

## RA 1440 – Air Safety Training

### Rationale

*Air Safety Training is a critical component in the mitigation of Risk to Life. It increases Safety awareness and supports the establishment and Maintenance of an engaged Air Safety culture. Human Factors (HF) and our interaction with aviation systems remain the principal causal factors in aviation Incidents and Accidents. Therefore, it is essential that all those involved in Defence Aviation (DA) / the Defence Air Environment (DAE) are trained ► appropriately. ◀*

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#### Regulation 1440(1)

#### Air Safety Training

1440(1) Aviation Duty Holders (ADH), Accountable Managers (Military Flying) (AM(MF)), Accountable Managers (AM)<sup>1</sup>, Heads of Establishment (HoE)<sup>2</sup>, ►◀ Heads of ADH-Facing Organizations<sup>3</sup> ► and Heads of AM(MF)-Facing Organizations (AA-Facing Organizations)<sup>4</sup> ◀ **shall** ensure that all personnel involved in DA / the DAE are appropriately Competent, qualified and current regarding Air Safety<sup>5</sup> training.

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#### Air Safety Training

1. ADHs, AM(MF)s, AMs, HoEs, and ► AA ◀-Facing Organizations<sup>6</sup> ◀ **should** ensure that:
  - a. The Air Safety and HF training competencies, qualifications, experience and currencies are defined in orders, for all posts, appointments and roles, within their Area of Responsibility (AoR).
  - b. Their personnel successfully complete the Air Safety training courses<sup>7</sup> (which are mandated for certain posts, appointments and roles within the MAA Regulatory Publications (MRP)) as detailed in Annex A.
  - c. Accurate and detailed records of Air Safety and HF training are maintained.
2. ADHs, AM(MF)s, AMs, HoEs, and ► AA ◀-Facing Organizations **should** assess the individuals within their AoR to ensure a satisfactory level of competence<sup>8</sup>, once the individuals have successfully completed the applicable Air Safety training courses detailed in Annex A.
3. ADHs, AM(MF)s, AMs, HoEs, and ► AA ◀-Facing Organizations who specify in their orders a requirement to attend the Air Safety training courses detailed in Annex A, **should** staff their requirement through the MAA Air Safety and Airworthiness Customer Executive Board (CEB) or through International Defence Training.

<sup>1</sup> Those AMs within: ► AA ◀-Facing Organizations; Continuing Airworthiness Management Organizations; Maintenance Approved Organizations; Air Traffic Management Equipment Approved Organizations; or Design Approved Organizations.

<sup>2</sup> This RA applies to HoEs with aviation responsibilities, as per RA 1010 – Head of Establishment Aviation Responsibilities ► and Aviation Duty Holder / Accountable Manager (Military Flying) Establishment Responsibilities. ◀

<sup>3</sup> 'Heads of ► AA ◀-Facing Organizations' includes but is not limited to: Aviation Delivery Team Leaders, Commodity Chief Engineers (CE), Military Continuing Airworthiness Managers (Mil CAMs), etc.

<sup>4</sup> ► Refer to RA 1032 – Aviation Duty Holder – Facing and Accountable Manager (Military Flying)–Facing Organizations – Roles and Responsibilities. ◀

<sup>5</sup> Refer to MAA02: MAA Master Glossary.

<sup>6</sup> 'Heads of ► AA ◀-Facing Organizations' includes but is not limited to: Aviation Delivery Team Leaders, Commodity Chief Engineers (CE), Military Continuing Airworthiness Managers (Mil CAMs), etc.

<sup>7</sup> A number of MAA courses are also open to Defence Contractor Flying Organizations and foreign military through International Defence Training.

<sup>8</sup> Successfully completing Air Safety training courses (as detailed in Annex A) does not automatically signify that an individual is Competent.

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**Human Factors**

4. All ►relevant<sup>9</sup>◄ personnel ►as determined in orders by ADHs, AM(MF)s, AMs, and AA-Facing Organizations◄ involved in ►◄ the DAE **should** receive Foundation level HF and Error Management (EM) training, and 2 yearly continuation training, delivered by a qualified and current HF Facilitator (HFF), HF Supervisor (HFS) or Civilian Qualified HF Instructor (CQHFI):
- For military personnel, during basic training and / or single / joint Service phased training<sup>10</sup>.
  - For civilian personnel, during induction training in preparation for working within ►◄ the DAE.
5. HFFs **should** complete the Human Factors Facilitators Course (HFFC) and HFSs **should** complete the Human Factors Facilitators Course (HFFC) and the Human Factors Supervisors Course (HFSC). Both courses are delivered by Defence Aviation HF Training School, Royal Air Force College Cranwell.
6. ►HFF, HFS and CQHFI qualified personnel **should** receive continuation training in order to maintain their personal 2 yearly competence. This **should** be recorded in an appropriate system (eg JPA). This **should** be achieved as follows:
- HFF personnel. Participate in a Human Factors and Error Management (HFEM) continuation training session.
  - HFS personnel. Participate in a HFEM continuation training session or as a participant in a HFEM continuation training session at the time of completing HFS assessment duties.
  - CQHFI personnel. As above according to their qualification as either a facilitator or supervisor.◄
7. CQHFI s **should** complete either the HFFC / HFSC or a Civilian HF instructors course which is deemed suitable by the applicable ADH, AM(MF), AM, HoEs, ►and AA◄-Facing Organizations. As a minimum, the course **should** meet the requirements laid down in the "MAA HF and EM Training Requirement" document<sup>11</sup>. The applicable ADH, AM(MF), AM, HoEs, or ►AA◄-Facing Organizations **should** determine which appropriate civilian HF instructors course to send their CQHFI s on.
8. All DA / DAE HF training **should** be delivered in accordance with the HF Competency Framework that can be found in the MAA HF and EM Training Requirement<sup>11</sup> document.
9. ADHs, AM(MF)s, AMs, HoEs, and ►AA◄-Facing Organizations **should** include HF delivery in their Assurance programs for compliance with the MAA HF and EM Training Requirement document which is made relevant to their organization.
10. **HFF Currency and Validity.** To maintain currency, HFFs **should** deliver a minimum of one facilitated or instructional session every 6 months. HFF currency **should** be regained through an assessment by a current HFS. The HFS assessment sheet and any other supporting documentation **should** be maintained as evidence. If a HFF's session is judged to be ineffective or below standard during a HFS assessment, the competency **should** be removed and the ADH, AM(MF), AM, HoEs, ►and AA◄-Facing Organization informed. The ADH, AM(MF), AM, HoEs, ►and AA◄-Facing Organization **should** agree any requirements for further training and / or assessment by an HFS before the HFF's qualification is restored. Once 5 years has elapsed since initial qualification, HFFs **should** successfully complete HFF refresher training conducted by the Defence Aviation HF Training School.
11. **HFS Currency and Validity.** To maintain currency, HFSs **should** deliver a minimum of one facilitated or instructional session and conduct at least one HFF assessment every 6 months. HFS currency **should** be regained through an assessment by a current HFS. ►The HFS assessment sheet and any other

<sup>9</sup> ►Which include, but is not limited to, Aircrew, engineers within the Type Airworthiness (TAw) and Continuing Airworthiness (CAw) environment and Air Traffic Management.◄

<sup>10</sup> This refers to Phase 1, Phase 2, or Phase 3 training.

<sup>11</sup> The "MAA HF and EM Training Requirement document" can be found via: <https://www.gov.uk/government/publications/defence-human-factors-training-courses>.

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supporting documentation **should** be maintained as evidence. If a HFS's session is judged to be ineffective or below standard during a HFS assessment, the competency **should** be removed and the ADH, AM(MF), AM, HoEs, and AA-Facing Organization informed. ◀ The ADH, AM(MF), AM, HoEs, ▶ and AA ◀-Facing Organization **should** agree any requirements for further training and / or assessment before the HFS's qualification is restored. Once 5 years has elapsed since initial qualification, all HFSs **should** successfully complete an HFSC course again, irrespective of currency.

12. **CQHFIs Validity and Currency.** All CQHFIs **should** meet the HFF or HFS validity and currency requirements detailed in paragraphs 10-11. Once 5 years has elapsed since initial qualification, CQHFIs may opt to apply for the HFFRC or conduct further Civilian HF instructor training deemed suitable as per paragraph ▶7. ◀

**MAA Endorsed Alternative ▶MAA Centre of Air Safety Training (CoAST)◀ Air Safety training courses.**

13. ▶If an organization wishes to utilize a course in lieu of an MAA CoAST course listed in Annex A, they **should** submit a request to the MAA<sup>12</sup> for assessment. If the MAA endorses the course, as a suitable alternative (to the Annex A MAA CoAST course), it will then require "Air Safety and Airworthiness Training Customer Executive Board" (ASAT CEB) endorsement. If the ASAT CEB endorses the course, as a suitable alternative (to the Annex A MAA CoAST course), it will then be added to the Annex C list and the Regulated Community can start utilizing the alternative course.

14. To enable assessment of the proposed alternative MAA CoAST course, as a minimum the following **should** be provided:

- a. Joining Instruction paperwork,
- b. Instructor Terms of Reference,
- c. Statement of Training Requirements,
- d. Confirmation that all instructors, delivering the course, attend the Annex A course,
- e. Confirmation that all instructors, delivering the course, continue to be assessed as suitably Competent and experienced and maintain a 5 year currency,
- f. Confirmation that the course content is aligned with, and equivalent to, the Annex A course.

15. MAA endorsement of the Annex C training courses remains valid for 5 years. If the course provider (as detailed in Annex C) wishes to continue utilizing the Annex C endorsed training course beyond the validity date, the course provider **should** make all evidence requested available to the MAA CoAST team for re-assessment. ◀ Personnel who are awarded a qualification, by an Annex C endorsed training provider, remain current for the full period of that qualification, even if the provider's endorsement expires, and is not renewed, during that period.

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16. While courses are directed primarily towards Aircrew, engineers and Controllers, they also embrace those support personnel whose work does not necessarily bring them into direct and regular contact with Air Systems, but who underpin and enable aviation operations.

17. **Embarked Operations.** Due to the unique nature of embarked maritime operations, ADHs, AM(MF)s and AMs must consider the specific additional Air Safety requirements detailed in Book of Reference digital (BRd) 766<sup>13</sup>, BRd 767<sup>14</sup>, RA 1029<sup>15</sup> and RA 1395<sup>16</sup>.

<sup>12</sup> ▶ These are the Flying Authorizers Course, the Flying Supervisors Course, and the Air Safety Officers Course. ◀

<sup>13</sup> Refer to BRd 766 – Embarked Aviation Orders.

<sup>14</sup> Refer to BRd 767 – Naval Aviation Orders.

<sup>15</sup> Refer to RA 1029 – Ship-Air Release - Roles and Responsibilities.

<sup>16</sup> Refer to RA 1395 – Authorization to Permit Embarked Aviation in His Majesty's / MOD Ships.

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18. **Further Air Safety Courses.** Annex B, although not exhaustive, lists further Air Safety training courses to enhance relevant DA / DAE personnel capability.

**Human Factors**

19. HF training will be delivered face to face. However, when exceptionally required, it may be delivered virtually when authorized by the applicable ADHs, AM(MF)s, AMs, HoEs, or ►AA◄-Facing Organizations.

20. All ►◄ DAE HF continuation training will be tailored and relevant to the unit / organization, addressing its current HF issues, and be limited to no more than 15 people and last approximately 3 hours.

Annex A<sup>17</sup>Air Safety training courses<sup>18, 19</sup>

Course	Assignment / Post / Role <sup>20</sup>	Validity
Aircraft Post Crash <b>► and Incident ◀</b> Management <b>► ◀</b> Officers Course ( <b>► APCIMOC ◀</b> ) <sup>21, ►22 ◀</sup>	Nominated Aircraft Post Crash <b>► and Incident ◀</b> Management <b>► ◀</b> Officers	5 Years
Aircraft Structural Integrity Course (ASIC)	Officers, Non-Commissioned Officers (NCO) and Civil Servants serving as Aircraft Structural Engineers or responsible for Aircraft Structural Integrity Management	5 Years
Airworthiness of Military Aircraft Course – Fundamentals (AMAC-F) <sup>23</sup>	Letter of Airworthiness Authority (LoAA) Holders <sup>24</sup> authorized to amend the Air System Document Set (ADS) below OF3 level (or equivalent), Letter of Airworthiness Notification (LoAN) holding Commodity CEs, Continuing Airworthiness Management Organization (CAMO) Quality Managers	5 Years
Airworthiness of Military Aircraft Course – Practitioner (AMAC-P) <sup>23</sup> .	LoAA Holders authorized to amend the ADS at OF3 level (or equivalent) and above, Type Airworthiness Authority (TAA), Type Airworthiness Managers (TAM), LoAA holding Commodity CEs, Chief Air Engineers <sup>25</sup> , Mil CAMs <sup>26</sup>	5 Years
CAMO Functional Training (CAMO(FT)) <sup>27</sup>	CAMO personnel identified by the Mil CAM (including Contracted and Subcontracted personnel where appropriate)	5 Years
Contractor Flying Air Safety Course (CFASC) <sup>28, 29</sup>	AM(MF)s, TAMs <sup>30</sup> , Flight Operations PH, Crew Training PH, Ground Operations PH, Mil CAMs <sup>31</sup>	5 Years
Duty Holder Air Safety Course (DHASC) <sup>32, ►33 ◀</sup>	ADHs, <b>► Senior Responsible Owners (SRO)<sup>34</sup> ◀</b> Chief Air Engineers, Mil CAMs <sup>31</sup> , HoEs <sup>35</sup> , Defence Equipment & Support (DE&S) Operating Centre Directors, DE&S 1* LoAA holders, TAAs <sup>36</sup> , LoAA holding Commodity CEs	5 Years

<sup>17</sup> The courses detailed in Annex A are those that have been endorsed by the MAA, some of which are provided by the MAA.

<sup>18</sup> Course aims, content, dates and application procedures can be found via the MAA website:

<https://www.gov.uk/government/collections/military-aviation-authority-training-courses>.

<sup>19</sup> Prior to attending Air Safety courses, personnel need to satisfy the course pre-requisites.

<sup>20</sup> This is the mandated requirement, ie the courses are not exclusive to these assignments, posts and roles.

<sup>21</sup> Attendance on the Fundamentals of Aircraft Post Crash **► and Incident ◀** Management Brief is a recommended pre-requisite.

<sup>22</sup> **► Aircraft Post Crash and Incident Management Officers (APCIMOs) are required to complete Module 4 of Defence Learning Environment (DLE) Heat Illness Prevention Training, including Wet Bulb Globe Temperature (WBGT) QT34. ◀**

<sup>23</sup> All personnel attending this course **► when mandated by the MRP ◀ should** complete the course in full, **► this includes ◀** successful completion of the post course assessment.

<sup>24</sup> Refer to RA 1003 – Delegation of Airworthiness Authority and Notification of Air Safety Responsibility.

<sup>25</sup> Refer to RA 1023 – Chief Air Engineers - Air Safety Responsibilities.

<sup>26</sup> This includes, but is not limited to, Military CAMs (Mil CAM) and Deputy CAMs.

<sup>27</sup> For personnel with limited prior CAMO experience, the CAMO(RT) course may be completed as a pre-requisite to CAMO(FT), as determined by the Mil CAM.

<sup>28</sup> CFASC currency will remain valid for AM(MF)s and their Post Holders (PH) on the provision that they have held their appointment continuously since completing the CFASC and have attended at least one Contractor Flying Advisory Group in the last two years.

<sup>29</sup> To be completed within 6 months of taking up post.

<sup>30</sup> Where possible, TAMs **should** attend the same CFASC as their relevant AM(MF).

<sup>31</sup> Mil CAMs supporting ADHs need only attend the DHASC. Mil CAMs supporting AM(MF)s need only attend the CFASC **► if they haven't attended the DHASC. ◀** Mil CAMs supporting ADHs and Contractor Flying Approved Organizations Scheme (CFAOS) Organizations need **► only ◀** to attend the DHASC **► ◀**.

<sup>32</sup> The DHASC is available only to MOD Crown Servants.

<sup>33</sup> **► Completion of DHASC counts as both DHASC and FSC currency for nominated Duty Holders.**

<sup>34</sup> **Only applicable to SRO's involved in aviation-related programmes. ◀**

<sup>35</sup> Refer to RA 1010(2): Head of Establishment – Aviation Responsibilities for all Tiers.

<sup>36</sup> Where possible, TAAs **should** attend the same DHASC as their relevant Delivery Duty Holder(s).

Course	Assignment / Post / Role <sup>20</sup>	Validity
Effective Error Management (EEM) <sup>37, 38</sup>	Individuals performing roles involving the management of error including Station Error Management System Co-ordinators or other posts with similar responsibilities	5 Years
► Air ◀ Safety Officers Course ► (ASOC) ◀ <sup>39</sup>	Defence Aviation personnel in ► Air ◀ Safety Officer roles or holding ► Air ◀ Safety Officer duties	5 Years
Flying Authorizers Course (FLAC) <sup>39, 40</sup>	Authorizing Officers, personnel authorizing flying activity	5 Years
Flying Display Directors (FDD) <sup>23</sup>	Flying Display Directors	3 Years
Flying Supervisors Course (FSC) <sup>39, 40</sup>	Flying Unit Executives <sup>41</sup> , Flight Commanders, Flight Operations Post Holders	5 Years
Fundamentals of Aircraft Post Crash ► and Incident ◀ Management Brief	Individuals performing roles in an Aircraft Incident Response Activity or other posts with similar responsibility	Once Only
Human Factors Facilitator's Course (HFFC)	Those personnel fulfilling the role of unit/station Human Factors Facilitator (ie HFFs, CQHfIs)	5 Years
Human Factors Facilitator's Revalidation Course (HFFRC)	Those personnel fulfilling the role of unit / station Human Factors Facilitator (ie HFFs, CQHfIs) who have reached or are approaching the end of their 5 year competency	5 Years
Human Factors Supervisor's Course (HFSC)	Those qualified personnel fulfilling the role of unit / station Human Factors Supervisor (ie HFSS)	5 Years
Occurrence Investigator (OI)	Those nominated to be Occurrence Safety Investigators	3 Years <sup>42</sup>
► Occurrence Investigator Refresher <sup>43</sup> (OI Ref)	Occurrence Investigators requiring CPD or currency extension	3 Years ◀
Occurrence Review Group (ORG)	Those chairing or nominated as Occurrence Review Group members	5 Years
► Occurrence Review Group Refresher <sup>44</sup> (ORG Ref)	Occurrence Review Group members requiring CPD or currency extension	3 Years ◀
Overseas / Deployed Aircraft Post Crash ► and Incident ◀ Management Officer Brief (OSB)	Nominated Aircraft Post Crash ► and Incident ◀ Management ► ◀ Officers	1 Year
Propulsion Integrity Course (PIC)	Officers, NCOs and Civil Servants serving as Aircraft Propulsion Engineers or responsible for Aircraft Propulsion Integrity Management	5 Years

<sup>37</sup> This course is not mandated for Contractor Flying Approved Organizations, Maintenance Approved Organizations, Air Traffic Management Equipment Approved Organizations, and Design Approved Organizations; however, Error Managers within these organizations have to be Competent and appropriately trained to manage their respective organization's error management system(s).

<sup>38</sup> Those whose primary role is Error Management (eg Senior Error Management System Coordinators (SEMSCs)), or other posts with similar responsibilities, on behalf of the EMS owner.

<sup>39</sup> FLAC, ► ASOC ◀ and FSC count as 2 yearly HF continuation training.

<sup>40</sup> Completion of FSC counts as both FSC and FLAC currency (provided that the FLAC has been previously completed).

<sup>41</sup> Primarily aimed at OF4s and OF3s who have executive roles within a Regiment, Wing or Squadron.

<sup>42</sup> Unit Air Safety Teams are permitted to extend OI currency, up to 48 months beyond the RA 1440 Annex A validity requirements, when Competent use of OI skills has been demonstrated. ADHs, AM(MF)s, AMs, HoEs, Heads of ADH-Facing Organizations ► and Heads of AM(MF)- Facing Organizations ◀ **should** provide guidance to the Unit Air Safety Teams on how competency can be demonstrated.

<sup>43</sup> ► OI Ref **should not** be used to extend an individual's currency on 2 consecutive occasions.

<sup>44</sup> ORG Ref **should not** be used to extend an individual's currency on 2 consecutive occasions. ◀

Course	Assignment / Post / Role <sup>20</sup>	Validity
Remotely Piloted Air System (RPAS) ▶ Responsible Officer (RO) ◀ / RPAS Accountable Manager (AM) brief <sup>45</sup>	RPAS ▶ ROs ◀ / RPAS AMs responsible for RPAS operating in the Open A2, Open A3, and Specific S1 sub-categories <sup>46</sup> .	Duration of Tour

<sup>45</sup> This brief is applicable to both RPAS ▶ ROs ◀ and RPAS AMs.

<sup>46</sup> Where directed by the MAA; the requirement will be reviewed by the MAA during the RPAS categorization process and articulated in the Letter of Endorsed Categorization.

Annex B<sup>47</sup>

## Further Air Safety training courses

Course	Assignment / Post / Role	Validity
Air Safety Data Analysis (ASDA)	Air Safety data trend analysis personnel	Duration of Tour
Air Safety Management System Overview (ASMSO)	Air Safety Management Systems development personnel	Duration of Tour
CAMO Regulatory Training (CAMO(RT)) <sup>27</sup>	CAMO personnel identified by the Mil CAM <sup>48</sup> (including Contracted and Subcontracted personnel where appropriate), DT personnel with delegated CAMO responsibilities	5 Years
MAA Air Safety Risk Assessment & Management Practitioners (MASRAMP)	Risk Management requirements personnel	5 Years
Military Aerospace and Airworthiness Suite (MAAS)	The MAA sponsors 18 accredited MSc courses, which are aimed at those who require a Masters' level of understanding of military Air Systems (It is expected that course applicants are employed as Letter of Airworthiness Authority holders in Chartered Engineer (CEng) designated posts or working towards this level of competence)	Once Only

<sup>47</sup> The courses detailed in Annex B are those that have been endorsed by the MAA, some of which are provided by the MAA.

<sup>48</sup> For personnel with limited prior CAMO experience, the CAMO(RT) course may be completed as a pre-requisite to CAMO(FT), as determined by the Mil CAM.



## Annex C

## MAA Endorsed Alternative ► MAA CoAST ◀ Air Safety training courses

Course	Assignment / Post / Role	Provider	Alternative to	Validity	► Date Endorsed ◀
Gliding Authorizers Course (GLAC) <sup>49, 50</sup>	► 2 Flying Training School (FTS) Volunteer Gliding Squadrons ◀: Authorizing Officers, personnel authorizing flying activity	Central Gliding School	FLAC	5 Years	► May 23 ◀
Royal Navy Flight Safety Course (AIR 302)	<b>Royal Navy:</b> Flight Safety Officers, Authorizing Officers, personnel authorizing flying activity (or those from other Services employed in posts that support maritime aviation operations)	Royal Navy Flight Safety Centre	► ASOC ◀	5 Years	► May 23 ◀
Volunteer Gliding Squadron Flying Supervisors Course (VGS FSC) <sup>49, 50</sup>	► 2 FTS Volunteer Gliding Squadrons ◀: Flying Unit Executives ► ◀, ► A2 Category Qualified Gilding Instructors. ◀	Central Gliding School	FSC	5 Years	► May 23 ◀

<sup>49</sup> The GLAC and VGS FSC count as 2 yearly HF continuation training.

<sup>50</sup> Completion of VGS FSC counts as both VGS FSC and GLAC currency (provided that the GLAC has been previously completed).

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