

# Health: Fatigue Management



be safe

**Dr Graeme Peel**  
**Group General Manager**  
**Occupational Health and Safety**

# Session overview



- **Why manage fatigue?**
- **Brief background to the Integrated Fatigue Risk Management Program (IFRMP)**
- **Key outputs and benefits**
- **Engineering Managers' procedure**

# Why manage fatigue?



Mood↓ Communication↓ Speed↓ Accuracy↓ Strength↓ Micro-sleeps↑



**Fully  
rested**

**Highly  
fatigued**

In addition, as fatigue increases:

- Integration of information, even if routine in nature, gets degraded and eventually stops
- Focus of attention gets tunneled
- Self-assessment of performance fails (but confidence largely remains)

# Why manage fatigue?

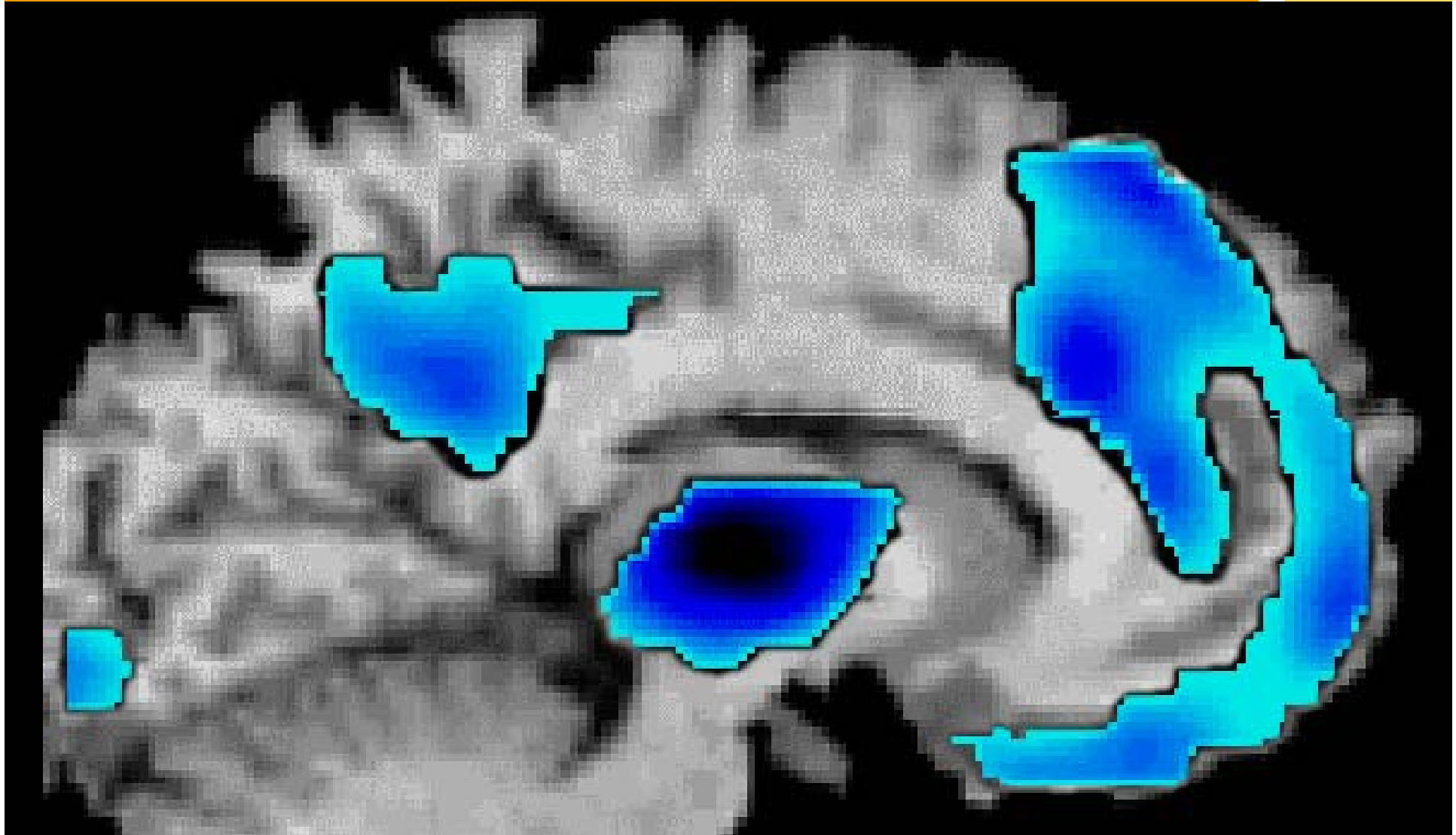


Image courtesy of Dr Tom Balkin, Walter Reed Army Institute of Research

# Brief background to the IFRMP



## ***IFRMP Objectives:***

- **The enhancement of Fatigue Risk Management (FRM) in the Qantas Group**
- **The integration of FRM into the overall safety structure**

# Brief background to the IFRMP



## ***IFRMP drivers:***

- **Safety**
- **Consistency**
- **Compliance**

# Key outputs



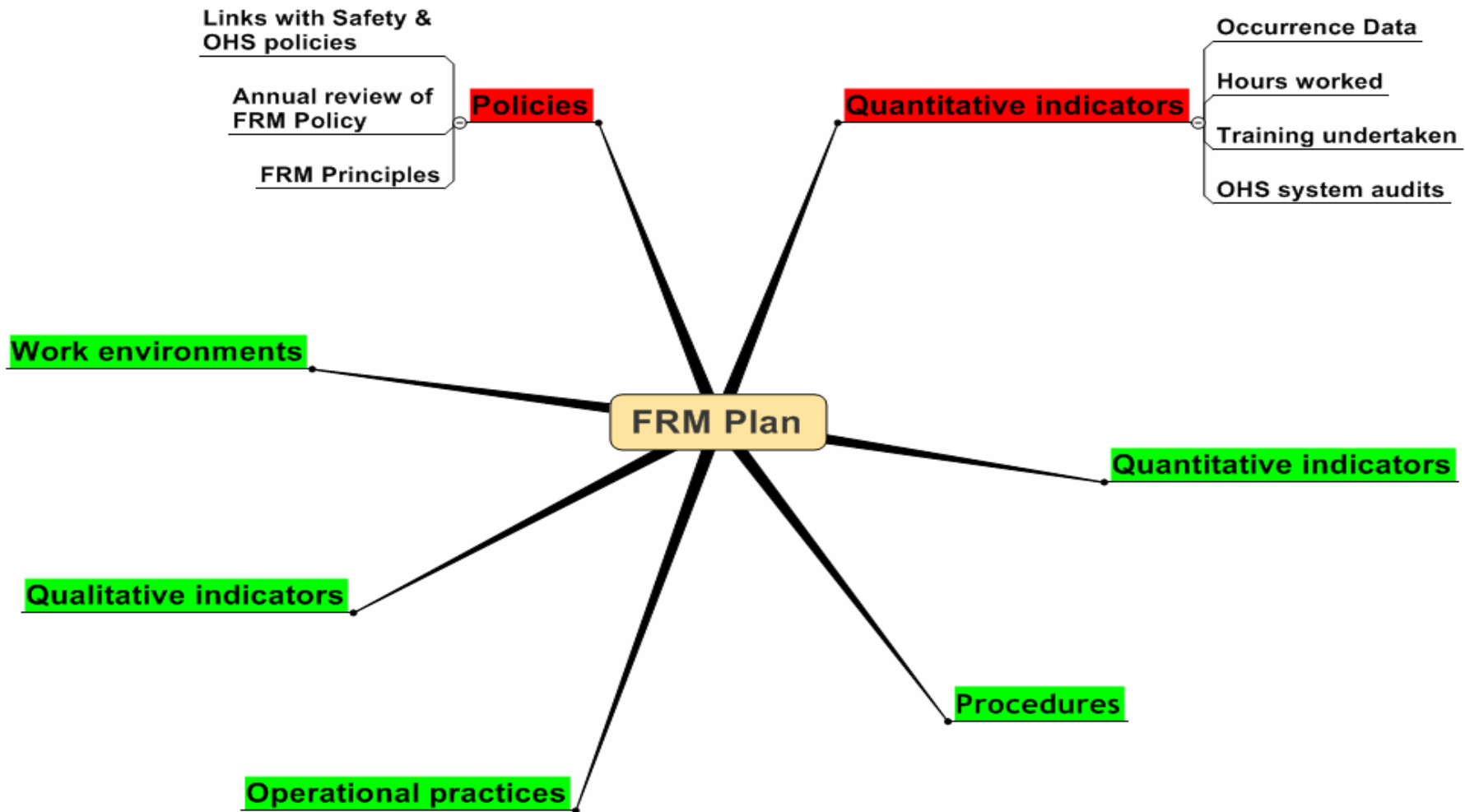
- **Fatigue Hazard/Risk Analysis through business unit workshops**
- **12-month analysis of hours of work **including planned and actual hours** for >23,000 staff (>6M shifts); majority of areas had minimal concerns (5%) but risks and costs higher with excessive overtime**
- **Development of ‘minimum’ & ‘advisable’ rostering system criteria for 19 key systems in the Group**

# Key outputs (continued)



- **Employee and Manager training**
- **OHS-related processes and tools updated or created to help better identify fatigue factors e.g.:**
  - **Fatigue Investigation proforma, for supplementing occurrence investigations**
  - **Fatigue Fatal Risk Management Standard**
  - **Contractor checklist for out-of-hours requests**

# Key outputs (continued) Fatigue Risk Management Plan



**LEGEND** Qantas Group Responsibility  
Business segment Responsibility

# Key benefits



- **Quantification of fatigue risk and cost**
- **Substantive compliance improvements**
  - **NSW OHS Regulations**
  - **CASA/EASA Regs (for engineers)**
  - **Fatigue as a Fatal Risk**
  - **Fatigue as a factor in investigations**
- **Standardization**
- **General awareness and specialized knowledge (rostering personnel)**

# Engineering Managers' Procedure



## **Aim:**

**Sustainable operations through ensuring engineers are fit for duty**

- **Process – risk management and compliance by:**
  - **Education**
    - **Employee and manager fatigue awareness training**
  - **Planning**
    - **Roster design and application**
    - **Adequate recovery between duty periods**
      - ❖ **Minimum 10 hrs**
      - ❖ **If interrupted by call out, extend**

# Engineering Managers' Procedure



- **Monitoring**
  - **Planned and *actual* hours of work analysed electronically**
  - **Self reporting**
  - **Senior manager and peer review of warning signs and errors**
  
- **Joint management/individual responsibility**
  - **Staffing levels**
  - **Optimal resources e.g. communications**
  - **Appropriate use of rest periods**
  - **Physical fitness, nutrition, health maintenance**

# Summary



- **Fatigue has been identified as a fatal risk that Qantas is required to formally manage**
- **Fatigue cannot be eliminated in extended and 24-hour operational environments, but it can be managed using risk-based processes that can also deliver significant business benefits**