

RESCUE BELAY FUNCTION TESTING

JOHN EVERHART – PEAK RESCUE INSTITUTE

We recognize that nearly all rescue teams in North America incorporate some type of belay in their systems. While the tandem prusik belay has seen widespread use and acceptance there are a number of devices that have entered that market that meet the BCCTR belay standard. We recognize that uniformity in a testing method for belay competency is necessary, however the BCCTR test does not assess the competency of a belay method as it is actually being used to belay a moving load. As rope rescue instructors, we evaluate different systems by their proper functioning, ease of training and skill retention by users.

As a result of a presentation at ITRS last year on belay considerations for long lowers, we pondered the use of “pre-tensioning” to decrease fall distance during raises and lowers of any length. We incorporated a friction device between the belay and the load to evaluate fall distances with a snug top rope and also to evaluate any benefit the belayer would have in not managing excess rope weight even on shorter drops.

We were able to evaluate the use of a Tandem Prusik belay, a 540 belay and an ID belay, in a side-by-side comparison of fall distance, ability to stop a falling load and ease of use. This evaluation was done with a variety of different ropes.

In the summer of 2008 a series of belay function tests were conducted with these factors in mind. We did in excess of 170 drops on several different belay systems and with several different techniques. While we drew some conclusions from the tests that will affect the belay technique’s and device’s that we will teach in the future, we will let the data stand on its own and allow those viewing it to draw their own conclusions. We recognize that many different factors come into play when deciding if a belay is necessary, which technique to use, and which device is best suited for the mission.

About the Presenter

John Everhart: John has been an ocean lifeguard for the San Diego City Lifeguard Service since 1984. He has been a member of the River Rescue team for 17 years, the Boating Safety Unit for 15 years, and the Cliff Rescue team for 5 years. He has received national awards for excellence in various rescue disciplines. John has participated in several hundred technical rescues, either on the coastal cliffs of San Diego, or in flooded river areas. He is rated at the instructor level for all types of aquatic rescues, including rescue boat handling and Marine Firefighting.