



# Capacity Statement

*for Aviation*

**Integrated  
Safety Support®**

Excellence in Fatigue Risk Management

## Our Purpose

**To provide the highest quality consulting services available in the field of risk-based fatigue management, together with excellent fatigue-related training materials**

## Our Experience

**With a focus on risk-based fatigue management, our Aviation experience includes:**

- Working with a number of domestic and international, commercial and aerial work, fixed and rotary wing operators and providers of Air-Traffic Services
- Assessing compliance with fatigue-related OH&S and operational safety requirements to national and international standards
- Operational, government and university-level research on fatigue-related impairment
- Fatigue Risk Management System (FRMS) development, implementation, review and audit
- Developing fatigue-related training materials for employees/contractors, managers, supervisors and rostering personnel
- Risk engineering for fatigue-related risks at Insurance Industry Standard levels

## Our Approach

**The effective management of safety and risk are critical to business sustainability in the aviation industry. We aim to add value to your business by reducing fatigue-related risk and the costs that come with it. We start by understanding your business and addressing specific questions such as:**

- How do we develop or improve an integrated Fatigue Risk Management System?
- How do we best design schedules and rosters to reduce fatigue-related risks, but allow for operational flexibility?
- How can we best identify fatigue-related risks and assess, control, monitor and report on the associated risks?
- How can sleep be optimised for short-haul flights?
- How can sleep be optimised for (and during) long-haul flights?
- How can we educate our workforce to understand how to manage the risks associated with fatigue?
- How can we get our management team to understand the implications of non-compliance with respect to managing fatigue-related risks and provide formal assurance when all unacceptable risks have been addressed?

**Key Aviation clients and partners include:**

**Airservices Australia**

**Action Rescue Helicopters**

**Emergency Management QLD**

**NRMA Careflight**

**Avinet**

**Corporate Aircraft Charter**

**The Qantas Group (including Jetstar Airways)**

## Aviation Project Examples

- The development and implementation of a comprehensive Integrated Fatigue Risk Management Program applicable to 23,000 safety-sensitive Qantas employees, including policy, procedures, processes and systems as well as online training for all employees together with a separate training package for managers and supervisors.
- The review and enhancement of Airservices' existing Fatigue Risk Management System and the expansion of the system's applicability from Air Traffic Controllers to include personnel employed in Aviation Rescue and Fire Fighting and Technical and Asset Services (engineering) supported by online training packages for all employees, managers and supervisors.

## Fatigue Risk Management Systems

We collaborate with our clients to plan, develop, implement and assess Fatigue Risk Management Systems. This encompasses the preparation of appropriate Fatigue Risk Management policy, followed by the development of procedures and processes to be integrated into existing safety systems. We visit workplaces to examine and discuss fatigue-related issues with employees, supervisors and managers in the working environment. Because all such systems are dynamic, we plan for ongoing improvement and can help you with periodic reviews and audits to ensure that these systems function as intended. We also assist in integrating fatigue management within your broader Safety Management System and aligning it with relevant industry guidelines.

**Please email us at [info@integratedsafety.com.au](mailto:info@integratedsafety.com.au) or call 1300 98 57 58 to register your interest for an obligation-free discussion about your current or future fatigue management needs with one of our fatigue specialists.**

## Fatigue Management Training and Training Materials

We can enhance your training programs by providing scientifically-based, highly practical fatigue-related training materials for employees, supervisors, contractors and management. Because each workplace is different, we can work with you to provide training in the most effective way, whether it be face-to-face training or via train-the-trainer programs, online courses, or materials such as workbooks, factsheets, posters, leaflets, or audiovisual materials on DVD and CD. Our training materials cover a variety of topics related to fatigue including: Fatigue awareness, shift and night work, fatigue countermeasures, commuting, stress, sleep disorders (e.g. Sleep Apnoea, Insomnia), impacts on family, nutrition, drugs and alcohol, setting up the best sleeping environment, fatigue and the law and more. We can tailor training materials for use in your organisation or even a specific worksite; foreign languages versions can also be provided if required.



## Hours of Work, Rostering and FAID® Analysis

We help our clients to plan, design, implement and assess Rosters and Schedules – and assist in analysing and interpreting data to help manage fatigue-related risks. Our expertise in this area includes the co-development of the FAID® software program - a bio-mathematical model that can be used to estimate work-related fatigue based on hours of work. FAID® can be used during the design and/or analysis of rosters and work schedules, to identify periods when fatigue (and consequently fatigue-related risk) may be unacceptably high. The FAID® system is used widely in industry sectors such as Aviation, Maritime and Rail transport and can be integrated into existing rostering systems to ensure automated reporting of data.

### Our Team



**Adam Fletcher, PhD, MAICD (Executive Director)** is recognised globally as a specialist in the management of fatigue-related risk. He has extensive experience developing, implementing and auditing fatigue management systems, and has been awarded a research PhD for investigating the measurement and prediction of fatigue in 24-hour work environments. His consulting in aviation has included significant projects to investigate and assist in the management of fatigue in transmeridian travel for clients such as the Qantas group.

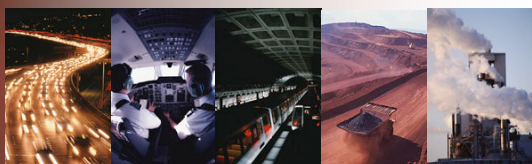
**Richard Yates, FRAeS, MILT (Executive Director)** has over 35 years experience in aviation having spent over 20 years in the Royal Air Force before holding executive positions in civil aviation regulatory bodies in Europe and Australia. Since he started consulting in late-2001, Richard's focus has been on safety regulation and safety management with an emphasis, since 2004, on the development and implementation of policy, procedures and processes for the effective management of fatigue-related risk and the integration of such mechanisms into safety systems. Major clients with whom Richard has worked in this field include Qantas and Airservices Australia.



**Scott Baxendale (Senior Consultant)** has an operational background having served for 30 years as an aircraft maintenance engineer. Scott managed teams of engineers in 24/7 environments and has led substantially-sized engineering projects within Australia, Europe and the US. Scott is mostly involved in engineering, process and other industrial safety projects.

### Our Publications Related to Aviation

- **Stewart, Brown, Turner, Bond & Fletcher.** Fatigue Risk Management Integrated within an Airline Management System. 2009 International Conference on Fatigue Management in Transportation Operations, Boston.
- **Kandelaars, Fletcher, Eitzen, Roach & Dawson.** Layover sleep prediction for cockpit crews during transmeridian flight patterns. *Aviation, Space & Environmental Medicine*, 2006; 77(2): 145-50.
- **Kandelaars, Fletcher, Dorrian, Balk & Dawson.** Predicting the timing and duration of sleep in an operational setting using social factors. *Chronobiology International*, 2006; 23(6): 1265-76.
- **Gander & Yates.** Fatigue Risk Management System Helps Ensure Crew Alertness, Performance. *Flight Safety Foundation Flight Safety Digest*, August-September 2005.
- **Fletcher, Yates, Ferguson & Dawson.** A framework for the integrated fatigue risk management system essential components for large or geographically diverse organizations. 17th International Symposium on Shiftwork and Working Time, 2005: Hoofddorp, the Netherlands.
- **Fletcher & Dawson.** Evaluation of a fatigue model using data from published napping studies. *Journal of Human Ergology (Tokyo)*, 2001; 30(1-2): 279-85.
- **Fletcher & Dawson.** A quantitative model of work-related fatigue: empirical evaluations. *Ergonomics*, 2001; 44(5): 475-88.



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### Contact

Please contact us via [info@integratedsafety.com.au](mailto:info@integratedsafety.com.au) for an obligation-free discussion of your current or potential fatigue management requirements. If you need to develop or purchase any fatigue-related training materials then please contact us via [training@integratedsafety.com.au](mailto:training@integratedsafety.com.au) to get access to DVD clips and example sections of one of our fatigue management workbooks.