

PROFILE

Susan Coleshaw is an independent consultant with extensive experience of performing research, consultancy and equipment testing contracts. She has specialist interests in helicopter safety, cold water survival, emergency response procedures and personal protective equipment. Consultancy services are provided to the offshore, aviation and marine industries. Successful projects have been undertaken for organisations including legislative bodies, offshore operators (end users) and equipment manufacturers in the fields of applied physiology, ergonomics, health and safety.

She is a Fellow of the Institute of Ergonomics and Human Factors (IEHF) and is an Associate of Facilitators International LLP.

QUALIFICATIONS

BSc (University of Leeds) Physiology
PhD (University of London) "*Causes, consequences and prevention of hypothermia in water*"

SELECTED MAJOR STUDIES

- Escape from side-floating helicopters (funded by the CAA).
- Development of technical standard for emergency breathing systems (funded by CAA and HSE).
- Implementation and use of helicopter emergency breathing systems (funded by CAA and HSE).
- Personal locator beacons - risk analysis, lifejacket compatibility and carriage analysis (Oil & Gas UK).
- Performance of lifejackets and immersion suits at sea, using anthropometric manikin (funded by HSE).
- Development and validation of child manikins to test children's lifejackets (funded by European Commission).
- Compatibility of immersion suits, lifejackets and emergency response equipment – (undertaken on behalf of numerous offshore oil and gas operators).
- Survival in temperate waters (Facilitators / Shell).
- Study of the introduction of push-out exits to helicopter escape training - possible effects on stress levels of trainees and standardisation of exits used (funded by OPITO).
- Study of stress and anxiety due to offshore emergency response training (funded by RGIT and HSE).

Published widely in the fields of applied physiology, ergonomics, offshore safety and health (see Appendix).

COMMITTEE MEMBERSHIP AND INDUSTRY GROUPS

- ISO Technical Committee TC 188/WG14: Small craft - Personal Safety Equipment (2000-to date).
- CEN Technical Committee TC162/WG6: Lifejackets (1992 - to date).
- CEN 162/WG6/ad hoc group: Immersion suits (1992 - 1999).
- BSI Technical Committee PH/3/6: Buoyancy garments (1992 - to date) – *Chairman* (2005 - to date).
- BSI Technical Committee PH/3/6/1: Immersion and survival suits (1992 - to date).
- BSI Technical Committee PH/4/7: Underwater breathing apparatus (1992 - 2000).
- British Safety Industry Federation - Testing and Certification Association (1992 - 2000).
- HSE/Industry Occupational Health Research Committee representing Offshore Contractors Association (1998 - 2000).
- Helicopter Emergency Egress Training Group (1997 - 2000)

JOB HISTORY

Susan Coleshaw is currently an independent consultant working in the offshore, aviation, marine and equipment manufacturing industries. Specialist areas include thermal physiology; ergonomic performance; evacuation, escape and rescue systems; evaluation of life-saving and personal protective equipment; health and safety systems. Customers have included the UK Civil Aviation Authority, the UK Health and Safety Executive, Cranfield University, Oil and Gas UK, Shell, BP, Conoco, Kerr-McGee, Britannia, Talisman, Survival-One, Shark Group, Viking Life-saving Equipment, RGIT/Petrofac Training and FalckNutech. She is also actively involved in technical standards work relating to lifejackets, immersion suits and associated equipment on behalf of BSI, CEN, ISO (British, European and International Standards Organisations) and the UK Civil Aviation Authority.

Previously, she spent 9 years at RGIT Limited, an offshore survival training organisation in Aberdeen UK. Before leaving RGIT in 2000, she was Manager of the Centre for Health and Safety Sciences, responsible for a small multi-disciplinary team, undertaking research projects in the fields of offshore health, safety and survival. Here she was also Technical and later Quality Manager of a test laboratory assessing lifejackets, buoyancy aids, immersion suits and similar equipment. She was responsible for successfully achieving UKAS (United Kingdom Accreditation Service) accreditation for the laboratory.

In her academic career Susan spent 8 years at The London Hospital Medical College, University of London, and 2 years at the University of Aberdeen, working in the field of human thermoregulation.

Publications List (1982 – 2010)

1. COLESHAW SRK (2008) Escape from capsized helicopters. Paper submitted to Journal of the Royal Aeronautical Society, June 2008 (presented at Maritime Operations of Rotorcraft Conference; London, 11 June 2008).
2. COLESHAW SRK (2008) Immersion Suit and Lifejacket Developments. Offshore Emergency Response Seminar; Offshore Oil & Gas UK; Aberdeen, 5 June 2008.
3. COLESHAW SRK (2006) Stress & HUET training- the implications of adding exits. Presented at OPITO Training Providers Advisory Group meeting; Dublin; December 2006.
4. COLESHAW SRK (2006) HUET simulator exit study. Presented at OPITO Training Providers Advisory Group meeting; Dublin; December 2006.
5. COLESHAW SRK (2006) Stress levels associated with HUET: the implications of higher fidelity training using exits. Research Report SC 155. Prepared on behalf of OPITO; Aberdeen.
6. COLESHAW SRK (2006) Implementation and use of EBS in the UK. Presented at: Canadian Association of Petroleum Producers (CAPP) Workshop on Helicopter Underwater Escape Breathing Apparatus; Halifax, Nova Scotia; 30 January 2006.
7. COLESHAW SRK (2005) Reducing the risk of drowning – the case for the use of personal flotation devices. OGP Conference: Transporting People and Equipment Safely, Cairo, 29-30 November 2005.
8. COLESHAW SRK (2003) Preliminary study of the implementation and use of emergency breathing systems. CAA Paper 2003/13. London, Civil Aviation Authority.
9. COLESHAW SRK. (2001) Improving safety and performance of children's lifejackets. 20th Leith International Conference, Aberdeen, 1 November 2001.
10. COLESHAW SRK, HERRMANN R, LINDQUIST A, PLATTEN G (2001) Development and Validation of Test Procedures and Test Tools for Children's, Infants' and Babies' Lifejackets, Buoyancy and Swimming Aids. Final Report submitted to European Commission, DG XII; Standards Measurement and Testing Programme 4, Project CT98-2218.
11. JAMIESON DW, ARMSTRONG IJ, COLESHAW SRK. (2001) Helicopter ditching research - egress from side-floating helicopters. CAA Paper 2001/10. London, Civil Aviation Authority.
12. COLESHAW SRK. (2000) Escape from a capsized helicopter. Presented at: Workshop on Emergency Underwater Breathing Apparatus; Middlesbrough, 18 October, 2000
13. COLESHAW S, HERRMANN R, LINDQUIST A, PLATTEN G. (2000) Development of test methods and tools to improve the safety and performance of children's lifejackets. In: J Werner and M Hexamer, eds. Environmental Ergonomics IX. Aachen, Shaker Verlag.
14. JAMIESON DW, COLESHAW SRK, ARMSTRONG IJ, SELLAR C, HOWSON D (2000) Human factors associated with escape from side-floating helicopters. Presented at: Ergonomics Society Conference, April 2000.
15. COLESHAW SRK, ARMSTRONG IJ, JAMIESON DW. (2000) Surviving from ditched helicopters. Presented at: 2nd International Conference of Evacuation Escape and Rescue Offshore, Aberdeen, 15-16 March 2000.
16. COLESHAW SRK, MILLS F. (2000) Liferaft inflation study. Part A: Investigation of the ability of liferafts to inflate on demand. Part B: Review of Liferaft History, Legislation and Use. OTO 1999 040; HSE Report (Project 3372).
17. COLESHAW SRK, RALPH WJ (1999) Investigation of the ability of liferafts to inflate on demand. Presented at: 18th Leith International Conference, Aberdeen, 2-4 November 1999.

18. COLESHAW SRK, HOWSON D. (1999) Escape from side-floating helicopters. Presented at: 2nd International Helicopter Escape Seminar/Workshop, Nutec, Middlesborough, 21-22 October 1999.
19. COLESHAW SRK. (1998) Training issues relating to the use of emergency underwater breathing apparatus by helicopter passengers. Presented at: 17th Leith International Conference, Aberdeen, October, 1998.
Also published in: Safety at Sea International, Oct 1998. Redhill, Surrey: DMG Business Media Ltd.
20. COLESHAW SRK, HARRIS RA. (1998) Medical status of the offshore population. OTO 97 057. HSE Report.
21. COLESHAW SRK, BOYLE F. (1998) Procedures for the evacuation of casualties by TEMPSC. Presented at: Health and Safety Management in Oil and Gas Conference, Aberdeen, 29-30 January 1998.
22. COLESHAW SRK, BOYLE F. (1997) Advantages and disadvantages of using underwater breathing apparatus in helicopters. Presented at: Helicopter Underwater Escape Seminar/ Workshop, Nutec, Middlesborough, 6-7 November 1997.
23. BOYLE F, COLESHAW SRK. (1997) Evacuation of casualties using free-fall TEMPSC. 16th Leith International Conference, Aberdeen, October 1997.
24. COLESHAW SRK, HORSLEY HD. (1996) Health of the ageing offshore workforce. 15th Leith International Conference, Aberdeen, October 1996.
25. COLESHAW SRK, HARRIS RA, FREELAND WA. (1996) Health and Medical Fitness. In: R Flin & G. Slaven, Eds. *Managing the Offshore Workforce*. Tulsa, OK: Pennwell.
26. COLESHAW SRK. (1996) Review: Medications for the treatment of motion sickness during evacuation, escape and rescue offshore. OTH 94 462. Suffolk, HSE Books.
27. HARRIS R, COLESHAW SRK, MACKENZIE IG. (1996) Analysing stress in offshore survival course trainees. OTH 94 446. Suffolk, HSE Books.
28. HARRIS R, COLESHAW SRK, MACKENZIE IG (1995) Anxiety and Offshore Survival Training. 14th Leith International Conference, Aberdeen, October 1995.
29. HARRIS R, COLESHAW SRK, MACKENZIE IG, WHITING PH. (1994) Human cortisol and anxiety changes in response to emergency training. *J. Physiol.* 481: 53P.
30. HARRIS R, MACKENZIE IG, WHITING PH, COLESHAW SRK. (1994) Analyses on the factors influencing urinary cortisol in a stressful training situation. Poster presented at: First World Congress on Stress, Washington DC, USA.
31. ARMSTRONG IJ, BENNETT-SMITH S, COLESHAW SRK. (1994) Performance of immersion suit and lifejacket combinations at sea. OTH 94 428. London, HMSO.
32. ARMSTRONG IJ, BENNETT-SMITH S, COLESHAW SRK. (1994) Performance of immersion suit and lifejacket combinations at sea. In: *Proceedings of the International Association of Sea Survival Training Annual Conference*, Bergen, Norway.
33. COLESHAW SRK. (1993) Helicopter passenger suits - designed for comfort in flight or protection in cold water. 12th Leith International Conference, Edinburgh, October 1993.
Also published in: Survival at Sea International, Dec 1993. International Trade Publications: Redhill.
34. COLESHAW SRK, NORMAN JN. (1993) Medical support for British operations in the Antarctic. AGARD (Advisory Group for Aerospace Research and Development) Conference Proceedings 540: *The Support Of Air Operations Under Extreme Hot And Cold Weather Conditions*. Victoria, Canada. ISBN 92-835-0721-5.
35. LIGHT IM, COLESHAW SRK. (1993) Survivability of occupants of totally enclosed motor propelled survival craft. OTH 92 376. HMSO: London.

36. COLESHAW SRK, JOHNSTON G, MACDONALD AG, PERTWEE RG. (1990) Effects of subanaesthetic doses of nitrous oxide on thermal perception in man. *J. Physiol.* 427:14P.
37. COLESHAW SRK, SYNDERCOMBE-COURT D, DONALDSON GC, EASTON JC, KEATINGE WR. (1990) Raised platelet count and RBC in human subjects during brief exposure to cold and active rewarming. *Archiv. Complex Environmental Studies* 2: 15-24.
38. COLESHAW SRK, JOHNSTON G, MACDONALD AG, PERTWEE RG. (1990) The effect of increases in body temperature on thermal perception in man. *J. Physiol.* 422: 22P.
39. WOODHOUSE P, KEATINGE WR, COLESHAW SRK. (1989) Factors associated with hypothermia in patients admitted to a group of inner city hospitals. *Lancet* 2 (8673): 1201-1205.
40. COLESHAW SRK, MACDONALD AG, PERTWEE RG, ROSS JAS. (1989) Thermal perception in divers. *Igloo '88 Final Dive Report 2, National Hyperbaric Centre, Aberdeen*, pp 183-185.
41. COLESHAW SRK, DONALDSON G, EASTON JC, KEATINGE WR, SYNDERCOMBE-COURT D. (1989) Haematological changes during cooling and rewarming in humans. *J. Physiol.* 414: 41P.
42. KEATINGE WR, COLESHAW SRK, HOLMES J. (1989) Changes in seasonal mortalities with improvement in home heating in England and Wales from 1964 to 1984. *Int. J. Biometeorol.* 33: 71-76.
43. WEDZICHA JA, COLESHAW SRK, DONALDSON G, KEATINGE WR. (1988) Effect of body surface cooling in patients with chronic airflow obstruction. *Clin. Sci.* 74 (Suppl. 18): 29P.
44. HOLLAND RL, HARKIN NE, COLESHAW SRK, JONES DA, PECK AW, TELEKES A. (1987) Dipipanone and Nifedipine in cold induced pain; analgesia not due to skin warming. *Br. J. Clin. Pharmacol.* 24: 823-826.
45. CHELLIAH R, COLESHAW SRK, COTTER F, EASTON JC, KEATINGE WR, MATTOCK M. (1987) Effects of exposure to heat on blood platelets and red cells in man. *J. Physiol.* 384: 63P.
46. KEATINGE WR COLESHAW SRK, EASTON JC, COTTER F, MATTOCK M, CHELLIAH R. (1986) Increased platelet and red cell counts, blood viscosity, and plasma cholesterol during heat stress, and mortality from coronary and cerebral thrombosis. *Am. J. Med.* 81: 795-900.
47. COLESHAW SRK, EASTON JC, KEATINGE WR, FLOYER MA, GARRARD J. (1986) Hypothermia in emergency admissions in cold weather. *Clin. Sci.* 70 (Suppl.13): 93-94P.
48. KEATINGE WR, COLESHAW SRK, MILLARD CE, AXELSSON J. (1986) Exceptional case of survival in cold water. *Brit. Med. J.* 292: 171-172.
49. WOLFF AH, COLESHAW SRK, NEWSTEAD CG, KEATINGE WR. (1985) Heat exchanges in wet suits. *J. Appl. Physiol.* 58: 770-777.
50. KEATINGE WR, COLESHAW SRK, COTTER F, MATTOCK M, MURPHY M, CHELLIAH R. (1984) Increases in platelet and red cell counts, blood viscosity, and arterial pressure during mild surface cooling: factors in mortality from coronary and cerebral thrombosis in winter. *Brit. Med. J. (Clinical Research)* 289: 1405-1408.
51. COLESHAW SRK, VAN SOMEREN RNM, WOLFF AH, DAVIS HM, KEATINGE WR. (1983) Impaired memory registration and speed of reasoning caused by low body temperature. *J. Appl. Physiol.* 55: 27-31.
52. VAN SOMEREN RNM, COLESHAW SRK, MINCER PJ, KEATINGE WR. (1982) Restoration of thermoregulatory responses to body cooling of hands and feet. *J. Appl. Physiol.* 53: 1228-1233.

Numerous further commercial-in-confidence reports.