PART 1.5 – RECOMMENDATIONS

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

1.5.2 SofS for Defence should:
   a. using the lessons of CWS procurement, commission a review to determine if safety enhancements are managed appropriately within the MoD.

1.5.3 DG MAA, in consultation with ADATS DT, should assure that;
   a. GRI safeguarding regulations are revalidated;
   b. a DH-facing structure is defined to assist DHs in managing risk;
   c. that the risks presented are mitigated to TOLERABLE and ALARP.

1.5.4 DG MAA should:
   a. assure that DHs have appropriate procedures and mechanisms in place to delegate authorities, ensure personnel are aware of those delegations and that there is a suitable timeline for review, including on succession.

1.5.5 Surgeon General should ensure:
   a. CPNs have the appropriate level of aviation medicine knowledge and understanding to treat aircrew;
   b. a tracking process is implemented to ensure that Aviation Medicine qualifications and currencies are monitored;
   c. Station Medical Centre personnel can, and do, use the “task and alert” system on DMICP.

1.5.6 COS CAP should:
   a. implement a planning system to aid deconfliction whereby crews can communicate their planned activity and have full visibility of other flying activity.

1.5.7 COS CAP should:
   a. equip Tornado GR4 with a CWS.

1.5.8 AOC 1 Gp should:
   a. until such time as recommendation 1.5.6 is implemented, mitigate the risks presented by the current deconfliction system to TOLERABLE and ALARP.

1.5.9 AOC 1 Gp should:
   a. ensure that TACTS is updated to allow the recording of Thrust Reverse selection from the Rear Seat for Rear Seat Pilots.
1.5.10 **AOC 1 Gp should:**

a. provide an effective currency tracking system which:
   
   (1) details mandatory pre-employment training;
   
   (2) allows supervisors and authorisers to have full visibility of the existence and details of any waivers to currencies;
   
   (3) encompass and provide a simple means to access currencies for both sqn and stn aircrew;
   
   (4) highlights when aircrew are not current for an event for which they have been programmed;
   
   (5) and ensure that users are familiar and practiced in its use.

1.5.11 **AOC 1 Gp in consultation with stakeholders, should:**

a. provide a safe system of training at Academic Air Weapons Ranges which specifically delivers, but is not limited to:
   
   (1) coherent rules and regulations;
   
   (2) certified Air Weapons Range Controllers (AWRCs);
   
   (3) appropriate airspace;
   
   (4) situational awareness to AWRCs;
   
   (5) a suitable feedback mechanism from users;
   
   (6) a detailed user requirement review;
   
   (7) suitable SQEP in HQ 1Gp.

1.5.12 **AOC 1 Gp should:**

a. review the practice of ground radar maintenance to ensure the impact on flying operations is minimised and that the risks associated with providing a reduced service are mitigated to TOLERABLE and ALARP. This review should include, but not be limited to, a review of AP600 and determine whether the reporting of radar serviceability is appropriate and the correct metric is used.

1.5.13 **AOC 1 Gp should:**

a. ensure that sorties are planned cogniscent of a projected and detailed SAR capability, specifically likely recovery times.

1.5.14 **AOC 1 Gp should:**
a. ensure supervisors are familiar with GAI 1042 and apply the Form 5000 process.

1.5.15 **AOC 1 Gp should:**

a. ensure that engineering practices at RAF Lossiemouth are being conducted in accordance with extant regulation, policy and orders;

b. review the effectiveness of his assurance mechanism to ensure that engineering practices remain policy compliant.

1.5.16 **AOC 1 Gp should:**

a. implement a risk management process that generates mitigations and implements actions, and ensure that they are measured for effectiveness.

1.5.17 **AOC 1 Gp should:**

a. review the policy on dress states to ensure an appropriate balance is struck between heat stress and survivability.

1.5.18 **TGRF FC should:**

a. ensure that flying related activity at XV(R) Sqn is being conducted in accordance with extant regulation, policy and orders;

b. review the effectiveness of his assurance mechanism to ensure that flying related activity remains policy compliant;

c. enhance situational awareness for: crews while planning, authorisers and supervisors on XV(R) Sqn. This should specifically cover information management, displays and ergonomics.

1.5.19 **AOC 22 Gp should:**

a. ensure aircrew have a safe means to practice survival drills in representative AEA and in water temperatures commensurate with their lowest authorisation.

1.5.20 **Air Cap Del AE should:**

a. provide a COSPAS-SARSAT compatible Personal Locator Beacon (PLB) that operates automatically.

1.5.21 **DIO Hd Ops Trg, in consultation with RAF COS Pers should:**

a. resource DIO Air SQEP to manage and advise on AWR airspace and usage.

1.5.22 **Director Jt and Air Cap should:**

a. create a DH-facing pan-Defence forum to analyse SAR capabilities, SERE and AEA to inform individual platform policy and orders. This should, but not be limited to, review likely over land and water scenarios of downed aircrew, recovery and survival times and dress states to inform sortie planning, policy and RIL.
1.5.23 **DDAV Med** should:

a. Review AP1269 and AP1269A to ensure there is coherent policy regarding aircrew and access to Aviation Medicine trained psychiatric personnel;  

b. implement a system of DDH interaction with MAME refresher, Dip AvMed and CME courses that details the relationship between the Flying Executive and Medical Executive. Anxiety should be used as one of the case studies during courses;  

c. implement an audit of Aviation Medicine trained personnel, collation, monitoring of currency and CME.

1.5.24 **IFS (RAF)** should:

a. ensure that aircrew are informed of the system of psychiatric care, care plans, resumption of flying duties and the current policy of treatment and audit.

1.5.25 **DE&S CA FAST** should:

a. ensure identification marking is added to the internal surface of the R-ADR spine panel, in order to assist in identification during accident or salvage recovery operations;  

b. initiate Mod Form 765 action to amend AP101C 4104-15A to remove reference to the IFF input to the crash recorder and update the publication to reflect fitment of the R-ADR;  

c. review the Cost Benefit Analysis of solid state HUD recording for GR4 and, if appropriate, fit solid state HUD recording in order to assist in accident investigation and air safety;  

d. investigate aircraft inputs to Air Data Recorder iaw the Aircrew Manual;  

e. ensure optimum integration of interim PLBs into Tornado AEA;

1.5.26 **DE&S AS AC PT** should:

a. Carry out a risk assessment of the Tornado AEA, specifically the LPA inflation unit and liferaft ALIU, and incorporate mitigations where necessary;  

b. ensure that F760 reports regarding system failures are fed back to industry suppliers;  

c. ensure the current RTI AEA/00300C is replaced with an RTI which specifically states not to tie off pockets containing beacons.

1.5.27 **CAM** should:

a. review the sea survival graphs as outlined in MRP RA 2130
1.5.28 MilAAIB should:

a. establish safety implications of current platforms without solid state HUD recorders.