Kelly Byrne

FIRE DEPARTMENT HIGH DIRECTIONALS

This presentation will look at several types of high directionals used by fire departments and rescue teams for rope rescue, the physics behind them, and some ideas for how best to use them. Discussion will include how to set up and use your tripod, Arizona Vortex, Terradaptor, etc... without tipping it over (seems silly, but it happens more than people realize) Also covered will be the origin and development of the Appalachian Doortex, including an in depth look at the testing that resulted in determining the best configuration for use. Lastly, a discussion will be had about using aerial ladders as high directionals for rope.

Bio of Kelly Byrne:

Kelly is a dedicated husband and a dad to his two daughters. His fire service experience started in 1992 as a volunteer in Montgomery County, MD. After an Army enlistment as an Airborne Infantryman, he worked briefly for the Baltimore Co FD before moving on to be a firefighter in Washington DC. For the past 22 years, Kelly was assigned to Rescue Squad 2 in Washington DC, where he recently retired as a technician (driver). His interest in rope started early in his fire department journey but was really accelerated by his mentors at RS2. They instilled a desire to learn exactly what was happening with the invisible forces that were occurring and how to conduct tests to figure it out for himself. This knowledge helped him to get where he is now. Kelly is the owner of Rescue 2 Training, a SPRAT L3 working with Elevated Safety, and an instructor for the CMC Rescue School.

Russell McCullar

15:1 AND THE CASE FOR A FORCE LIMITING APPROACH

Dive into the history of modern NFPA-based rope rescue. Ask yourself and your instructors "why?" Why do we still have 15:1? Where did it come from? Is there a better way? Do I really need 9,000 lb ropes and connectors? Russell McCullar walks you through years of research, standing on the shoulders of giants such as Arnor Larson, Kirk Mauthner, and Steve Hudson. This talk gives insight and data as to why it is acceptable to use smaller diameter and lower MBS ropes where other approaches to safety factors are applied. You do not want to be the last one holding the 1/2" rope on this one. We will examine the origins of NFPA 1983, common practices in Rope Access, and OSHA standards. Students will walk away with better direction and appreciation for the engineering and innovation of modern rescue systems.

Bio of Russell McCullar:

Russell McCullar is a senior instructor with the Mississippi State Fire Academy, where he manages NFPA 1006 rescue programs. He serves as a rescue specialist and technical search specialist with FEMA's Tennessee Task Force 1. McCullar instructs other rescuers around the country, consults with his company, Craft Rescue, and volunteers as an instructor for the National Cave Rescue Commission. He is an EFO graduate and holds a master's degree in homeland security and a bachelor's degree in business administration.

Nathan Williams

RESCUE / ROPE ACCESS INDUSTRY CERTIFICATION MARKINGS & EVOLUTIONS IN EQUIPMENT / PPE INSPECTION

Markings such as EN 341, CE, NFPA, Classified UL, and ANSI can often be found on a variety of equipment and personal protective equipment (PPE). You may notice that some equipment has multiple certifications for different sizes of rope, while others are only certified for a single size. Why is that? Let's delve into the inspection process. Are you confident in your ability to properly inspect PPE and equipment? You might be surprised to learn that many manufacturers have specific criteria for acceptable levels of deformation or abrasion on their products. Inspection is not simply a matter of conducting a quick visual check, feeling hardware for signs of wear, and returning the item to service. Over the years, inspection standards and certification requirements for life safety equipment have become increasingly stringent and sophisticated and understanding these parameters is paramount to a successful PPE and Inspection Program.

Bio of Nathan Williams:

Passionate about being in the vertical world, Nate has been climbing rocks, ice, ropes, trees, and plastic for over 25 years. As a member of the Petzl team for over a decade, he has worked closely with every Professional and Sport application of Petzl products and has extensive training in each at-height discipline. Currently, Nate serves as the Petzl Technical Institute Trainer where his comprehensive background allows him to educate others on Petzl products, current practices, standards, and applications. Nate is a certified SPRAT III, ITRA Rope L3, ISA Tree Climber, and AMGA Apprentice Rock Guide.