

University of Tasmania Field Safety System

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Abstract

Development and 'mechanics' of the web-based system developed by the University of Tasmania (Australia), for management of marine and terrestrial field operations, including diving.

Keywords: scuba diving

Introduction

In 2001 the University of Tasmania (UTAS) identified a need for an integrated system for managing field operations, with the goals of reducing the inherent paperwork burden, and improving the efficiency of the approval process – particularly for diving operations. A web-based platform was chosen for this implementation, due to its inherent ability to allow access to personnel across a diverse range of sites.

Discussion

By way of background information, UTAS has been conducting research diving operations since the early 1970s. Numbers of divers on the University diving register have averaged between 60 and 110 scientific divers during the past 10 years, and of these, around 25-30% were very active (completing 50-150 dives per year). During this time UTAS has averaged around 1,500-2,000 dives per year.

Within Australia (and New Zealand), an organisation called Standards Australia has been tasked by the Federal government with forming subgroups of 'industry experts' in order to formulate national standards across an enormous range of fields.

Although an Australian standard is not legally required to be met by an organisation unless it has been called up specifically by their state's occupational health and safety legislation, it is extremely likely that this document would be used in court in case of a serious incident or accident - to measure the duty of care applied by an employer. This has happened on several occasions, with negative outcomes for the organisation concerned where they did not measure up to standard concerned.

The Standards Australia document AS/NZS 2299.2 was released in 2002, and is the national standard for scientific diving. This document sets out quite prescriptive requirements for conduct of scientific diving operations, and the record-keeping burden resulting from fully meeting the requirements of this standard was one of the things that provided considerable impetus for development of the Tasmanian University Field Safety System[®] (TUFSS[®]). TUFSS[®] has been specifically built to ensure that all possible AS2299 requirements are covered by the system if it is used to its full capacity (including requirements from both the AS/NZS2299.1: 2007 commercial diving standard and the AS/NZS2299.2: 2002 scientific diving standard). The TUFSS[®] Risk Assessment module has been

designed around the AS/NZS4360: 2004 Risk Management Standard. Additionally, the field and boating operations modules have been designed to reflect best practice record keeping and reporting requirements for these types of research operation.

TUFSS[®] has been in development since 2003, and in that time has evolved to include integration of the following areas:

- Personnel registration - including checks on currency of qualifications, and automated reminders to personnel to update these as required;
- Project registration and risk assessment - including checks on currency of these, and automated reminders to personnel to update them as required;
- Equipment and vessel maintenance records - including checks on service currency, and automated reminders to appropriate personnel to update them as required;
- Terrestrial, boating and diving operational requirements, including submission of approvals/trip notifications (as required), plus qualification and medical checks on attending personnel, and notification of nominated contacts;
- Post-dive reporting requirements, including dive logging and generation of AAUS statistics reports.

The system has been operational within UTAS since 2004. Initially this was for diving operations only, but subsequent upgrades have built on this capability considerably, adding improvements and new functionalities as described above. TUFSS[®] is in regular use by several hundred staff and students to provide occupational health and safety support across a diverse range of field and laboratory projects.

In 2005, the commercial arm of UTAS (UTAS Innovations) evaluated TUFSS[®] as a candidate for commercialisation – in large part due to numerous requests for access to the software by other universities and research organisations. Since that time, the program code has been recompiled to facilitate such commercialisation, with several features built into the software to support a broader user base outside the University. The formal release of TUFSS[®] was in March 2008 (v1.005).

Further information on TUFSS[®] can be found on the UTAS Innovation Ltd. TUFSS[®] website: www.tufss.com.au

References

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