

**PART 1.5 – RECOMMENDATIONS**

1.5.1. **Introduction.** The following recommendations are made in order to enhance Defence Air Safety:

1.5.2 **MAA Director (Ops) Should:**

- a. Ensure all Regulatory Waivers have a clearly defined validity period in the body of the text. 1.4.65

1.5.3 **DG Combat Aircraft Should:**

- a. In consultation with COS(Health) and the ODHs, ensure the most appropriate G protection systems are being provided to fast jet aircrew. 1.4.59  
1.4.82 & 1.4.34
- b. Investigate the Hawk T Mk1 aircraft anti-G system failures to:
  - (1) Determine the root cause of persistent AGV failures.
  - (2) Ensure anti-G system failures are accurately captured, and managed, on the Hawk T Mk1 SA's engineering Risk Register.
  - (3) Ensure extant engineering maintenance and repair procedures for the anti-G system are indeed best practice. 1.4.55
- c. Incorporate a crash resistant voice recording facility in all Hawk T Mk1 aircraft. 1.4.55

1.5.4 **DCDS (Cap), in consultation with COS(Health) and ODHs Should:**

- a. Develop and fulfil the capability requirement for the future of UK High G training, to ensure this can be conducted in accordance with NATO STANAG 3827. 1.4.58

1.5.5. **COS Spt/CE(AIR), DACOS AE and CAE(A) Should:**

- a. Remind all engineering personnel of the potential risks arising from ineffective fault and occurrence reporting. 1.4.82

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### 1.5.6. AOC 22(Trg) Gp Should:

- a. Develop an effective Unified Risk Register in accordance with RA1210 and the 22(Trg) Gp ASMP. 1.4.75
- b. Conduct a risk assessment to ensure any workload associated risks from the RAFAT tasking and flying rate, for all personnel, are suitably mitigated such that they are at least TOLERABLE and ALARP. 1.4.85
- c. Ensure the RAFAT's internal insurance and assurance processes are appropriate and robust. 1.4.75
- d. Implement the Airworthiness Review Certificate process across the RAFAT as soon as practicable. 1.4.88
- e. Implement a competency based process of awarding level K and J engineering authorisations. 1.4.86
- f. Ensure that the MAP01 engineering authorisation levels held by RAFAT's SEngO and JEngO are appropriate for their roles and responsibilities. 1.4.86
- g. Ensure that all risks, including 2<sup>nd</sup> order risks, associated with display flying in a 700ft cloudbase are TOLERABLE and ALARP. 1.4.65 & 1.4.66
- h. Request Regulatory Waivers, as appropriate, to support all display flying related activity in a 700ft cloud base. 1.4.65
- i. Request Regulatory Waivers to support any requirement to conduct breaks to land from below 300 ft MSD. 1.4.64
- j. Establish a more robust command framework that is appropriate for RAFAT operations. 1.4.84
- k. Ensure 22(Trg) Gp Orders (FW) clearly mandates the maximum permissible number of consecutive working days. 1.4.85
- l. Conduct a risk assessment of low flying over Congested Areas while re-positioning during a display to determine if the associated risks can be appropriately mitigated to TOLERABLE and ALARP. 1.4.83
- m. Ensure that individual Regulatory Waivers are requested, if required, to support low level repositioning over CAs. 1.4.83

### 1.5.7. COS(A&C), AOC1 Gp, AOC2 Gp and AOC22(Trg) Gp, in consultation with DD Av MED, should:

- a. Mandate appropriate aviation medical continuation training in accordance with RA2135(6). 1.4.56
- b. Ensure aircrew have ready access to AP3456 Vol 6 (Aviation 1.4.56

Medicine).

c. Establish risk categories for aircrew at risk of G induced impairment and implement an appropriate training and currency regime for each category. 1.4.57

**1.5.8. All ODHs Should:**

a. Ensure that all personnel actively involved in Risk Management are SQEP. 1.4.75

b. Remind all aircrew of the potential risks arising from ineffective occurrence reporting. 1.4.82

**1.5.9 RAFAT DDH Should:**

a. Actively manage the risk of G induced impairment by ensuring all relevant manoeuvres are considered with respect to the likelihood of G impairment, and where necessary develop appropriate mitigation measures. 1.4.75

b. Re-examine and collate all RAFAT RtL into a single document in accordance with RA1210 and 22(Trg) Gp ASMP. 1.4.75

c. Implement a RAFAT ASMP in accordance with 22(Trg) Gp ASMP. 1.4.75

d. Ensure that all RAFAT pre-season training is recorded appropriately. 1.4.7

e. Develop comprehensive RAFAT SOPs to ensure corporate knowledge is retained. 1.4.63

f. Ensure that all RAFAT display flying manoeuvres, including each break to land manoeuvre, are formally approved through the PDA process. 1.4.64

g. Implement a fatigue management system to ensure that personnel have appropriate rest days allocated and that these rest days are enforced. 1.4.85

h. Mandate that MSDs are not to be used as target heights during manoeuvres. 1.4.83

i. Re-examine the required output from the pre-season display surveys and ensure that any revised process is accurate and understood by all stakeholders. 1.4.83

**1.5.10. DD Av Med Should:**

a. Remind all aircrew about extant policy and regulation with respect to privately sourced medical treatment and self-medication; to include the associated risks. 1.4.60

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- b. Update AP3456, 6-1-1-3 (Physiological Effects Of Acceleration) to ensure it is consistent with extant RAF CAM guidance. 1.4.56
- 1.5.11 **IFS(RAF) & RNFSC CFSO Should:**
  - a. Raise aircrew awareness to the dangers, and causes, of G impairment. 1.4.77
  - b. Raise aircrew awareness of their individual responsibilities for fatigue management, particularly with respect to exercise before the duty day. 1.4.60
- 1.5.12 **Hd of MilAAIB Should:**
  - a. Enhance awareness of the SI process for personnel who may be liable for the SI duties. 1.4.90
  - b. Confirm and, if necessary, amend the Manual of APCM to ensure that nominated personnel are responsible for recording all relevant electronic policy, regulatory and flight safety related documents post any incident/accident. 1.4.90
- 1.5.13 **Hd DFRMO Should:**
  - a. Ensure that rescue vehicles are suitably equipped to quickly locate all crash sites. 1.4.90