Jonathan Power, B. Sc., M. Sc., Ph. D (c)
Research Council Officer
National Research Council of Canada – Institute for Ocean Technology

Profile

Jonathan holds a Bachelor of Science degree (Biology) as well as a Master of Science degree (Kinesiology) from Memorial University. He is currently pursuing doctoral studies under Professor Tipton at the University of Portsmouth, United Kingdom. As a Research Council Officer, working primarily in marine safety, his recent work has focused on human thermal performance in cold-water immersions and he has supported other researchers in analyzing human responses and performance involving a number of escape, evacuation and rescue (EER) apparatus under varying environmental conditions. Jonathan has published a number of articles and technical reports in leading professional journals.

In addition to his research activities, he is a member of the NRC's Research Ethics Board and a member of the Canadian General Standards Board for Helicopter Passenger Transportation and Immersion suit systems.

Professional Experience

2007 – present	Research Council Officer, National Research Council of Canada – Institute for Ocean Technology. His role includes proposal writing, project management and coordination, experiment design, research trials, data analysis and reporting.
2005 – 2007	Technical Officer, National Research Council of Canada – Institute for Ocean Technology. Duties included coordination of the life raft operational performance project, experimental design and setup of both model scale and full-scale research trials of commercially available life rafts, data analysis, and report writing.
2004 – 2005	Research Assistant, Safety Net – Memorial University. Employed as a research assistant for the Sea Urchin Diver Study (SUDS). Duties included data collection through administering structured telephone interviews with selected participants, statistical analysis of collected results, report and manuscript writing.

Academic Credentials

Doctor of Philosophy (Candidate), University of Portsmouth, United Kingdom, Expected completion 2011-12.

Masters of Science (Kinesiology), Memorial University of Newfoundland & Labrador, 2005. Awarded "Fellow of the School of Graduate Studies" for academic excellence.

Bachelor of Science (Biology), Memorial University of Newfoundland & Labrador, 2002.

List of Publications

Refereed Publications:

1. Taber, M. J., Simões Ré, A., and Power, J. *A preliminary ergonomic assessment of piloting a lifeboat in ice.* Safety Science. 2010. (in press).

2. Raman-Nair, W., Millan, J., Power, J., and Simões Ré, A. *Numerical model of towing dynamics of a long flexible life raft in irregular waves.* Marine Technology, 46, pp. 213-218. 2009.

3. Power, J., Simões Ré, A., and Tipton, M. *Human thermal responses in wind and waves*. Proceedings of the 13th International Conference on Environmental Ergonomics. , Boston, USA, Aug 2-7, 2009, pp. 233-237.

4. Raman-Nair, W., Power, J., and Simões Ré, A. *Towing dynamics of a diferaft and fast rescue craft in a surface wave*. Ocean Engineering, 35, 2008, pp. 1252-1258.

5. Simões Ré, A., Power, J., Kennedy, E., Kuczora, A., Akinturk, A., Veitch, B., Brown, R., and Boone, J. *Liferaft performance in wind and waves: An experimental evaulation*. Royal Institute of Naval Architects: Design and Operation of Passenger Ships Conference, London, England, April 24-26, 2007, pp. 135-141.

6. Power, J. T., Cheung, S.S., Petrie, L., and White, MD. *Breath-hold duration and heart rate responses across gender during moderate intensity exercise after sudden face immersion*. European Undersea Baromedical Conference, Copenhagen, Denmark, Aug 27-31, 2003, pp. 41-45.

7. Powell, M. E. S., Power J. T., Cheung, S. S., Petrie, L., and White, M. D. *Limited acclimation of the upper limb to repeated cold water immersion.* European Undersea Baromedical Conference, Copenhagen, Denmark, Aug 27-31, 2003, pp. 130

8. White M.D., Power J. T., Bradbury E. E., Pope J.D., Petrie L., and Cheung S.S. *Maximum breath hold time during face immersion across gender and water temperatures from 0 to 20°C,* European Undersea Baromedical Conference, Brugge, Belgium, Sept 4-8, 2002, pp.143-147.

9. White M.D., Pope J.D., Bradbury E. E., Power J. T., Petrie L., and Cheung S.S.. *Heart rate responses during face immersion across gender and water temperatures from 0 to 20°C.* European Undersea Baromedical Conference, Brugge, Belgium, Sept 4-8, 2002, pp. 153-157.

Technical Reports:

1. Power, J., and Simões Ré, A. *Human performance in immersion suits.* TR-2010-12. Institute for Ocean Technology, St. John's, 31p. 2010.

2. Power, J., Simões Ré, A., and Tipton, M. *The evaluation of human thermo-regulatory responses to varying weather states.* TR-2009-18. Institute for Ocean Technology, St. John's, 40p. 2009.

3. Simões Ré, A., Kuczora, A., Kennedy, E., Power, J., and Oxford, L. *Freefall lifeboat: speed made good in different weather conditions.* TR-2009-21. Institute for Ocean Technology, St. John's, 72p. 2009.

4. Simões Ré, A., Veitch, B., and Power, J. *Operational Safety Offshore Arctic: Emergency, Escape, Evacuation, and Resecue (EER).* TR-2009-17. Institute for Ocean Technology, St. John's, 38p. 2009.

5. Power, J., Simões Ré, A, MacKinnon, S., Brooks, C., and Tipton, M. *The evaluation of human thermal responses in wind and waves.* TR-2008-10. Institute for Ocean Technology, St. John's, 38p. 2008.

6. Power, J, and Simões Ré, A. *Assesment of The Performance of 1:7 Scale Model Liferafts Under Tow by a Carriage and Fast Rescue Craft.* TR-2007-23, Institute For Ocean Technology, St. John's, 49p. 2007.

7. Power, J, and Simões Ré, A. *Effects of Wind, Waves, and Current on Tow Load* s *Generated by 1:7 Model and Full Scale Liferafts.* TR-2007-24, Institute For Ocean Technology, St. John's, 22p. 2007.

8. Power, J., Simões Ré, A., and Mak, L. *Assessment of Liferaft Performance In Regular Waves Using 1:7 Scaled Models.* TR-2006-09, Institute For Ocean Technology, St. John's, 50 p. 2007.

Refereed Communications:

1. Power, J. Simões Ré, A, and Tipton, M. *Human Thermal Responses in Wind and Waves*. International Conference of Environmental Ergonomists, Boston, USA, August 2-7, 2009.

2. Power, J., Simões Ré, A, MacKinnon, S., Brooks, C., and Tipton, M. *Human thermal regulation in wind and waves.* Program for Energy Research and Development (PERD) East Coast Workshop, Halifax, Canada, November 19-20, 2008.

3. Power, J., Simões Ré, A, MacKinnon, S., Brooks, C., and Tipton, M. *Human thermal regulation in wind and waves.* International Society of Offshore Polar Engineers, Vancouver, Canada, July 6-11, 2008.

4. Simões Ré, A., Power, J., Kennedy, E., Kuczora, A., Akinturk, A., Veitch, B., Brown, R., and Boone, J. *Liferaft Performance in Wind and Waves: An Experimental Evaulation*. Royal Institute of Naval Architects: Design and Operation of Passenger Ships Conference, London, England, April 24-26, 2007, pp. 135-141

5. Power, J., Simões Ré, A., Kennedy, E., and Kuczora, A. *Liferaft Tow Force Predictions Using 1:7 Scaled Models.* Operational Performance of Liferafts Workshop, St. John's, Canada, March 26-27, 2007.

6. Power, J., Simões Ré, A., Kennedy, E., and Kuczora, A. *Full Scale Liferaft Sea Trials: Obstacles, Solutions, and Recommendations.* Operational Performance of Liferafts Workshop, St. John's, Canada, March 26-27, 2007.

7. Power, J. Kennedy, E., and Simões Ré, A. *The Operational Performance of Commercially Available Liferafts in Tow and Drift Conditions.* SARSCENE 2006 Workshop, Gatineau, Canada, October 4-7, 2007.

8. Power, J.T., Ledez, K.M., Morrison, J.B., Pollock, N.W., and White, M.D. *Survey Evaluation of the Risks and Nature of Sea Urchin Diving In Newfoundland and Labrador.* Research on Workplace Health and Safety: From The Core To The Margins, St. John's, Canada, June 07-10, 2006. p. 72.

9. Power, J.T., Petrie, L.C., Bradbury, E.E., Cheung, S.S., and White, M.D. *Breath Holding After Sudden Face Immersion At Rest Or During Exercise.* Research on Workplace Health and Safety: From The Core To The Margins, St. John's, Canada, June 07-10, 2006. p. 76

10. Power, J.T., Cheung, S.S, Petrie, L.C. and White, M.D. *Breath-hold duration and heart rate responses across gender during moderate intensity exercise after sudden face immersion*. SafetyNet Conference 2003, St. John's, Canada, Oct 30 – Nov 1, 2003, p. 9

11. Power, J.T., Cheung, S.S, Petrie, L.C. and White, M.D. *Breath-hold duration and heart rate responses across gender during moderate intensity exercise after sudden face immersion*. Scientific Days Symposium, St. John's, Canada, Oct 20-21, 2003.

12. Power, J. T., Cheung, S.S., Petrie, L., and White, MD. *Breath-hold duration and heart rate responses across gender during moderate intensity exercise after sudden face immersion*. European Undersea Baromedical Conference, Copenhagen, Denmark, Aug 27-31, 2003, pp. 41-45.

13. White, M.D., Powell, M., Power, J. T. and Pope, J., Cheung, S.S. *Limited acclimation of the upper human limb to repeated cold-water immersion*. Canadian Physiological Society Winter, Meeting, January, 2003, Quebec, Quebec.

14. Power, J. T., White, M.D., Bradbury, E.E., Pope, J., Petrie L. and Cheung, S. *Correlates of breath hold time with face immersion in 0 to 20°C water*. Canadian Society for Exercise Physiology Conference, Oct 16-19, 2002, St. John's, Canada, CSEP Conference Proceedings, p. 36.

15. Bradbury, E., White, M.D., Power, J. T. Pope, J., Petrie L., and Cheung, S. *Acral and non-acral cutaneous blood flow responses to face immersion in women.* Canadian Society for Exercise Physiology Conference, Oct 16-19, 2002, St. John's, Canada, CSEP Conference Proceedings, p.36.

16. Powell, M., White, M.D., Power, J. T., Pope, J., Cheung, S.S. and Behm, D. *A gender comparison of upper limb manual dexterity and strength changes during limb cooling.* Canadian Society for Exercise Physiology Conference, Oct 16-19, 2002, St. John's, Canada, CSEP Conference Proceedings.