Bio:

**Kevin Ristau** is a professional firefighter with the City of Surrey Fire Service in British Columbia, Canada, and is currently serving as a Captain and Instructor with the Technical Rescue Team. Surrey Fire Service TRT provides High Angle, Trench, Confined Space, and Flatwater rescue response. Kevin is a member of Coquitlam Search and Rescue where he is a Rope Rescue Team Leader, as well as a Swiftwater Rescue Technician and a Helicopter External Transport (longline) technician. He was a past instructor with the Justice Institute of British Columbia in both Hazardous Materials Response and Technical Rope Rescue. Finally, he is a Rope and Confined Space Rescue instructor with Ronin Safety & Rescue Inc.

Abstract:

This presentation will summarize the results of failure testing of twin tensioned highline systems. These systems will include twin tensioned track lines, twin tensioned skate block, and twin tensioned English Reeve.

Typical Kootenay Highline Systems utilize the control ropes as belay backups in the event of a trackline failure (including multiple tracklines). Through testing we know how a Kootenay highline system behaves in the event of failure. Our experience at Ronin has led us to increasingly construct highlines and skate blocks where all the rope components are twin tensioned, and intended to back each other up versus using belay capable control lines.

This testing aims to further our knowledge of how a twin tensioned trackline behaves in the event of a failure, where each of the two tracklines is intended to take up the entire load in the event of a failure in either one. We will also be testing the ability of 22kN quickdraws to backup individual components in these systems.

1. Failure in one of two tensioned Tracklines, no control lines
2. Failure in one of two tensioned Tracklines, control lines in place
3. Failure in one of two tensioned English Reeve lines
4. Failure in one of two tensioned Skate Block lines
5. Failure of a component backed up by a 22kN Quickdraw