab | 4 seconds added |
| Did not pull the collar tab up to protect the neck | 3 seconds added |
| Did not don or pull up Nomex hood | 5 seconds added |
| Did not attach or use supplied chinstrap on the helmet | 5 seconds added |
| Did not put on the helmet | 10 seconds added |
| Did not fully buckle fasten pants. Must use all devices that are on the garment. | 3 seconds added |
| Did not pull up suspenders (if equipped) | 3 seconds added |
| Did not use gloves or missed one | 5 seconds added |

Equipment Carry All Contestants

This event is a simulation of one of the parts of the CPAT and is a skill used extensively on the fire ground. Time starts when the Contestant touches the first piece of equipment.

With this event, the Contestant will correctly lift a piece of equipment (i.e., Fire Extinguisher, Chainsaw) from the tailboard of the Fire Apparatus and place it on the floor quickly but gently. The second piece of equipment is then lifted and quickly but gently placed on the floor. The Contestant then turns 180 degrees, squats down, and correctly lifts both pieces of equipment. Once the equipment is securely in hand, the Contestant **WALKS – DO Not Run!!!!** As **FAST as possible** in a Slalom Course around Safety cones placed on the ground over a 75-foot distance, circling the end cone, and returning. Once the Contestant returns to the apparatus, both pieces of equipment are quickly but gently placed on the ground, and one at a time, they are returned quickly but gently to the tailboard of the apparatus. Clapping of gloved hands will complete the event.

Judges will penalize by adding time for infractions such as running, dropping equipment, slamming equipment, not crossing the finish line, and not placing equipment on the ground or tailboard one piece at a time. Lifting equipment must be ergonomically correct. Lift with your legs and not your back. You must thread a fine line between Speed and Safety, with SAFETY being the most important.

Equipment Carry Penalties

| | |
|-------------------------------------------------|------------------|
| Helmet fell off | 3 seconds added |
| Helmet took off | 5 seconds added |
| Took off glove(s) | 5 seconds added |
| Dropped any piece of equipment | 5 seconds added |
| Dropped any piece of equipment 2nd time or more | 8 seconds added |
| Did not fully cross the return line | 5 seconds added |
| Ran instead of walking Verbal WARNING given | 5 seconds added |
| Ran instead of walking 2nd offense | 10 seconds added |

EQUIPMENT

- i.e., Rescue Circular Saw
- i.e., Chain Saw (blades guarded, fluids drained, spark plugs removed)
- Back of a fire truck will be used in place of a cabinet.
- Cones to establish the course limits.

Note: any two pieces of equivalent equipment can be used.



LEAD Judge VERBAL INSTRUCTIONS

Follow the line. Running IS NOT permitted. Remove each piece of equipment one at a time and place them on the ground. Pick up both pieces of equipment and walk around the cone. When you get back to the fire truck, place both pieces of equipment on the ground and then, one at a time, return them to the fire truck.

Event Judge Position: The judge is located at the fire truck.

Event Judge Responsibilities: The judge ensures that equipment is placed on the ground one at a time. The judge ensures that both pieces of equipment are placed on the ground before being returned to the fire truck one at a time. If the Contestant does not place equipment on the ground or does not return the equipment one at a time, the judge will stop and instruct the Contestant to do so. The judge also ensures the Contestant goes around the cone. The judge states the word "WARNING" if either piece of equipment is dropped. The judge also states the word "WARNING" if the Contestant runs. After the event, the judge resets the test props for the next Contestant.

Rope and Knots Intermediate, National and Post-Secondary

These Skills Tests will show the Contestant's ability to tie and dress useful Fire Service knots. The Contestant will wear full PPE minus SCBA and use Structural Firefighting Gloves while completing this skills test. **Each Contestant will need to bring their own rope (sectional rope is acceptable).**

The following knots will be tied in an open setting, or they can be tied around a horizontal pole. (See below)

A Great Website to study these knots is
<http://www.101knots.com>

Look them up by name.

NC Firefighting Basic will NOT compete in this event.

NC Firefighting Intermediate will compete in this event but only have the five Knots listed below.

Firefighting Intermediate Knots – (six sections of rope- supplied by Contestant)

- *Overhand Tie Around Bar
- *Clove Hitch around an object (Rope End) Tie Around Bar
- *Bowline Tie Around Bar
- *Figure Eight on a bight Tie Around Bar
- *Sheet Bend Tie Around Bar using two different-sized ropes

| Knots to be tied | Where to tie | not attempted Seconds added | incorrect Seconds added | incorrect explanation Seconds added |
|---------------------------|---------------------------------------------|----------------------------------------|------------------------------------|------------------------------------------------|
| Overhand | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Clove Hitch | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Bowline | Tie knot in hand and slip it over an object | 30 seconds added | 10 seconds added | 3 seconds added |
| Figure Eight on bight | Tie around Bar or tie in hand | 30 seconds added | 10 seconds added | 3 seconds added |
| Becket Bend or Sheet Bend | Tie in hand and lay it over the bar | 30 seconds added | 10 seconds added | 3 seconds added |

Firefighting National and Post-Secondary Knots (nine sections of rope - supplied by Contestant)

- * Overhand
- * Clove Hitch - Closed (around an object)
- * Bowline
- * Figure-eight
- * Figure Eight on a bight
- * Figure 8 Follow through
- * Sheet Bend - Using two different-sized ropes
- * Girth Hitch used for Hose Straps

- Tie Around Bar
- Tie Around Bar
- Tie Around Bar or Tie in Hand
- Tie in Hand and lay it over the Bar
- Tie in Hand and lay it over the Bar
- Around Bar
- Around Bar
- Around Bar

| Knots to be tied | Where to tie | not attempted Seconds added | incorrect Seconds added | incorrect explanation Seconds added |
|--------------------------------------------------------------|-------------------------------------|--------------------------------|----------------------------|----------------------------------------|
| Overhand | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Clove Hitch Closed (around an Object) | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Bowline | Tie around Bar or tie in hand | 30 seconds added | 10 seconds added | 3 seconds added |
| Figure Eight or Flemish knot | Tie in hand and lay it over the bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Figure Eight on bight | Tie in hand and lay it over the bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Figure Eight Bend or Flemish Bend or Figure 8 follow through | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Becket Bend or Sheet Bend - Using two different ropes | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |
| Girth Hitch or Larks Head used for straps | Tie around Bar | 30 seconds added | 10 seconds added | 3 seconds added |

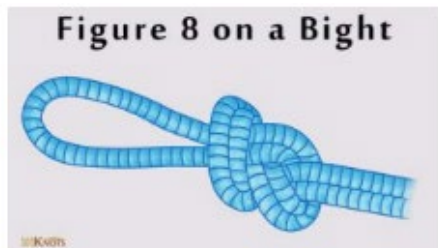
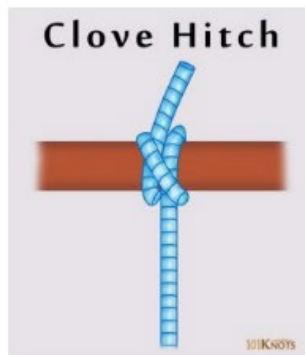
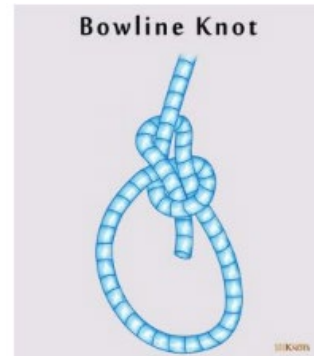


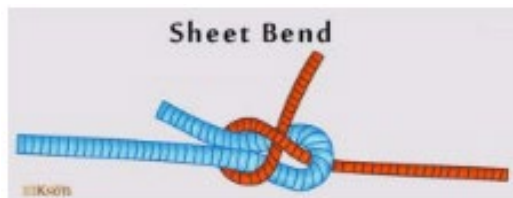
Figure 8 on a Bight



Clove Hitch



Bowline Knot



Sheet Bend



Overhand Knot

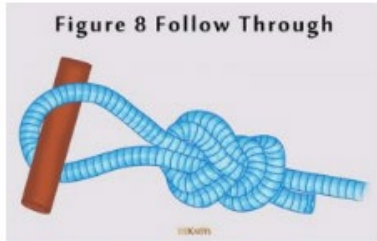


Figure 8 Follow Through

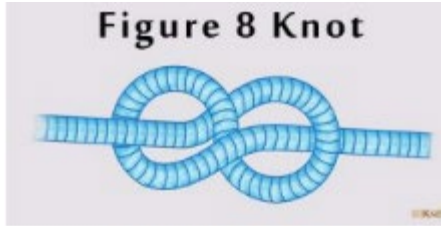


Figure 8 Knot



Girth Hitch

Once all the required knots have been tied, the contestants will clap their gloved hands to signal for time to stop. This is a timed event, and all knots must be tied. The list above will be provided at the test site.

Each knot that is not tied will receive a 30-second time penalty. Each incorrect knot will receive a 10-second penalty. Speed and accuracy are essential. The judge will check for mirror knots. (Knots that are tied backward but correctly)

The judge will also ask for an explanation of any three of these knots – the judge's choice (what they are used for or how they are used). A Three-second penalty will be assessed for each missed or incorrect explanation.

There is a possibility that the Contestant may compete with others simultaneously at this event.

Tool Raise Intermediate, National and Post-Secondary

This Skills Test shows that the Contestant can tie off a hand tool for it to be raised and or lowered safely using a utility rope. Given an extended length of rope and an Axe, a Pike Pole, and a Roof Hook, the Contestant should be prepared for to tie off any hand tool. This is a timed event. Time starts when the Contestant touches the tool or rope and stops when the Contestant holds up the finished assembly over their head. Ideally, the utility rope would have a simple change of direction by looping it over a fixed-point overhead (beam or rail) with a pulley or carabiner attached so that the assembled product could be raised, and the tagline demonstrated. (***see details following this instruction below***)

A 5-second penalty will be assessed for each incorrect knot or hitch. A 10-second penalty will be assessed if the tool is Inverted, or a Tagline is not provided via incorrect knot placement.

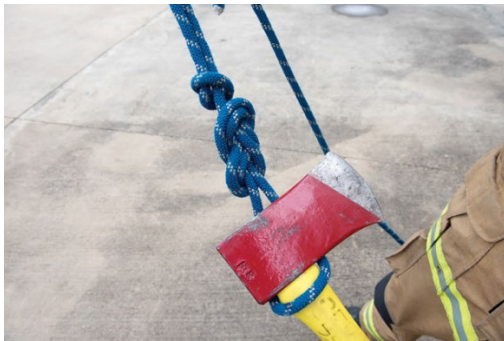
| | |
|------------------------------------------------------|------------------|
| Knot incorrect (each occurrence) | 5 seconds added |
| Hitch incorrect (each occurrence) | 5 seconds added |
| Tool is inverted | 10 seconds added |
| Tagline is not provided via incorrect knot placement | 10 seconds added |

Skill Drill 9-16 Hoisting an Axe

1. Tie the end of the hoisting rope around the axe's handle near the head using either a figure eight on a bight or a clove hitch. Slip the knot down the handle from the end to the head.



2. Loop the standing part of the rope under the head.



3. Place the standing part of the rope parallel to the axe handle.



4. Use one or two half hitches along the axe handle to keep the handle parallel to the rope.

5. Communicate with the firefighter above that the axe is ready to raise.

Skill Drill 9-17 Hoisting a Pike Pole

1. Place a clove hitch over the bottom of the handle and secure it close to the bottom of the handle. Leave enough length of rope below the clove hitch for a tagline while raising the pike pole.



2. Place a half hitch around the handle above the clove hitch to keep the rope parallel to the handle.



3. Slip a second half hitch over the handle and secure it near the head of the pike pole.



4. Communicate with the firefighter above that the pike pole is ready to raise.



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Hose Drag Intermediate, National and Post-Secondary

This event is a simulation of one of the parts of the CPAT and is a skill used extensively on the fire ground. Time starts when the Contestant touches the first piece of equipment.

This event uses **150' of 1 3/4" hose** in an accordion lay and a Nozzle that has had the threads and male end of the hose coupling lubricated. Two contestants compete at the same time. When the signal to GO is given, the contestants grab the nozzle and begin to assemble the attack line. Once the threads have been started, the Contestant may cross the Start Line and **WALK as QUICKLY as possible – DO NOT RUN!!!** The nozzle must be fully attached to the hose prior to crossing into the 4'X4' box that is 50' away. Once in the box, the Contestant must drop to one knee and pull 100' of hose (the second coupling) across the line into the box. When complete, the contestants will clap their gloved hands, signaling completion.

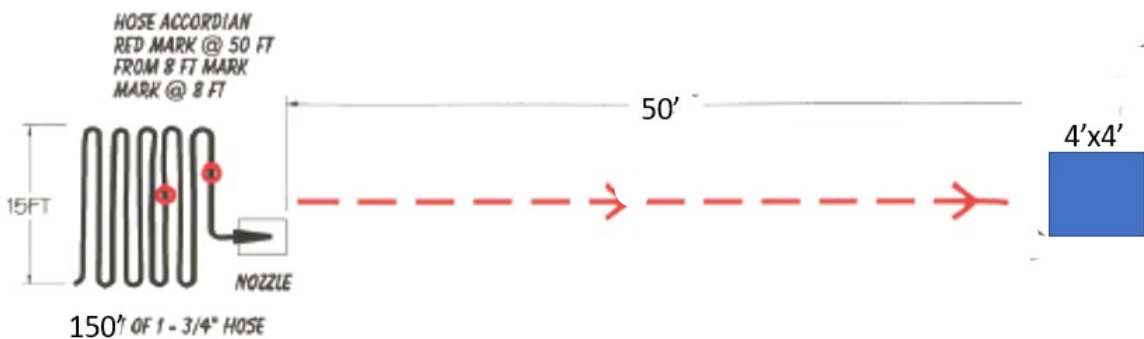
Penalties will be assessed for Running, dropping the helmet, putting down a second knee, standing up, loose nozzle, nozzle falling off, coming out of the box,

Hose Drag Penalties

| | |
|-------------------------------------------------------------|-----------------|
| The helmet came off the head or fell off | 2 seconds added |
| Took off glove(s) add if each glove (both gloves 4 seconds) | 2 seconds added |
| Incorrect hose carry took more than 8 feet | 4 seconds added |

| | |
|-------------------------------------------------------|-----------------|
| Incorrect hose carry (other than chest or shoulder) | 5 seconds added |
| Did not stay in the box while pulling the hose | 5 seconds added |
| Pulling in the box while standing | 5 seconds added |
| Dropped to both knees at any time | 5 seconds added |
| Came off of 1 knee even for a second | 5 seconds added |
| Came off of 1 knee even for a second additional times | 3 seconds added |

HOSE DRAG



LEAD Judge VERBAL INSTRUCTIONS:

The Contestant with proper PPE will Walk, not run. Running IS NOT permitted during the hose drag. If the Contestant runs, one warning will be given. After the first warning, if the Contestant runs again, they will receive no points for this event. The Contestant will Pick up and attach the nozzle. Then place the hose over your shoulder or across your chest. Drag the hose into the marked 4'x4' box. Within the marked box, drop to one knee only and pull the hose until the hose line mark crosses the line. No Pulling until on one knee is in the box. Remember, penalties will be accessed for not following the procedures correctly.

EVENT JUDGE ACTION

The Event Judge assigned to hose drag resets the event by placing the hose and nozzle behind the starting line in an accordion (Lazy-W) pattern.

Ladder Raise 24' National and Post-Secondary Only

Note: This event is for the NC Firefighting National and Post-secondary Contest only.

This Skills Test will demonstrate how **quickly** the Contestant can **correctly** move into place and **raise a 24' Fire Service Extension Ladder safely**. This is a timed event that will focus on accuracy and safety. After raising the ladder correctly for time, the Contestant will safely lower the ladder from the building.

At the beginning of the test, the ladder will be on the ground parallel to the building that is to be laddered approximately 15' from the building as if it had just been removed from the Fire apparatus and placed on the ground.

Time starts when the Contestant, wearing full PPE minus SCBA, touches the ladder. The Contestant will use commands and raise the ladder safely. The Contestant will return the ladder safely to its original position on the ground.

A Firefighter will be present to assist only as a safety backup. The Firefighter is not to support or assist in any way unless the ladder begins to get out of control. The Contestant will use loud audible commands that demonstrate that they are aware of the surroundings and so that others on the fire ground nearby will know what is happening. Owning this drill is essential to self-confidence and the success of working with ladders.

Command examples: Ladder coming to the building, Clear Overhead, Ladder coming up, Fly coming up, Clear Overhead, Dogs Locked, Ladder coming into the building in 3,2,1, Contact, Checking Climbing Angle – Good -75 degrees, Securing Halyard, Assignment Complete.

PLEASE NOTE THAT THE LADDERS WILL HAVE PRE-TIED HALYARDS.

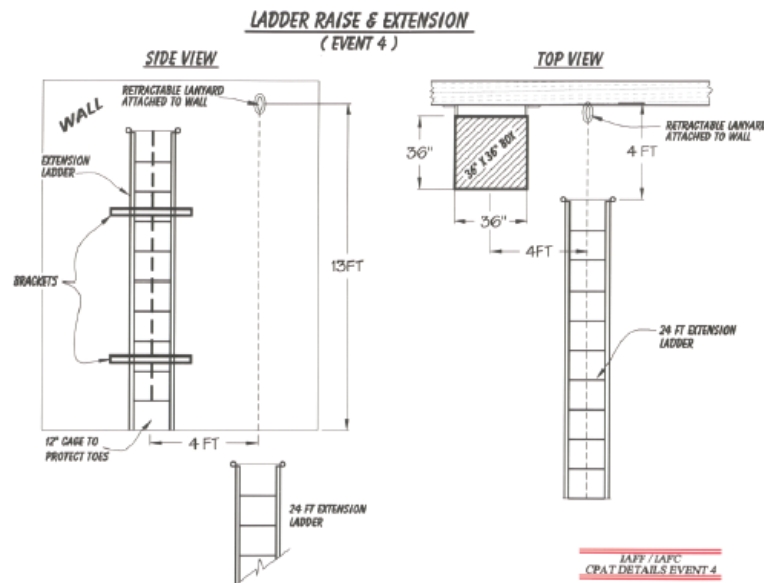
The Contestant will not untie the halyard. After the ladder is set to the building and the climbing angle is checked, the halyard will be secured as a bight, and a split clove hitch around the main halyard pull rope.

Time ends when the Contestant Claps Gloved hands at the completion of the ladder raise. The Contestant will lower the ladder safely as well. Penalties are described below.

Ladder Raise Penalties

| | |
|--------------------------------------------------------------------------------|------------------|
| Failure to use proper lifting techniques and correct ergonomics | 5 seconds added |
| Failure to use Commands | 10 seconds added |
| Failure to Observe safe footing, overhead obstructions, and electrical hazards | 10 seconds added |
| Failure to tie off the halyard prior to manipulating the ladder | 5 seconds added |
| Failure to verbally and visually ensure that the dogs are locked | 5 seconds added |

| | |
|------------------------------------------------------------------------------------|------------------|
| Failure to lower the ladder into the building gently while under control. | 10 seconds added |
| Failure to check for the correct climbing angle | 5 seconds added |
| Failure to maintain complete control of the ladder at all times | 5 seconds added |
| Failure to tie off the halyard | 10 seconds added |
| Failure to tie off halyard correctly | 5 seconds added |
| Failure to lower ladder safely (even though not judged in the timing of the drill) | 5 seconds added |



EVENT 4 LADDER RAISE EQUIPMENT

This event uses one 24-foot fire department ladder.

A retractable lanyard is attached to the ladder you raise for your safety.

EVENT

During this event, the Contestant walks to the top rung of the 24-foot aluminum extension ladder, lifts the first rung at the unhinged end from the ground, and walks it up until it is stationary against the wall. This must be done hand over hand, using each rung until the ladder is stationary against the wall. The Contestant must not use the ladder rails to raise the ladder. The Contestant immediately proceeds to the pre-positioned and secured 24-foot aluminum extension ladder, stands with both feet within the marked box of 36 inches x 36 inches, and extends the fly section hand over hand until it hits the stop. The Contestant then lowers the fly section hand over hand in a controlled fashion to the starting position.

LEAD Judge VERBAL INSTRUCTIONS

Raise the ladder to the wall using each rung. When the ladder touches the building, step into the marked box of the secured ladder. Pull the rope until the ladder stops and lower it to the ground.

EVENT Judge ACTION

The Event Judge returns the ladders to their starting positions.

Event Judge Position: The judge located to the side of the ladder raise prop.

Event Judge Responsibilities: During the ladder raise, the judge states the word "WARNING" if the Contestant misses a rung, if the Contestant allows the ladder to fall to the ground, or if the safety lanyard is activated because the Contestant releases the grip. During the ladder extension, the judge states the word "WARNING" if the Contestant does not remain within the marked boundary lines, does not maintain control of the ladder hand over hand, or lets the rope halyard slip in an uncontrolled manner. The judge ensures that the ladder is fully raised and fully extended. After the event, the judge resets the ladder for the next Contestant.

EVENT 4 LADDER RAISE EQUIPMENT

- One 24-foot (7.32-m) aluminum ground ladder

Dummy Drag - National and Post-Secondary Only

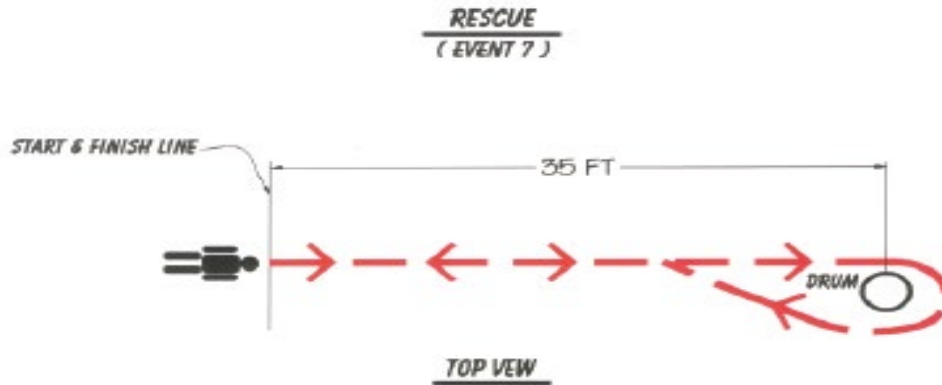
During this event, the Contestant grasps a 165-pound mannequin by the handle(s) on the shoulder(s) of the harness (either one or both handles are permitted), drags it 35 feet to a pre-positioned cone, makes a 180° turn around the cone, and continues an additional 35 feet to the finish line. It is permissible for the mannequin to touch the cone. The Contestant is permitted to lower the dummy to the ground to adjust their grip. The entire mannequin must be dragged past the marked finish line. This concludes the event.

Helmet / Gloves

| | |
|---------------------------------|-----------------|
| Helmet fell off | 3 seconds added |
| Helmet took off | 5 seconds added |
| Took off glove(s) | 5 seconds added |
| Did not fully cross return line | 5 seconds added |

The following practices are allowed:

- The Contestant is permitted to grab either one or both handles when dragging the mannequin.
- The Contestant is permitted to lower the dummy to the ground to adjust their grip.



LEAD Judge VERBAL INSTRUCTIONS

Drag the mannequin by the handles on the harness, go around the cone, and back past the finish line.

EVENT Judge ACTION

The Event Judge returns the mannequin to the starting position behind the starting line.

Event Judge Position: Judge located at the starting line.

EVENT 7 RESCUE EQUIPMENT

- 165-pound (74.84-kg) Mannequin (unclothed)
- Mannequin harness
- Cones

The following practices are allowed:

- The Contestant is permitted to grab either one or both handles when dragging the mannequin.
- The Contestant is permitted to lower the mannequin to the ground to adjust their grip.

Chairperson Contact Information:

Chief Jeremey Daughtry

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Town of Smithfield NC

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