

# AN ERGONOMIC AND FUNCTIONAL APPRAISAL OF AVIATION FIREFIGHTERS



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# The Culture...



“We minimise work-related fatalities, injuries, ill-health and adverse effects on the environment, and we reduce health and safety risks so that they are as low as reasonably practicable”

❖ Rt Hon Gavin Williamson (20Jun18)

# The Need...



- **Cardiovascular & Respiratory Demands**
- **Continuous Heavy Manual Activity**
- **Heat Stress**

# Aim: high fidelity assessment

- Observing **FUNCTION** in current practice
- Consent: “no surprises”
- Assessment after rehabilitation



# Observations



**Key metrics:**

- **Range of movement**
- **Functional strength**
- **Safe activity**
- **Perceived work intensity**



# Functional Reporting



## EFFECTIVE:

- Grip Strength
- Core Stability
- Spinal Mobility
- Neck Strength & Movement
- Leg Strength
- (Aerobic fitness)



# Fitness for Duty

- Terms of Reference
- Scope of Employment
- Scope for Deployment
- Evidence based Medical Boarding process



# Future Recommendations

- **Improved design of Fire Fighting equipment**
- **Functional Assessment tool for ARFFs**
- **Future policy needs Functional Assessment**







# Conclusions

- **A culture of total safety in training**
- **Total Aviation Safety for the Duty Holder**
- **Equality and Diversity**
- **Quality management assists retention in Service**



QUESTIONS?

