Prusik Minding Pulley-Tandem Prusik Belay Testing

This testing was conducted wit h the intent to verify the suitability of this method of raising system belay that is curre ntly used by the Alaska Mountain Rescue Group. We had conducted limited testing pr eviously but wanted to conduct m ore extensive testing in light of an ITRS present ation by Reed Thorne in 2007 or thereabout. In this presentation Reed had indicated a failure of the PMP-TPB set up from catching the load resulting in the load going to the ground during some rope testing.

We simulated a raising system b y hanging a 190kG load of sand bags from a rescue rope secured with a trigger of small cord. We hauled 20 meters of belay rope throug h the PMP-TPB at whic h time we cut the tr igger cord to drop the load. We videoed the amount of rope slippage through the TPB and the distance of load drop. We tried dry rope and tandem prusiks, wet rope and tandem prusiks, and in the end we purposely mismanaged the tandem prusiks to allow t he TPB to fail. We found the TPB had to be severely mismanaged to allow the TPB to fail to catch the load.