

#### Abstract:

Following the 2014 testing and research conducted by Basecamp Innovations Ltd (Kirk Mauthner, et al) on the comparative analysis between Dedicated Main & Belay Systems to Two Tensioned Rope Systems, a much larger and more comprehensive testing and research initiative was conducted by the province of British Columbia (Emergency Management BC), supported by the National SAR secretariat. Led by Basecamp Innovations Ltd, 12 people conducted systems analysis testing and research for 31 consecutive days, and this presentation covers the salient findings of this research, much of which challenges many long held beliefs of rope rescue systems. The net result is the further refinement and defining of *Dual Capability, Two Tensioned Rope Systems*. This work has resulted in broad reaching changes to technical rope rescue systems to provincial and federal agencies across Canada.

#### Bio:

Kirk Mauthner is an active, internationally certified mountain guide (IFMGA) and an active member of a mountain rescue team which he joined in 1979 in the heart of the Purcell Mountains in British Columbia Canada. Through his company, Basecamp Innovations Ltd, Kirk provides technical rope rescue consulting, internationally. At his facility in BC, Kirk also designs and tests equipment related to activities such as rope rescue, mountaineering, and other related disciplines. In addition to his drop tower, slow pull machine, instrumentation and 3D design infrastructure, Kirk has recently added CNC prototyping capability. Kirk is also the current Vice President of the Terrestrial Committee in the International Commission for Alpine Rescue and is a member of the Technical Committee for the Association of Canadian Mountain Guides.