

# FATIGUE MANAGEMENT TRAINING (FMT)



## QualaTech Aero Consulting Ltd.

**An international aviation consultancy group,  
providing services in:**

**Safety Management Systems (SMS), Management, Training, Change Management, Fatigue Management, Hazard Ident. & Risk Assessment, Safety Case, Harbour and Water Airport/Aerodrome Procedures, Emergency Response Procedures, Airports, Flight Operations, Compliance, Audits, Aircraft Maintenance Organisations (AMO), Human Factors, Manufacturing, Quality Assurance (implementation, design and audit), Training (QA, SMS, HF, ERP/AEP, CM, Haz. & Risk. Assessment).**

The services offered by QualaTech-Aero Consulting Ltd. are focused on the aviation industry. However, the principles of Human Factors, Safety, and Quality, apply equally to any industry by reducing human error leading to personal injury and loss.

*Safety Management is Business Management!*

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A rigorous approach to Safety Management, in combination with adequate and appropriate training, will contribute significantly in reducing errors, incidents, liability, injury and death. QualaTech has provided numerous Air Service Provider Training courses inclusive of Safety Management System (SMS) - effectively, on time and to budget. QualaTech has extensive SMS experience. Our Consultants have held senior posts with the ICAO, IATA, other leading aviation organizations and service companies, including, but not limited to International Airports and Civil Aviation Authorities and Tribunals.

### **General:**

Fatigue is a primary contributor in some of the world's worst industrial and environmental accidents. However, since Fatigue seldom works in isolation, it is seldom the only root cause. For example, a simple technical fault could easily escalate into a calamity, if an operator is fatigued, since a person's ability to comprehend the problem is consequently compromised and undermined. Fatigue drastically impairs performance, which in turn, contributes to further error and loss.

As reported in many incident & accident investigations, it is a given fact that people suffering from fatigued, often fall asleep 'on the job' without even knowing they did so. The duration of the sleep, known as a 'Micro Nap', is often very short but long enough to be catastrophic in many situations. The UK Department for Transport has estimated that at least 20 per cent of fatal road accidents on UK motorways are the result of fatigue. It is estimated in the USA, that driver fatigue involving transport class trucks, contribute up to 57 per cent of all fatal accidents.

The overall influence of fatigue on performance and subsequently safety (aviation or other), is typically underestimated by industry and the fatigued individual alike. Fatigue is a Human Factor identified as one of the "The Dirty Dozen" (Ref. Gordon Dupont) and like the other eleven, Fatigue seldom works in isolation. 'Complacency' and 'Lack of Awareness', are two of the most common Human Factors associated with fatigue. Since Fatigue is difficult to measure (self-monitor) accurately by the effected individual, the natural tendency is for humans to consistently underestimate the effect on the body and mind.

The average person's performance after 22 hours of wakefulness is the equivalent of a blood alcohol concentration of 0.10 per cent, double the legal driving limit of most countries. In other words, one lost night's sleep (resulting in sleep deprivation) will produce performance impairment significantly greater than that of an impaired driver! Fatigue also contributes to other detrimental consequences, such as those affecting health and mood.

Fatigue is a specific response of our central nervous system (*mental fatigue*) and our muscular system (*physical fatigue*) to work strain. It affects the quality of a person's life by enhancing psychological overload, which also impairs workplace performance and reliability. Adverse consequences of fatigue also decrease a person's ability to focus their attention, which increases the risk of making additional and preventable errors. Fatigue is an occupational hazard, that can be mitigated and subsequently reduced.

The need to manage fatigue is not just about improving safety. Fatigue has a tremendous financial cost in respect of reducing productivity, quality of service and products. The overall effect of fatigue to a Company, in terms of financial loss, is difficult to calculate but nevertheless, the consequence to the 'bottom line' and overall success of an Organisation is a very real and tangible expensive.

An important component of any FM Programme (FMP), involves educating about fatigue as a Safety Hazard and how everyone is responsible and ultimately accountable to better manage their own fatigue condition.

### **Topics include but are not necessarily limited to the following:**

- Defining fatigue and consequences of un-managed fatigue;
- What factors and conditions affect fatigue;
- Fatigue control strategies;
- Recognize the inevitability of fatigue in the modern world/workplace;
- Reduce and alleviate fears of reporting fatigue;
- Understanding fatigue;
- The chance to express thoughts and concerns;
- Practical strategies to deal with fatigue;
- To be aware of the phenomenon of change;
- To understand how people react to change;
- To know and apply Change Management strategies;
- The basics of a Fatigue Management Programme.

The QualaTech FMT is an educational process, which enlightens people to the dangers and consequences of fatigue in the workplace and at home. QualaTech provides the necessary understanding and knowledge that will allow an Organisation to design and/or review their own Fatigue Management Programme with confidence and accuracy. The course will assist management and production to recognize the risks associated with fatigue and subsequently, manage that risk under a formal, controlled, systematic and repeatable process.