

Editorial

Back to the future: occupational diver training in Australia

David Smart

Professor David Smart, Department of Diving and Hyperbaric Medicine, Royal Hobart Hospital, PO Box 1061, Hobart, TAS 7001, Australia
david.smart@ths.tas.gov.au

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Abstract

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The Australian Diver Accreditation Scheme (ADAS) had its genesis in the 1990s in response to a need to produce occupational divers who were trained to international standards with the necessary skills to safely undertake complex work in high-risk environments. Well-trained dive teams who are 'fit-for-purpose' can be regarded as the highest level of risk control in preventing accidents and workplace morbidity. Without such training, work site risks are not detected, with potentially disastrous consequences. In September 2017, the only civilian ADAS level 3 and 4 training facility in Australia, The Underwater Centre Tasmania (TUCT), closed its doors. The reasons for TUCT closure were multifactorial. However, the loss of higher level training capability in this country and its benefits to industry will have a future adverse impact. As industry pushes for more complex diving to improve productivity, Australian occupational diver training processes are becoming 'streamlined' and are losing parity with international benchmarks. This is a potentially fatal combination.

September 14, 2017 marked a potential watershed for diver training in Australia, when The Underwater Centre Tasmania (TUCT) was forced into liquidation and closed its doors. TUCT was the only Australian Diver Accreditation Scheme (ADAS)-accredited and International Marine Contractors Association (IMCA)-recognised level 4 Diver Training Centre in the southern hemisphere and had been operational for over 20 years. The centre was also the only civilian (not military or police) level 3 diving training centre in Australia (Level 3 training is available in New Zealand). TUCT has trained hundreds of commercial divers in accordance with AS/NZS 2815. The closure of the centre will be a huge blow for diver training in Australia and the future ramifications are quite concerning, given current trends in deregulating industry diver training. Essentially it means that Australian divers will not be able to access internationally recognised off-shore training in this country.

As with other high-risk industries, an appropriately trained workforce is a key foundation for maintaining a safe workplace. A key aspect of diver training at TUCT was that it fully complied with ADAS which was set up in the 1990s to reflect international best practice in occupational diver training and certification. The AS/NZS 2815 series of occupational diving training standards reflected this. ADAS courses are also nationally aligned with the Australian Skills Quality Authority and are Vocational Education and Training (VET)-accredited. ADAS accredited training establishments are required to meet stringent entry conditions and maintain

compliance with a number of standards in operational training assessment and administration. TUCT maintained ADAS accreditation for the whole of its operational existence. This has enabled their graduates to work globally in the diving industry. An additional advantage of international standard training is the sharing of information regarding safety on a global basis, and the systems of safe command and control of dive operations.

Well-trained dive teams can identify risks before they occur, manage the risks in real time to improve safety, and are empowered to challenge borderline safety practices if they occur. If divers possess the necessary skills to competently and efficiently perform tasks using appropriate equipment and safety procedures, productivity and safety are improved. High-quality training processes also improve operational safety in diving because there is broader understanding of standards, maintenance and safety procedures, dive schedules, appropriate use of the correct equipment and international best practice. It is unfortunate that when Australia's Model Work Health and Safety Legislation was passed in 2012, it failed to recognise many of the existing Australian Standards that relate to occupational diving. In addition, the legislation artificially separated high-risk "construction divers" (subject to AS/NZS 2299.1), from "general divers".^{1,2} Inadvertently, this has paved the way for deregulation of diver training in Australia. Any diving other than construction diving was effectively declared "low risk", without consideration of fundamental contributors to

risk such as the diver's activity and tasks, the equipment they use and the conditions/environment in which they dive.

In the past I have documented the adverse impacts on safety when dive teams lacked the necessary skills and training to perform their tasks, or when they lack the knowledge to challenge unsafe shortcuts or practices being requested by their employers.³ Tasmania's aquaculture industry provides a model to demonstrate how safety was improved by high standards of training and operational practice within the industry.⁴ In the 1980s rates of diver morbidity in Tasmania were over 50 times current levels, owing to lack of training, poor safety procedures, inadequate equipment maintenance and inappropriate use of dive schedules and profiles. Among other factors, major improvements in safety occurred when divers were trained to a universal benchmark certified by ADAS.

However as a potential downside for employers, ADAS training also allowed divers to become geographically mobile, because their qualifications allowed them multiple employment options. After providing financial support for the diver to train, the employer would rightfully expect a degree of loyalty, which was not always forthcoming. A solution to this issue has been to create industry-specific training programmes that meet basic requirements of WHS legislation, but are not recognised outside the industry. This permits a reduced cost structure with shorter courses and lower levels of compliance than are required for international courses. Without international or national certification, divers potentially remain captive within the industry.

With economic pressures on employers, a different kind of pressure is also exerted on dive teams – to increase productivity at lower cost. This is common to all industries; however, for occupational divers, changes in operational practice and cutting corners will eventually adversely impact on safety. Lessons from the early years of occupational diving sit indelibly etched in history, waiting to surface [sic] when the guard is dropped. Regulators appear to have short memories. Australia's Model WHS Legislation still has serious deficiencies in relation to diving, and it is my opinion that these deficiencies will unintentionally allow 'dumbing down' of diver training standards. I have represented SPUMS on reviews of the legislation, which unfortunately were very narrow in focus and did not address the key deficiencies SPUMS identified in our submissions. I would assert that divers who lack the higher level knowledge to identify impacts of changes in practice on safety are more likely to sustain injuries.

The future challenge will be to maintain the quality of training at a level that matches the rapid development of technology in industry. Although some of this technology (e.g., remote operating vehicles) has improved safety for divers, other technology has increased diver risk. An example of this is the necessary move by industry to develop offshore

marine farming.⁵ This requires industrial structures, with major plant and equipment. Divers are diving to 30 m depth, performing tasks that fall completely within the purvey of construction diving.² Diving in these settings would be far better achieved using a diving workforce and supervisors trained to ADAS standards. Santayana stated "*those who cannot remember the past are condemned to repeat it*".⁶ For diver training in Australia it is back to the future. I hope I am proven wrong in relation to the adverse impact this will have on safety.

References

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Conflict of interest

The author provided paid teaching services and medical advice to TUCT, and has run a not-for-profit DMAC Level 2 Medical Support of Offshore and Saturation Diving Course with assistance of TUCT.

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