

Occupational Biomechanics Symposium Speaker – CSB 2018

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Title of Talk: *Occupational Biomechanics in Marine Survival*

Abstract: Working in a marine environment adds to the complexity of minimizing injury risk during traditional tasks (Matthews et al. 2007) and adds new dimensions related to safety in emergency evacuations and egress conditions. The focus of this talk will be on past projects related to emergency conditions in marine environments with reflections on how biomechanical knowledge was used to address questions about survival, through to the development of products, standards and policy development. In particular the presentation will discuss the current immersion suits used internationally to improve survivability in cold water conditions. The overall project reviewed in water measures of buoyancy, human-suit buoyancies and lastly human performance in simulated underwater egresses.

Bio: In 1982 I travelled from Waterloo to Atlantic Canada to start a career. Specifically, I worked with Dr. William Stanish (Sports Med and Orthopaedics) who is a wonderful clinician, scientist and mentor. We worked on a variety of projects but what I learned the most was how we must try and pursue the application and translation of biomechanics to our collaborators and the individuals affected by the research question. In 1993 I started at Dalhousie and again I had the good fortune to meet another great mentor Dr. Chris Brooks who had a passion for marine safety. It is the later field which will be the focus of my talk at the conference and not about a specific project but the need to look at the impact of occupational biomechanics across the many elements involved in moving knowledge from the lab, to practice, standards and policy.