

RA 1701 – MOD-Approved Airborne Forces Equipment

Rationale

The delivery of personnel from Aircraft using MOD-approved¹ Airborne Forces Equipment (AFE)^{2,3} is a key enabler of military capability. Failure to manage MOD-approved AFE activity appropriately could result in increased Risk to Life (RtL) to personnel, 3rd parties, or damage to Aircraft. This Regulatory Article (RA) identifies the Regulations to ensure organizations⁴ understand the Safety aspects of their MOD-approved AFE activity and to enable application of a suitable regulatory framework. This will ensure that MOD-approved AFE is safe to operate and is operated safely throughout its life.

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Applicability

Applicability

1. RA 1701 is applicable for the conduct of parachuting using MOD-approved AFE. This includes parachuting activities conducted by:
 - a. UK military Parachute Units⁵ (including attached foreign troops where applicable).
 - b. Organizations conducting MOD-approved AFE trials activity.

Definitions

Definitions Relevant to this RA

2. **Airborne Forces Equipment (AFE)**. Equipment and ancillary items used to insert personnel into Drop Zones.
3. **Parachute Training Device (PTD)**. A device which is an Advanced Parachute Training Device or Basic Ground Training Apparatus.
4. **Advanced Parachute Training Device (APTD)**. A virtual reality trainer or vertical wind tunnel which provides realistic simulation of the activity.
5. **Basic Ground Training Apparatus (BGTA)**. A training aid other than an APTD which facilitates training where a complete environmental simulation is not necessary.
6. **Parachuting Operating Duty Holder (ODH)**. An Accountable individual, who is at minimum a 2* Crown Servant, with formal delegated Responsibilities for actively managing Air Safety for operation of AE via an effective Air Safety Management System⁶ to ensure that associated RtL is As Low As Reasonably Practicable (ALARP) and Tolerable within their defined Areas of Responsibility.

¹ "MOD-approved" is defined as any equipment that has been approved by the MOD (by the Airborne Equipment (AE) Type Airworthiness Authority (TAA)) for inclusion in the Compendium of Airborne Equipment Release Certificates (CAERC).

² Refer to MAA02 – MAA Master Glossary.

³ The use of "MOD-approved AFE" includes the associated ancillary equipment.

⁴ This includes the Aviation Duty Holder (ADH), Accountable Manager (Military Flying) (AM(MF)), Continuing Airworthiness Management Organization (CAMO), Delivery Team (DT), Maintenance Approved Organization Scheme (MAOS), Design Approved Organization Scheme (DAOS), and operators of AE authorized to conduct Aerial Despatch descents for any given AE.

⁵ This includes the Royal Air Force Falcons Parachute Display Team.

⁶ Refer to the Regulatory intent of RA 1200 – Air Safety Management Systems.

Definitions

7. **Parachuting Commander.** A 2* Crown Servant who is in the direct Chain of Command of the unit participating in the activity. They have a personal Duty of Care (DoC)⁷ for their troops throughout the activity.
8. **Airborne Equipment Safety Case (AESC).** A structured argument, supported by a body of evidence, that provides a compelling, comprehensible and valid case that AE is safe for a given application in a given environment. It is through-life, pan-Defence Lines of Development and addresses a combination of the physical components, procedures and human resources organized to deliver the capability. AE is not an Air System and so use of the term Air System Safety Case (ASSC) is inappropriate. However, the Regulatory intent of RA 1205⁸ can be applied to AESC as equally relevant.
9. **Qualification Statement (QS).** The documented output of successful completion of the qualification requirements identified in paragraph 50.c. This is developed, managed and owned by the Senior Responsible Owner (SRO)^{2, 9} or Parachuting ODH.

Regulation 1701(1)**Governance Responsibilities**

- 1701(1) MOD-approved AFE **shall** be operated under the authority of the Aviation Duty Holder (ADH) / Accountable Manager (Military Flying) (AM(MF)), the Parachuting ODH and the Parachuting Commander.

Acceptable Means of Compliance 1701(1)**Governance Responsibilities**

10. The ADH / AM(MF) is legally Accountable for ensuring that RtL associated with operating Aircraft under their Area of Responsibility (AoR) to deliver MOD-approved AFE is ALARP and Tolerable. This **should** be achieved by:
- Ensuring that the RtL associated with the use of MOD-approved AFE is reflected in the claims made in the ASSC for the Aircraft within their AoR.
 - Discharging RtL and DoC Responsibilities associated with MOD-approved AFE in accordance with (iaw) Annex A.
11. Where MOD-approved AFE is used from foreign military-registered or civil-registered Aircraft, the Parachuting ODH and / or Parachuting Commander as the Accountable individual(s) **should** ensure the activity is ALARP and Tolerable (Annex A refers).
12. The Parachuting ODH **should**:
- Have their nomination endorsed by the Director Military Aviation Authority (D MAA) iaw MAA03 Annex G¹⁰. The Parachuting ODH and the ADH may be the same person.
 - Ensure that the RtL is ALARP and Tolerable for personnel using MOD-approved AFE and to other 3rd parties that might be affected after the MOD-approved AFE has left the Aircraft¹¹.
 - Be responsible and Accountable for the safe operation of MOD-approved AFE within their AoR and only authorize MOD-approved AFE iaw the relevant CAERC entry.
 - Define the Responsibility for the transfer of RtL management, in consultation with the ADH / AM(MF), between flying activity and MOD-approved AFE activity (DH delineation).

⁷ Duty of Care is a legal Responsibility that applies at every level to all Defence activities.

⁸ Refer to RA 1205 – Air System Safety Cases.

⁹ Where an SRO is not appointed, the Parachuting ODH, or In-Service Capability Manager on behalf of the Parachuting ODH, will fulfil this responsibility.

¹⁰ Refer to MAA03: Military Aviation Authority Regulatory Processes.

¹¹ Defined for static line parachuting as the point at which the parachute assembly is no longer attached to the Aircraft or, for freefall, when the parachutist clears the Aircraft and is free from direct contact with it or any associated wake turbulence.

**Acceptable
Means of
Compliance
1701(1)**

- e. Ensure that Parachute Jumping Instructors (PJI) and Drop Zone Safety personnel are Suitably Qualified and Experienced Persons (SQEP).
13. The Headquarters 1 Group Air Staff Orders (HQ 1 Gp ASOs), or equivalent ADH Orders, Air Mobility Operations Manual Parts A and B, Air System Release To Service (RTS), and CAERC **should** be used as the definitive documents for the use of all MOD-approved AFE.
14. The Parachuting Commander **should** publish orders and instructions that detail how their Responsibilities related to Annex A will be discharged.
15. In order to ensure that Parachutists are appropriately Competent and current, Parachuting Commanders **should** publish orders specifying how this is monitored.
16. All units conducting parachuting activities using MOD-approved AFE **should** ensure that the correct Notice to Aviation and / or Notice to Mariners action has been put in place for the duration of the activity.

**Guidance
Material
1701(1)**

Governance Responsibilities

17. It is essential that, throughout the flying and parachuting activity, the ADH / AM(MF), Parachuting ODH and Parachuting Commander understand their Responsibilities, communicate as required with each of the stakeholders involved and have robust orders and instructions. The table at Annex A illustrates these Responsibilities throughout the activity.
18. Fundamental to effective governance and Risk Management is a clear understanding of when the Responsibility for the management of RtL associated with the parachuting activity is transferred between stakeholders as illustrated in Annex A.

**Regulation
1701(2)**

Regulatory Requirements

- 1701(2) The through life requirements associated with MOD-approved AFE **shall** be adhered to by the ADH / AM(MF), the Parachuting ODH, the Parachuting Commanders and AE TAA responsible for their operation.

**Acceptable
Means of
Compliance
1701(2)**

Regulatory Requirements

19. ADH / AM(MF), the Parachuting ODH, Parachuting Commanders and organizations¹² responsible for MOD-approved AFE **should** comply with the intent of the elements (Regulations, AMCs, or GM) of the RAs listed at Annex B, noting that there are Air System specific requirements in the RAs that are not relevant to MOD-approved AFE. The Continuing Airworthiness (CAw) requirements, and any appropriate equivalent or MOD-approved AFE specific information, **should** (where possible) be identified by the CAMO and listed in the CAw Management Exposition. The Type Airworthiness (TAW) requirements, and any appropriate equivalent or MOD-approved AFE specific information, **should** (where possible) be identified by the Design Organization and listed in the Design Organization Exposition.
20. MOD-approved AFE **should** be included within the CAERC. It **should** be authorized for use on specific platforms through the relevant CAERC entry and despatch Air System's RTS¹³ or applicable Military Permit To Fly (MPTF)^{14, 15}.
21. The AE TAA **should** ensure that the MOD-approved AFE is safe to operate within the limitations of the CAERC.
22. Wherever possible, the AE TAA **should** ensure that all MOD-approved AFE has a valid Certificate of Design¹⁶.
23. The AE TAA **should** inform the ADH of all identified equipment contributions to RtL.

¹² This includes the ADH, CAMO, DT, MAOS, DAOS and operators of AE authorized to conduct parachute descents for any given AE.

¹³ Refer to RA 1300 – Release To Service.

¹⁴ Refer to RA 1305 – Military Permit To Fly (In-Service), (Special Case Flying) and (Single Task).

¹⁵ Refer to RA 5880 – Military Permit To Fly (Development) (MRP Part 21 Subpart P).

¹⁶ Refer to the Regulatory intent of RA 5103 – Certification of Design.

**Acceptable
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Compliance
1701(2)**

24. The CAERC **should**:
- Be Certified by the AE TAA and authorized by the Delegated Release To Service Authority (DRTSA) (RAF).
 - Record all Operational Emergency Clearances (OEC) and Clearances with Limited Evidence (CLE)¹³, and be suitably marked.
 - Be subject to a 5 yearly review by the DRTSA (RAF).
 - Follow the format shown in the CAERC template as detailed in the CAERC Instructions at Annex C.
25. The master copy of the CAERC is held by the Release To Service Authority (RTSA) (RAF). All pages within the CAERC **should** show the issue status of the document and amendment status for the specific page.
26. Where the despatching Aircraft is not on the UK Military Aircraft Register any limitations or restrictions **should** be incorporated into the CAERC.
27. RA 1167¹⁷ **should** be complied with for the use of Contracting Civil-Registered Air Systems for Military Purposes.
28. The Parachuting ODH's Chief Air Engineer (CAE) **should** manage CAw by ensuring that MOD-approved AFE is maintained iaw the Regulatory intent of RA 4800 to RA 4849: MRP Part 145. To help ensure the Airworthiness of MOD-approved AFE, an approved Mil CAMO is required iaw the Regulatory intent of RA 4947¹⁸.
29. **Maintenance and packing.** The Parachuting ODH's CAE **should** ensure appropriate processes in place to ensure the individuals conducting Maintenance and packing of MOD-approved AFE are SQEP.
30. **Supervision of Parachuting.** The Parachuting ODH **should** ensure parachute operations, including Maintenance and packing, are supervised by SQEP.
31. **Authorization of Parachuting.** The Parachuting ODH **should** ensure parachute operations, including Maintenance and packing, are authorized by SQEP.

**Guidance
Material
1701(2)**

Regulatory Requirements

32. **Supervision of Parachuting.** Some of the supervisory processes detailed in RA 2305¹⁹ may be considered suitable for the supervision of MOD-approved AFE activities.
33. **Authorization of Parachuting.** Some of the Authorization processes detailed in RA 2306²⁰ may be considered suitable for the Authorization of MOD-approved AFE activities.
34. The MAA Regulatory Publications are specifically written with respect to Air Systems. Their application is equally suitable for aspects of MOD-approved AFE activities and to the Risk management framework²¹ necessary to allow ADH / AM(MF), Parachuting ODH and other members of the Airborne Forces Community to ensure RtL is managed appropriately.

Endorsement / Approval of the CAERC

35. The CAERC will be amended once all evidence has been collated. Recommended amendments, with supporting evidence, will be presented to the AE TAA for endorsement. The AE TAA will provide a recommendation to the DRTSA (RAF).
36. The DRTSA (RAF) approval process will take into consideration the Aircraft that the MOD-approved AFE is to be despatched from.

¹⁷ Refer to RA 1167 – Contracting Civil-Registered Air Systems for Military Purposes.

¹⁸ Refer to RA 4947 – Continuing Airworthiness Management – MRP Part M Subpart G.

¹⁹ Refer to RA 2305 – Supervision of Flying.

²⁰ Refer to RA 2306 – Authorization of Flights.

²¹ Refer to the Regulatory intent of RA 1200 – Air Safety Management, and RA 1210 – Ownership and Management of Operating Risk (Risk to Life).

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Material
1701(2)**

37. The CAERC, certified by the AE TAA and authorized by the DRTSA (RAF) (along with supporting evidence), will be passed to the TAAs²² of the despatching UK military-registered Aircraft.
38. The TAA of the despatching UK military-registered Aircraft will:
- Provide recommendation to the DRTSA (RAF) / Operating Centre Director of the despatching UK military-registered Aircraft to authorize the use of the MOD-approved AFE within their Aircraft RTS / MPTF.
 - Return the completed Acknowledgement Sheet to the AE TAA, detailing the acceptance of the MOD-approved AE for use on the Aircraft or stating the reason for non-acceptance.
39. A matrix, which identifies the compatibility between Aircraft types and AE, controlled by the RTSA, will be maintained on the MOD Intranet alongside the CAERC.
40. For the purposes of this RA, Risk Management and ADH / AM(MF) Responsibilities of MOD-approved AFE undergoing Test and Evaluation trials is managed by the Air and Space Warfare Centre (ASWC) ADH chain. Trials activity using equipment that is not yet MOD-approved, or that is used on a civil or foreign military Aircraft undergoing development, requires Subject Matter Experts to define who is responsible for RtL to manage the additional Risks. These activities must comply with the Regulatory intent of RA 2370²³ and advice sought from the ASWC.

**Regulation
1701(3)**

Approval for Static Line and Freefall Parachuting

- 1701(3) ADH or AM(MF) **shall** approve all cleared static line and freefall parachuting from UK military-registered Aircraft.

**Acceptable
Means of
Compliance
1701(3)**

Approval for Static Line and Freefall Parachuting

41. ADH or AM(MF) **should** only approve static line and freefall parachuting on Aircraft that are specifically cleared for this role in the RTS or the MPTF.
42. ADH or AM(MF) Orders **should** specify the requirements for static line and freefall parachuting from UK military-registered Aircraft taking account of the HQ 1 Gp ASOs and Air Mobility Operations Manual Parts A and B.

**Guidance
Material
1701(3)**

Approval for Static Line and Freefall Parachuting

43. Nil.

**Regulation
1701(4)**

Operating MOD-approved Airborne Forces Equipment

- 1701(4) The Parachuting ODH **shall** ensure the RtL associated with operating MOD-approved AFE is managed within their AoR and that Safety Responsibilities associated with the activity are properly defined.

**Acceptable
Means of
Compliance
1701(4)**

Operating MOD-approved Airborne Forces Equipment

44. The Parachuting ODH **should** publish orders and instructions that include the following detail, where relevant to the activity, as a minimum:

²² Where the Air System is not UK MOD-owned, TAA management regulatory Responsibility by either the TAA or Type Airworthiness Manager (TAM) needs to be agreed within the Sponsor's approved model; refer to RA 1162 – Air Safety Governance Arrangements for Civilian Operated (Development) and (In-Service) Air Systems, or refer to RA 1163 – Air Safety Governance Arrangements for Special Case Flying Air Systems. Dependent on the agreed delegation of TAA responsibilities TAM may be read in place of TAA as appropriate throughout this RA.

²³ Refer to RA 2370 – Test and Evaluation.

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Compliance
1701(4)**

- a. How and when Parachutists are fitted with location equipment^{24, 25} dependent on the operating environment to locate Parachutists in the event of an Accident or Incident.
- b. Minimum Heights²⁶ (Above Ground Level / Above Mean Sea Level) for main parachutes:
 - (1) For each discipline being conducted, minimum planned deployment heights articulated.
 - (2) The minimum altitude for a parachutist to be under a fully developed main canopy.
 - (3) Procedures for automatic activation devices regarding minimum Height settings account for uneven topography.
- c. Guidance on the use of ancillary and associated equipment.
- d. The periodicity of currency training for emergency procedures.

**Guidance
Material
1701(4)**

Operating MOD-approved Airborne Forces Equipment

45. Nil.

**Regulation
1701(5)**

Parachutist and Parachute Jumping Instructor Requirements

- 1701(5) Parachutists and PJI **shall** be qualified to operate MOD-approved AFE. PJIs **shall** be appropriately trained, qualified, experienced and assured to deliver instruction in their parachuting discipline.

**Acceptable
Means of
Compliance
1701(5)**

Parachutist and Parachute Jumping Instructor Requirements

46. The Parachuting ODH **should** define in orders the Parachutist and PJI qualifications and experience required for the safe conduct of parachuting utilizing MOD-approved AFE within their AoR.
47. PJIs are required to possess skills that enable the effective transfer of knowledge to their trainees, and **should** be trained to achieve the following baseline Competences:
- a. Plan, prepare and deliver appropriately structured theoretical and practical teaching events.
 - b. Manage trainees and instructional resources.
 - c. Deliver specialist instruction to incorporate a range of differing learning styles.
 - d. Integrate Human Factors training into all serials²⁷.
 - e. Confirm / check learning has taken place, using appropriate practical techniques on the ground and in the air.
 - f. Monitor and review trainee progress across the full range of training events.
 - g. Produce comprehensive written reports on individual training outcomes.

**Guidance
Material
1701(5)**

Parachutist and Parachute Jumping Instructor Requirements

48. Nil.

²⁴ This equipment **should** be cleared in the CAERC.

²⁵ All location equipment **should** be classed as Portable Electronic Devices. Refer to RA 2360 – Portable Electronic Devices.

²⁶ The Height at which the parachute is to be fully inflated and be in a condition to be controlled by the user.

²⁷ Refer to RA 1440 – Air Safety Training.

**Regulation
1701(6)**

Qualification, Approval and Use of Parachute Training Devices

1701(6) The SRO (for future MOD-approved AFE) and Parachuting ODH (for in service MOD-approved AFE) **shall** ensure that the PTDs within their AoR are Qualified, Approved and used as intended.

**Acceptable
Means of
Compliance
1701(6)**

Qualification, Approval and Use of Parachute Training Devices

49. PTD that misrepresent the real behaviour, performance or have significant material differences to the associated parachute system could jeopardize the safe operation of the live MOD-approved AFE. The SRO or Parachuting ODH **should** ensure that PTD within their AoR are appropriately qualified and fit for purpose for the approved use.

50. The SRO **should**:

- a. Define the intended use of the device, including any specific military or training tasks that may be performed.
- b. Define the desired training output and what level of fidelity is required for each training objective, including any environmental considerations.
- c. Produce a QS which **should** include as a minimum:
 - (1) The training objectives the PTD can and cannot support, including the currency limitations, qualifications, ratings and supervisory checks that may be carried out using the device.
 - (2) Detail the implications of any environmental misrepresentation and the environmental conditions in which the PTD may be used.
 - (3) Detail any relevant material differences between the PTD and the 'as flown' parachute system. This may be referenced to an appropriate document that is available to trainees and training staff.
 - (4) Detail any areas where there is a reasonable prospect of negative training occurring, specifying any associated limitations or exceptions and where RtL may be increased in the live parachute system as a result.
- d. Ensure qualification of the PTD is conducted by SQEP (eg Test Parachutists, PJIs, etc), as determined by the SRO.

51. The Parachuting ODH **should** approve a PTD for use based on the QS specific to that device. PTD **should** be approved on initial entry into service and Approval **should** be renewed and recorded at least annually. This annual assessment **should** be conducted by SQEP identified at paragraph 50.d above. The PTD Approval **should** be renewed following any Modification to the QS and be subject to an assessment by SQEP.

52. The Parachuting ODH **should** assess the material differences between the PTD and the parachute phase it is designed to simulate (exit, flight or landing) as part of the AESC and ensure that any differences are published and reflected in the training documentation.

53. The Parachuting ODH **should** use the QS to determine the suitability of a PTD to conduct Qualifications, and type of training, including currency and Competency requirements.

54. The Parachuting ODH **should** specify in orders and instructions the amount of synthetic parachuting time / descents and the training objectives that **should** be conducted with a PTD, the periodicity that applies and how the training is to be recorded.

55. Currency on a PTD **should** be recorded in the relevant section of the PJI or Parachutist's logbook.

56. The Parachuting ODH, to ensure PJIs are trained and Competent to operate PTDs, **should** stipulate in orders the training and currency requirements for PJIs.

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1701(6)**

57. The Parachuting ODH **should** define in orders, criteria and periodicity for PJI assessment for operating PTDs. This **should** include an element of independent assessment.
58. In addition to the assessment at paragraph 57, the Parachuting ODH **should** stipulate in orders the periodicity of independent PJI assessments of PTDs.

**Guidance
Material
1701(6)****Qualification, Approval and Use of Parachute Training Devices**

59. Assessment of PTD may include the following considerations:
- a. Handling characteristics for 'flight' phase trainers.
 - b. Mission realism, including specific military role tasks.
 - c. Accuracy of parachute harness and ancillary equipment layout.
 - d. Representative malfunctions where they are included in PTD training.
 - e. Representative visual and motion cues.
 - f. Instructor Operating Station, operator and system interaction capabilities for APTDs.
60. It may not be appropriate to report all training events resulting in adverse outcomes that occur in the PTD, however the requirement to report any Air Safety Occurrence is mandated²⁸. Adverse events within a PTD outside the requirements of RA 1410 are to be reported via establishment Health and Safety and training event reporting systems. If the event was caused by incorrect procedures or poor handling or if there is value to other users from lessons identified, Defence Air Safety Occurrence Report (DASOR) action is to be considered.

²⁸ In accordance with RA 1410 – Occurrence Reporting and Management.

Annex A

MOD-approved and Foreign military AFE DoC and RtL Duty Holder (DH) Responsibilities

Parachutist	UK Personnel	UK Personnel	Foreign Armed Forces Personnel	Foreign Armed Forces Personnel
Parachute Equipment	MOD-approved AFE	MOD-approved AFE	MOD-approved AFE	MOD-approved AFE
Aircraft	UK military-registered	Non-UK military-registered*	UK military-registered	Non-UK military-registered*
Individual with personal DoC ^{29, 30, 31} – on Aircraft / Parachute descent	Parachuting Commander	Parachuting Commander	Parachuting Commander of foreign troops	Parachuting Commander of foreign troops
DH – on Aircraft	ADH / AM(MF)	Parachuting ODH**	ADH / AM(MF)	Parachuting ODH (DoC only in respect of the Safety of the equipment)
DH – Parachute descent	Parachuting ODH	Parachuting ODH	Parachuting ODH	Parachuting ODH (DoC only in respect of the Safety of the equipment)

The table above illustrates those Responsible for the management of the MOD's DoC and RtL DH responsibilities. The inclusion of the Parachuting Commander of foreign troop is to illustrate where those responsibilities are outside of the MOD and will be managed by that Commander iaw their own Regulations.

*Non-UK includes foreign military Aircraft and civil Aircraft. If civil Aircraft is chartered for parachuting activities, then guidance in RA 1167¹⁷, **should** be followed.

** The Parachuting ODH **should** ensure that the Aircraft is correctly configured for the parachuting activity and confirm that it is routinely used and authorized by the Aircraft's national or military aviation authority for such activity³².

²⁹ "DoC Owner" refers to the individual responsible for managing the MOD's DoC for the personnel undertaking the specific activity.

³⁰ DoC as defined in JSP 815 Part 2. This includes the requirement to ensure the parachutists are trained and fit for the activity.

³¹ The Parachuting Commander of foreign troops retains DoC over their troops whilst they are using UK MOD-approved AFE from the foreign military Aircraft.

³² 1 Group has produced an Advice Note which can be used as best practice.

Annex B

List of RAs related to MOD-approved AFE³³

RA Series	RA Number / Title
1000 Series	<p>RA 1002 – Airworthiness Competent Persons</p> <p>RA 1003 – Delegation of Airworthiness Authority and Notification of Air Safety Responsibility</p> <p>RA 1005 – Contracting with Competent Organizations</p> <p>RA 1006 – Delegation of Engineering Authorizations</p> <p>RA 1010 – Head of Establishment Aviation Responsibilities and Aviation Duty Holder / Accountable Manager (Military Flying) Establishment Responsibilities</p> <p>RA 1011 – Military Continuing Airworthiness Manager Responsibilities</p> <p>RA 1013 – Air Systems Operating Centre Director – Provision of Airworthy and Safe Systems</p> <p>RA 1014 – Design Organizations and Co-ordinating Design Organizations – Airworthiness Responsibilities</p> <p>RA 1015 – Type Airworthiness Management – Roles and Responsibilities</p> <p>RA 1016 – Military Continuing Airworthiness Management</p> <p>RA 1020 – Aviation Duty Holder - Roles and Responsibilities</p> <p>RA 1021 – Release to Service Authorities - Roles and Responsibilities</p> <p>RA 1022 – Senior Operator - Air Safety Responsibilities</p> <p>RA 1023 – Chief Air Engineer – Air Safety Responsibilities</p> <p>RA 1028 – Contractor Flying Approved Organization Scheme</p> <p>RA 1030 – Defence Aeronautical Information Management</p> <p>RA 1032 – Aviation Duty Holder-Facing Organizations and Accountable Manager (Military Flying)-Facing Organizations - Roles and Responsibilities</p> <p>RA 1167 – Contracting Civil-Registered Air Systems for Military Purposes</p> <p>RA 1200 – Air Safety Management</p> <p>RA 1202 – Cyber Security for Airworthiness and Air Safety</p> <p>RA 1205 – Air System Safety Cases</p> <p>RA 1207 – Air Safety Data Management and Exploitation</p> <p>RA 1208 – Flight Data Monitoring</p> <p>RA 1210 – Ownership and Management of Operating Risk (Risk to Life)</p> <p>RA 1223 – Airworthiness Information Management</p> <p>RA 1225 – Air Safety Documentation Audit Trail</p> <p>RA 1230 – Design Safety Targets</p> <p>RA 1300 – Release To Service</p> <p>RA 1305 – Military Permit to Fly (In-Service), (Special Case Flying) and (Single Task)</p> <p>RA 1310 – Air System Document Set</p> <p>RA 1380 – Performance Based Navigation</p> <p>RA 1400 – Flight Safety</p> <p>RA 1410 – Occurrence Reporting and Management</p> <p>RA 1420 – Service Inquiries and Non-Statutory Inquiries</p> <p>RA 1430 – Aircraft Post Crash and Incident Management and Significant Occurrence Management</p> <p>RA 1440 – Air Safety Training</p>
4000 Series	<p>RA 4009 – Aviation Engineering Orders and Local Procedures</p> <p>RA 4051 – Airborne Checks</p> <p>RA 4103 – Removal of Body Fluid Contamination from Aircraft</p> <p>RA 4213 – Control of Air System Components used in Ground Test Facilities</p> <p>RA 4253 – Loose Articles Recovery</p> <p>RA 4600 – Aircraft Assisted Escape Systems – Safety and Maintenance</p> <p>RA 4800 – General Requirements (MRP Part 145)</p> <p>RA 4801 – Certifying Staff</p> <p>RA 4802 – Scope of the MRP Part 145 (MRP 145.A.10) - Approved Maintenance Organizations only</p> <p>RA 4803 – Method of Application for Approval (MRP 145.A.15) - Approved Maintenance Organizations only</p> <p>RA 4804 – Terms of Approval (MRP 145.A.20) - Approved Maintenance Organizations only</p> <p>RA 4805 – Facility Requirements (MRP 145.A.25)</p> <p>RA 4806 – Personnel Requirements (MRP 145.A.30)</p>

³³ The Parachuting ODH is responsible for determining the applicability of the Regulations, Acceptable Means of Compliance, and Guidance Material within each RA listed in this annex.

RA Series	RA Number / Title
	RA 4807 – Certifying Staff and Support Staff (MRP 145.A.35) RA 4808 – Equipment Tools and Material (MRP 145.A.40) RA 4809 – Acceptance of Components (MRP 145.A.42) RA 4810 – Technical Information (MRP 145.A.45) RA 4811 – Maintenance Planning (MRP 145.A.47) RA 4812 – Certification of Air System Release and Component Release (MRP 145.A.50) RA 4813 – Maintenance Records (MRP 145.A.55) RA 4814 – Occurrence Reporting (MRP 145.A.60) RA 4815 – Maintenance Procedures and Safety and Quality Policy (MRP 145.A.65) RA 4816 – Maintenance Organization Exposition (MRP 145.A.70) - Approved Maintenance Organizations only RA 4817 – Privileges of the Organization (MRP 145.A.75) RA 4818 – Limitations on the Organization (MRP 145.A.80) - Approved Maintenance Organizations only RA 4819 – Changes to the Organization (MRP 145.A.85) - Approved Maintenance Organizations only RA 4820 – Continued Validity of Approval (MRP 145.A.90) - Approved Maintenance Organizations only RA 4821 – Findings (MRP 145.A.95) - Approved Maintenance Organizations only RA 4941 – Application - MRP Part M Sub Part G RA 4943 – Continuing Airworthiness Management Exposition - MRP Part M Sub Part G RA 4945 – Personnel Requirements - MRP Part M Sub Part G RA 4947 – Continuing Airworthiness Management - MRP Part M Sub Part G RA 4948 – Documentation - MRP Part M Sub Part G RA 4951 – Quality System - MRP Part M Sub Part G RA 4954 – Continued Validity of Approval - MRP Part M Sub Part G RA 4955 – Findings - MRP Part M Sub Part G RA 4956 – Military Continuing Airworthiness Management Organization Tasks Performed by Other Organizations - MRP Part M Sub Part G RA 4961 – Aircraft Maintenance Programme and Military Continuing Airworthiness Management Organization Responsibilities for Air System Release - MRP Part M Sub Part C RA 4962 – Special Instructions (Technical) - MRP Part M Sub Part C RA 4963 – Modifications and Repairs - MRP Part M Sub Part C RA 4964 – Continuing Airworthiness Management Records - MRP Part M Sub Part C RA 4965 – Local Manufacture Assurance – MRP Part M Sub Part C RA 4966 – Military Continuing Airworthiness Management Organization Instructions – MRP Part M Sub Part C
5000 Series	RA 5010 – Type Airworthiness Strategy RA 5011 – Type Airworthiness Safety Management System RA 5012 – Type Airworthiness Safety Assessment RA 5013 – Air Safety Management of Equipment and Commodity Items RA 5103 – Certificate of Design RA 5212 – Weight and Moment Determination RA 5301 – Air System Configuration Management RA 5305 – In-Service Design Changes RA 5320 – Air System Maintenance Schedule – Design and Validation RA 5405 – Special Instructions (Technical) RA 5406 – Aircrew Publications RA 5407 – Support Policy Statement RA 5724 – Life Extension Programme RA 5725 – Out of Service Date Extension Programme RA 5726 – Integrity Management RA 5805 – Airworthiness Directives and Service Bulletins (MRP Part 21 Subpart A) RA 5815 – Instructions for Sustaining Type Airworthiness RA 5825 – Fault Reporting and Investigation RA 5835 – Production Organizations (MRP Part 21 Subpart G) RA 5850 – Military Design Approved Organization (MRP Part 21 Subpart J) RA 5855 – Parts and Appliances (MRP Part 21 Subpart K) RA 5865 – Repairs (MRP Part 21 Subpart M) RA 5875 – (European) Technical Standard Order (MRP Part 21 Subpart O) RA 5880 – Military Permit to Fly (Development) (MRP Part 21 Subpart P)

RA Series	RA Number / Title
	RA 5885 – Identification of Products, Parts and Appliances (MRP 21 Subpart Q)

Annex C

Compendium of Airborne Equipment Release Certificates – Structure and Instructions for use

Presentation

1. In this template the following conventions are used:
 - a. All normal text, including headings, must be used as shown.
 - b. Italic text within brackets *{example}* show where text must be replaced.

c. *Italic text presented within shaded boxes is not required in the CAERC; rather it provides guidance on the required CAERC content.*

d. Normal text shown within unshaded boxes is where mandatory content is defined, but the presentation is not specified.

- e. Italic text within shaded tables (as below) shows an example of an acceptable format.

<i>Mod N^o</i>	<i>Description</i>	<i>Affects CAERC or not fully integrated into Airborne Equipment Document Set (AEDS)</i>	<i>CAERC Reference</i>	<i>Review Date</i>

Sections Applicability

2. All Parts (A to G), sections, and headings are mandatory and must exist within the CAERC.
3. In the case of sections not being applicable to specific AFE or ADE, the text 'This section is not applicable' must be used.
4. In the case where the section is applicable, but there are no limitations that need to be expressed, the text 'Information and procedures within *{Document Name}*' must be used.

Sub-Section Titles and Numbering

5. Each CAERC section may be divided into as many sub-sections as required for each ADE or AFE. The layout of these sub-sections is at the discretion of the RTSA (RAF). Part D of the CAERC is Ancillary Equipment specific, and therefore no detailed guidance can be given on its content or layout. However, the principles detailed above will be used to define how Part D will be used.
6. The numbering of sub-sections will follow the same format used for the sections. Therefore, in Section A of the CAERC, Level 1 is an 'A' followed by a single digit (eg 'A.n'), Level 2 is 'A' followed by 'n.n' (eg 'A.n.n'), etc.

Classification

7. The Classification of the CAERC **should** be in line with the guidance provided within JSP 440³⁴ Part 4 Section 1: Classification Policy. If information of a higher classification than OFFICAL – SENSITIVE must be included in the CAERC, rather than in another part of the AEDS (such as the Tactics Manual), this will be presented as a separate 'Classified Supplement' to the CAERC. In these circumstances, both the main and supplementary parts of the CAERC have their own Preliminary Pages and CAERC Statement. The supplement uses the same numbering system for Parts and sub-sections as the CAERC, but to keep it to the minimum number of pages, the supplement need only include those Parts, sections, and sub-sections that are directly relevant. Any 'Classified Supplement' to the CAERC is to be managed in the same manner as that for a Classified Supplement to an RTS.

Configuration Control

8. All CAERC pages (eg Preliminary Pages, blank pages, etc) must show the Issue and Amendment status.
9. Classified Supplements will have a separate Configuration Control (ie its own Issue and Amendment Status). The RTSA (RAF) must ensure that the CAERC and Classified Supplement are always coherent and cross-reference the Issue and Amendment status of the other.

Electronic Formats

10. The CAERC may be provided solely in electronic format.

³⁴ Refer to JSP 440 – The Defence Manual of Security, Resilience and Business Continuity.

Content Appropriate to the CAERC

11. The CAERC is one of the primary AEDS documents and, where appropriate to provide supporting detail, it will contain cross-references to other documents within the AEDS.

12. In judging what content is appropriate to be in the CAERC, and how to handle Safety information, authors need to consider 5 principles:

- a. **Relevance.** Is the information relevant to the aim of the CAERC? Does it help define the Safety envelope of the Air System?
- b. **Completeness.** If the information is relevant, it needs to be presented without omissions.
- c. **Target Audience.** Is the information relevant to the target audience?
- d. **Coherence.** The CAERC must be coherent with the other AEDS documents. Early liaison with other AEDS authors is essential to ensure that the whole AEDS is a coherent and seamless source of Safety information.
- e. **Responsibility.** Authors need to be aware of their overarching responsibility for providing Safety information. Where an author decides not to include information, they must take positive steps to provide an auditable trail to show why the information has not been included and bring this to the attention of the applicable Air System DT.

Procedures

13. It is common for procedures to find their way into the CAERC; however, only those procedures that are directly essential to enable compliance with a limitation **should** be included. All other procedures **should** be placed in other parts of the AEDS (eg Standard Operating Procedures (SOPs) issued by ODH, Force SOPs, Technical Publications).

Placing information in Parts

14. Although the Part and section headings can be defined for the CAERC, it can be rather more difficult to decide in which Part a specific limitation needs to be placed. It is recommended that Table 1 (below) is used for deciding in which particular Part information needs to be placed.

Table 1. *Placing Information in Parts of the CAERC.*

Question	Response	Action
1. Is the information supported by a fully substantiated Safety Assessment that has been accepted by the TAA and RTSA (RAF)?	Yes	Go to Q2
	No	Place in Parts B to D (as appropriate) and recorded in Part F (only included in the CAERC as a CLE or an OEC)
2. Is the information of a temporary nature?	Yes	Place in Part E
	No	Go to Q3
3. Is the topic engineering information?	Yes	Place in Part A (directly or by explicit cross-reference)
	No	Go to Q4
4. Does the limitation relate to AFE?	Yes	Place in Part B
	No	Go to Q5
5. Does the limitation relate to ADE?	Yes	Place in Part C
	No	Go to Q6
6. Does the limitation relate to Ancillary Equipment?	Yes	Place in Part D
	No	Not legitimate CAERC content, place elsewhere in the AEDS

15. Split limitations must be stated where different limitations apply to different equipment Modification states (ie equipment being progressively modified In-Service). These will normally be in the form 'pre-mod nnn...; post-mod nnn...', and the Modification identified at Part A within section A.6. When appropriate, and when the AE TAA has confirmed that all equipment has been modified to the same Modification standard, the CAERC **should** be amended to remove the split limitation.

Recording of Modifications

16. AE Modifications will be recorded by the AE TAA, in the AEDS under their Configuration Control. The CAERC is not the repository of all Modifications embodied on AE; however, some Modifications need to be identified to operators. An AE Modification affects the CAERC when it is necessary to identify different limitations and / or procedures for the pre-mod and / or post-mod conditions of equipment. Modifications may be listed numerically or by system (eg Engines, airframe, avionics, etc). Once a Modification has been superseded (eg Fleet embodiment, subsequent Modification, etc) it **should** be removed from the CAERC.

Compendium of Airborne Equipment Release Certificates – Template

Preliminary pages

Classified Supplement: When the document is a Classified Supplement the following statement will be inserted at the head of this page; it is vital that the Supplement and main document are coherent at all times:

This document is the Classified Supplement to the CAERC for the {AE equipment}. This Supplement will be read in conjunction with the main document {document reference} at {Issue} and {amendment}.

List of Contents

A List of Contents will be provided, to a level of detail defined by the RTSA (RAF). The following represents the minimum list:

Preliminary pages

Part A - Airworthiness and Document Management

Part B - Airborne Forces Equipment

Part C - Aerial Delivery Equipment

Part D - Ancillary Equipment

Part E - Temporary information

Part F - Clearances with Limited Evidence / Operational Emergency Clearances

Part G - History

Classified Supplement: When there is a Classified Supplement, the following statement will be inserted at the end of the List of Content, and the reference included at A.7.4:

Classified Supplement – There is a Classified Supplement to this CAERC. It is issued under a separate distribution.

List of Amendments

An amendment list must be provided to record all amendments made to the CAERC.

Amendment number	Date	Detail of Changes

List of Effective Pages

An important element of document control is a correct and auditable amendment procedure. To achieve this, the CAERC will have a 'List of Effective Pages' which will be updated by every amendment.

Page	Issue / Amendment	Page	Issue / Amendment

List of Abbreviations

The CAERC must provide a consolidated list of the abbreviations used throughout the document as an aid to the reader. No further expansion of abbreviations need be used throughout the document.

Definition of Terms

It is important to the use of the CAERC and the overall Airworthiness of the cleared AE, that there is a clear and common understanding of the terms used within the CAERC. Therefore, every CAERC will have a section dealing with the definition of terms.

*In addition to the terms defined below, there may be other terms used; these **should** all be clearly defined. The following must be included:*

Term	Definition
Aerial Delivery Equipment (ADE)	Equipment and ancillary items, including an Airdrop Platform where used, to deliver Cargo to Drop Zones. (Sourced from: AAP-06)
Air Cargo	Stores, equipment or vehicles, which do not form part of the Aircraft, and are either part or all of its payload.
Airborne Equipment (AE)	The generic term covering the wide variety of parachuting assemblies for personnel and equipment, Airdrop Platforms, supply dropping equipment and ancillary items that are used in the insertion of personnel and equipment onto Drop Zones. This equipment can be split into two areas: Airborne Forces Equipment and Aerial Delivery Equipment.
Airborne Forces Equipment (AFE)	Equipment and ancillary items used to insert personnel into Drop Zones.
Airdrop	Delivery of personnel or Cargo from Air Systems in flight.
Airdrop Platform	A base on which vehicles, Cargo or equipment are loaded for Airdrop or low Altitude extraction. (Sourced from: AAP-06)
Airworthiness	The ability of an Air System or other Airborne Equipment or system to be operated in flight and on the ground without significant Hazard to Aircrew, ground crew, Passengers or to third parties; it is a technical attribute of materiel throughout its lifecycle.
Cargo	Commodities and supplies in transit. (Sourced from: AAP-06)
Clearance with Limited Evidence (CLE)	A clearance within the CAERC for Airborne Equipment when a fully substantiated Safety Assessment is not available to support a full clearance but, on the balance of available evidence, the clearance is judged to not increase Risk to Life.
Day / Night	Where day / night limitations are given, transition is based on Civil Twilight. Civil Twilight occurs when the sun's centre is 6° below the observer's visible horizon.
Drop Zone	Notified portion of airspace and associated area of ground within which Airborne Equipment drops are made.
Following parachutists	Those that follow a despatched load on the same pass.
g-limits	The max normal acceleration cleared. All g limit values in this document are positive unless otherwise stated.
Installation only	The equipment may be fitted but must not be operated in flight. It will be isolated iaw a defined scheme unless it has been shown that inadvertent operation represents an acceptable Hazard.

Limitation	Values of parameters used to define the extent of an equipment's operating envelope (All airspeeds, mach numbers, altitudes, angle of attack and temperatures are indicated values unless otherwise stated).
Operational Emergency Clearance (OEC)	A clearance for a change of usage within the CAERC for Airborne Equipment which may result in an increased Risk to Life that does not achieve the Air System Design Safety Target. This judgement may be substantiated by an appropriate Safety Assessment or based on limited available evidence. An OEC will only be authorized by the RTSA (RAF) once it is assured that any operating Risks have been communicated to, and accepted by, the appropriate ADH.
Parachute Safety Enabling Systems	A piece of equipment introduced to interact between the parachutist and the parachute system to enhance Safety.
Parachute System	The parachute will deliver the parachutist from the air to the ground safely. It is considered safe for use if it meets the project safety target for the 'as designed system'. This includes the parachute system, its subsystems: Safety Critical Systems (SCS) and Safety Enabling Systems (SES) and a trained parachutist. This can be combined with Soldiering Mission Systems (SMS) to enhance military capability.
Parachute System – Safety Critical Systems	A piece of equipment that influences the parachute Hazard Analysis to improve the Safety of the parachute system in the military.
Parachutist	Any person authorized to make a parachute descent.
Prohibited	Operation in the manner described, or of the equipment specified (as appropriate), is prohibited because the associated Risk is unacceptable. The Risk may be judged unacceptable because it is either too high or because there is insufficient knowledge to determine the likelihood of encountering a severe Hazard.
Soldiering Mission Systems – Parachuting Mission Systems	Equipment that is integrated to enable the parachute system to enable the completion of a parachuting task.
Soldiering Mission Systems – Soldiering and Ancillary Systems	Equipment carried by the parachutist to enable the completion of a military (mission specific) task which is not always integrated to the parachuting activity and is not defined above.
AE TAA-approved Design Standard	The standard to which the CAERC applies. The AE TAA has the discretion to use a reference design standard that is other than the Design Organization (DO) Configuration Status Record (CSR). The AE TAA must be satisfied that there is a Safety Assessment for this reference design standard and that Configuration Control procedures are equivalent to those required for a CSR.
Temporary Information	Temporary Information includes: Temporary Clearances, Temporary Restrictions, and Temporary Information Notices. Where a Temporary Clearance is used, it must be of a genuinely transitory nature (eg the clearance of a Modification for a short duration trial after which it will be removed, test equipment for short term use only, etc). Temporary Clearances with a fully substantiated and evidenced Safety Assessment would be included in Part E of the CAERC as stand-alone entries (not covered by an OEC or CLE); if the Safety Assessment is not fully substantiated or does not meet the Design Safety Target, the Temporary Clearance would also need to be covered by either an OEC or CLE and listed / cross-referenced in Part F.
WARNING	When the consequence of not respecting a limitation might be death and / or injury.

CAUTION	When the consequence of not respecting a limitation might be damage to the Air System or equipment.
Note	To clarify the reason for a limitation.

Presentation of WARNINGS, CAUTIONS and Notes

*The convention used for presenting **WARNINGS, CAUTIONS**³⁵ and Notes within the CAERC needs to be explained. The appropriate statement will be selected from the following:*

The **WARNINGS, CAUTIONS** and Notes are placed as close as practicable to the relevant limitation / procedure.

or

The **WARNINGS, CAUTIONS** and Notes are called out and numbered within each sub-section, and placed at the end of the relevant sub-section within each Part.

or

The **WARNINGS, CAUTIONS** and Notes are called out and numbered within each Part and placed at the end of the relevant Part.

Distribution {This is necessary to ensure amendments are promulgated to all document holders, and the RTSA (RAF) may add other addressees to the distribution list}

Action:

Mandatory:

RTSA (RAF)	<i>Master copy and to promulgate the CAERC</i>
ODH	
AE TAA	
Military Aviation Authority (MAA)	<i>Independent Assurance of new AE and Major Changes to existing AE only</i>

Information:

Mandatory:

DT Safety Manager	
Delivery Duty Holder	
Officer Commanding Defence Aircrew Publications Squadron	
Military Continuing Airworthiness Management Organization	

³⁵ **WARNINGS** and **CAUTIONS** are written in upper case and bold.

Part A – Airworthiness and Document Management**A.1 CAERC Statements****A.1.1 Certification of Safety and Airworthiness**

I certify that the Airborne Equipment, when operated iaw the CAERC at Issue *{number}* and Amendment *{number}*, including those CLEs listed in Part F, is airworthy and that the overall Risk is acceptable.

Clearances which carry a higher level of Safety Risk are identified as OECs, listed in Part F, and their use, once authorized by the RTSA (RAF), requires specific approval by the relevant ODH iaw RA 1300.

Clearances in Parts E and F that are not supported by a fully substantiated Airborne Equipment Safety Case (AESC) or Safety Assessment are authorized for inclusion in the CAERC by the RTSA (RAF).

The authority for the exposure to, and the ownership and management of, the residual Risk associated with the clearances in Parts E and F lie with the ADH chain.

CAERC clearances are only valid once the associated Aircraft TAA has accepted the CAERC for the specific Aircraft type. Operators are to confirm, through the Matrix on the RTSA (RAF) website, that relevant sections have been accepted by the Aircraft TAA.

{Signature}

{name}

{AE TAA}

{date}

A.1.2 Authorization of Amendment (not required for Initial Issue)

As the Delegated RTSA (RAF), I authorize Amendment *{number}* to Issue *{number}* of the CAERC.

The following wording is required if not included in the initial authorization statement for legacy CAERC.

The limitations of the CAERC are the definitive limits for Airborne Equipment in Service. Where any conflict arises between this CAERC and any other Airborne Equipment documentation, the limitations in the CAERC are overriding.

Authorized holders of the CAERC must ensure that all CAERC documents that define current limitations are kept with this authority under one cover.

{signature}

{name}

{rank}

DRTSA (RAF)

{date}

A.2 Introduction

A.2.1 Purpose

The initial CAERC is the statement by the AE TAA to the RTSA (RAF) that an acceptable Safety Assessment has been prepared for the AE systems, and forms the basis for the initial CAERC of the AE systems.

The CAERC describes the: approved AE systems configuration(s), operating envelope, limitations, design standard, and parameters within which the AESC has been established and to the AE system may be flown in Service regulated flying. It also includes the approved OECs and CLEs, and advice on their application.

A.2.2 Structure

This CAERC comprises statements and 7 supporting parts:

Part A covers the purpose and management of the CAERC, and any other relevant information that does not appear as an AE or flying limitation.

Part B covers includes all cleared personnel parachutes and reserve systems; Annexes provide specific clearances for cleared despatch Aircraft.

Part C covers all cargo and platform systems cleared for use; Annexes provide specific clearances for cleared despatch Aircraft.

Part D covers items that require regulatory consideration, support AFE and ADE system clearances, and enhance mission success or improve Hazards identified within AE systems.

Part E details Temporary Information and the management thereof.

Part F details CLEs and OECs.

Part G enables the production, content, and evolution of the CAERC to be audited.

The limitations in Parts B to E may be either: for normal use (ie in peace and war), or for operational emergency use only.

All permanent information that has been derived from the AESC will be included within the main Parts B to D, with temporary information, also having been derived from the AESC, being covered by Part E.

A.2.3 Amendment

Amendments will be promulgated automatically to the organizations detailed within the distribution list. Suggestions for amendment must be forwarded to:

{Contact details of the RTSA (RAF) Desk Officer}

A.3 Description

A description regarding the management of AE system clearances at the discretion of the AE TAA and DRTSA (RAF).

A.4 Airborne Equipment Life and Fatigue

A statement regarding the management of, and inclusion of references to, the lifing of AE equipment at the discretion of the AE TAA and DRTSA (RAF).

A.5 Statement of Operating Intent / Statement of Operating Intent and Usage (SOI / SOIU)

The use of AE has been reviewed by the ADH and AE TAA.

The *{SOI / SOIU}* for AE has been issued at *{SOI / SOIU reference}*. Any perceived differences between the AE use described by the *{SOI / SOIU}* and the way in which the AE is being operated must be highlighted to the AE TAA for resolution or *{SOI / SOIU}* amendment.

{SOI / SOIU executive summary}

A.6 Airborne Equipment Configuration

A statement regarding the management of, and inclusion of reference to, Modifications affecting AE clearances at the discretion of the AE TAA and DRTSA (RAF).

A.7 Related Documents**A.7.1 Parachutist documentation**

The AFE cleared within this CAERC is airworthy when operated by qualified personnel within the limitations of this CAERC and iaw the information and provisions contained in the following related documents.

<i>Document</i>	<i>Publishing Organization</i>	<i>Sponsor</i>

A.7.2 Aerial Delivery documentation

The ADE cleared within this CAERC is airworthy when operated by qualified personnel within the limitations of this CAERC and iaw the information and provisions contained in documents referenced in Part C which are published by Joint Air Delivery Test and Evaluation Unit (JADTEU) and sponsored by HQ 1 Gp.

A.7.3 Aircrew documentation

The AE cleared within this CAERC is airworthy for despatch from the Air Systems specified in this CAERC when the Air Systems are operated iaw their RTS.

A.7.4 Maintenance documentation

Reference is made to the associated Maintenance documentation from each Section within Parts B to D of this CAERC.

Part B – Airborne Forces Equipment

This Part of the CAERC contains clearances and limitations for the in-Service personnel parachutes and reserve systems authorized for use by the MOD. Information pertinent to the safe use of the equipment from specific Aircraft types is found in associated Annexes to the Section. Each section covers a specific parachute type, within which are Annexes covering specific clearances and limitations for the despatch of the parachute from cleared despatch Aircraft.

Where an OEC or CLE is appropriate, it is referenced in Part F and the detail is placed in Part B.

Part B section Layout

Each section is constructed as follows:

Equipment Title**B.1 Release Statement**

To specify that the equipment concerned is 'cleared for use' and to give the general criteria of the clearance. These criteria will include: users of the equipment; if it is for training and / or operations; if usage is in daylight only or day / night; if usage is onto land only or land / water; and if usage is across worldwide temperature conditions or if only within particular temperature ranges.

B.2 Special Clearances

To identify what areas of the clearance are covered under OEC / CLE. OEC will be suitably annotated with hatched markings to the outer edge of the page. OEC and CLE content will be prefixed by OEC / CLE and Number in line with the lists in Part F.

B.3 Brief Description

To provide a general description of the equipment in question and an indication of the role in which it is employed.

B.4 System Design Organization

To specify the Design Organization(s) or, where appointed, the Co-ordinating Design Organization for the equipment in question.

B.5 Build Standard

To specify the CSR or other formally recognized descriptor for the build standard of the overall system and, where applicable, the individual primary components.

B.6 System / Load Preparation

To specify the Technical Publication(s), or other recognized document(s), in which the parachute packing method or the load preparation is detailed.

B.7 Maintenance

To specify the Technical Publication(s), or other recognized document(s), in which the equipment Maintenance criteria and procedures are detailed.

B.8 Deployment

To specify how the parachute deployment must be initiated.

B.9 Despatch Aircraft

To specify which military Aircraft platforms the equipment is cleared for despatch from, noting where necessary the applicable Annex. Where the AE must be deployed from civilian Aircraft, the type (including any modifications) or where required registration number must be listed.

B.10 Despatch Conditions – System

To specify any generic despatch height data or to specify that the height is Air System dependent and refer to the associated Annex.

To specify wind limitations applicable to descending the equipment onto land / into water.

To specify any sea state criteria that may limit the use of the equipment.

To specify any limitations that may apply in operating the equipment onto high altitude drop zones.

B.11 All Up Mass and Stores Dimension

To specify the maximum / minimum mass limitations applicable to the use of the equipment.

To specify the maximum / minimum All-Up-Mass (AUM) of the individual parachutist / individual stores load.

To specify the maximum / minimum store dimension limitations applicable to the use of the equipment.

B.12 Ancillary Equipment

To specify any Ancillary equipment cleared for use with the AE including any associated limitations, either directly or, through reference to section D3 or another document within the AEDS.

B.13 Standard Operating Procedures

To define any SOPs that have associated limitations or, to refer to ODH / Force SOPs including any associated comments pertinent to the clearance.

B.14 Annexes

To list the associated Annexes for specific Aircraft types.

Part B section Annex Layout

Each Annex is constructed as follows:

Part B Annex {X} – Despatch of the {Equipment type} from the {Aircraft type}**B.X.1 Release Statement**

To specify that the equipment is 'cleared for use from {Aircraft type}' and give any additional criteria specific to the clearance from that Aircraft type.

B.X.2 Aircraft Preparation

To specify how the Aircraft will be prepared for the activity in question, covering any role equipment requirements and any pre-loading checks. Where this information is set out in another Air Publication / document, the relevant reference must be shown.

To specify the role fit required on the Aircraft to undertake the planned activity. Where this information is set out in another Air Publication / document, the relevant reference must be shown.

B.X.3 Aircraft / Airdrop Conditions

To specify the Aircraft-specific criteria associated with the carriage / despatch of the equipment / troops concerned.

To specify the minimum / maximum, and where appropriate, optimum speed of the Aircraft at the point of despatch of equipment / troops.

To specify any variation in Aircraft speeds when the equipment is being used within an operational context or training role.

To specify the minimum / maximum Aircraft height / altitude at the point of despatch of equipment / troops when the equipment is being used within an operational context or training role.

To specify the heading, relative to wind, of the Aircraft at the point of despatch of equipment / troops.

To specify the Aircraft attitude at the point of despatch of equipment / troops.

To specify the Aircraft flap setting at the point of despatch of equipment / troops.

To specify the position of deflector doors during the despatch of equipment/troops.

To specify how the stores loads are to relate to the Aircraft's centre of gravity.

B.X.4 Calculated Air Release Point

To specify how the point of release / despatch will be calculated. Where this is included in another Air Publication / document, the relevant reference must be shown.

B.X.5 Despatch Procedures

To specify the despatch procedures to be adopted on the Aircraft type. Where this information is set out in another Technical Publication / document, the relevant reference must be shown.

To specify the maximum number of parachutists in a 'stick' when operating from the Aircraft ramp and / or the Aircraft's side doors.

B.X.6 Emergency Procedures

To specify any emergency procedures that must be complied with on that particular Aircraft type (ie Hung-up Parachutist Release Assembly (HUPRA) for static line parachuting). Where this information is set out in another Technical Publication / document, the relevant reference must be shown.

Part C – Aerial Delivery Equipment

This Part of the CAERC contains clearances and limitations for the in-Service cargo and equipment dropping systems authorized for use by the MOD. Information pertinent to the safe use of the equipment from specific Aircraft types is found in associated Annexes to the section. Each section covers a specific Delivery Equipment, within which are Annexes covering specific clearances and limitations for the despatch of the equipment from cleared Air Systems.

Part C Section / Annex Layout

Each Section / Annex is constructed as Part B.

Part D – Ancillary Equipment

Within this Part of the CAERC are individual sections covering stand-alone in-Service ancillary systems authorized for use with, or in support of, items in Parts B and / or C.

Part E – Temporary information

This Part of the CAERC is reserved for the management of 'Temporary Information'.

Each element of Part E will have been derived from a supplementary Safety Assessment and provides information (limitations) on one or more aspects of AE operation. This Part may also be used to promulgate other urgent information to operators pending formal amendment of operator publications. This Part may also be used for time-limited clearances (eg any that are specific to an operation or exercise), and where it is expected that they will not form part of the CAERC in the longer term.

The information within Part E must provide:

A record of all current Temporary Information;

The definition of the applicability of each Temporary Information (eg Aircraft type, named exercise, named operation, etc);

The arrangements for withdrawal of each Temporary Information (eg calendar, embodiment of a Modification, etc);

A definition of the parts of the AEDS affected by each Temporary Information;

The location of the information relating to the Temporary Information.

Temporary Clearances included in this Part must be of a genuinely transitory nature (eg the clearance of a Modification for a short duration trial after which it will be removed); or included within this Part through operational necessity as a temporary amendment, pending its inclusion in the appropriate Part at the next formal amendment of the CAERC and / or AEDS.

The RTSA (RAF) has the option to place Temporary Clearances entirely within Part E of the CAERC, or to insert pages in the appropriate places throughout the AEDS, or a combination, whichever method suits the circumstances.

E.1 Record of Temporary Clearances (TC)

<i>TC Number</i>	<i>Location (in Part E)</i>	<i>Title</i>	<i>Applicability</i>	<i>Withdrawal Arrangements (including duration)</i>	<i>Validity Date</i>

It is suggested that TCs be presented under suitable sub-heading(s) below sub-section E.1 (eg 'E.1.1 Temporary Clearance {insert number} - Limitations for Operation {insert title}').

E.2 Record of Temporary Restrictions (TR)

<i>TR Number</i>	<i>Location (in Part E)</i>	<i>Title</i>	<i>Applicability</i>	<i>Withdrawal Arrangements (including duration)</i>	<i>Validity Date</i>

It is suggested that TRs be presented under suitable sub-heading(s) below sub-section E.2 (eg 'E.2.1 Temporary Restriction {insert number} - Limitations for Operation {insert title}').

E.3 Record of Temporary Information Notices (TIN)

<i>TIN Number</i>	<i>Location (in Part E)</i>	<i>Title</i>	<i>Applicability</i>	<i>Withdrawal Arrangements (including duration)</i>	<i>Validity Date</i>

It is suggested that TINs be presented under suitable sub-heading(s) below sub-section E.3 (eg 'E.3.1 Temporary Information Notice {insert number} - Limitations for Operation {insert title}').

Part F – Clearances with Limited Evidence / Operational Emergency Clearances

This Part of the CAERC records clearances that has not been derived from a fully substantiated Safety Assessment; such clearances are termed 'Clearances with Limited Evidence' (CLE). Each CLE will be integrated in the appropriate Part(s) of the CAERC (within Parts B to D) and identified through cross-referencing in Part F.

The clearances likely to have an increased RtL are termed 'Operational Emergency Clearances' (OEC). Each OEC will be integrated in the appropriate Part(s) of the CAERC (within Parts B to D) and identified through cross-referencing in Part F. The CAERC must present OECs in a separate sub-section within the Part to which they are applicable and include an indication of the reason for identifying it as a high Risk clearance. A full explanation of the Risk(s) must be retained by the AE TAA within the Audit trail.

CLEs and OECs are subject to periodic review and amendment; and some may be applicable only to certain AE system marks, Air System marks, operating units, etc. Following a periodic review or amendment, the applicability and validity of the CLE / OEC may change.

The information within Parts F.1 and F.2 must provide:

The title of the CLE / OEC.

A record of all current CLEs / OECs.

The definition of the applicability of each CLE / OEC (eg Aircraft type, named exercise, named operation, etc).

The review period of the CLE / OEC is defined in RA 1300.

The arrangements for withdrawal of each CLE / OEC (eg calendar, embodiment of a Modification, etc).

The location within the CAERC of the details of the CLE / OEC.

F.1 Record of Clearances with Limited Evidence

<i>CLE Number</i>	<i>Location (in Parts B to D)</i>	<i>Title</i>	<i>Applicability</i>	<i>Withdrawal Arrangements (including duration)</i>	<i>Validity Date</i>	<i>Review Date</i>

F.2 Record of Operational Emergency Clearances

<i>OEC Number</i>	<i>Location (in Parts B to D)</i>	<i>Title</i>	<i>Applicability</i>	<i>Withdrawal Arrangements (including duration)</i>	<i>Validity Date</i>	<i>Review Date</i>

Part G – History

This part of the CAERC covers the historical function required to ensure Airworthiness. It is a record of all the Safety Assessment data that has been used in compiling the CAERC and provides justification for all elements of the CAERC content. It is not required that the full Audit trail³⁶ be produced in Part G, but rather that it defines what the Safety Assessment Audit trail is and identifies where the information can be located. Some elements may exist as databases in their own right. Careful consideration will be given to archiving such material and it must not be destroyed until at least 5 years after the AE's OSD.

The minimum that is required in Part G is an index of where the following information can be found:

Attribution matrix specifying the source of every element of the earlier Parts;

Design documentation;

List of Trials and associated Reports not covered by the design documentation;

Details of any Safety Assessments relating to the AE systems or its equipment;

Details of sentencing of trial recommendations;

Other baseline data used in generating the first issue;

Details of all changes to the initial issue (amendments and subsequent issues) to include: their nature, the reason for their introduction and the individual authorizing their implementation.

Acceptable content for Part G include, but are not limited to:

A reference to one or more series of files held in particular locations (eg RTSA (RAF) CAERC Safety Assessment files {file series reference}, AE TAA Modification files {file series reference}, Independent Evaluation and Audit reports {reference to list of applicable reports}, etc). Each of these groups of files could, and often will, be held in different locations which need to be specified³⁷.

A reference to an Airworthiness or Safety Assessment database. Some modern AE systems will be developed with much, or all, of the information relevant to the CAERC held on a Safety Assessment or configuration database. A reference to this database is acceptable, providing that the database references further source documents or data.

G.1 General

Full information for audit purposes is held and maintained by the AE TAA and RTSA (RAF).

G.2 CAERC Issue and Amendment record

The table below shows a historical record of amendments to the CAERC from {Initial Issue / Issue number} to the latest amendment.

<i>Issue & AL Number</i>	<i>Date</i>	<i>Detail</i>

³⁶ Refer to RA 1225 – Air Safety Documentation Audit Trail.

³⁷ Refer to RA 1200 – Air Safety Management.