



The 17th Annual
Florida Lineman Competition

April 21-22, 2017

Hosted by  **LAKELAND ELECTRIC**
POWERED FOR LIFE

Journeyman Team Events





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Journeyman Team Rules

Journeyman Teams

Journeyman teams for the Florida Lineman Competition are comprised of three participants:

1. At least one of the climbers must be a Lineman with a minimum of two years of experience.
2. An Apprentice may climb with a Lineman but must have at least three years experience in an apprenticeship program.
3. If the Groundman is a Lineman he may substitute for either climber if needed. The Groundman does not have to be a Lineman but cannot substitute for the climbing Lineman at any time. One alternate per team will be allowed. The alternate must be a Lineman, if substituting for a climbing team member.

Each team is required to provide one judge for the competition. Scoring is based on correct work procedures and safety. Utility supervisors and foremen are the judges and will follow set guidelines. Each team will participate in five mandatory events.

Judges

1. Each team is required to submit a judge for the competition.
2. All judges must have previous lineman experience or be an operating utility supervisor.
3. Judges will be required to attend a mandatory meeting on Friday, April 21.

Mandatory Full Fall Arrest

The FMEA Lineman's Competition requires the mandatory use of personal fall protection for all Journeyman team and Apprentice climbing events. Fall protection systems shall be supplied by the competitor and be used in accordance with the manufacturer's specifications along with the use of a secondary work positioning strap or lanyard while transitioning around attachments on the pole. While using the secondary positioning strap or lanyard the competitor shall not get into a position to allow for a free fall greater than 0.6 meters (2 feet).

Fairness and Consistency must be shown

Each judge is encouraged to be competitor-friendly but must also be shown due respect by each competitor. If a judgment call could be considered questionable, the team will be given the benefit of the doubt. The competition event is intended to be a fun time for all and should not become stressful to either the participants or the judges.

Judging Irregularities

Should the Chief Judge observe inconsistencies in judging, he or she shall advise the Event Judge on the inconsistencies. If the discrepancies continue, the Event Judge shall be replaced with an alternate judge.



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Dead-end Bell Change

Mean Time: 10 minutes

Drop Dead Time: 15 minutes

Event Summary

This event consists of replacing two sets of 4-inch porcelain dead-end bells on each end of a set of 8 ft.. light double cross arms. The circuit is considered de-energized but grounds must be installed before climbing above the neutral. Grounds must be removed from below the neutral as well. There will be two new sets of bells at each station. You may use the tools of your choice to gain slack in the wire.

Event Specifications:

1. Teams will be allowed a 5-minute set-up time before starting the event.
2. Time starts at judges signal with fall arrest detached from the pole.
3. Rubber gloves are required at all times unless equipotential ground bracket is installed.
4. A voltage check is required prior to installing grounds.
5. Conductors must be brushed prior to grounds being installed.
6. #2 Cu. minimum grounds must be installed with approved sticks.
7. Cotter keys must be facing the pole when complete.
8. Time stops when the last Lineman has both feet on the ground.
9. The fall arrest must remain attached to the pole for inspection.

Materials provided:

- 2 sets of 4-inch porcelain bells/three bells per string

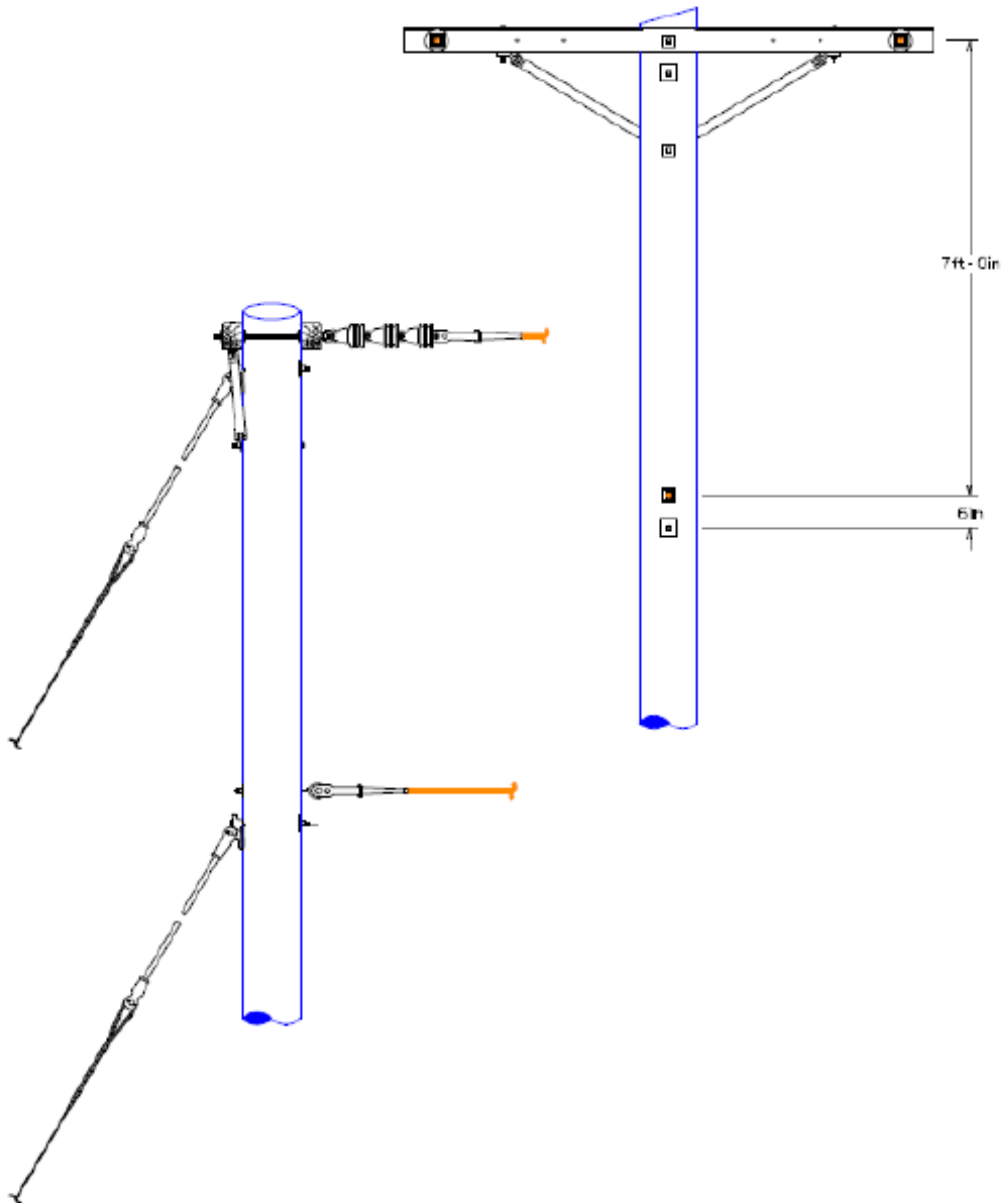
Teams must provide their own:

- Tarp
- Hand-line
- Tools of their choice to perform this event

Dead-end Bell Change

Event Diagram

103	FLORIDA LINEMAN COMPETITION DEADEND BELL CHANGE	ASSEMBLY
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<table border="1"> <tr> <td>Created By: ZCR</td> <td>06/27/16</td> </tr> <tr> <td>Revised By: NCR</td> <td></td> </tr> <tr> <td>Approved By: [Signature]</td> <td></td> </tr> <tr> <td colspan="2">Manager of Engineering</td> </tr> </table>	Created By: ZCR	06/27/16	Revised By: NCR		Approved By: [Signature]		Manager of Engineering		OVERHEAD DISTRIBUTION NOT LE STANDARD	100LDSR
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Approved By: [Signature]										
Manager of Engineering										



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Mystery Event

The event details and specifications will be presented to all teams on Friday, April 21, during the Q&A session with the Chief Judges.



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Pin & Insulator Replacement

Mean Time: 12 minutes

Drop Dead Time: 16 minutes

Event Summary

Teams will jumper out a 7.2 kV single phase take-off on a single phase (no line guard) straight line pole in order to replace the pole top pin and pin insulator using wire tong/s and saddles or work platform/s. A rated by-pass jumper must be installed in order to replace the pin & insulator. Station will be built with a single pole top pin-type insulator on a steel pole top pin. The 1/0 AAAC conductor will be tied in with a #4 Al. hot tie. The take-off will be mounted on a set of three 4-inch porcelain bells 18 inches below the pole top. The jumper will be #4 CU. poly on two hotline clamps. NO CUTOUT. The neutral will be mounted 72 inches below the top of the pole. There will be one down guy with FG breaker mounted 26" below the primary take-off.

Event Specifications:

1. Teams will be allowed a 5-minute set-up time before the start of the event.
2. Hot tie may be made up during set-up time.
3. Hot tie must have at least 6 wraps around conductor.
4. Rubber gloves will be required ground to ground.
5. Time starts at judges signal with fall arrest detached from the pole.
6. Neutral must be covered as well as any primary in the MAD.
7. All temporary and permanent connections must be brushed.
8. Pole top must be covered when untying and tying primary.
9. Primary may be set on take-off but must be double covered.
10. Time stops when last Lineman has both feet on the ground.
11. Fall arrest must remain on the pole for inspection.

Materials provided:

- Steel Pole Top Pin 8" spacing
- F-neck Pin Insulator
- 2 pieces #4 Al. tie wire 36" long

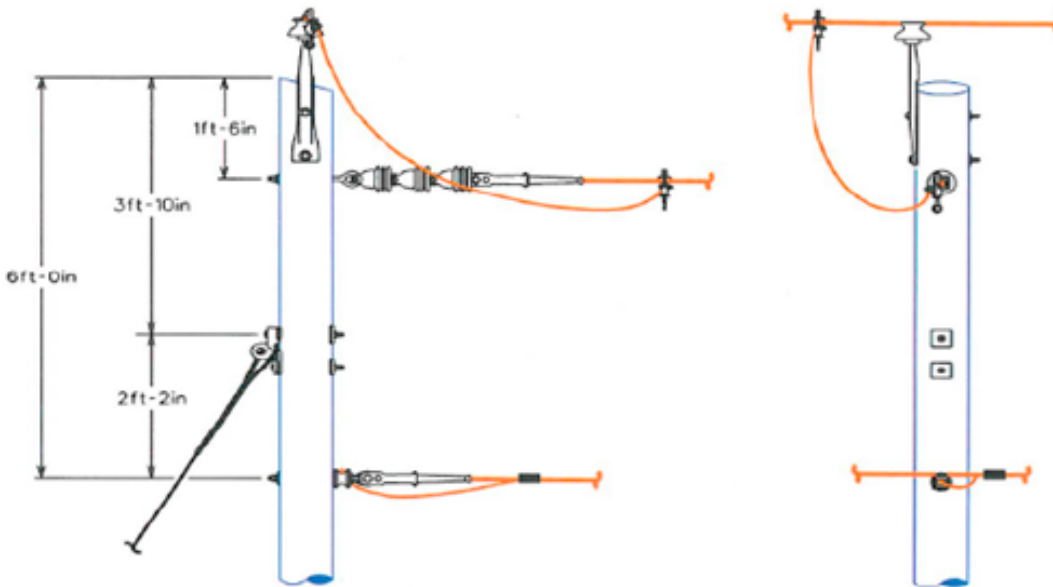
Teams must provide their own:

- Tarp, handline, personal tools etc.
- Cover-up
- Wire Tongs, Saddles or Work Platform

Pin & Insulator Replacement

Event Diagram

102	FLORIDA LINEMAN COMPETITION PIN & INSULATOR REPLACEMENT	ASSEMBLY
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Crafted By: ZKB	08/09/16	OVERHEAD DISTRIBUTION	XXX.DGN
Revision By: Nc	08/09/16		
Approved By: MDO Manager of Engineering	08/09/16		



The 17th Annual

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Transformer Relocation

Mean Time: 12 minutes

Drop Dead Time: 16 minutes

Event Summary

Teams will de-energize a 15 kVA transformer, remove it from service and hang a new transformer on the opposite side of the pole. The cutout, jumper and bracket must also be relocated to the opposite end of the cross arm. The transformer must be tapped up to the opposite phase from which it was removed. The primary bushings (H-1/H-2) as well as the case grounds must be switched as well. The voltage must be checked before the service cable is re-installed in the new transformer. Transformer must be de-energized when installing service cable. Old transformer must be returned to its designated spot on the ground before event is complete.

The two phase primary will be deadended on a set of double 8 ft. light cross arms and backed up with one primary span guy and one neutral span guy.

Event Specifications:

1. Teams will have five minutes to set up before the start of the event.
2. If needed, transformer may be rigged during the set up time.
3. Time will start at the judges signal with fall arrest detached from the pole.
4. Neutral must be covered before climbing above it.
5. Primary must be untapped from below the neutral.
6. Both phases of primary must be covered with dead end covers or stove pipes.
7. Teams may use the rated mechanical rigging of their choice to replace transformer.
8. All connections must be brushed.
9. Primary must be tapped up from below the neutral.
10. Time stops when last Lineman has both feet on the ground.
11. Fall arrest must remain on the pole for inspection.

Materials provided:

- 1-15 kVA transformer, approximately. 210 lbs.

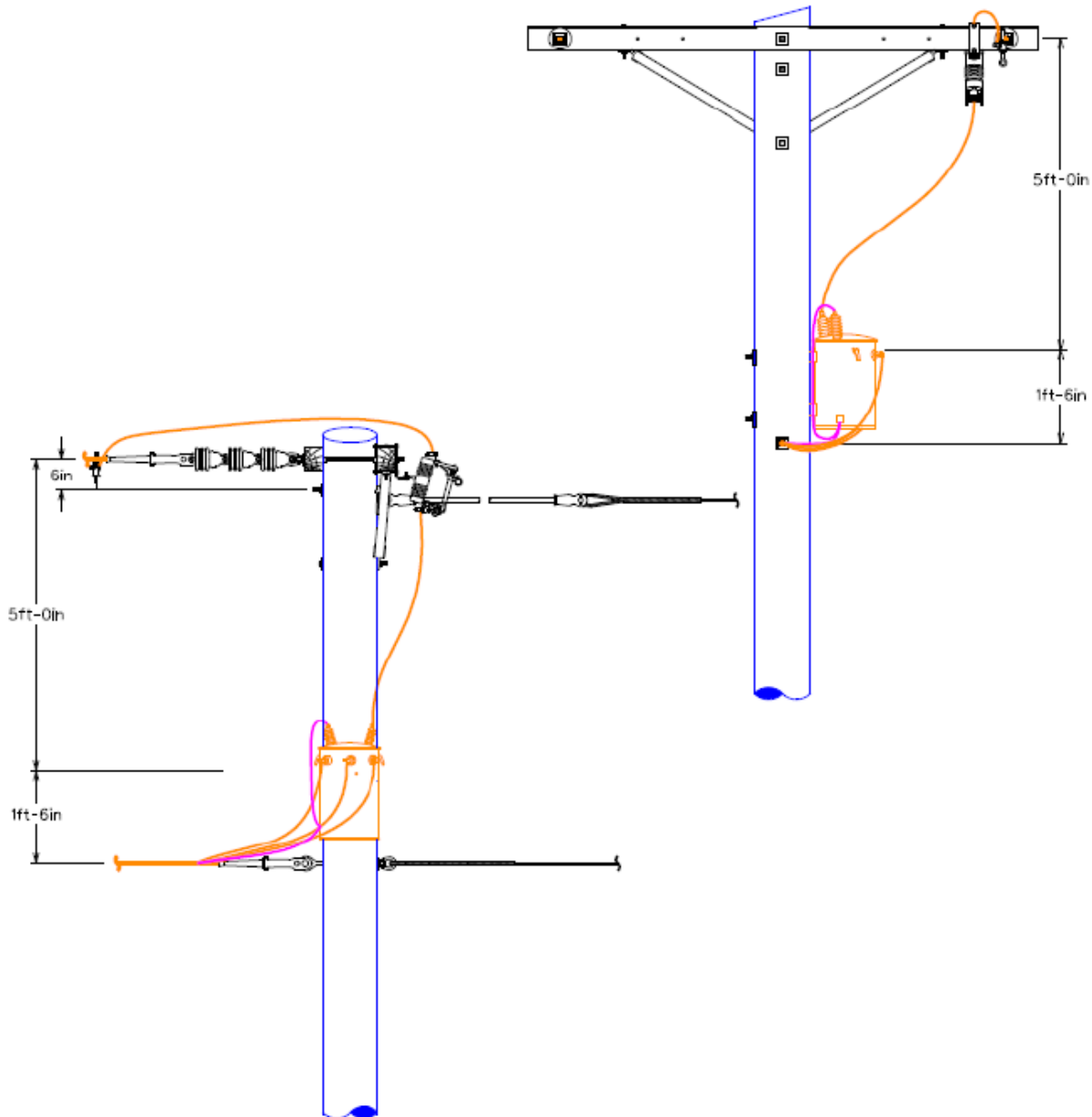
Teams must provide their own:

- Tarp
- Handlines
- Rated rigging
- Hand tools
- Shotgun sticks
- Extendo Sticks
- Cover-up

Transformer Relocation

Event Diagram

101	FLORIDA LINEMAN COMPETITION TRANSFORMER RELOCATION	ASSEMBLY
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Drafted By: ZNS	09/09/16	OVERHEAD DISTRIBUTION NOT LE STANDARD	LAKELAND ELECTRIC
Revision By: Nrc			
Approved By: [Signature]			
Manager of Engineering			

XXX.DGN



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Vertical Hurtman Rescue

Mean Time: 4 minutes

Drop Dead Time: 8 minutes

Event Summary

This team event will be run one time with all three team members participating to rescue the hurtman. Teams have 5 minutes to set up and ask questions. The switch (cutout) feeding the transformer must be opened before the climber can step onto the pole. It will be opened from the ground using an extendo stick and rubber gloves. The stick must be off the ground and the body anytime it is touching anything energized. The climber must wear rubber gloves ground to ground. Lineman will split handline and loop bottom part of handline around mannequin's legs. Then take the top part and wrap around the pole a minimum of one and a half wraps, take the rope under mannequin's arms and tie three half hitches (the splice cannot be part of the knot). The mannequin can then be lowered to the ground while the third member of the team uses the bottom part of handline tied to the mannequin's legs to pull mannequin on to the tarp. You must attempt to keep the mannequin off of the pole and hardware. There will be **NO** gigs for incidental contact of the mannequin on the pole, neutral or service provided the tag man is making an honest attempt. The mannequin must land with **ALL** of his body on the tarp provided, and he must hit the ground gently as if it were a real person. A 10x10 tarp will be provided and placed 5' from pole centered under switch.

Video will be posted on www.publicpower.com under the Competition section showing how to do this event.

Event Specifications:

1. Time starts at judges signal with all team members at least an arm's length from pole and extendo stick.
2. All rubber gloves will be in glove bag cuffs down with no fingers protruding.
3. Lineman's belt and hooks will be on the ground opposite the switch side of the pole.
4. Extendo stick will be lying flat on tarp fully retracted.
5. All three team members must be used. One must climb, one must open switch, and one must tag the mannequin.
6. Time will stop when mannequin is on the tarp with slack on the handline, and extendo stick is fully retracted and back on tarp.
7. Climber will stay on pole and help hang mannequin.
8. Team will close switch back after time stops. Any team member can close it back and work gloves can be used.
9. You must use the eye to open and close switch.
10. When time starts extendo stick will be lying flat on tarp and must be back on tarp fully retracted before time will stop.
11. Climber must stay in 5 foot circle while he has his gaffs on.
12. Rubber gloves or work gloves must be worn anytime you are working or handling tools and equipment.
13. You must cut the Bashlin 57-A insert. There will be a 10-point deduction for cutting the belt in the wrong place
14. The blade of the climber's knife must not be exposed while climbing.

Continued on next page

15. Judges will use a 4" PVC conduit between the rope and the mannequin to evaluate the rope knot, the eye splice can not be in any part of the knot.
16. You may use any standard knot or hitch on the mannequin's legs that can be easily removed. (including placing the rope through the hook, but it must not come off)

Teams must provide their own:

- Extendo Stick

Vertical Hurtman Rescue

Event Diagram

