

# Operation of Permit-to-Fly Ex-Military aircraft on the UK register

CAP 632 | Edition 8 | Amendment 2/2021 | November 2021



#### Published by the Civil Aviation Authority

Civil Aviation Authority Aviation House Beehive Ring Road Crawley West Sussex RH6 0YR United Kingdom

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First published October 1994 Second edition April 1997 Third edition February 2002 Fourth edition April 2006 Fourth edition incorporating amendments up to and including 1/2007 March 2007 Fourth edition incorporating amendments up to and including 1/2009 March 2009 Fifth edition February 2015 Sixth edition April 2018 Seventh edition published May 2018 Eighth edition published October 2020 Eighth edition incorporating amendment 1/2021 September 2021 **Eighth edition incorporating amendment 2/2021 November 2021** 

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The latest version of this document is available at www.caa.co.uk/cap632

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## Revision History

#### Eighth edition incorporating Amendment 2/2021

This amendment to this incorporates an alteration to the Official Record Series 9 document referred to in Chapter 5 and Appendix F. The red underlining from Edition 8 Amendment 1 is retained for clarity.

#### Eighth edition incorporating Amendment 1/2021

Amendments to this Edition of CAP 632 are marked in red underlining. This amendment includes guidance and requirements for operators who propose to operate aircraft in excess of the 250 knot airspace speed limitation below 10,000 feet AMSL (refer to SERA.6001). Content is amended in Chapter 5 (paragraphs 5.20–5.22), and a new Appendix F has been added.

#### **Eighth edition**

Amendments to this Edition of CAP 632 are based on a review of the feedback received following public consultation. As there have been significant changes to the layout and content, to make it easier to understand there are no marked changes within this CAP. It should therefore be read as a new document.

References to Safety Standards Acknowledgement and Consent (SSAC) have been removed from this publication and incorporated into CAP 1395 "Safety Standards Acknowledgement and Consent."

This Edition now includes references to other CAA published documentation rather than create duplication of information e.g. some airworthiness requirements already detailed in <u>CAP 553 "Airworthiness Procedures where the CAA has Primary Responsibility for Type Approval of the Product"</u>. Where possible, a clickable link has been provided for ease of reference.

#### November 2021

September 2021

October 2020

	Summary of Major Changes
1	References to Safety Standards Acknowledgement and Consent (SSAC) have been removed from this publication and incorporated into CAP 1395 "Safety Standards Acknowledgement and Consent."
2	Re-structure and condensed version
<u>3</u>	Removal of duplication where applicable
<u>4</u>	Introduction of SRG1872 for initial OCM applications and variations
<u>5</u>	Introduction and reference to scheme of charges
<u>6</u>	Simplification of operator responsibilities
<u>7</u>	Introduction of an Accountable Manager role and Continuing Airworthiness Coordinator role
<u>8</u>	Introduction of Mandatory Occurrence Reporting (MOR) in accordance with CAP382
<u>9</u>	Insertion of Fully Remunerated Flying Training application form (previously AIC 55/2016 which will be deleted)
<u>10</u>	Clarification on when passengers can be flown
<u>11</u>	Introduction of an Example Dual check form
<u>12</u>	Introduction of guidance for Commercial Operation

## Terminology and Definitions

Throughout this CAP the following terms and definitions are used:

Term	Abbreviation	Definition
Aircraft Type Rating Exemption	ATRE	An exemption issued to allow a pilot to fly an aircraft where normally a type rating would be required.
Air Navigation Order	ANO	Air Navigation Order 2016 (as amended).
British Civil Airworthiness Requirements	BCAR	British Civil Airworthiness Requirements as set out in <u>CAP 553</u> "Airworthiness Procedures where the CAA has Primary Responsibility for Type Approval of the Product".
Continued Airworthiness Management Organisation (BCAR Section A, A8-25)	CAMO(A8-25)	An organisation having an approval for the management of the continuing airworthiness of non-EASA aircraft with a Certificate of Airworthiness or a Permit-to-Fly
General Aviation Unit	GAU	General Aviation Unit, <u>ga@caa.co.uk</u> . The department within the CAA that deals solely with General Aviation.
MTWA	MTWA	Maximum Total Weight Authorised.
Operator		A person, organisation or enterprise engaged in or offering to engage in the operation of an ex-military aircraft. The Operator will also be the person who at the relevant time has the management of the aircraft as defined in Article 4 of the ANO.
Safety Standards Acknowledgement and Consent	SSAC	Safety Standards Acknowledgement and Consent as defined in <u>CAP1395</u> . Allows a person to make an informed decision and pay to participate in a flight experience.
Self-Authorisation		Where pilots have been assessed to authorise their own flights (subject to certain restrictions if applicable) instead of requiring the chief pilot or instructor to authorise each individual flight.
Valuable Consideration		Any right, interest, profit or benefit, forbearance, detriment, loss or responsibility accruing, given, suffered or undertaken pursuant to an agreement, which is of more than a nominal nature.

## Chapter 1 Introduction

#### Legal Requirements

- 1.1 The Civil Aviation Act 1982 empowers the Civil Aviation Authority (CAA) to regulate aviation in the United Kingdom in accordance with the requirements of the ANO. This publication sets out the requirements and procedures for operating a UK registered Permit-to-Fly Ex-Military aircraft.
- 1.2 Unless otherwise stated, nothing in this publication is intended to conflict with the ANO or other legislation or CAA published material, which, for the avoidance of doubt, **must** be regarded as overriding. Compliance with this publication does not by itself indemnify any person or persons against liability for an accident or serious incident occurring.
- 1.3 The operator of a UK registered national Permit-to-Fly ex-military aircraft **must** always comply with the conditions stated on the Permit-to-Fly. The Permit-to-Fly specifies the conditions under which an aircraft is to be operated, one such condition being that applicable aircraft **shall** be operated in accordance with CAP 632<sup>1</sup>.
- 1.4 Specific requirements **must** be met before the CAA can issue an operational Approval, including the operator adopting a suitable operational and technical framework. The Approval will remain valid, subject to the operator continuing to meet those requirements.
- 1.5 Throughout this document the following editorial practices and definitions shall apply:
  - 'Shall' / 'Shall not' and 'Must' / 'Must not' are used to indicate a mandatory requirement
  - **'Should**' is used to indicate strong obligation
  - 'May' is used to indicate discretion
- 1.6 The use of **'should'** must be taken to mean that further action needs to be considered. If the operator's response is deemed by the CAA to be inadequate, a specific requirement **may** be applied as a condition within the Organisational Control Manual (OCM).

<sup>&</sup>lt;sup>1</sup> In entirety and inclusive of operational, maintenance and airworthiness considerations.

#### General

- 1.7 Ex-military aircraft, even more so than other types of aircraft, require the highest standards of airworthiness, operational management and pilot competency. These aircraft were built and operated with the support of complex military systems that are not likely to be available to the civil operator. There are many factors associated with all aspects of their operation and flight which require thorough consideration to maintain safety standards.
- 1.8 This publication contains both specific requirements and guidance material to enhance the safety of participants and members of the public.

#### Applicability

- 1.9 The operational guidance and requirements set out in this publication are applicable to any ex-military aircraft or replicas thereof with either:
  - a) A MTWA of 2730 kg or above, or
  - b) A piston engine with a rating of 800 horsepower or more, or
  - c) A turbine or turbojet engine (excluding helicopters under a MTWA of 2730kgs)

and which

- d) Are on the UK civil register, and
- e) Operate on a UK national Permit-to-Fly
- 1.10 It is important to understand that not all ex-military aircraft fall within the scope of this publication. Some ex-military aircraft **may** hold an ICAO-compliant Certificate of Airworthiness (CofA) and therefore would not be considered for operation on this basis.

#### **Extended overseas operations**

- 1.11 A UK national Permit-to-Fly aircraft operating under CAP 632 **must not** be operated outside UK airspace for greater than 3 calendar months in any calendar year unless with the specific approval of the CAA.
- 1.12 Flight(s) operated outside UK airspace will also require the written permission of the National Aviation Authority for that airspace as the aircraft does not hold an ICAO-compliant CofA.
- 1.13 To apply for extended overseas operations, operators **should** contact <u>ga@caa.co.uk</u> subject line "CAP 632 Extended Overseas Operation".

#### Insurance

1.14 The operator is responsible for ensuring that insurance cover adequately meets regulatory requirements. The requirement for aircraft insurance cover is contained within Articles 6 & 7 of Regulation (EC) No. 785/2004 (as amended).

## Chapter 2 Applications

#### **Initial Applications**

- 2.1 Before the CAA approves operations of ex-military aircraft that fall within the scope of this publication, it **must** be satisfied that the operational procedures, personnel, maintenance and airworthiness management provisions are sufficient to provide the operation with the required level of safety.
- 2.2 The operator **shall** apply for an OCM Approval prior to commencing any flying operations. Applications **should** be made to the CAA's GAU <u>ga@caa.co.uk</u> using form <u>SRG1872</u>.
- 2.3 The minimum notice required by the CAA before an Approval can be granted is 28 days from the date of receipt of all the required documents and applicable charge(s).
- 2.4 On receipt of an application and the appropriate fee paid (see Charges, page 13), an inspector from the CAA GAU Operations team will be assigned to the operator. The inspector will carry out a detailed examination of all aspects of the proposed operation, including organisational structure and personnel responsibilities, adequacy of ground and flying staff and arrangements for their training premises, operational documents, equipment and aircraft. A detailed inspection will be made of the operator's OCM, a copy of which will be retained by the CAA throughout the validity of the Approval.
- 2.5 Operators of these aircraft **must** comply with continuing airworthiness requirements set out in the ANO by either contracting with a suitably approved maintenance organisation or being approved themselves (<u>CAP</u> <u>553</u>, BCAR Section A, A8-25).
- 2.6 When an application has been received, reviewed and deemed acceptable by the CAA, a Letter of Approval (LoA) will be issued to allow operations to commence. Once the OCM has been approved the operator **shall** conduct all operations in accordance with the approved OCM.

#### Variation of an Approval

2.7 For any proposed changes to the OCM, a variation application **must** be sent to <u>ga@caa.co.uk</u> using form <u>SRG1872</u>.

- 2.8 Once the variation application has been received, reviewed and deemed acceptable by the CAA, an updated LoA will be issued to allow those variations to take effect. Operators **must** fly within the limitations of their previous LoA until an updated LoA is received from the CAA.
- 2.9 When immediate amendments or revisions are required in the interest of safety, they **may** be published and applied immediately, provided that the OCM variation application has been submitted.

#### **Cessation of an Approval**

- 2.10 Where the holder of an Approval decides that they do not want to operate CAP 632 aircraft for an extended period of time<sup>2</sup>, the CAA GAU **must** be advised, and the Approval will be surrendered until the operator either decides to recommence flying or ceases operations.
- 2.11 If the operator decides to recommence operations, the CAA GAU **must** be informed in writing using form <u>SRG1872</u>, and an audit inspection will be arranged. Subject to a satisfactory audit inspection, the Approval **may** be re-activated.

#### Refusal, Revocation or Suspension of an Approval

- 2.12 Procedures to be followed by the CAA in connection with the refusal, revocation, or suspension of approved are prescribed in the CAA Regulations<sup>3</sup>.
- 2.13 Where an application for the grant or variation of an Approval is refused or is granted in terms other than those requested by the applicant, a notice will be served stating the reasons for the decision, and the applicant **may**, within 14 days from the date of service of the notice, request that the case be reviewed by the CAA.
- 2.14 Where the CAA proposes to revoke or suspend an Approval, other than on the application of the holder, the operator will be notified of the proposed revocation or suspension, together with the reason for it.
- 2.15 An Approval **may** be provisionally suspended without notice, pending consideration of, or enquiry into, the case. Before any final decision is made the operator will be able to make representations to the CAA in accordance with the provisions of the CAA Regulations.

<sup>&</sup>lt;sup>2</sup> Generally, in excess of 12 months.

<sup>&</sup>lt;sup>3</sup> Regulation 6 of the Civil Aviation Authority Regulations 1991

- 2.16 Where a serious non-compliance with OCM requirements is found during an audit, or where a significant breach of the Approval is identified, the Approval **may** be suspended or revoked by the CAA. This **shall** result in operations being stopped with immediate effect.
- 2.17 The above information is intended to give a general indication of the prescribed procedure. For detailed information reference **should** be made to the CAA Regulations.

#### **Consultation with the CAA**

- 2.18 Potential operators who propose to purchase an ex-military aircraft with the intention of obtaining a Permit-to-Fly **should** consult the following CAA departments as early as practicable to determine if a Permit-to-Fly will be issued and to establish any limitations that will apply to operations.
  - Applications and Approvals Department (Telephone Helpline 0330 022 1908 or email <u>apply@caa.co.uk</u>) on application, maintenance and procedural matters
  - Airworthiness, GAU (Telephone 01293 573988 or email <u>ga@caa.co.uk</u>) on matters associated with the design and eligibility of the type
  - Operations and Authorisations (Telephone 01293 573988 or email <u>ga@caa.co.uk</u>) on operational matters
- 2.19 Applicants **should** consider the amount of time it will take to research, design, collate and present the information prior to submission to the CAA. The most expeditious way of getting an application approved in a reasonable timeframe is if operators submit all the required documentation. Incomplete or incorrect submissions could delay any application.

#### Charges

- 2.20 Details of the current charges in respect of Approvals, Exemptions and Permissions under this publication are published in <u>Series 5 of the CAA</u> <u>Official Record</u> under General Aviation.
- 2.21 Operators applying for Extended Overseas Operations **should** be aware of the additional charges in this Scheme of Charges if any operational or maintenance audits are required to be conducted overseas.

#### Chapter 3

## **Operator Requirements**

#### Organisation

- 3.1 The operator **shall** set up an organisation, acceptable to the CAA, which is capable of safely managing the routine operation of the aircraft. This organisation **shall** be capable of managing the following responsibilities:
  - a) Every flight **shall** be conducted in accordance with the applicable rules and regulations as well as the provisions within the OCM
  - b) Establish procedures and instructions for the safe operation of the aircraft
  - c) Have suitable facilities allowing the performance and management of all planned tasks
  - d) Ensure that its aircraft are equipped and maintained, and its crews are qualified and suitably trained
  - e) Ensure that all personnel assigned to, or directly involved in, ground and flight operations are aware of their responsibilities and the relationship of such duties to the operation as a whole
  - f) Appoint an accountable manager, and
  - g) Nominate key personnel
- 3.2 The operator **should** also continually assess:
  - a) The suitability of the aircraft condition for any intended flight within the limitations laid down in the Permit-to-Fly and OCM
  - b) The currency requirements of the crew (including any supernumerary crew) in relation to any intended flight, and
  - c) Flight planning and operating procedures

#### **Organisational Control Manual (OCM)**

3.3 The OCM **shall** contain all such information procedures and instructions as **may** be necessary to enable the operating personnel and pilots to perform their duties in a safe manner.

- a) All personnel **shall** have easy access to the OCM relevant to their duties
- b) The OCM **shall** be kept up to date. All personnel **shall** be made aware of the changes that are relevant to their duties
- c) The operator **shall** incorporate all amendments and revisions required by the CAA
- d) All parts of the OCM are consistent and compatible in form and content
- e) The content and amendment status of the OCM is controlled and clearly indicated
- 3.4 The OCM **should** include a description of its amendment and revision process specifying:
  - a) The person(s) who **may** approve amendments or revisions
  - b) The conditions for temporary revisions and/or immediate amendments or revision required in the interest of safety, and
  - c) The methods by which operator personnel are advised of the changes
- 3.5 The OCM **must** clearly define the lines of responsibility and accountability for the following roles<sup>4</sup>:
  - a) Accountable Manager An appointed person who has the authority and responsibility for ensuring that all activities can be financed and carried out in accordance with the applicable requirements including a direct safety accountability
  - b) Chief Pilot The nominated person should hold or have held a valid flight crew licence and the associated ratings appropriate to the type operated and is responsible for air operations and the supporting ground operations. This person is responsible to the Accountable Manager.
  - c) Chief Instructor and any additional Instructor(s) if required The nominated person should be a current instructor on a type/class operated. The nominated person should have a thorough knowledge of the operator's crew training requirements and procedures. The Chief Instructor is responsible for all crew training and is responsible

<sup>&</sup>lt;sup>4</sup> A person may hold more than one of the nominated posts if such an arrangement is considered suitable and properly matched to the scale and scope of the operation.

to the Chief Pilot. Any additional Instructors are responsible to the Chief Instructor.

- d) Pilots
- e) Continuing Airworthiness Coordinator This person is responsible for fulfilling obligations of the Continuing Airworthiness Arrangement between the operator and the approved CAMO(A8-25)
- 3.6 The elements that **should** be included as a minimum within an OCM are shown in checklist form at Appendix A.
- 3.7 Safety is of paramount importance in all areas of aviation. High safety standards are achieved not by the imposition of rules and regulations but through the adoption and development of a positive safety culture by all connected with the operation of aircraft.
- 3.8 Although a Safety Management System (SMS) is not a mandatory requirement for CAP 632 operators, it is recommended that operators implement such system to reduce risks to as low as reasonably practicable (ALARP). <u>CAP1059</u> "SMS: Guidance for small, non-complex organisations" provides comprehensive guidance and examples for operators undertaking and implementing a management system.
- 3.9 The operator **shall** establish a system of record-keeping that ensures all records are accessible whenever needed within a reasonable time. These records **should** be organised in a way that ensures traceability and retrievability throughout the required retention period<sup>5</sup>.

#### Annexes to the OCM

- 3.10 The annexes **should** include:
  - a) A list of the aircraft to be operated including the registrations
  - b) Any type specific information not already covered
  - c) Examples and templates of forms used e.g. Technical Log, Training forms and recurrent dual check forms, etc

<sup>&</sup>lt;sup>5</sup> retention periods as detailed within Part 9 of the ANO

#### Safety Reporting

3.11 Operators **must** comply with the Mandatory Occurrence Reporting requirements set out in <u>CAP 382</u> "Occurrence Reporting Scheme" for all flights.

## Chapter 4 Flight Crew

#### **General Requirements**

- 4.1 The composition of the flight crew and the number of flight crew members at designated crew stations **shall** be not less than the minimum specified on the aircraft's Permit-to-Fly.
- 4.2 CAP 632 aircraft **may** only be piloted by a person holding a current PPL, CPL or ATPL with:
  - a) A current class and/or type rating, or
  - b) An appropriate ATRE

and

- c) A current medical certificate (Class 1 or Class 2)
- 4.3 The following **should** be used as a guide for operators when considering the minimum level of experience required before flying a CAP 632 aircraft:

General Flying		
Total Hours	PIC	
200	100	
Display Flying		
Minimum requirements are detailed in <u>CAP 1724</u> "Flying display Standards Document"		

- 4.4 The Chief Pilot **should** consider the general level of overall experience of a pilot given the broad spectrum of backgrounds, whilst considering the complexity of the type operated.
- 4.5 The OCM **should** state the specific minimum experience requirements before a pilot can fly a CAP 632 aircraft.
- 4.6 The operator **shall** only allow a flight crew member to act as pilot-incommand if they have:
  - a) the minimum level of experience and currency specified in the OCM, and

- b) a current licence, medical certificate, and current class/type rating or ATRE
- 4.7 The following general requirements are applicable to ex-military aircraft:

Applicable Ratings	
Single-Engine Piston (SEP) aeroplanes	All ex-military SEP aeroplanes can be flown on a current SEP Class Rating with appropriate levels of complexity (retractable undercarriage, variable pitch propellers etc).
Multi-Engine Piston (MEP), single pilot aeroplanes	All ex-military MEP, single-pilot aeroplanes can be flown on a current MEP Class Rating with appropriate levels of complexity (retractable undercarriage, variable pitch propellers etc).
Multi-Engine Piston (MEP), multi pilot aeroplanes	To fly any multi engine piston multi-pilot aeroplane both pilots <b>must</b> hold a current type rating or, where no type rating exists, an ATRE.
Any turbine-powered aeroplane	To fly an ex-military turbine-powered aeroplane a pilot <b>must</b> hold a current ATRE
Any helicopter	To fly any ex-military helicopter a pilot requires a current type rating or, where no type rating exists, an ATRE

#### **Training and Currency**

- 4.8 All training required **shall** be conducted in accordance with the training programmes and syllabi established by the operator in the OCM. All training **must** be recorded and kept on the individual pilot's training record and retained by the operator.
- 4.9 The operator **shall** establish and ensure that all pilots complete a conversion training course before commencing self-authorising flying:
- 4.10 The conversion training course **shall** include both theory and practical flying training and operator specific procedures as detailed within the OCM.
- 4.11 The operator **shall** establish and ensure that all pilots **shall** complete annual recurrent flight (known as a dual check) and ground training relevant to the type or variant of aircraft on which they operate, including training on the location and use of all emergency and safety equipment carried.
- 4.12 Each flight crew member **shall** be periodically checked to demonstrate competence in carrying out normal, abnormal and emergency procedures.
- 4.13 The OCM **must** detail the minimum experience levels and training requirements for pilots converting to type. Pilots who have little or no military jet or high-performance piston-engine experience **should** be

required by the Chief Pilot to undergo appropriate conversion training to type including, where appropriate, specific aviation medicine training.

- 4.14 Operators **must** ensure that pilots remain current on the type of aircraft flown. This is especially important for jet and high-performance aircraft where currency flights **should** include appropriate sortie content depending on the type of aircraft flown.
- 4.15 The OCM **must** state currency requirements. If a pilot has not flown for a specified number of days (or calendar months) then the OCM **must** state the requirement for the pilot to regain currency.
- 4.16 Where a pilot flies the same (or similar) type of aircraft for more than one operator it **may** be acceptable to provide copies of training completed by one operator to the CAP 632 operator. On receipt of the training record copies, the Chief Pilot or Chief Instructor **shall** check and sign that the training completed meets their own training requirements and approve, as appropriate, the pilot to fly under their own OCM. These copies **shall** then be retained on the individual pilot's training record.

#### **Remunerated Flying Training**

4.17 Where flying training is conducted by a pilot who is not the registered owner of the aircraft concerned, in return for remuneration, the operator **must** apply to the CAA for a specific permission in accordance with Article 42 of the ANO. This flying training in return for remunerated or valuable consideration **must** not take place until such permission has been approved by the CAA. The application form for fully remunerated flying training can be found in **Appendix D**.

#### **Self-Authorisation**

- 4.18 When considering pilots for self-authorisation, Chief Pilots **should** consider the pilot's experience levels, the abilities of the pilot concerned, and the complexity of the aircraft being flown. Self-authorisation **should** not automatically cover all flights. It is strongly recommended that a pilot be approved only to self-authorise local flights in the first instance, and not land-away flights or aerobatics / formation until sufficient experience has been gained in these areas.
- 4.19 Operators **must** ensure that pilots are appropriately authorised to conduct aerobatics considering previous experience and a demonstration of competency. The authorisation for each pilot **must** include the minimum height by which aerobatic manoeuvres **must** be fully completed.

4.20 A record of the Chief Pilot's authorisation for each pilot **must** be kept in the pilot's training record. Any limitations to the authorisation i.e. non-aerobatic flight only, **shall** be clearly recorded.

#### Aircraft Type Rating Exemptions (ATRE)

- 4.21 Many ex-military aircraft do not have a civilian equivalent type rating and where a type rating would normally be required, pilots will be required to hold an ATRE.
- 4.22 There are two types of ATRE an ATRE (Training) for pilots undertaking training and an ATRE for normal operations when training has been completed.
- 4.23 An ATRE (Training) **must** be issued to a pilot before any training commences. The training syllabus **must** be specified in the OCM. Once the training determined by the Chief Pilot has been completed and the Final Handling Test has been assessed as a 'pass', an initial ATRE application can be submitted. The supervising instructor's declaration **must** be completed on the application form.
- 4.24 An initial ATRE is valid for a 6-month period from the date of issue. Subsequent renewals of an ATRE are valid for a period of 12 months.
- 4.25 Applications to renew the ATRE **must** be submitted together with evidence that the applicant has flown:
  - a) A minimum of five separate flights as Pilot-in-Command on type<sup>6</sup> in the preceding 12 months, and
  - b) a dual check has been completed in the preceding 12 months on type<sup>7</sup>
- 4.26 If the applicant has not met these requirements, an ATRE (Training) **may** be issued to enable the pilot to receive further training and regain currency<sup>8</sup>

#### **Applications for all ATREs**

4.27 Applications for training, initial or renewal of an ATRE **must** use the application form <u>SRG 1306</u>. Charges for an ATRE can be found in the published <u>Scheme of Charges</u> under General Aviation.

<sup>&</sup>lt;sup>6</sup> Or similar/representative types as agreed with the Chief Instructor or Chief Pilot

<sup>&</sup>lt;sup>7</sup> Or similar/representative types as agreed with the Chief Instructor or Chief Pilot

<sup>&</sup>lt;sup>8</sup> In cases where a pilot is current and experienced on several similar types (e.g. a test pilot), this requirement **may** be relaxed with the approval of the CAA GAU on a case-by-case basis.

- 4.28 An ATRE is usually issued for each specific type of aircraft. Some variants of the same aircraft type are grouped together e.g. Jet Provost Mk 1-4.
- 4.29 The documents required to be sent to the CAA with each application consist of the following:
  - a) Completed application form <u>SRG 1306</u>
  - b) Copy of current medical
  - c) Copy of current pilot's licence
  - d) Copy of completed Dual Check form (for ATRE renewals)
- 4.30 The completed application form <u>SRG 1306</u> **must** be sent with the correct payment to <u>ga@caa.co.uk</u>.

## Chapter 5 Specific and Operational requirements

### General

- 5.1 Most ex-military aircraft have specialised technical equipment or systems specific to the role of the aircraft or the conditions under which it was designed to operate. Any systems, equipment, operating requirements or limitations that were required in military service irrespective of the nature of the flight **should** be continued to be used, unless superseded by requirements agreed and published by CAA.
- 5.2 Operators **may** specify a deviation from this in their OCM by providing details of the nature of flying operations proposed and details of suitable mitigations using a risk assessment. If satisfied, the CAA will approve the OCM.
- 5.3 Serviceability of safety equipment is vital. Some equipment such as ejection seats require servicing as part of the general aircraft maintenance but other equipment such as flying suits, flying helmets, parachutes and lifesaving jackets will be the responsibility of the operator or individual pilot. These items **should** be serviced in accordance with the manufacturers' recommendations or, where no recommendation exists, at intervals to be specified in the OCM.

#### Aircraft fitted with external fuel tanks or equipment

- 5.4 The carriage of external weapons during flight is prohibited. Flight with external jettisonable fuel tanks or stores **must** be agreed with the CAA GAU.
- 5.5 External fuel tanks **should** only be jettisoned as a last resort and when their retention would imperil the aircraft and bring increased risk to persons on the ground. All premeditated jettisons **shall** be made over unpopulated areas, preferably over the sea and clear of shipping.

#### **Emergency systems**

5.6 Emergency backup systems, if fitted, such as alternate gear extension or canopy jettison systems that constitute part of the original aircraft design specification **must** be serviceable for every flight.

#### **Ejection seats**

- 5.7 If an aircraft is fitted with ejection seats that are an integral part of the aircrew escape system, these **should** be fully serviceable for all flights. New operators **must** seek approval from the CAA GAU at the earliest opportunity if it is intended to operate with inert ejection seats or other escape systems, prior to inclusion in their OCM.
- 5.8 Existing operators **should** specify their intention to operate with inert ejection seats in their OCM. The operation of aircraft with inert ejection seats will be reviewed on a case by case basis and will consider the nature of the proposed flights, any other aircraft limitations that **may** preclude a safe escape in an emergency and the submitted proposal itself.<sup>9</sup>
- 5.9 Where an aircraft is fitted with live ejection seats, all occupants must be suitably trained in their use, before being allowed to fly in the aircraft.
  Operators must ensure that occupants meet the seat manufacturer's bodymass criteria for the seat type.
- 5.10 Where an aircraft is fitted with live ejection seats, Ejection Seat Safety Devices (e.g. seat pins) are to be carried in the aircraft on ALL flights including high-speed taxi tests and **should** be in a position where they can easily be identified by the emergency services without assistance from the aircraft's flight or ground crews.
- 5.11 In addition, contact details for personnel capable of providing post-accident advice on disarming and/or making safe aircrew escape system components should be included in the OCM.
- 5.12 Forced landings **should** only be carried out in jet aircraft if recommended in the emergency procedures. If ejection or abandonment is inevitable, the drills in the emergency procedures **must** be followed and consideration be made to ensure that the aircraft falls into an unpopulated area. Where possible, premeditated ejection **should** be initiated over the coast with the aircraft pointing out to sea. If time permits, the engine(s) **should** be shut down prior to ejection or abandonment.

#### Flying Clothing

5.13 Certain items of flying clothing and personal equipment such as a Life Saving Jacket, anti G suit and Personal Equipment Connector with oxygen connections may form an integral part of the aircraft safety equipment.

<sup>&</sup>lt;sup>9</sup> Operators wishing to operate aircraft with inert ejection seats should include a specific risk assessment and detail appropriate mitigations in their OCM.

Where such items are required for flight, the operator **must** ensure that they are available and fully serviceable.

5.14 Operators **must** ensure that flying suits are worn when flying CAP 632 aircraft. Flying helmets **must** be worn when flying in all CAP 632 turbine aircraft. Flying helmets or suitable impact resistant headgear are highly recommended for all other CAP 632 aircraft.

#### Oxygen systems

- 5.15 The aircraft **must** be capable of supplying oxygen to all occupants when:
  - a) operating above FL 100 for more than 30 minutes
  - b) at all times above FL130, and
  - c) at all heights when adverse environmental conditions exist, such as high levels of carbon monoxide being present in the cockpit during operations
- 5.16 In the case of high-performance and turbine powered aircraft, specific training, such as pressure breathing training, **may** be required.

#### Aircraft pressurisation and Anti-G systems

- 5.17 Cockpit pressurisation systems fitted to aircraft that were required to be pressurised during flight whilst in military service **should** be fully serviceable and used during flights undertaken in civilian operations.
- 5.18 Where the aircraft has an anti-G system fitted for operational flight, this system **must** be operational. All occupants **should** be suitably trained in its use including, where appropriate, specific aviation medicine training.
- 5.19 Operators **may** specify a deviation from this in their OCM by providing details of the nature of the flying operations proposed and details of suitable mitigations via a risk assessment. If satisfied, the CAA will approve the OCM.

#### Flight in excess of 250 knots below 10,000 feet AMSL

5.20 Further to SERA.6001(a)(3),(4),(5),(6) and (7), VFR flights below 10,000 feet AMSL in class C airspace and all flights below 10,000 feet AMSL in airspace classes D, E, F or G are limited to 250 KIAS unless approved by the CAA for safety or technical reasons. Pursuant to AMC1 SERA.6001(a)(3);(4);(5);(6);(7) (as amended by CAA Decision ORS9 no.9 on 18 October 2021)<sup>10</sup>, operators of aircraft intending to exceed this

<sup>&</sup>lt;sup>10</sup> http://publicapps.caa.co.uk/modalapplication.aspx?catid=1&pagetype=65&appid=11&mode=detail&id=10906

airspace speed limit **must** apply to the CAA for an approval using this application.<sup>11</sup>

- 5.21 Note that the operator is required to complete as part of the application a safety assessment and proposed procedures to be followed when planning and conducting flights intending to exceed the airspace speed limit. When accepted, this safety assessment and procedure would become a part of the operator's Organisational Control Manual. Guidance material on preparing the safety assessment and procedures are set out in Appendix F of this CAP.
- 5.22 <u>These permissions are issued for a 12-month period, and operators **must** keep a record of all flights that exceed the airspace speed limit.</u>

#### Low Flying

- 5.23 Flying aircraft safely at low-level in compliance with the normal low flying regulations<sup>12</sup> requires extensive training and continuous practice. Operators **should** consider and mitigate the significant hazards that exist when operating at low level such as a bird strike, the high workload of low-level navigation and the possible late sighting of other traffic. Furthermore, the time available to resolve emergency situations is considerably reduced at low level. Aircraft operated under CAP 632 **must** not be flown lower the minimum height requirements outlined in Standardised European Rules of the Air (SERA) without permission from the CAA.
- 5.24 The operator **should** include a policy for the aerobatic manoeuvres that are permitted to be flown at low level by appropriately qualified pilots.

#### **Operational limitations**

- 5.25 Aircraft **must** be operated in accordance with the limitations on the aircraft's Permit-to-Fly and the appropriate edition of the relevant Pilot's Notes or Aircrew Manual.
- 5.26 The CAP 632 operator **may** decide to further restrict the operation of the aircraft in relation to the limitations specified in the Permit-to-Fly. There **may** be a case for limiting certain parameters of flights, such as the maximum permitted IAS, 'g' loading or the maximum cockpit differential pressure. Any limitations agreed **must** be clearly stated in the OCM. Any curtailment of performance that is a consequential result of that decision **must** be clearly identified.

<sup>&</sup>lt;sup>11</sup> https://apply.caa.co.uk/CAAPortal/servlet/SmartForm.html?formCode=ADO

 $<sup>^{12}</sup>$  Standardised European Rules of the Air – SERA.3105 and SERA.5005.F.1 and F.2

#### **Operational considerations**

- 5.27 Article 69 "Obligations of pilot-in-command" and Article 75 "Take-off and landing conditions" of the ANO, both place specific responsibilities on the Pilot-in-Command before an aircraft takes off. The final decision on any proposed flight profile, or indeed whether to fly at all, rests with the Pilot-in-Command.
- 5.28 The Pilot-in-Command **shall** only operate the aircraft if the configuration, performance and weather is adequate to comply with the applicable rules of the air and any other restrictions applicable to the flight, the airspace or the aerodromes or operating sites used.
- 5.29 Where no aircraft performance data is published, or where data is inadequate, the Pilot-in-Command **should** exercise extreme caution and calculate required performance data conservatively.

#### **Carriage of passengers**

- 5.30 The Chief Pilot **shall** consider pilot experience levels before permitting pilots to fly with passengers. When passengers are carried, the Pilot-in-Command or appropriately trained person **must** deliver a suitable passenger briefing covering all aspects of flight including the use of safety equipment. The passenger briefing **should** include a statement that the aircraft operates on a Permit-to-Fly and is not certified to an internationally recognised standard.
- 5.31 When passengers are carried the operator **shall** maintain a record of the passenger's name, address and next of kin details.
- 5.32 If valuable consideration is given or promised, directly or indirectly, for conferring on a person the right to fly in the aircraft then the operator **must** do so under either:
  - a) cost sharing
  - b) commercial operations under Article 42, or
  - c) Safety Standards Acknowledgment and Consent<sup>13</sup> (SSAC)

<sup>&</sup>lt;sup>13</sup> Operators who wish to operate SSAC flights **must** comply with the requirements in **CAP1395** and **must** obtain an SSAC Exemption prior to conducting SSAC flights.

## Chapter 6 Airworthiness

#### **Continuing Airworthiness Arrangements**

- 6.1 The operator **must** be approved as a CAMO(A8-25) or have a contract (Continuing Airworthiness Arrangement) with such an approved organisation. It is the operator's responsibility to ensure any contracted organisation has the required scope of approval to manage the aircraft type(s) in the OCM.
- 6.2 All maintenance (excluding pilot maintenance) tasks **must** be performed by a Maintenance Organisation approved in accordance with BCAR Section A, A8-23 or A8-24 as applicable.
- 6.3 Continuing Airworthiness Arrangements **must** be accepted by the CAA and will be regularly reviewed as part of the oversight requirement. Copies of any contracts (Continuing Airworthiness Arrangements) **must** be provided by the operator at application and when any change occurs.
- 6.4 The operator **must** ensure with the CAMO(A8-25) that the aircraft are on an Approved Maintenance Programme which reflects the current usage and operation of the aircraft.
- 6.5 The operator **should** ensure that no maintenance tasks are performed without the knowledge of the CAMO(A8-25).

#### **Continuing Airworthiness Coordinator**

- 6.6 The continuing airworthiness coordinator is responsible for the transfer of operational data to the contracted CAMO(A8-25) in accordance with Continuing Airworthiness Arrangement. The frequency and content of this transfer **should** be agreed and stated in the OCM.
- 6.7 The nominated person **should** have the relevant knowledge of aircraft continuing airworthiness as detailed in <u>CAP 553</u>, BCAR Section A to ensure that this function is discharged effectively.

#### **Technical Logs**

6.8 The aircraft Technical Log is the primary method of communication between the operator and the CAMO(A8-25).

- 6.9 The minimum contents of log books and Technical Logs are laid down in the ANO. The specific layout of the Technical Log will be agreed between the operator and the CAMO(A8-25).
- 6.10 Technical Log pages **should** be sequentially numbered to ensure a complete record of operations.
- 6.11 Instructions on the content and compilation of log books and Technical Logs **should** be included in the OCM.

#### **Defect reporting**

- 6.12 The OCM **must** include a system for recording and reporting defects that affect the airworthiness of the aircraft. This system **must** be agreed with the CAMO(A8-25). The system **must** be designed to ensure that the pilot is able to easily determine the airworthiness status of the aircraft prior to each flight.
- 6.13 Minor defects, that do not affect the airworthiness of the aircraft and do not need to be reported the CAMO(A8-25), **should** be recorded using a system which is available for the pilot to read prior to flight. A policy for the rectification of these minor defects **should** be defined and included in the OCM.

#### Pilot maintenance tasks

6.14 The operator **must** specify in the OCM any pilot maintenance tasks (if required). Before a pilot can perform any such tasks, the pilot **must** be trained and authorised by the CAMO(A8-25) for those specific tasks.

#### **Check flights**

- 6.15 Post maintenance and other check flights are necessary in certain circumstances and **shall** be conducted in accordance with an approved schedule. Further details of check flights can be found in <u>CAP 1038</u> "Check Flight Handbook".
- 6.16 Operators **must** discuss with their CAMO(A8-25) whether there is a requirement to conduct a check flight following any completed maintenance. They **should** then decide which elements (if any) of the approved check flight schedule **should** be completed.
- 6.17 Operators **should** consider conducting a "Datum Flight" on a regular basis to record parameters that would assist pilots and the Continuing Airworthiness Management Organisation (BCAR Section A, A8-25) with monitoring trends e.g. engine health. Operators **should** determine the

parameters that would be useful for a Datum Flight and specify them in a schedule.

## Chapter 7 Audit procedure

### Audits

- 7.1 Operations carried out under the requirements of CAP 632 are subject to regulatory oversight by the CAA. The CAA **must** be satisfied that all operations continue to be performed in accordance with the procedures agreed as part of the approval.
- 7.2 Audits and inspections are scheduled using performance-based regulation, therefore intervals between audits **may** vary. Audits are normally agreed with the operator at a mutually acceptable date and time and the CAA **should** give sufficient notice for an inspection audit, however the CAA retains the right to visit at any time without prior.
- 7.3 The CAA GAU Inspectors are 'authorised persons' as defined in the ANO. They carry an identification document that lists their powers. On occasions, the inspector **may** be accompanied by other CAA personnel.
- 7.4 During the audit, the inspector will focus on a set scope (refer to Appendix C) which will cover the following items:
  - a) Operational organisation
  - b) Inspection of general, technical, aircraft, pilot and training documentation
  - c) Airworthiness responsibility and coordination
- 7.5 At the end of the audit the inspector **shall** give a verbal debrief on the findings of the audit visit prior to departure. Any significant non-conformities will be brought to the accountable manager's attention during this debrief. A written oversight report will be sent to the operator following the audit within 14 days.
- 7.6 The definition of the category of findings used are below:
  - a) Level 1: Findings are non-conformances that were identified at the time of the audit and are considered to be of a serious nature. Confirmation of satisfactory rectification much be received PRIOR to any further flying activity
  - b) **Level 2:** Findings are non-conformances that were identifies at the time of the audit and are considered to be in need of remedial action.

Satisfactory rectification is to be received within the relevant timescales

- c) **Observations:** Observations may be made for information purposes only.
- 7.7 For the response(s) to the audit findings to be acceptable and to close the findings, the operator **should** address each finding in the following manner:
  - a) Corrective action
  - b) Preventative action
  - c) Follow up action taken or proposed action to be taken with associated timescales
- 7.8 All open findings are given a period of time (typically 3 calendar months) to be officially closed. **Should** it not prove possible to implement the necessary corrective actions within the due date stipulated, operators are advised to submit an extension request which includes a corrective action plan by email to <u>ga@caa.co.uk</u>.
- 7.9 Failure to adequately action the findings prior to the defined 'Due Date' **may** result in further action from the CAA.

#### **Audit cancellations**

- 7.10 There **may** be occasions when an audit needs to be cancelled. If the CAA cancel the audit, it **shall** be rescheduled with the operator as closely to the original audit date as possible.
- 7.11 If the operator cancels the audit, the operator **shall** suggest alternative dates for the audit to take place. The dates **should** ideally be prior to but certainly no later than 4 weeks after the original date. If an alternative audit date cannot be found, the operator **may** be provisionally suspended from the date of the original audit date until such a time as an audit is conducted to the satisfaction of the CAA.

#### Appendix A

## Guide to the Organisational Control Manual (OCM)

#### Introduction

- A1 The content of the OCM shall reflect the size and complexity of the organisation and the type(s) operated. In general terms, the more complex and demanding the aircraft, the more detail that will be required in the OCM.
- A2 Where an organisation is responsible for operating more than one aircraft, operational information must be available for each individual aircraft unless they are of the same type. Information common to all types should be contained in the main body of the OCM and type specific information confined to appropriate annexes.
- A3 Where the operational policy of the organisation is that the aircraft will be operated in accordance with a recognised manual (e.g. Pilot's Notes), a copy of the document **shall** be retained by the organisation and submitted to the CAA if required.
- A4 Completion of the checklist below **should** assist in identifying any areas of omission or areas that require expansion. The latest changes in CAP 632 (highlighted or underlined) **should** be specifically reviewed for applicability and the changes incorporated into the OCM accordingly.
- A5 When an OCM is submitted without all elements on the checklist being considered (where each apply to that aircraft) the application will be delayed.
- A6 Operators **should** complete the checklist and email it to the CAA GAU (ga@caa.co.uk) along with the OCM for the initial issue application.

#### CAP 632 OCM Review Checklist Overall organisation. The following items should be N/A **OCM Reference:** Yes covered within this section of the OCM: Appointments and responsibilities of key personnel Operational organisation Maintenance organisation / Continuing Airworthiness Management Organisation (BCAR Section A, A8-25) Audit and reporting procedures Procedure for amending OCM Operational organisation. The following items should be **OCM Reference:** Yes N/A covered within this section of the OCM: Statement of operating policy for the aircraft Operational control of flights and flight authorisation Pilots signature sheet - Pilots flying aircraft operated under the OCM are required to operate in accordance with the OCM and **must** sign the OCM to that effect Crew composition and duties; crew duty limitations Pilot / crew gualification including Type Rating Exemptions (training and full) Training. The following items should be covered within this Yes **OCM Reference:** N/A section of the OCM: Periodic checks, including Human Factors **Essential Training Requirements** Pilot flight and technical training records Pilot final handling test report Further training report Formation/aerobatic clearance Pilot self-authorisation approvals Currency. The following items should be covered within this **OCM Reference:** Yes N/A section of the OCM: Pilot currency (type and licence) Process to regain currency if this has lapsed **Operations**. The following items should be covered within **OCM Reference:** Yes N/A this section of the OCM: Policy on carriage of passengers (including medical suitability and recording of next of kin details) Operational performance policy and performance factors Mass and CG considerations Minimum fuel states

•	Weather minima - at base and for diversions			
•	Diversion criteria			
•	In-flight emergencies - policy for handling			
	Where ejection seats are operational - policy on forced landings / ejection			
•	Where jettisonable external tanks are approved and fitted – policy on tank jettison.			
•	Aerobatic policy (if aerobatics flown)			
•	Flying clothing/safety equipment.			
•	Display criteria (routines not required to be set out here)			
•	Reporting of incidents and occurrences.			
•	Safety assessment and procedures for the planning and conduct of flights that exceed the airspace speed limit (if applicable).			
•	Recording of <u>flights that exceed the airspace limit (250</u> KIAS below 10,000 feet AMSL).			
Mai	ntenance and Airworthiness considerations. The			
follo	wing items should be covered within this section of the	Yes	N/A	OCM Reference:
OCI	Л:			
•	Proposed maintenance procedures in accordance with CAP 553, BCAR A8-23 or A8-24 for maintenance and A8-25 for continuing airworthiness with details of the contractual arrangements.			
•	Role and responsibility of Continuing airworthiness coordinator on behalf of the operator			
•	The aircraft Technical Log, formatting, Permit Maintenance Release, defect recording, allowable deficiencies and associated flight limitations, control of hours, recording oil and hydraulic top ups, Fatigue Index monitoring, run down times, anti-deterioration engine runs and system checks			
•	The approved aircraft maintenance programme (CAP 553 BCAR A3-7)			
•	The method by which maintenance and operational areas will provide each other with aircraft details and status.i.e. notification of defects, Technical Log sector record pages, update of hours			
	Aircraft serviceability including notification details of when the next aircraft maintenance is due and details of any forecast Out of Phase maintenance			
•	Policy for maintenance away from base, particularly safety precautions for ejection seats or other live explosive devices. Refuelling (if required). Responsibility for completion of technical logs.			
•	Policy towards allowable deficiencies with associated flight limitations.			
_				
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•	Pilot maintenance items including certification and daily inspection, training and authorisation by the appropriate CAP 553 BCAR A8-23/24 or A8-25 approved			
	organisation.			
An	nexes. The annexes should include the following:	Yes	N/A	OCM Reference:
•	A list of the aircraft to be operated including the registrations.			
•	Any type specific information not already covered			
•	Examples of forms used e.g. Technical Log, Annual Recurrent Training forms etc			
Safety Management System: The CAA recommends the use of a Safety Management System although this is not currently a CAP 632 requirement		Yes	N/A	OCM Reference:
•	Is an SMS submitted with this application? For guidance on SMS refer to CAA website: <u>www.caa.co.uk/sms</u>			

Name of Accountable Manager:	
Organisation:	
EMA reference (if known):	
Signature:	
Date:	

Please submit the completed checklist with your OCM application to ga@caa.co.uk

#### Appendix B

# Guidance on Flight Crew Training

### General

- B1 Operators **must** maintain detailed training records for all pilots. This **shall** include any relevant training received, including ground, flight and safety equipment training.
- B2 Training, both initial and refresher training, **shall** be undertaken that covers all safety equipment in use. For those occupants who do not have an appropriate military background this training **must** be comprehensive, particularly when advanced survival aids such as ejection seats are being used.

### **Essential Training Requirements**

B3 Operators **must** develop an 'Essential Training Requirement' for each type of aircraft operated. The 'Essential Training Requirement' **should** require pilots to practice each of the training elements at least once per chosen period but not longer than on an annual basis. The following elements **should** be considered where appropriate:

**NOTE:** This list is not exhaustive and **should** be customised for each aircraft type.

Example Essential Training Requirements	
General Handling & Navigation	Essential Knowledge Quiz
Steep turns	Stalling in different configurations
Use of emergency equipment	Human Factors
Incipient spin recognition and recovery <sup>14</sup>	Aerobatic escape manoeuvres <sup>15</sup>

<sup>&</sup>lt;sup>14</sup> Essential, if aerobatics are to be flown

<sup>&</sup>lt;sup>15</sup> Essential, if aerobatics are to be flown

Practiced forced landing	Emergencies in flight and on ground
Normal and flapless circuits	Crosswind take-off and landing
Simulated asymmetric flight	Performance calculation(s)
Use of oxygen	OCM procedures

- B4 Pilots **should** be aware that in circumstances where the time available to act is very short, increased experience and currency are likely to reduce the risk of incorrect action and improve the likelihood that the aircraft will be recovered safely. Therefore, remaining current and practising essential exercises should be considered, vitally important.
- B5 Chief Pilots **should** ensure that additional safety margins are considered and put in place, particularly during the earlier part of the flying season, and if the experience and/or currency of pilots is limited.
- B6 Operators **must** develop a dual check form to suit the requirements of their operation. The Essential Training Requirements **must** be listed in the Dual Check form and an example of such form can be found in Appendix E. The operator **may** use a form based upon the example, but the form **must** be tailored to suit their own operational requirements.

## **Aerobatic Training**

B7 Pilots intending to conduct aerobatic flying **must** be trained in performing the relevant escape manoeuvres for each aerobatic element flown.
Recurrent training **should** include an oral examination of the pilot's theoretical knowledge of escape manoeuvres and the circumstances when such manoeuvres **should** be used.

## Human Factors (HF) Training

B8 Human factors (HF) issues impact all parts of the aviation system andshould be considered at multiple points for everyone involved.

- B9 Pilots **must** undergo training in the Human Factors aspects of flying which are critical to safe operations. Further information on general HF considerations for pilots is available in the following:
  - a) CAP 719 "Fundamental Human Factors Concepts"
  - b) CAP 737 "Flight Crew Human Factors Handbook"
  - c) CAP 403 "Flying Displays and Special Events"
  - d) The CAA website or send an email to human.factors@caa.co.uk

#### **Recommended Levels of Experience**

B10 Guidance is provided for operators of jet or high-performance piston engine aircraft. Due to the variation in skills and ability of different pilots, there will be occasions when more or less training and supervision would be appropriate; therefore, every pilot **must** be assessed by the Chief Pilot on their individual merits and skill sets.

Experience Level	Pilot-in-Command (PIC) hours post licence issue
Inexperienced	Up to 200
Intermediate	Between 200 and 450
Experienced	Over 450

### **Recommended Currency Requirements**

B11 The OCM will detail the currency requirements depending upon the aircraft complexity. The requirements outlined in this appendix are recommended as minimum guidelines for high-performance aircraft.

Experience Level	Currency	Dual Check
Inexperienced Pilot	28 Days	6 Months
Experienced Pilot	90 Days	12 Months

# **Recommended Requirements for Self-Authorisation**

Experience at start of training	Experience before consideration for self-authorisation
Inexperienced	Training completed with 50 hours on type / similar type
Intermediate	Training completed with 50 hours on type / similar types reducing to 15 hours depending on hours PIC
Experienced	Training completed with 5 hours PIC on type / similar types

### Appendix C

# **Operational and Maintenance Support Checklists**

# **Operational arrangements - check list**

Operator: EMA:	Date: Location:		
Flight planning			
The operator <b>must</b> have a system	Meteorological information		
documentation for all pilots. The	Flight planning documents		
	Charts		
specific to aircraft type, including but not limited to aircrew manuals,	AIC's / NOTAMS		
pilot's notes, Permit-to-Fly. These <b>must</b> be available for the review of	Aircraft planning documentation and performance factors		
all pilots.	Comments:		
Pilot information and currency			
in place to be able to confirm a pilot's licence status, personal	Licence status and personal details	Pilot reviewed:	
	Currency	Dual check/ETR	
maintenance authorisation status.	Flight Authorisations		
	Pilot Maintenance Authorisations (if required)		
	Comments:		
Organisational Control Manual (OCM)			
The operator <b>must</b> have a CAA	Approved amendment state	OCM version:	
approved OCM which <b>must</b> be	Signed by pilots		

	1	
available to all pilots. A system <b>must</b> be in place to confirm that all		
pilots have read the OCM.	Comments:	
Technical Log records		
he operator is responsible for nsuring that an accurate and up-	Technical Log	Sector 1: Sector 2:
to-date Technical Log is kept for each aircraft operated. In addition,	250 KIAS record	
the operator is responsible for ensuring that pilots are given	Carriage of passenger record	
guidance on the completion of any aircraft technical documentation.	Comments:	
Pilot training - Convex		
The operator <b>must</b> have a CAA agreed training schedule to	Pre-entry requirements before training commences	
conduct conversion training. This <b>must</b> include a system for the recording of all pilot, ground and flight training, including results whether satisfactory or not.	Training schedule/syllabus	
	Training corrective actions where appropriate	
	Technical exams	
	Flight records	
	FHT report	
	Human factors training	
	Further training	
	Comments:	
Pilot training - Recurrent		
The operator <b>must</b> maintain detailed training records for any	Recurrent Ground Training including Safety Equipment	
ground training, dual checks (on type or similar agreed type), Essential Knowledge Quizzes	Periodic checks (Dual Checks), including Human Factors	

(EKQ) and Essential Training	EKQ	
Requirements (ETR).	ETR	
	Comments:	
Continuing Airworthiness Arrange	ments	
If not held, the operator <b>must</b> have maintenance and	Point of contact with A8-25	Name & Position
continuing airworthiness contractual arrangement(s) with an A8-23 or A8-24 (as applicable) for maintenance organisation and an A8-25 for continuing airworthiness management organisation	Point of contact with A8-23 or A8-24 maintenance	Name & Position
	Maintenance and continuing airworthiness contractual arrangements with A8-25	Current-Yes/No
	Frequency of submitting auth sheet / flying hours to A8-25	At base Away from base
	Process for A8-25 to notify operator of next maintenance due: hours / date / ldgs / OOP	
	Process for handling defects	At base Away from base
	Process for handling LTOs, Safety Notices & MPDs	
	Comments:	
Safety Management		
Development of a positive safety culture can be achieved in several ways, but that recommended by the CAA is the adoption of a Safety Management System (SMS). The	Effectiveness of operator's safety management.	Evidence of effectiveness

SMS allows an operator to assess	
the approach to safety and the risks	
to which the operation is exposed.	

# Maintenance support arrangements - check list

Operator: EMA:	Date/location: Aircraft type: complex/intermediate/sim	iple			
Airworthin	Airworthiness responsibility				
-	or <b>must</b> hold copies of the pre-flight / daily	Pre-flight checks			
check sheets reflecting the maintenance schedule. The operator will be required to record Operational		Daily checks			
	cal problems encountered and the aken to overcome them. The operator is	Defect rectification			
responsible	o for ensuring the aircraft is in compliance	Maintenance program			
directives.	aintenance program and mandatory permit	MPDs			
Comments	:				
Airworthin	ess co-ordination				
	ator <b>must</b> be able to review the <sup>,</sup> for aircraft maintenance and	Maintenance liaison contact			
continuing airworthiness approvals. Qualification and terms of reference for the key personnel within the organisation should be detailed within the OCM. This contract <b>must</b> define each party's responsibilities.	Maintenance contract				
	Operator capability to review maintenance standards				
	Key personnel terms of reference				
	Defined ops / eng responsibilities				
Comments	:				

Aircraft maintenance program					
The operator <b>must</b> have the aircraft	Check cycle				
maintained to an approved maintenance program (BCAR A3-7 refers)	Program review				
	Program accepted by CAA				
Comments:					
Aircraft Technical Log					
The operator <b>must</b> have a technical log for each aircraft operated. Crews should be given guidance on its completion. Policy towards allowable deficiencies with associated flight limitations.	Format				
	Permit maintenance release				
	Deferred defects				
Comments:					
Maintenance records					
The operator <b>must</b> make arrangements to maintain the aircraft records including maintenance records, flying times, inspection	Aircraft records				
	Flying times				
status, exemptions, flight lest.	Permit-to-Fly, PMR				
	Exemptions				
	Flight test (PFRC)				
Comments:					

Appendix D

# **Commercial Operation**

### **Commercial Operations**

- D1 Commercial operation 16 under the ANO is only permitted in Permit-to-Fly aircraft for specific types of operation. The permitted types of operation consist of an aircraft flying for the purposes of:
  - a) participation in a Flying Display
  - b) the practice associated for participation in a Flying Display
  - c) test flights
  - d) positioning flights
  - e) the exhibition and / or demonstration of the aircraft
- D2 All other types of commercial operation require the operator to obtain the permission of the CAA. The CAA will consider applications for commercial operation on a case by case basis. Applications for fully remunerated flying training should be submitted using the application form in this Appendix.
- D3 The operator should submit an OCM amendment with an OCM appendix for the specific type of commercial operation (other than those types of commercial operation listed in D1 and remunerated flying training). The OCM appendix should include:
  - a) Summary of the type of commercial operation including a typical flight profile
  - b) Maintenance Procedures specific to the Commercial Operation
  - c) Operational Procedures specific to the Commercial Operation
  - d) Limitations (Operational and Airworthiness)
  - e) Briefing requirements
  - f) Training requirements

<sup>&</sup>lt;sup>16</sup> Article 42 of the ANO

- D4 The operator must have an SMS for Commercial Operation (other than those types of commercial operation listed in D1 and remunerated flying training) with any risks specific to the Commercial Operation identified and mitigated.
- D5 All applications must be sent to ga@caa.co.uk quoting the EMA reference number (if known) and "CAP 632 Commercial Operation Application" in the subject line.

# Fully Remunerated Flying Training Application

#### Application for Permission to conduct Fully Remunerated Flying Training under the ANO in CAP 632 Ex-Military Permit-to-Fly Aircraft.



CAP 632 Operator			
EMA Number (if known)			
	Aircraft Type	(s)	Aircraft Registration(s)
Instructor name			
		Any instructor listed in the Op	erators OCM
Pilot under Training			
(pilot must hold curren	t licence)		
	Reason f	or Requesting This Permission	on
	Pro	posed Training Syllabus	
Syllabus included in O	perators OCM YE	S / NO	
		Declaration Statement	
		) (b) of the Air Navigation Orde	
		with the details given above. I ied out in accordance with the	confirm that I have read CAP 632 relevant criteria.

Signed	
Name	
All applications <b>m</b>	ust be sent to <u>ga@caa.co.uk</u> quoting the EMA reference number (if known) and "CAP 632 FRFT Application" in the subject line.

#### Appendix E

# Example of Dual Check Form (CAP 632)

Date of Dual Check		craft stration		Departure Airfield		
Flight Time		Aircraft Type		Arrival Airfield		
Student (Pilot) Name	Licence Num	ber	Instructor Na	ne	Licence N	umper
SECTION A ESSENTIAL TRAINING REQUIREMENT	TS PASS	FAIL	ORA	SECTION B	PASS	FAIL
Before Flight Checks			Aircraft Documentation		1 400	
Start Up, Taxi, Take Off			Pilot's Licence, Medical, ATRE			
Local Area Navigation			Mass & Balance			
Stall - Clean			Performance			
Stall - Dirty			Hydraulic Sy			
Stall - Accelerated			Fuel System			
Aerobatics			Electrical Sy			
Partial Loss of Power or Asymmetric F	liaht		Engine Limit			
Total Loss of Power			Aircraft Limit			
Hydraulic Failure			, a orare Enni	SECTION C		
Electrical Failure			ADDITION	AL & WRITTEN	PASS	FAIL
Fire - Spurious			Escape Man			
Fire - Real			Spin Recove			
PFL – Open Ground			Incipient Red			
Flapless Approach			Unusual Atti			
Go Around			Human Fact			
Full Stop			Safety Equip			
Shut Down			Use of Oxygen			
After Flight Checks			Read SOPs			
Airmanship				owledge Quiz		
SECTION D - NOTES						
	at the student liste	ed above is suit	table to self-authorise		kt Check Du	le
General Flight						
Land Away				6 Months		
Aerobatics				10.11		
Other				12 Months		
Not Self Authorising	(Under tr	raining / Solo F	light Only / Other)			
uthorised By (Instructor Name):		Się	gnature:	C	ate:	
SECTION F						
Agreement of Report by Student and Ins	<i>tructor.</i> I as the i	nstructor have	fully debriefed the Stu	ident who has also se	en and agree	ed this report.
UDENT NAME:		STUDENT SIG	NATURE:	D	ATE:	

INSTRUCTOR NAME: ......DATE: .....DATE: .....

CAP632 Operator Name:

#### Appendix F

# Flights above the airspace speed limit

### Introduction

- F1 Further to SERA.6001(a)(3),(4),(5),(6) and (7), VFR flights below 10,000 feet AMSL in class C airspace and all flights below 10,000 feet AMSL in airspace classes D, E, F or G are limited to 250 KIAS unless approved by the CAA for safety or technical reasons. Operators of aircraft intending to exceed this airspace speed limit must apply to the CAA for an Approval, pursuant to AMC1 SERA.6001(a)(3);(4);(5);(6);(7) (as amended by CAA Decision ORS9 no.9 adopted 18 October 202117).
- F2 CAP632 aircraft would normally have need to exceed the airspace speed limit in the following situations:
  - a) <u>Aerobatic: manoeuvres that require a minimum safe entry speed above</u> <u>250 knots for the manoeuvre to be completed safety</u>
  - b) Flying Display: practice and participation
  - c) <u>Training: for the specific purpose of attaining an Aircraft Type Rating</u> <u>Exemption on the aeroplane concerned or a Display Authorisation</u>
  - d) Transit: particularly ex-military jet aircraft which have a best economic speed above 250 knots but are limited to flight below 10,000 feet due to airspace structure and/or the need to adhere to Visual Flight Rules by the Permit-to-Fly conditions

and/or

e) Other Purposes: such as flight tests

<sup>&</sup>lt;sup>17</sup> http://publicapps.caa.co.uk/modalapplication.aspx?catid=1&pagetype=65&appid=11&mode=detail&id=10906

## **Applications**

- F3 Applications can be made through CAA online form: Flying Display and Special Events and or Unusual Aerial Activity Notification.<sup>18</sup> A safety assessment must be conducted further to the guidance in GM1 SERA 6001(a)(3);(4);(5);(6);(7) and the Safety Assessment section below.
- F4 Once issued, the Approval will allow the specified aircraft to exceed the airspace speed limit in strict accordance with the conditions outlined.

### Conditions

- F5 The conditions included within the Approval issued by the CAA would be determined by the specific circumstances of the application and proposed activity.
- F6 One of those conditions common to all Approvals will be that flights exceeding the airspace speed limit must be planned and conducted in accordance with those procedures identified by the aircraft operator through their safety assessment and accepted by the CAA. For operators of CAP632 aircraft, such a safety assessment and procedure must be included within the operator's OCM.
- F7 The pilot(s) conducting the activities concerned (or supervising any training taking place) must be appropriately qualified. For example, pilots of ex-military jet aircraft must possess a valid Aircraft Type Rating Exemption for the aircraft type.

### Safety Assessment

- F8 <u>A safety assessment and proposed procedures followed must be prepared by</u> the applicant and accompany the application for the permission. This section elaborates on the guidance set out in GM1 SERA 6001(a)(3);(4);(5);(6);(7).
- F9 This safety assessment must, as a minimum, consider the following:
  - a) <u>Type of aircraft involved: including minimum safe speeds, best</u> <u>economic cruising speed, and other pertinent performance data</u>

<sup>&</sup>lt;sup>18</sup> <u>https://apply.caa.co.uk/CAAPortal/servlet/SmartForm.html?formCode=ADO</u>

- b) <u>Proposed activities: nature of the activities, rationale for exceeding the</u> <u>airspace speed limit, proposed speeds and altitudes</u>
- c) <u>Airspace considerations: classes of airspace likely to be used and</u> permissions sought, consideration of known areas of high traffic density; and making use of relevant secondary surveillance radar transponder codes, eg 7004 for aerobatic manoeuvring
- d) <u>Coordination with air traffic services (ATS)</u>: assessment of availability of <u>ATS to provide a surveillance-based service that will give warning of</u> <u>traffic to other airspace users</u>
- e) <u>Terrain clearance: sufficient height to maintain SERA compliance and</u> <u>terrain avoidance given environmental conditions</u>
- f) <u>Visual signature of aircraft: the likelihood of being visually spotted by</u> other airspace users, and steps to increase visual signature
- g) <u>Aircrew training and experience: in conducting these activities including</u> <u>taking actions to avoid collisions, as well as managing pilot workload</u>
- h) If the aircraft is equipped with collision warning or electronic conspicuity equipment such as Airborne Collision Avoidance System (ACAS II), this should be serviceable and operational. If the aeroplane is a historic aircraft, then conditions of CAA General Exemption ORS4 1363 (or its replacement) must be complied with.
- Any other factors that affect the safety of other airspace users or uninvolved third parties in the air and on the ground including consideration of NOTAMs
- j) Procedures to be followed by the operator for the planning and conduct of flights exceeding the airspace speed limit that take into account all the measures outlined in the safety assessment, including procedures/notifications to be followed in the event of an occurrence, and authorisation by operator (e.g. chief pilot) and record-keeping
- F10 Once accepted by the CAA, this safety assessment and procedures must be included within the operator's OCM and subject to CAA CAP632 oversight.