Operation of Permit-to-Fly ex-military aircraft on the UK register

CAP 632 **| Edition 8 | XXX 2020**

Published by the Civil Aviation Authority, 2020

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

Text from this CAP **may** be used and copied (where appropriate) but attention **must** be paid to ensure that any further amendments to this CAP are accurately reflected. Any text used in such a manner **must** be used in the correct context so as not to be misleading. Credit to the CAA **must** be made for any used or copied text.

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 XXX 2020

DRAFT

Enquiries regarding the content of this publication **should** be addressed to: ga@caa.co.uk

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

Contents

Contents **3**
Revision History **8**
Terminology and Definitions **10**
Chapter 1 **14**
Introduction **14**
General 14
Background 14
Applicability 15
Extended overseas operations 16
Charges 16
Consultation with the CAA 17
Chapter 2 **18**
Legal Requirements **18**
General 18
Applications for CAP632 Approval 19
Variations to CAP 632 Approval 19
Cessation or revocation of a CAP 632 Approval 20
Insurance 20
Chapter 3 **21**
General requirements **21**
Organisational Control Manual (OCM) 21
Organisation 22
Safety management 25
General documentation 26
Documentation - Aircraft Technical Log 27
MOD Form 700 Series Aircraft Maintenance Forms 29
Maintenance 29
Annexes to the OCM 30

DRAFT

Chapter 4 **31**
Technical requirements **31**
General 31
Maintenance and Continuing Airworthiness 31
Further Guidance for Airworthiness Requirements: 32
Chapter 5 **33**
Specialised equipment and systems **33**
General 33
Oxygen systems 34
Aircraft pressurisation 34
Ejection seats 34
Flying clothing 35
Emergency and back-up systems 35
External equipment 35
Chapter 6 **37**
Pilot / crew qualification **37**
Pilot licensing - general requirements 37
Aircraft Type Rating Exemption (Training) (ATRE(T)) 38
Aircraft Type Rating Exemptions (ATRE) 39
Applications for Aircraft Type Rating Exemptions 40
Pilot training on jet and/or high-performance propeller-driven aircraft 40
Pilot currency 42
Human Factors 42
Aerobatics 43
Currency 43
Chapter 7 **45**
Operational requirements **45**
Test flights and check flights 45
Operational control 45
Operational limitations 46
Low flying 47
Aircraft fitted with live ejection seats and ejection policy 47

DRAFT

Aircraft fitted with external fuel tanks 48
Flying clothing 48
Flight in excess of 250 Knots below FL 100 48
Carriage of passengers 49
General Handling and Essential Training Requirements 50
Aerobatic Training 51
Training Records 51
Chapter 8 53
Recording and audit procedure 53
CAA audit 53
The scope of the audit inspection 53
Follow-up action 54
Procedure for withdrawing agreement to an OCM 54
Audit Cancellations 55
Appendix A 56
Guide to the compilation of the Organisational Control Manual (OCM) 56
Introduction 56
CAP 632 OCM Review Checklist 58
Appendix B 61
Guidance on experience requirements to fly jet or high-performance piston engine aeroplanes 61
Introduction 61
Minimum Levels of experience 61
Minimum recommended experience required before a pilot can be considered for self-authorisation 62
Self-authorisation 62
Appendix C 63
Specimen pre-flight briefing 63
1. General handling sorties 63
2. Navigation sorties (additional to 1 above) 64
3. Formation sorties (additional to 1 and 2 above) 64
Appendix D 65

DRAFT

Guidance on appropriate flying clothing and safety equipment (dress to survive) **65**

Flying clothing 65

Flying suits 65

Flying boots 65

Flying helmets 66

Flying gloves 66

Immersion suits 66

Other survival equipment 66

Other considerations - Safety Equipment 67

Appendix E **69**

Guidance on the conduct of the audit visit **69**

Introduction 69

The audit inspection 69

Post audit inspection actions 70

Appendix F **71**

Operational and Maintenance Support Checklists **71**

Operational arrangements - check list 71

Maintenance support arrangements - check list 74

Appendix G **76**

CAP 632 Continuing Airworthiness and Maintenance Contract **76**

Appendix H **78**

Sample Maintenance Contract **78**

Section 1: Aircraft Details (the ‘said’ aircraft) and organisation details 78

Section 2: Continuing Airworthiness Arrangement 79

Section 2.1 Obligations of the BCAR A8-25 80

Section 2.2. Obligations of the owner / operator: 81

Section 3 Maintenance Contract 82

Appendix I **88**

Commercial Operation **88**

Commercial Operations other than remunerated flying training 88

Fully remunerated flying training 89

DRAFT

Annex to Appendix I **92**

Appendix J **94**

Example BCAR A8-25 Maintenance Statement **94**

Appendix K **96**

Example of Dual Check Form (Piston Aircraft and Jet Aircraft) **96**

Dual Check Training Form. 96

Example of Dual Check Training Form (Jet Operator) 97

Example of Dual Check Form (Piston Operator) 98

DRAFT

Revision History

First edition **October 1994**

First published

Second edition **April 1997**

Second edition published

Third edition **February 2002**

Fourth edition **April 2006**

Fourth edition published

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**

Fifth edition published

Sixth edition **April 2018**

Sixth edition published

Seventh edition **May 2018**

Seventh edition published

Eighth edition **XXXXX 2020**

This document has been revised since the seventh Edition. For ease of use, all substantive revisions throughout this document are underlined in red. Amendments / changes in this edition include:

- General formatting and minor text amendments together with the inclusion of Terminology and Definitions.
- Clarification on the general legal requirements for operating an ex-military aircraft under the requirements of this publication.

DRAFT

- Further clarification on the airworthiness requirements for BCAR A8-23 or A8-24 and BCAR A8-25 continuing airworthiness arrangements including further alignment with BCAR A3-7
- Removal of the Safety Management guidance – further information regarding Safety Management can be found on www.caa.co.uk/sms
- Introduction of requirements for aircraft technical logs (tech logs) for aircraft operated in accordance with this publication.
- Further clarification for the requirements to conduct post maintenance flight tests or check flights.
- Additional guidance for take-off and landing performance.
- Clarification of audit cancellation policy for operators.
- Introduction of a sample CAP 632 Continuing Airworthiness and Maintenance Contract.
- Introduction of the requirements for commercial operation including fully remunerated flying training in CAP 632 aircraft.

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

Consultation

While we absolutely appreciate that much of the UK's aviation community is being severely affected by COVID-19, we do need to prepare for a safe return for aviation and develop future rules and regulations. To meet that aim we are consulting on Edition 8 of CAP632 which is the comprehensive source of information containing rules and guidance pertaining to maintaining and operating permit-to-fly ex-military aircraft on the UK register.

Feedback

We continually improve our regulation and guidance and your feedback is helpful to us in doing so. If you have any comments on or suggestions about CAP 632 please send them to **ga@caa.co.uk** with subject line '**CAP 632 feedback**'. The consultation will close on 12 June 2020.

DRAFT

Terminology and Definitions

Throughout this CAP the following terms and definitions are used:

Term	Abbreviation	Definition
Aeronautical Information Circular	AIC	Notices relating to safety, navigation, technical, administrative or legal matters.
Air Traffic Services	ATS	References to ATS contained in this CAP apply to all ground to air radio telephony transmission communications carried out.
Aeronautical Information Publication	AIP	Aeronautical information, updated every 28 days, containing information essential to air navigation within UK airspace.
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).
Air Operator's Certificate	AOC	Certificate issued to an operator to conduct Commercial Air Transport.
Applicant		A person seeking the issue, renewal or variation of a CAA Permission, Exemption, Approval or Authorisation.
BCAR	BCAR	British Civil Airworthiness Requirements as set out in CAP 553 - Airworthiness Procedures where the CAA has Primary Responsibility for Type Approval of the Product.
Chief Instructor	CI	An appointed person whose name and qualifications have been notified to the CAA for this purpose.
Chief Pilot	CP	The person appointed by the operator to be responsible to them for flying operations.
Congested Area		A Congested Area is defined in Schedule 1 of the ANO.

Term	Abbreviation	Definition
Display Authorisation.	DA	A national document detailing the groups and categories of aircraft in which a pilot is authorised to display, together with any limitations and other specific endorsements.
Flight Level	FL	An aircraft's altitude referenced to the International Standard Atmosphere (ISA) pressure of 1013.25 hPa expressed in hundreds of feet.
Flying Display		Any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at an event that has been advertised and is open to the public.
General Aviation Unit	GAU	General Aviation Unit, GA@caa.co.uk. The department within the CAA that deals solely with General Aviation.
Horsepower	HP	The power rating of a piston engine.
Human Factors	HF	As per the ICAO definition; Human Factors (HF) encompasses the scientific disciplines that support human performance through the design of equipment, environments and work, in order to improve system performance.
Minimum Equipment List	MEL	A Minimum Equipment List (MEL) is a list which provides for the safe operation of aircraft, with particular equipment inoperative. The MEL must be approved by the CAA (Article 78 "Carriage of Equipment" of the ANO).
MTWA	MTWA	Maximum Total Weight Authorised.
Notice to Airmen	NOTAM	A notice to airmen (NOTAM) is a notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Term	Abbreviation	Definition
Organisational Control Manual	OCM	A document setting out the operational procedures to operate a Permit-to-Fly ex-military aircraft, including arrangements for maintenance and continuing airworthiness management.
Operator		A person, organisation or enterprise engaged in or offering to engage in an aircraft operation. The Operator will usually be the person who at the relevant time has the management of the aircraft and will therefore be the operator as defined in Article 4 of the Air Navigation Order.
Pilot In Command	PIC	A pilot nominated by the operator as being in command of an aircraft and charged with the safe conduct of a flight.
Private Flying Display		Any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at a private event requiring a Permission to operate contrary to the requirements of SERA.5005(f). (See also 'Flying Display')[1]
Radar identification transponder code	Squawk	The transponder code set by the pilot in the aircraft to allow radar identification.
SSAC	SSAC	Safety Standards Acknowledgement and Consent as defined in CAP1395. Allows a person to make an informed decision and pay to participate in a flight experience.
Supervision		The periodic surveillance and assessment of operations and those conducting operations in order to maintain or improve established standards.

[1] Where reference in this CAP is made to a 'Flying Display' the content applies also to a 'Private Flying Display'. See page 16 CAP403

Term	Abbreviation	Definition
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.

DRAFT

Chapter 1

Introduction

General

1.1 Owning and operating a historic aircraft is both a significant privilege and a huge responsibility. The operation of such aircraft needs to be conducted with not only sensitivity to the age and historic importance of the aircraft, but to the highest standards of maintenance, airworthiness management and pilot competency.

1.2 These aircraft were built and maintained as part of a complex military system which has changed substantially since the original design and construction of the aircraft. There are many human factors issues associated with all aspects of their maintenance, operation and flight which require thorough consideration to maintain safety standards.

1.3 This publication contains both specific requirements and guidance material to enhance the safety of participants and members of the public.

Background

1.4 Before the CAA permits 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.

1.5 It is important to understand that not all ex-military aircraft fall within the scope of this publication. Some ex-military aircraft may hold full Certificates of Airworthiness and therefore would not be considered for operation on this basis.

DRAFT

Applicability

1.6 The operational and airworthiness requirements set out in this publication are applicable to any ex-military aircraft or replicas thereof with either:

- **a Maximum Total Weight Authorised (MTWA) of 2730 kg or above;** or
- **a piston engine with a rating of 800 Horsepower or more;** or
- **a turbine or turbojet engine** (excluding helicopters under an MTWA of 2730 kg);

and

- **are on the UK civil register;** and
- **that are required to operate on a Permit-to-Fly.**

1.7 The CAA will grant a Permit-to-Fly for the aircraft if satisfied, in accordance with 'CAP 553, British Civil Aviation Requirements (BCAR) Chapter A3-7 Permit to Fly Aircraft - Initial and Continuing Airworthiness'.

1.8 The provisions of this publication will not normally be applicable to aircraft that are military variants of civil designs which have, or are being operated on, a UK Certificate of Airworthiness. Where, in the opinion of the CAA, there are significant differences between the military variant and its civil-certificated counterpart, the CAA **may** insist that the procedures set out in this publication are followed.

1.9 Whilst every effort is made to ensure that all information is correct at the time of publication, the CAA reserves the right to amend this document as required to accommodate changes to the law, to correct errors and omissions, or to reflect changes in national policy and best practise.

1.10 Throughout this document the following editorial practises and definitions **shall** apply:

- '**Shall**' **/ 'Shall not'** and '**Must**' **/ 'Must not'** are used to indicate a mandatory requirement.

DRAFT

- **'Should'** is used to indicate strong obligation.
- **'May'** is used to indicate discretion.

1.11 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.

Extended overseas operations

1.12 A Permit-to-Fly issued by the UK CAA is only valid for flight in UK airspace in accordance with the conditions on the Permit-to-Fly, unless an Exemption has been granted by the CAA to fly abroad. Permit-to-Fly aircraft **must not** be operated outside UK airspace for more than 3 calendar months in any calendar year, unless with the specific approval of the CAA. Flight in the airspace of any other State in a Permit-to-Fly aircraft will also require the specific permission, in writing, of that State since the aircraft does not hold an ICAO recognised Certificate of Airworthiness.

Charges

1.13 The CAA may levy charges in the future which would be additional to the normal charges payable for the Issue or Renewal of any Permit-to-Fly. Charges apply to ATREs issued by the General Aviation Unit, and details can be found in the published Scheme of Charges. The applicant may be required to pay for any additional work that proves necessary.

1.14 The Scheme of Charges for General Aviation is available on the CAA website. No action will be taken with applications until the appropriate fee has been paid.

1.15 Operators making an application for Extended Overseas Operations **should** be aware of the additional charges in the published Scheme of Charges for General Aviation. An operator **must** pay these additional charges if an operational or maintenance audit is required to be conducted overseas.

DRAFT

Consultation with the CAA

1.16 Operators who propose to purchase an ex-military aircraft with the intention of obtaining a Permit-to-Fly are advised to 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 apply@caa.co.uk) on application, maintenance and procedural matters;
- **Aircraft Certification** (Telephone 01293 573988 or ga@caa.co.uk) on matters associated with the design and eligibility of the type;
- **Operations and Authorisations** (Telephone 01293 573988 or email ga@caa.co.uk) on operational CAP 632 matters; and
- **Shared Service Centre (SSC)** (Telephone 0330 022 1972 or email fclweb@caa.co.uk) for licensing and training matters relating to turbine powered aeroplanes, multi-crew aeroplanes and all helicopters.

1.17 Operators are urged to seriously consider the amount of time it will take to research, design, collate and present the information required by the CAA at the time of application. Failure to submit all the required documentation at the time of submission could delay any approvals sought.

DRAFT

Chapter 2

Legal Requirements

General

2.1 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.

2.2 This publication sets out the requirements and procedures for operating a UK registered Permit to Fly Ex Military aircraft.

2.3 Unless otherwise stated, nothing in this publication is intended to conflict with the ANO or other legislation, 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.

2.4 The operator of a Permit-to-Fly ex-military aircraft on the UK Civilian register **must** always comply with the conditions stated on the Permit-to-Fly.

2.5 The Permit to Fly specifies the conditions under which an aircraft is to be operated, one such condition being that the aircraft **shall** be operated in accordance with CAP 632[2].

2.6 This publication specifies the operational requirements that an applicant for the issue of a Permit-to-Fly for an ex-military aircraft is required to meet. Not only will certain provisions need to be met before the Permit to Fly can be issued, but a minimum operational and technical framework **must** remain in place for the Permit-to-Fly to remain valid.

2.7 This publication has been divided into separate parts covering:

[2] In entirety and inclusive of operational, maintenance and airworthiness considerations.

DRAFT

- General requirements
- Technical requirements
- Specialised equipment and systems
- Pilot/crew qualifications
- Operational requirements
- Airworthiness requirements
- Recording and audit procedure

Applications for CAP632 Approval

2.8 The operator **shall** submit an application for an Organisational Control Manual (OCM) which **must** be approved by the CAA prior to commencing any flying operations. Once the Organisational Control Manual has been approved the operator **shall** conduct all operations in accordance with the approved Organisational Control Manual.

2.9 All applications for CAP632 Approval **must** be sent to ga@caa.co.uk.

2.10 Owners and operators of these aircraft are also required to meet the conditions set out in CAP 553, BCAR A8-23/24 (for maintenance), A8-25 for continuing airworthiness and with the conditions stated on the Permit-to-Fly.

2.11 Once the application has been received, reviewed and deemed acceptable by the CAA, a Letter of Approval will be issued to allow operations to commence.

Variations to CAP 632 Approval

2.12 Where there are material changes to the organisational structure, such as a change of Accountable Manager, Chief Pilot, Chief Flying Instructor, maintenance organisation(s) or aircraft; or any other proposed changes to the OCM, then a variation application **must** be sent to ga@caa.co.uk.

DRAFT

2.13 Once the variation application has been received, reviewed and deemed acceptable by the CAA, an updated Letter of Approval will be issued to allow those variations to take effect.

Cessation or revocation of a CAP 632 Approval

2.14 If an operator elects to cease operations for which an Approval, Exemption or Permission has previously been granted, or if the document is revoked, it **should** be returned at once to the CAA General Aviation Unit (GA Unit).

2.15 Where the CAA either refuses the grant or renewal of an Approval, Exemption or Permission, or proposes to vary, suspend or revoke an existing one, the applicant / holder will be informed of the reasons and of the process for seeking a review of that decision.

2.16 Where the holder of a CAP 632 approval decides, for whatever reason, that they do not want to operate CAP 632 aircraft for a period of time, the CAA GAU **should** be advised and the approval can be voluntarily surrendered. When the decision is made to recommence operations, the CAA GAU **must** be informed and an audit inspection arranged. Subject to a satisfactory audit inspection, the CAP 632 approval **may** be re-activated.

Insurance

2.17 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.

DRAFT

Chapter 3

General requirements

Organisational Control Manual (OCM)

3.1 The operator **shall** compile and submit to the CAA an OCM. The operator **shall** complete and submit the on-line application form, together with all required information[3], and any charges payable.

3.2 It is not intended that the contents of this manual follow the detailed requirements necessary for an Air Operator's Certificate, but it **must** set out the operational procedures under which it is proposed to operate the aircraft, including arrangements for maintenance and continuing airworthiness management[4].

3.3 Once satisfied that the proposed operational procedures are acceptable, the OCM will be approved by the CAA.

3.4 Any subsequent amendments to the OCM **shall** be incorporated into the manual, which **must** then be submitted to the CAA together with a completed OCM checklist. The operator **must not** implement any amendments until approved by the CAA.

3.5 Notwithstanding (3.4), when immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

3.6 All amendments **must** be clearly highlighted preferably with revision bars.

3.7 The requirements to be considered when preparing an OCM are given in checklist form at Appendix A.

[3] As detailed on the CAA website

[4] As a guideline, the OCM **should** contain only the essential details necessary to comply with the requirements of this publication.

DRAFT

3.8 Where the operator fails to adhere to the agreed operating procedure, the CAA **shall** withdraw the approval of the OCM until any deficiencies are addressed.

Organisation

3.9 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 monitoring and reviewing the following:

a) The maintenance and continuing airworthiness management of the aircraft in conjunction with its own BCAR A8-23 / A8-24 maintenance and A8-25 continuing airworthiness approvals, or those of any suitably approved A8-25 continuing airworthiness and A8-23 / 24 maintenance organisation contracted for the purpose[5].

b) The suitability of the aircraft condition for any intended flight within the limitations laid down in the Permit-to-Fly.

c) Compliance with the conditions of the Permit-to-Fly in relation to any intended flight.

d) The currency and recency of the crew (including any supernumerary crew) in relation to any intended flight.

e) Operational planning for the intended flight such as weather conditions, fuel requirements, diversion requirements etc.

3.10 The relevant qualifications and terms of reference for key personnel within the organisation **shall** be detailed within the OCM. Complexity and / or number of aircraft will dictate staffing requirements and the balance of permanent / part time staff.

3.11 The roles and responsibilities for the following positions **must** be defined within the OCM:

[5] A8-25 Supplement 1 Continuing Airworthiness Arrangement can be used as a contract template

DRAFT

a) Accountable Manager

b) Chief Pilot

c) Chief Instructor and / or Instructor(s)

d) Pilots

e) Continuing Airworthiness Coordinator

3.12 The operator **must** have the following operational arrangements in place:

3.13 **Flight Planning:** The operator **must** have a system for the supply and review of flight planning information and documentation for all pilots. The operator **must** also have documentation specific to aircraft type, including aircrew and technical / performance manuals, pilot's notes, Permit-to-Fly, etc. These **must** be available for review by all pilots.

3.14 The organisation **shall** have adequate facilities to enable all appropriate pre-flight information to be gathered and pre-flight decisions to be made. Specifically, the following **must** be available to pilots, operations staff and supervisors, either in-house or easily accessible on the aerodrome:

- Meteorological information.
- Flight planning information including:
  - Up to date charts;
  - Up to date flight planning documents;
  - Access to NOTAMs;
  - Access to AICs.
- Aircraft documentation for planning purposes (Aircrew Manuals, Pilots Notes, Operational Data Manuals and any specific, more stringent limitations imposed by the Permit-to-Fly and / or the owner / operator).

3.15 **Pilot Information and Currency**: The operator **must** have a system in place to be able to confirm a pilot's licence status, personal details,

DRAFT

currency and flight and daily maintenance authorisation status. Pilot currency information **must** include:

a) Licence and medical currency;

b) Licence Exemption currency, if applicable;

c) Date of last flight on type, or similar types;

d) Date of last display on type, or similar types, if relevant;

e) Date of next dual check, if appropriate;

f) Authorisation status for each pilot;

g) Currency requirements for each aircraft type operated.

3.16 **OCM**: The OCM **must** be available to all pilots. A system **must** be in place to confirm that all pilots have read, understood and agree to comply with the OCM. The OCM, including any amendments, **must** be signed by all pilots

3.17 **Technical Log Records:** The operator **must** have a Technical Log for each aircraft operated. Pilots **should** be given guidance on its completion. Aircraft technical documentation includes Technical log, deferred defects list, Release to Service etc.

3.18 **Pilot Training – Conversion Exercises**: The operator **must** have a CAA agreed training schedule, which **shall** include a workup training syllabus for the grant of an ATRE. This **must** include a system for the recording of all pilot training[6], including results and feedback given, whether satisfactory or not.

3.19 The OCM **must** detail the minimum experience levels and training requirements for pilots converting to type.

3.20 **Pilot Training – Recurrent:** The operator **must** maintain detailed training records for any ground training, dual checks (on type or similar CAA agreed

[6] Both flight and ground training

DRAFT

type), Essential Knowledge Quizzes (EKQs) and Essential Training Requirements. Records **shall** be kept of dual check outcomes, feedback given and any required corrective action.

3.21 **Continuing Airworthiness Arrangements:** The operator **must** either be approved or have a contract with an approved A8-23 / 24 (maintenance) and A8-25 (continued airworthiness) organisation to conduct the appropriate tasks on their behalf[7]. This **should** also include processes for detailing the next maintenance due, the handling defects and the research of Safety Notices, Letters to Operators (LTOs) and Mandatory Permit Directives (MPDs), etc.

Safety management

3.22 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. The development of such a culture can be achieved in several ways, but that recommended by the CAA is the implementation of a Safety Management System (SMS). The SMS allows an operator to assess the approach to safety and the risks to which the operation is open.

3.23 SMS can be tailored to meet the needs of both small and large operations and may already exist in some form in many organisations. The test of any organisation and its embedded safety system is that it can withstand scrutiny in the event of an incident and satisfy investigators that all risks have been identified and considered, and appropriate safety measures have been taken to reduce those risks to As lLow As Reasonably

[7] Supplement 1 to BCAR A8-25 would be acceptable as the basis for the continuing airworthiness arrangement to meet the contractual requirements associated with CAP 632 / SSAC operation. The contract can be customised to accommodate the development of the maintenance programme with a different organisation to that performing the continuing airworthiness management and maintenance tasks, provided the operator ensures that all aspects of the airworthiness and maintenance as required by this CAP and related BCAR requirements have been addressed.

DRAFT

Practicable (ALARP).

3.24 The CAA website (www.caa.co.uk/sms) contains guidance for SMS including specific guidance for small non-complex organisations. The website includes templates for SMS manual contents, safety report forms and hazard logs. It also includes guidance on risk management and mitigation.

3.25 The CAA website also includes an evaluation tool for assessing the organisation's safety management processes. The tool can be used to self-analyse safety management processes and identify where improvements can be made. The evaluation tool consists of several questions covering management commitment and responsibility, safety accountabilities, the appointment of key safety staff members, emergency response planning, safety documentation, hazard identification, risk assessment and mitigation, safety performance monitoring, management of change and incident management.

3.26 A simple hazard log is also available, which is intended to be used in conjunction with the evaluation tool. The hazard log is designed to identify and subjectively assess any hazards. Once identified, the risks associated with each hazard may be identified. Risks are scored on the likelihood of the risk occurring coupled with the severity of the outcome. This will provide an initial risk score. Mitigating factors may then be applied to reduce the risk to ALARP[8] and give a final risk assessment score.

3.27 During audits CAA Inspectors will discuss SMS with operators. Their discussions will be based around the evaluation tool, and its effectiveness.

General documentation

3.28 Historical documentation relating to previous flights, training, technical requirements and carriage of passengers **must** be retained by the organisation for audit purposes. The level of documentation will be

[8] Note, for all risk categories, mitigating a risk to ALARP does not alone make it acceptable or tolerable.

DRAFT

specified in the OCM and will vary depending on the scope of the OCM.

Documentation - Aircraft Technical Log

3.29 An Aircraft Technical Log **must** be kept in accordance with Article 226 "Aircraft continuing airworthiness record system for non-EASA aircraft of the ANO (2016). The specific layout of the Technical Log will be agreed with the A8-25 continuing airworthiness management organisation and may principally be used as a maintenance document. However, particularly in some smaller organisations, the Technical Log may also be the principal method of recording all flight times.

3.30 The aircraft technical log system and any subsequent amendment **shall** be described in the OCM and accepted by the CAA.

3.31 The aircraft technical log **must** contain:

a) Instructions and guidance to pilots for the completion of the aircraft technical log

b) A readily identifiable section containing sector record pages. Each page **shall** be pre-printed with the Operator's name and page serial number and **shall** make provision for recording the following:

- The aircraft type and registration mark
- The date and place of take-off and landing
- The times at which the aircraft took off and landed
- Particulars of any known defect in any part of the aircraft affecting the airworthiness or safe operation of the aircraft
- The signature of the pilot in command both prior to and at the completion of any flight
- A Permit Release to Service as required by BCAR A3-7 in respect of any work carried out for the rectification of defects. This certificate **shall** be entered in such a position and manner

DRAFT

as to be readily identifiable with the entry of the defect to which it relates

- The fuel state, both prior to and at the completion of any flight
- The quantities of fuel and oil uplifted, and the quantity available in each tank, or combination of tanks, at the beginning of each flight
- The running total of flying hours, such that the hours to the next inspection can be readily determined
- Provision for pre-flight and daily inspection signatures[9]

c) A readily identifiable section containing acceptable deferred defect record pages. Each page **shall** be pre-printed with the Operator's name and page serial number and **shall** make provision for recording the following:

- A cross reference for each deferred defect such that the original defect can be clearly identified in the sector record page section
- The original date of occurrence of the defect deferred
- Brief details of the defect
- A cross reference for each deferred defect such that the action in respect of such a deferred defect can be readily identified on the sector record page

d) A readily identifiable section containing the Permit Maintenance Release

e) A readily identifiable section containing the Inspection Status. Pilots **must** be able to ascertain the status of aircraft serviceability and when

[9] NOTE: Where sector record pages are of the multi-sector 'part-removable portion' type, then such 'part-removable portions' **shall** contain all information necessary to ensure the safe operation of the aircraft.

DRAFT

the next maintenance is due based upon date, hours, landings, cycles etc

MOD Form 700 Series Aircraft Maintenance Forms

3.32 The operator and A8-25 maintenance organisation may agree to use the MOD Form 700 Series Aircraft Maintenance Forms for the airworthiness management of the aircraft provided it meets the requirements of paragraphs 3.28 to 3.30 above.

3.33 For aircraft managed using MOD Form 700 Series Aircraft Maintenance Forms, the aircraft when operating away from main base or in the case of an aircraft residing in a location remote from its A8-25 maintenance organisation, must have a technical log or travelling Form 700 document pack available, to the operating crew, that meets the requirements of paragraphs 3.28 to 3.30 above.

Maintenance

3.34 The following aspects **should** be covered in the OCM covering Maintenance:

a) 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

b) Continuing airworthiness coordinator is the person responsible for the coordination of information exchange between the operator and the approved maintenance organisation.

c) The aircraft Technical Log, formatting, Permit Maintenance Release, defect recording, MEL details, control of hours, recording of oil and hydraulic top ups, Fatigue Index monitoring, run down times, anti-deterioration engine runs and system checks

d) Aircraft maintenance programme (approval CAP 553 BCAR A3-7 refers)

DRAFT

e) Method by which maintenance and operational areas will interface with reference to interchange of relevant information on aircraft status .i.e. notification of defects, technical log sector record pages, update of hours

f) Aircraft serviceability including notification details of when the next aircraft maintenance is due based upon hours, calendar date, cycles or landings (as appropriate) i.e. forecast of maintenance due (Out of Phase (OOPs))

g) Policy for maintenance away from base, particularly safety precautions for ejection seats or other live explosive devices

h) Refuelling unless straightforward

i) Responsibility for completion of technical logs

j) Policy towards allowable deficiencies with associated flight limitations

k) Policy for defects that do not affect the airworthiness of the aircraft such as **minor observations**. The operator **should** discuss with the maintenance organisation the process for recording and resolving minor observations that do not affect the airworthiness of the aircraft

l) Pilot maintenance items including certification, daily inspection, training and authorisation by the appropriate CAP 553 BCAR A8-23 or A8/24 approved organisation

Annexes to the OCM

3.35 The annexes **should** include:

- 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, Training forms and recurrent dual check forms, etc

DRAFT

Chapter 4

Technical requirements

General

4.1 The assessment of an aircraft by the CAA for the issue of a Permit-to-Fly will be carried out in accordance with CAP 553, BCAR Chapters A3–7 and A8-25.

4.2 The level of design assessment will be as defined in BCAR Section A, Chapter A8-25, Supplement 2[10]:

- **Simple:** single piston engine types
- **Intermediate**: multiple piston or turbine engined types with simple mechanical flying controls or power controls with independent back-up systems that can enable continued safe flight following failure of a powered system
- **Complex**: all other types including those having features that require specialised knowledge and / or equipment to maintain, aircraft without independent back-up systems for powered flying controls and those with automatic stabilisation systems and / or electronic engine controls

Maintenance and Continuing Airworthiness

4.3 Maintenance, continued airworthiness and Permit-to-Fly renewal of ex-military aircraft or replicas are to be controlled by a suitably approved CAP 553, BCAR A8-23 or A8-24 (as applicable for maintenance) and A8-25 (for continuing airworthiness) organisation.

4.4 It is the operator's responsibility to ensure that valid arrangements are in place to contract suitably approved maintenance and continuing airworthiness organisations. If the operator is not approved regular liaison

[10] Classification of any aircraft type is the responsibility of the CAA.

DRAFT

must be carried out with the BCAR A8-25 Continuing Airworthiness Organisation as agreed for the aircraft type(s) concerned. Maintenance and continuing airworthiness arrangements **must** be agreed with the CAA and will be regularly reviewed as part of the oversight requirement. Copies of maintenance and airworthiness contracts **must** be provided at application.

4.5 Human factors issues for maintenance personnel and processes **should** also be thoroughly considered. Guidance on these issues is available via CAP 718; Human Factors in Aircraft Maintenance and Inspection.

Further Guidance for Airworthiness Requirements:

4.6 Further information and guidance related to the design, restoration and continuing airworthiness of ex-military aircraft is contained within CAP 1640: Ex-military Aircraft: Design, restoration and continuing airworthiness approval.

4.7 Further information and guidance related to maintenance programmes for aircraft operating on a National Permit to Fly is available within CAP 1740: Guidance on maintenance programmes for aircraft operating on a National Permit to Fly.

DRAFT

Chapter 5

Specialised equipment and systems

General

5.1 Many 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. From design considerations for intermediate and complex types, the CAA will grant a Permit-to-Fly based on a reasonable military service accident record (disregarding military action and high-risk training). To maintain or improve this record under civil control, it is expected that the aircraft will be operated as far as possible to the standards used in military service. For example, if a serviceable crew oxygen system was required in military service irrespective of the nature of the flight, the CAA would wish this to continue unless totally satisfied that there were no hazards in operating without oxygen, even at low altitude (e.g. due to cockpit carbon monoxide levels). Specialised systems to be considered may include:

a) Oxygen, either liquid or gaseous

b) Pressurisation

c) Ejection seats

d) Flying clothing

e) Emergency and back-up systems, brake-parachutes etc

f) External fuel tanks, pylons etc

5.2 To support this principle, aircraft **should** be operated in accordance with the operational manuals used whilst in military service, e.g. Pilots Notes, Flight or Aircrew Manuals, Operating Data Manuals etc.

5.3 In some cases, additional limitations or procedures may be necessary for operation in the civil environment. Where required, all manuals, additional

DRAFT

limitations or procedures will be specified as a condition on the Permit-to-Fly. These **must** also be fully detailed in the OCM.

5.4 Where specialised equipment, facilities or personnel are required to ensure the serviceability of the equipment (e.g. ejection systems) these will be provided by, or be under the control of, the appropriate CAP 553, BCAR A8-23 or A8-24 maintenance organisation(s).

Oxygen systems

Piston engine aircraft

5.5 Piston engine aircraft **should** have serviceable oxygen systems when operating above FL 100 and **must** have at all heights when adverse environmental conditions exist, such as high levels of carbon monoxide being present in the cockpit during operations.

Turbine powered aircraft

5.6 Oxygen systems in all types of turbine-powered aircraft **must** be fully serviceable regardless of whether the operator proposes to fly the aircraft above FL100. In the case of high-performance aircraft, specific training, such as pressure breathing training, may be required.

Aircraft pressurisation

5.7 Pressurisation systems when fitted **should** be fully serviceable.

5.8 Pressurisation systems fitted to aircraft that were required to be pressurised during every flight whilst in military service **must** be serviceable and used during flights undertaken in civilian operations.

Ejection seats

5.9 Ejection seats that are an integral part of the aircrew escape system[11] **should** be fully serviceable for all flights. Approval **must** be sought from the CAA GAU at the earliest opportunity if it is intended to operate with inert

[11] as specified in the relevant Pilots Notes, Flight or Aircrew Manuals

DRAFT

ejection seats or other escape systems. It is unlikely that the CAA will allow swept-wing aircraft fitted with ejection seats to be flown unless the equipment is fully operational[12].

5.10 Ejection Seats are critical safety systems. Ejection seat cartridges have published serviceability requirements that place a service life upon them. Seat Cartridges **must** therefore be in compliance with any time service life limitations for the intended flight.

5.11 Ejection seat systems will have servicing and overhaul requirements set out in the manufacturer's or military publications. Servicing requirements **shall** be included in the maintenance programme and **must** include associated survival equipment i.e. parachutes, oxygen systems and control units.

Flying clothing

5.12 Certain items of flying clothing and personal equipment form an integral part of the aircraft safety equipment; such as lifejacket with dinghy connections or Personal Equipment Connector with oxygen connections. Where such systems are required for flight, the operator **must** ensure that these additional items are available and fully serviceable.

Emergency and back-up systems

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

5.14 Maintenance requirements for emergency back-up systems **must** be included in the aircraft maintenance programme.

External equipment

5.15 The carriage of external weapons or stores during flight is prohibited. Flight with external jettisonable fuel tanks **must** be agreed with the CAA GAU.

[12] Any proposals to operate swept wing aircraft with inert ejection seats will be reviewed on a case by case basis.

DRAFT

Empty wing pylons, where their carriage does not materially affect the flight characteristics of the aircraft, will be allowed provided that the pylon jettison circuits are inhibited.

DRAFT

Chapter 6

Pilot / crew qualification

Pilot licensing - general requirements

6.1 Ex-military aircraft on the UK civilian register with a 'Permit-to-Fly' may be piloted by PPL, CPL or ATPL holders with:

- A Current Class and / or type rating, or
- an appropriate Aircraft Type Rating Exemption (ATRE)

and

- A current medical certificate.

6.2 Any questions relating to licencing matters should be addressed to CAA SSC using the email address FCLweb@caa.co.uk.

6.3 There are no specific minimum experience requirements before a pilot can fly a CAP 632 aircraft. The Chief Pilot **should** consider the general level of overall experience of a pilot given the broad spectrum of backgrounds, whilst taking into account the complexity of the type operated. 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: Pilots intending only to conduct general flying in a specific CAP 632 aircraft type, a minimum of 200 hours total time is expected, of which not less than 100 hours **should** be as pilot-in-command.

Display Flying: Pilots intending to conduct display flying in a specific CAP 632 aircraft type **must** hold an appropriate Display Authorisation (DA). Information concerning the issue of a DA, including minimum experience requirements, is contained in CAP 1724 Flying Display Standards Document.

6.4 The following general requirements are applicable to ex-military aircraft:

DRAFT

- **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 **must** hold a type rating or, where no type rating exists, an ATRE.
- **Any turbine-powered aeroplane** - To fly an ex-military turbine-powered aeroplane a pilot **must** hold an ATRE
- **Any helicopter** - To fly any ex-military helicopter a pilot requires a type rating or, where no type rating exists, an ATRE

Aircraft Type Rating Exemption (Training) (ATRE(T))

6.5 Where there is no type rating for an aircraft, pilots are required to hold an ATRE. In order to be issued with an ATRE, pilots will need to undertake training on the specified aircraft in accordance with the training requirements in the operators OCM. An application **must** be submitted to the CAA GAU for the grant of an ATRE(T).

6.6 An ATRE(T) **must** be issued to a pilot before any training commences. Once the training has been completed and the Final Handling Test has been assessed as a 'pass'[13], the pilot can apply to the CAA GAU for an initial full ATRE.

6.7 An ATRE(T) can be applied for using the form SRG1306 and is valid for 12 months.

[13] Certified by the Chief Instructor of the CAP 632 organisation delivering the training

DRAFT

Aircraft Type Rating Exemptions (ATRE)

6.8 An initial ATRE can be applied for using the application form SRG1306, once a pilot has successfully completed the training requirements specified in the operators OCM. The supervising instructor's declaration **must** be completed on the application form after the required training and testing has been successfully completed. The completed application form **must** be sent with the correct payment to ga@caa.co.uk.

6.9 An initial full ATRE is valid for a 6-month period from the date of issue. Subsequent ATREs are valid for a period of 12 months from the date of issue.

6.10 **Renewal of an Initial Issue ATRE:** An application to renew the initial ATRE **must** be submitted together with evidence that the applicant has flown:

1. A minimum of five separate flights on the specific type as pilot in command in the preceding 6 months and
2. A dual check has been completed on the specific type within the preceding 6 months

6.11 **Subsequent Renewal of an ATRE:** Any subsequent applications to renew an ATRE **must** be submitted together with evidence that the applicant has flown:

1. A minimum of five separate flights as pilot in command on type[14] in the preceding 12 months; and
2. a dual check has been completed in the preceding 12 months on type[15].

6.12 In order for a renewal to be issued, the requirements in paragraphs 6.10 or 6.11 **must** be met. Where the pilot has not met these requirements, an

[14] or a similar type as agreed with the Chief Instructor or Chief Pilot

[15] or a similar type as agreed with the Chief Instructor or Chief Pilot

DRAFT

ATRE(T) may be re-issued to enable the pilot to receive further training and regain currency[16].

6.13 Pilots operating on an ATRE **must** hold a valid licence which includes a valid class or type rating.

6.14 An ATRE is issued for each specific type of aircraft.

Applications for Aircraft Type Rating Exemptions

6.15 Applications for an ATRE **should** be made on the 'CAP 632 Aircraft Rating Exemption - Application for Initial Issue and Re-issue' form available on the CAA website.

6.16 Charges for an ATRE can be found in the published Scheme of Charges for General Aviation available at www.caa.co.uk/ors5.

6.17 Completed application forms and supporting documentation **should** be submitted by email to **ga@caa.co.uk**.

6.18 The documents required to be sent to the CAA for the issue or an ATRE / ATRE(T) consist of the following:

a) Completed SRG1306 application form

b) Pilot CV (if applying for a Training Exemption)

c) Copy of current medical

d) Copy of current pilots' licence

e) Copy of completed Dual Check form (for initial ATRE or renewal)

Pilot training on jet and/or high-performance propeller-driven aircraft

6.19 Pilots wishing to be accepted for flying jet and / or high-performance propeller-driven aircraft **should** have the appropriate flying experience, as

[16] In cases where a pilot is current and experienced on a number of 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.

DRAFT

determined by the operator's Chief Pilot.

6.20 Some aircraft types will not need the pilot to hold an ATRE, (Spitfire etc) in which case the requirements **may** be met by complying with the minimum experience levels and training requirements in the agreed OCM.

6.21 Pilots who have little or no military jet or high-performance piston-engine experience **shall** be required by the operator's Chief Pilot to undergo rigorous and detailed conversion training including, where appropriate, specific aviation medicine training.

6.22 Guidance as to recommended experience levels for the training and supervision of pilots is given at Appendix B.

6.23 Maintaining flying currency and regular training are essential to ensure the safety of operations. It is vital that pilots maintain the skills required to fly any aircraft. This is particularly important when operating jet or high-performance aircraft.

6.24 There are two aspects of currency that CAP 632 operators **should** consider:

a) Type currency in terms of hours flown in the type of aircraft[17]

b) Operational currency in terms of the nature of the flights flown – i.e. training formation flights, practice display flights, ferry flights, general handling flights etc.

6.25 Both types of currency **must** be maintained for a pilot to undertake certain operational duties. It is possible therefore, for a pilot to be current on type, but lapsed in terms of operational currency.

6.26 If the pilot has not flown for a specified number of days (or calendar months) then the OCM will state the requirement for the pilot to regain this currency.

[17] Including a means of ensuring all class ratings (i.e. SEP / MEP / etc), annual recurrent training on type, dual checks (where appropriate) remain valid

DRAFT

6.27 Guidance for conducting the 'Essential Training Requirements' or 'dual checks' is given in Chapter 7.

Pilot currency

6.28 CAP 632 operators **must** ensure that operational pilots remain current on the type of aircraft flown. This is especially important for jet and high-performance aircraft. They **should** also have regard to the nature of the operations flown.

6.29 Where possible, maximum advantage **should** be taken of dual control aircraft in maintaining currency.

Currency for aircraft involved in Flying Displays:

6.30 Operators of CAP 632 aircraft involved in Flying Displays **should** refer to CAP 1724: Flying Display Standards Document.

6.31 Operators **should** regard the currency requirements stated in CAP 1724 as the absolute minimum and pilots **should** be encouraged, particularly during the winter months or pre-season work up, to undertake sufficient practise to ensure that a high standard of safety is maintained. Display routines and practices **must** be recorded in the pilot's logbook.

Human Factors

6.32 Human factors (HF) issues impact all parts of the complex aviation system and **should** be considered at multiple points for everyone involved in this kind of operation. HF issues might include (but are not limited to);

a) Optimising the design of equipment and work to allow people to do their best

b) Understanding the strengths and limitations of human information processing

c) Decision making, including heuristics and biases

d) Understanding different approaches to risk

DRAFT

e) Understanding physical limitations including the effects of good physical fitness, fatigue, limits of vigilance and factors affecting cognitive and task load

f) Additional physiological effects in flight such as surprise, startle effects and g-force effects should be considered

g) Acknowledging sources of pressure and / or anxiety and recognising when to stop a task

h) Understanding the value in looking at what goes right as well as what goes wrong and learning from both situations

i) Understanding the strengths and limitations of group dynamics

6.33 Pilots **must** undergo training and instruction 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:

- CAP 719; Fundamental Human Factors Concepts.
- CAP 737; Flight Crew Human Factors Handbook
- CAP 403; Flying Displays and Special Events
- The CAA website or send an email to human.factors@caa.co.uk.

Aerobatics

6.34 Operators **must** ensure that pilots are appropriately authorised to conduct aerobatics taking into account previous experience and a demonstration of competency. The authorisation for each pilot **must** include the minimum height by which any aerobatic manoeuvre **must** be fully completed.

6.35 The operator **must** include a policy for low level aerobatics (if flown) and a policy for normal / high level aerobatics.

Currency

6.36 **Experienced pilots - aircraft operated on a Class Rating (SEP and MEP):** The OCM will detail the currency requirements depending upon

DRAFT

aircraft complexity. The requirements **should** be taken as minimum guidelines for high-performance aircraft.

6.37 **Experienced pilots - all aircraft**

- Where a pilot has not flown within 90 days since last flight on type - a general handling flight **must** be flown.
- Irrespective of currency, a dual check **should** be carried out every 12 months on the type of aircraft flown or similar type as agreed by the Chief Pilot.

6.38 **Inexperienced pilots – all aircraft**

- Until a pilot has met the minimum requirements to be considered self-authorising on type (see Appendix B) a dual check by the Chief Instructor will be required if they have not flown the aircraft within a 28-day period. Irrespective of currency, a dual check **should** also be carried out every 6 months.

DRAFT

Chapter 7

Operational requirements

Test flights and check flights

7.1 Flight testing of all ex-military aircraft operating on a Permit-to-Fly is required in certain circumstances and **shall** be conducted to an approved schedule. Further details of test flights and check flights can be found in CAP1038: Check Flight Handbook. Operators **must** discuss the operational requirement to conduct a check flight or test flight with their BCAR Maintenance Organisation.

7.2 Operators **should** consider conducting a "Datum Flight" on a regular basis to record parameters that would assist pilots and the maintenance organisation with monitoring trends e.g. engine health. Operators **should** discuss the parameters that would be useful for a Datum Flight with their BCAR Maintenance Organisation.

Operational control

7.3 Article 69 "Obligations of pilot in command" and Article 75 "Take-off and landing conditions" of the Air Navigation Order 2016, 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.

7.4 Aircraft commanders **should** consult the relevant aircraft performance schedules prior to flight to ensure that a take-off can be safely made. Where no performance data is published, or where data is inadequate, aircraft commanders **should** exercise extreme caution, and plan required take-off and landing distances conservatively. Furthermore, commanders **should** also take due consideration of the state of the runway surface and **should** apply the appropriate correction factors.

DRAFT

7.5 All other relevant safety considerations **shall** be considered before any CAP 632 flight takes place. In the case of inexperienced pilots[18] it is essential that the organisation's Chief Pilot exercises a measure of operational control and supervision.

7.6 In the case of pilots new to high-performance piston or turbine engine aircraft, direct flight authorisation by a suitably qualified supervisor, ideally the organisation's Chief Pilot, will be required until the pilot has gained sufficient experience to be considered as self-authorising (see Appendix B).

7.7 Appendix C contains a recommended example of a pre-flight brief which lists the basic points which **should** be considered before all flights.

7.8 Pilots may fly under the auspices of other organisations, provided they meet the criteria of that other organisation.

Operational limitations

7.9 Aircraft operated in accordance with the requirements of CAP 632 **shall** do so in accordance with the limitations on the relevant Permit-to-Fly and the appropriate edition of the relevant Pilot's Notes or Aircrew Manual. Where the aircraft is ex-RAF, the appropriate edition of AP 4099J or AP 101B (or other appropriate document for ex-RN and ex-Army aircraft) **should** be detailed in the aircraft's Airworthiness Approval Notes as the master document.

7.10 The CAA or the CAP 632 operator **may** decide that an aircraft **should not** be operated to the full extent of the limitations accepted by the military during the service life of the aircraft. There **may** be a case for limiting the maximum permitted IAS or 'g' loading or indeed the maximum cockpit or cabin differential pressure. Any limitations agreed **must** be clearly placarded and stated in the OCM. Any curtailment of performance that is a consequential result of that decision **must** be clearly identified.

7.11 Owners and operators **should** take into consideration the age, rarity value

[18] either on aircraft type or style of flying,

and the need for continued preservation of an aircraft when considering any additional limitations. The owners and operators **may** choose to place additional limitations on the operation of the aircraft with sympathetic appreciation of the above factors whilst allowing the aircraft to be safely flown and, where appropriate, displayed.

Low flying

7.12 Flying aircraft safely at low level in compliance with the normal rules of the air 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 **should not** be flown at less than 1,000 ft above ground level except for the purpose of take-off or landing or when practising for or taking part in a flying display.

Aircraft fitted with live ejection seats and ejection policy

7.13 Where an aircraft is fitted with live ejection seats, all occupants **must** be suitably trained in their use and be medically fit, before being allowed to fly in the aircraft. Moreover, operators are to ensure that occupants meet the seat manufacturer's body-mass criteria for the seat type.

7.14 Forced landings **should** only be carried out in jet aircraft as a last resort unless they can be made onto a suitable airfield. If ejection or abandonment is inevitable, every effort **must** be made to ensure that the aircraft falls into an unpopulated area. Where possible, 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.

7.15 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 and 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

DRAFT

flight or ground crews.

Aircraft fitted with external fuel tanks

7.16 External fuel tanks **should** only be jettisoned as a last resort and when their retention would imperil the aircraft and crew 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.

7.17 Pilots **should** be aware that empty external fuel tanks have a negligible effect on gliding or range performance of jet aircraft. Therefore, consideration **should** be given to retaining them in the event of a forced landing.

Flying clothing

7.18 All occupants flying jet aircraft **shall** wear protective helmets equipped with suitable visors. For occupants of other aircraft, the wearing of helmets is highly recommended.

7.19 Pilots, crew and any passengers flying in ex-military aircraft **should**, in addition to wearing a suitable helmet equipped with visor, wear a fire-retardant flying suit, leather gloves and suitable footwear. When flying in coastal areas a life jacket capable of withstanding aircraft abandonment **should** also be worn. This **should** be capable of being inflated during a parachute descent. The wearing of an immersion suit and carriage of a life-raft is recommended in the appropriate circumstances.

7.20 Further guidance regarding appropriate flying clothing is given at Appendix D.

Flight in excess of 250 Knots below FL 100

7.21 Aircraft can only be flown at speeds in excess of 250 kt below FL 100 with the specific permission of the CAA. Applications for permissions are to be made to the CAA General Aviation Unit annually. Operators are to ensure that the conditions detailed on the permission are complied with.

DRAFT

Carriage of passengers

7.22 When passengers are carried the operator **shall** maintain a record of the individual's name, address and next of kin details. Additionally, CAP 632 operators **must** record on what basis the passenger is flown.

7.23 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** hold an exemption from Article 42 of the ANO 2016.

7.24 If passengers are flown on a cost sharing basis only the direct costs can be shared[19]. Operators **may** be called upon to provide proof that they are only recovering the direct costs of a flight and that there is no actual or perceived cross subsidy within their operation.

7.25 Operators who wish to apply for an exemption from Article 42 of the ANO 2016 in order to carry passengers for valuable consideration, **shall** comply with the requirements to conduct flights under the provisions of 'Safety Standards Acknowledgement and Consent' (SSAC) - refer to CAP1395: Safety Standards Acknowledgement and Consent.

7.26 When passengers are flown in ex-military aircraft operated under CAP 632 the minimum height for flight, except for the purpose of take-off or landing, **should** be 1,000 feet above ground level.

7.27 Chief Pilots **shall** consider pilot experience levels before permitting pilots to fly with passengers. In general, pilots **should** be considered as being experienced and self-authorising (see Appendix C) before they fly with passengers.

7.28 When passengers are carried, the pilot in command **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

[19] i.e. costs for consumables such as fuel and oil and landing fees (but not the costs of insurance, hangarage, annual maintenance etc).

DRAFT

recognised standard.

General Handling and Essential Training Requirements

7.29 CAP 632 operators **must** develop an 'Essential Training Requirement' for each type of aircraft operated. The 'Essential Training Requirement' **should** require pilots to practise each of the training elements at least once per chosen period e.g. 6 months or 12 months. The following elements **should** be considered where appropriate:

a) Ejection seat drills

b) Steep turns

c) Stalling clean and approach configuration - fully developed or with recovery at the incipient stage

d) Incipient spin recognition and recovery[20]

e) Escape manoeuvres for each type of aerobatic element

f) Practise forced landing

g) In flight emergencies including

- Practise fire drill;
- Practise engine relight / restart drill
- Rejected Take-off
- Low level engine failure

h) Normal and flapless circuits

i) Crosswind take-off and landing

j) Take-off technique

k) Performance (including runway state)

[20] essential if aerobatics are to be flown;

DRAFT

l) Simulated asymmetric approach

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

7.30 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 inappropriate action and improve the likelihood that the aircraft will be recovered safely.

7.31 Chief Pilots **should** ensure that additional safety margins are considered and put in place, particularly during the earlier part of the flying season, or if experience and / or recency of pilots is limited.

Aerobatic Training

7.32 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. The examination **should** be conducted by the Chief Pilot, or Chief Instructor.

Training Records

7.33 Operators **must** maintain detailed training records for all pilots. This **shall** include any relevant training received, including Flying, Ground Handling, and Safety Equipment training.

7.34 All training **shall** be recorded and kept on the individual pilot's training record and retained by the operator. This **should** include:

a) dates of training

b) instructor details

c) duration of training

d) narrative of student's performance

DRAFT

e) any additional training required

f) details of any recurrent ground training including safety equipment

g) dual checks (on type or similar type agreed by the Chief Pilot)

h) Essential Knowledge Quizzes

i) Evidence that Essential Training Requirements have been completed

7.35 Where a pilot flies the same (or similar) type of aircraft for more than one CAP 632 operator it may be acceptable to provide copies of training completed by one CAP 632 operator to the other CAP 632 operator(s). 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.

DRAFT

Chapter 8

Recording and audit procedure

CAA audit

8.1 Operations carried out under the requirements of CAP 632 are subject to regulatory audit 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.

8.2 Audits and inspections are scheduled using performance based regulation, and intervals between audits may vary, typically between 12 – 24 months. The CAA **should** give sufficient notice regarding an inspection audit. Audits are normally agreed at a mutually acceptable date and time, however the CAA retains the right to visit at any time without prior notification.

8.3 Guidance on the conduct of the audit visit is given at Appendix E.

8.4 Examples of the Operational and Maintenance Support Arrangements checklists to be used during the audit are at Appendix F.

The scope of the audit inspection

8.5 The audit inspection is a formal review of the organisation's operation and administration as laid down in CAP 632 and as specified in the approved OCM. The size and complexity of the organisation needs to be in keeping with the number and types of aircraft operated and the experience levels of the pilots involved.

8.6 The audit inspection will focus on all the items on the OCM Checklist at Appendix F. To aid preparation, and for guidance, the following minimum items will be checked.

a) Aircraft flying hours / landings / cycles and details of maintenance accomplished

DRAFT

b) Record of flights, including a record of each flight where 250 KIAS was exceeded

c) Operational and technical problems encountered, and the measures taken to overcome them

d) Pilot (and crew) flying and ground training records

Follow-up action

8.7 **Observations made and notified for information purposes only:** The CAA inspector **shall** notify the organisation management of any observation made during the audit inspection. Such observations are not non-conformities and require no follow-up action.

8.8 **Identified significant non-conformities:** Significant non-compliances **shall** be brought to the attention of the organisation management in writing. A set period of time, dependent on the importance of the error, will be given to rectify the matter.

8.9 **Identified serious non-conformities in need of immediate remedial action:** Consideration will be given to the agreement of the OCM until major non-compliances are remedied. The management of the organisation **shall** be given clear evidence, in writing, of the errors and the steps that are being considered will be confirmed. The management will be required to submit a written explanation of the circumstances leading to the failure to meet the OCM requirements and the measures they intend to put into place to rectify the problems.

8.10 CAP 632 operators will be required to address any audit findings to rectify the non-conformance(s) and to take actions to control any future repetition. Failure to take satisfactory action **may** affect the continued operation.

Procedure for withdrawing agreement to an OCM

8.11 Where a serious non-compliance with OCM requirements is found during an audit, or where a significant breach of the CAA's agreement is identified, the agreement to the OCM **may** be suspended or revoked by the CAA. This

DRAFT

shall result in operations being stopped with immediate effect.

8.12 The CAP 632 operator will be sent a letter by the CAA outlining the reasons for this action. The letter will also contain details of the CAA's internal review process.

8.13 In most circumstances, the CAP 632 operator concerned will be given the opportunity to rectify any deficiencies within an agreed timescale. The CAA **may** reinstate the OCM agreement once the deficiencies have satisfactorily been rectified.

Audit Cancellations

8.14 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.

8.15 If the CAP 632 Accountable Manager (AM) cancels the audit, the AM **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 audit date.

8.16 If an alternative audit date cannot be found, the organisation **shall** be suspended from the date of the original audit date until such a time as an audit is conducted to the satisfaction of the CAA.

8.17 CAP 632 operators will be required to address any audit findings to rectify non-conformance(s) and to take actions to control any future repetition. Failure to take satisfactory action **shall** ultimately lead to the provisional suspension of the CAP 632 approval.

DRAFT

APPENDIX A

Guide to the compilation of 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 The OCM **should** cover three broad aspects:

- Details of the overall organisation
- Operational procedures
- Maintenance procedures

A3 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.

A4 Information common to all types **should** be contained in the main body of the OCM and type specific information confined to appropriate annexes.

A5 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 submitted to the CAA.

A6 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.

DRAFT

A7 Operators **must** complete the checklist and email it to the CAA GAU (ga@caa.co.uk) along with the OCM prior to any on-site audit being undertaken.

DRAFT

CAP 632 OCM Review Checklist

Overall organisation. The following items should be covered within this section of the OCM:	Yes	N/A	OCM Reference:
▪ Appointments and responsibilities of key personnel			
▪ Operational organisation			
▪ Maintenance organisation			
▪ Audit and reporting procedures			
▪ Procedure for amending organisational control manual			
Operational organisation. The following items should be covered in the section dealing with the operational organisation	Yes	N/A	OCM Reference:
▪ 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 qualification including Type Rating Exemptions (training and full)			
Training. The following items should be covered within this section of the OCM:	Yes	N/A	OCM Reference:
▪ 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			
▪ Self-authorisation approvals			
Currency. The following items should be covered within this section of the OCM:	Yes	N/A	OCM Reference:
▪ Type currency			
▪ Operational currency			
▪ Process to regain currency if this has lapsed			
▪ Display Authorisation [if applicable]			
Operations. The following items should be covered within this section of the OCM:	Yes	N/A	OCM Reference:

▪ Policy on carriage of passengers (including medical suitability and recording of next of kin details)			
▪ Operational performance policy			
▪ Weight 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 flown)			
▪ Flying clothing/safety equipment.			
▪ Display criteria (routines not required to be set out here)			
▪ Reporting of incidents and occurrences.			
▪ Recording of 250 KIAS exceedances.			
Maintenance considerations. The following headings should be covered in the Maintenance considerations section:	Yes	N/A	OCM Reference:
▪ 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.			
▪ Continuing airworthiness coordinator on behalf of the operator			
▪ The aircraft Technical Log, formatting, Permit Maintenance Release, defect recording, MEL details, control of hours, recording oil and hydraulic top ups, Fatigue Index monitoring, run down times, anti-deterioration engine runs and system checks			
▪ Aircraft maintenance programme (approval CAP 553 BCAR A3-7 refers)			
▪ Method by which maintenance and operational areas will interface with particular reference to interchange of relevant information on aircraft 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 based upon hours, calendar date, cycles or landings (as appropriate) i.e. forecast of maintenance due (Out of Phase (OOPs))			
▪ Policy for maintenance away from base, particularly safety precautions for ejection seats or other live explosive devices. Refuelling unless straightforward. Responsibility for completion of technical logs.			

▪ Policy towards allowable deficiencies with associated flight limitations.			
▪ Pilot maintenance items including certification and daily inspection, training and authorisation by the appropriate CAP 553 BCAR A8-23 or A8 / 24 / 24 / 25 approved organisation.			
Annexes. 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: www.caa.co.uk/sms			

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

DRAFT

APPENDIX B

Guidance on experience requirements to fly jet or high-performance piston engine aeroplanes

DRAFT

Introduction

B1 The notes below are intended to provide guidance to owners / operators of jet or high-performance piston engine aircraft that are operated under CAP 632 as to the training and supervision which might be applied to pilots operating such aircraft. It is intended as guidance **only** for Chief Pilots.

B2 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 judged on their individual merits and skill sets.

B3 Chief Pilots **should** consider the overall currency requirements of pilots as well as the operational currency on the type(s) of CAP 632 aircraft flown. Consideration **should** be given to more frequent dual checks for less experienced pilots. The Essential Training Requirements **should** be developed to consider the different levels of experience and the number of hours flown on the aircraft type(s) operated.

Minimum Levels of experience

B4 Three levels of experience are recommended;[21].

- **Inexperienced** up to 200 hours Pilot in Command (PIC) post licence issue.
- **Intermediate** between 200 and 450 hours PIC post licence issue.

[21] the training and supervision of pilots with total experience falling between the designated levels **should** be adjusted accordingly

- **Experienced** Over 450 hours PIC post licence issue.

Minimum recommended experience required before a pilot can be considered for self-authorisation

Experience Level at the start of training	Experience Level before consideration for Self Authorisation
Inexperienced	50 hours on type / similar types
Intermediate	50hrs on type / similar types reducing to 15hrs depending on hours PIC
Experienced	Training + 5 hours PIC on type / similar types

Self-authorisation

B5 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.

B6 It is recommended that the Chief Pilot consider that any 'inexperienced' or 'intermediate' pilot be limited to authorisation restrictions and that 'experienced' pilots **should** also be restricted if their background experience warrants it. For example, it would be inappropriate for a pilot with over 450 hours PIC on simple single engine piston class aeroplanes to fly jet aeroplanes without some restrictions being applied.

B7 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.

DRAFT

APPENDIX C

Specimen pre-flight briefing

C1 The following non-exhaustive list is a guide to the items that **should** be checked prior to flight. It is recommended that such a list is easily accessible wherever pre-flight planning is undertaken.

1. General handling sorties

Pre-flight Action	Complete
OCM signed	
Flight correctly authorised - (self-authorisation approved and recorded?)	
Home airfield information - runway in use? Work in progress? NOTAMS etc	
Check latest met for home airfield, operating area and diversion airfield	
Diversion chosen - airfield information - is it open? Will they accept a divert for recovery? Runway in use? Work in progress?	
Fuel planning and landing fuel at selected diversion field	
Departure details passed to ATC	
Royal flights	
Local nav warnings	
Passenger(s) briefed - next of kin details - sick bag	
Are you within currency limits?	
Are you physically and medically fit to fly?	
Are you fatigued or rushed?	
Are you dressed to survive?	
Life jacket, immersion suit, PLB, life raft (if required)?	
Check all latest information on operating procedures	
Current charts and airfield plates	

Pre-flight Action	Complete
Tech log – check aircraft is serviceable / check next due maintenance / check for snags / deferred defects	
Performance calculations completed	
Mass and balance within limits	
Emergencies – in current practice.	

2. Navigation sorties (additional to 1 above)

Pre-flight Action	Complete
Route weather forecast	
Bad weather plan	
Destination notified	
Destination airfield - weather/airfield information	
Diversion at destination - booked - landing fuel	
Documentation - tech log	
Pilot maintenance certificate (Authorisation to perform checks such as replenishment of fluids etc)	
Departure and arrival airfield performance calculations	

3. Formation sorties (additional to 1 and 2 above)

Pre-flight Action	Complete
Qualified and authorised for the planned number of formation elements	
Formation briefing	
Formation positions and walkthroughs	
Formation changes and walkthroughs	
Comms plan	
Emergencies, loss of leader?	

APPENDIX D

Guidance on appropriate flying clothing and safety equipment (dress to survive)

Flying clothing

D1 Use of the correct flying clothing is an important factor in the safe operation of ex-military aircraft. This class of aircraft, even the older piston engine types, are capable of operating at speeds and heights greater than that of an average light aircraft. In-service experience has led to the development of specifically designed flying clothing. Military aircrew are equipped and trained to survive accidents and incidents: civilian operators of ex-military aircraft are strongly encouraged to follow the survival best practice developed by the military services.

Flying suits

D2 Flying suits are the only practical garment for flying in ex-military aircraft. In addition to protection, they also assist with the storage of maps and documents and prevent loose articles falling into the cockpit, particularly important in aircraft without cockpit floors or storage areas, such as the Spitfire, Corsair or Harvard.

D3 Flying suits also offer protection in the case of abandonment or ejection. Given the possible proximity between fuel and pilot (particularly in piston engine ex-military aircraft) wearing a fire resistant flying suit such as those made of Nomex is highly recommended.

Flying boots

D4 Correctly fitting flying boots **should** be worn as these offer protection to the ankle during both an ejection and a parachute landing following an emergency.

DRAFT

Flying helmets

D5 Flying helmets are required for flying in all CAP632 turbine aircraft and are highly recommended for all other ex-military aircraft.

D6 The helmet clearly offers protection during abandonment, ejection and the subsequent parachute landing. However, it also has an important head protection role during a forced landing and, with an adequate visor in the down position, offers face protection in the event of a bird strike. Given the speeds of ex-military aircraft, even when limited to 250 knots, a bird strike in the cockpit area can cause pilot incapacitation.

Flying gloves

D7 Gauntlet style flying gloves constructed from either leather or Nomex offer considerable protection against cockpit fires and **should** be worn for all flights.

Immersion suits

D8 The sea temperature around UK only exceeds +10°C for a relatively short period during the summer months. Survival times in the sea fall rapidly as the water temperature decreases below +10°C. In these temperatures, the ability to carry out even simple tasks, such as climbing into a life raft, rapidly become impaired.

D9 Operators of jet aircraft, particularly those based near the sea or who regularly fly in coastal areas, **should** give serious consideration to the use of immersion suits.

Other survival equipment

Life jackets

D10 Historically, standard military practice is for life jackets to be worn on all fast jet flights within UK airspace. Given that the furthest distance inland from the sea that can be achieved in the UK is about 70 nm and the speed of jet aircraft, this would seem a sensible precaution to take.

DRAFT

D11 A life jacket **should** always be worn whenever flight operations are conducted in coastal areas.

D12 The life jacket **should** be adequate for the task, which, in the case of ex-military piston engine aircraft, means that it **should** be strong enough to withstand the likely forces involved in an abandonment and parachute descent. It is unlikely that a jacket designed for use in light aircraft would be robust enough for this purpose. For aircraft fitted with an ejection seat, the correct style of military life jacket is the only one suitable for the purpose. If a life raft is carried, the life jacket **must** have suitable connections to attach the raft to the jacket.

Life raft

D13 Most ex-military aircraft are designed to carry a life raft, normally in a seat pack which can be attached to the life jacket. The life raft considerably increases the chances of survival in a sea or remote area survival situation, so **should** be serviceable and carried on all flights over the sea.

Parachutes

D14 Parachutes **should** be worn on all flights in ex-military aircraft. The only exception to this might be large multi-engine aircraft such as a B17 or B25 but even in these cases carriage of suitable parachutes **may** be a prudent precaution.

D15 In jet aircraft where the ejection seat is inhibited, a parachute **should** still be worn by all occupants of the aircraft.

Other considerations - Safety Equipment

Training

D16 Correct 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.

DRAFT

Equipment serviceability

D17 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 life 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 regular intervals and at least annually.

DRAFT

APPENDIX E

Guidance on the conduct of the audit visit

Introduction

E1 The notes below are designed to assist owners / operators of aircraft that are operated under CAP 632 in preparing for the audit inspection. Not all aspects covered below will be applicable to every operation but the detailed scope of the paperwork to be inspected will be as defined in the agreed OCM.

The audit inspection

E2 The following areas are, where relevant, to be addressed:

Operational organisation

E3 The organisation **must** have adequate facilities, either in house or easily accessible, to enable all appropriate pre-flight information to be gathered and pre-flight decisions to be made.

General documentation

E4 Historical documentation relating to previous flights, training, technical requirements and carriage of passengers **must** be retained by the organisation for audit purposes. The level of documentation will be specified in the OCM and will vary depending on the scope of the OCM.

Inspection of documentation - technical

E5 It will normally not be necessary to inspect all the documentation generated in any one year. Sample flights will be chosen at random to be fully investigated in terms of:

- Was the aircraft serviceable and in check at the time of the flight?
- Was the pilot competent and current to carry out the flight?
- Was all post flight action fully carried out?

DRAFT

Inspection of documentation - pilots and training

E6 The organisation retains records of pilots' currency and training. This will vary in depth and content dependant on the complexity of the organisation, the scope of the OCM and the experience levels of the pilots. The information can be maintained in any agreed format including individual pilot folders or, where only experienced pilots are involved, on a comprehensive record board. Information on a cross-section of pilots will be inspected to ensure compliance with the OCM.

Airworthiness responsibility and co-ordination

E7 Review of the Maintenance and continuing airworthiness contractual arrangements including liaison contact and defined engineering responsibilities[22]. Do the arrangements actually work in practice?

Aircraft maintenance program

E8 Does the approved maintenance program reflect the current usage and operation of the aircraft?

Inspection of aircraft documentation

E9 Copies of all appropriate aircraft documentation, Permit-to-Fly, Exemptions and Inspection Status **must** be easily accessible and available for the audit.

Post audit inspection actions

Verbal debrief

E10 The management of the organisation **shall** be given a verbal debrief on the major findings of the inspection visit prior to departure. Any significant non-conformities will be brought to the management's attention during this debrief with the indication that a written report will follow. Any good features will also be commented upon.

[22] This may include a survey of the aircraft in service, i.e. ready to fly and not on maintenance.

DRAFT

APPENDIX F

Operational and Maintenance Support Checklists

Operational arrangements - check list

Operator: **EMA:**	**Date:** **Location:**	
Flight planning		
The operator **must** have a system for the supply and review of flight planning information and documentation for all pilots. The operator **must** have documentation specific to aircraft type, including aircrew manuals, pilot's notes, Permit-to-Fly. These **must** be available for the review of all pilots.	Meteorological information	
	Flight planning documents	
	Charts	
	AIC's / NOTAMS	
	Aircraft planning documentation and performance factors	
	Comments:	
Pilot information and currency		
The operator **must** have a system in place to be able to confirm a pilot's licence, personal details, currency, flight and daily maintenance authorisation status.	Licence and personal details	Pilot reviewed:
	Type currency	Dual check/ETR
	Operational currency	
	Flight Authorisations / Pilot Maintenance Authorisations	
	Comments:	
Operation Control Manual (OCM)		
The operator **must** have a CAA agreed OCM which **must** be available to all pilots. A system	Agreed amendment state	OCM version:
	Signed by pilots	

must be in place to confirm that all pilots have read the OCM.	Comments:	
Technical log records		
The operator **must** have a Technical Log for each aircraft operated. Pilots should be given guidance on its completion.	Technical log	Sector 1: Sector 2:
	250 knot record	
	Carriage of passenger record	
	Comments:	
Pilot training - Convex		
The operator **must** have a CAA agreed training schedule to conduct conversion training. This **must** include a system for the recording of all pilot, ground and flight training, including results whether satisfactory or not.	Pre-entry requirements before training commences	
	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 **must** maintain detailed training records for any ground training, dual checks (on type or similar agreed type), Essential Knowledge Quizzes (EKQ) and Essential Training Requirements (ETR).	Recurrent Ground Training including Safety Equipment	
	Periodic checks (Dual Checks), including Human Factors	
	EKQ	
	ETR	

Record dual check outcomes and any required corrective action.	Comments:	
Continuing airworthiness arrangements		
If not held, the operator **must** have maintenance and 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 A8-25	Name & Position
	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-hrs / date / ldgs	
	Process for handling defects	At base Away from base
	Process for handling LTOs, Safety Notices & MPDs	
	Comments:	
Safety Management Systems		
Development of a positive safety culture can be achieved in a number of ways, but that recommended by the CAA is the adoption of a Safety Management System (SMS). The SMS allows an operator to assess the approach to safety and the risks to which the operation is exposed.	Existence of an SMS	Yes / No Evidence of effectiveness

Maintenance support arrangements - check list

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

Aircraft maintenance program		
The operator **must** have the aircraft maintained to an agreed or approved maintenance program (BCAR A3-7 refers)	Check cycle	
	Program review	
	Program accepted by CAA	
Comments:		
Aircraft technical log		
The operator **must** 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 **must** make arrangements to maintain the aircraft records including maintenance records, flying times, inspection status, exemptions, flight lest.	Aircraft records	
	Flying times	
	Permit-to-Fly (PMR)	
	Exemptions	
	Flight test (PFRC)	
Comments:		

APPENDIX G

CAP 632 Continuing Airworthiness and Maintenance Contract

G1 The purpose of the contract(s) for continuing airworthiness and maintenance is to ensure the requirements of CAP 632 paragraph 3.8 and (CAP 1395 for SSAC) are complied with.

G2 A sample maintenance contract[23] can be found at appendix H. Section 1 contains the details of the subject aircraft and the organisations involved in the contract. Section 2 defines the obligations of the signatories in relation to continuing airworthiness of the aircraft and Section 3 highlights the main points to be covered in a maintenance agreement.

G3 Where the A8-25 continuing airworthiness and the A8-23 or A8-24 maintenance organisation are the same organisation, a single contract can be used combing continuing airworthiness and maintenance elements.

G4 It is the responsibility of the Operator to satisfy the CAA that the continuing airworthiness management and maintenance support arrangements are compliant with the ANO, CAP 632 and CAP 1395. The Operator may itself hold BCAR A8-23 / A8-24 / A8-25 approvals or contract out the continuing airworthiness management and maintenance to organisation(s) which hold the appropriate approvals.

G5 The Operator remains responsible for the safe operation of the aircraft even when continuing airworthiness management and maintenance is contracted out and **must** therefore be satisfied with the standards of airworthiness achieved by the contractor(s). The Operator **must** monitor the contractor's response to the

[23] The sample shown in appendix H is for illustration purposes only. Organisations are responsible for ensuring any contract drawn up and entered in to adequately reflects the needs of the operation. Organisations **should** take individual legal advice.

DRAFT

provisions of the arrangements, employing such technical resources as are necessary to achieve this task.

G6 If the Operator holds its own BCAR A8-23 / A8-24 / A8-25 approvals the procedures to control continuing airworthiness functions will be contained in the OCM.

G7 If the Operator does not hold its own BCAR A8-23 / A8-24 / A8-25 approvals there **must** be a documented internal annual review (audit) of any contracts to ensure both parties have fulfilled their obligations.

G8 The Operator **must** ensure that specialised equipment and systems not included in the aircraft maintenance programme (e.g. emergency parachutes) are adequately maintained and managed.

G9 When an owner / operator contracts an A8-25 to carry out continuing airworthiness management tasks, the owner / operator **shall** send a copy of the continuing airworthiness contract to the CAA once it has been signed by both parties.

G10 When an owner / operator contracts another maintenance organisation for base and line maintenance, or for line maintenance at a second or third site on a permanent basis, the owner / operator **shall** send a copy of the maintenance contract to the CAA once it has been signed by both parties.

G11 The CAA **shall** review the owner / operator's continuing airworthiness and maintenance arrangements at initial issue, during any change and during ongoing oversight arrangements to ensure the owner / operator remains compliant with CAP 632 and CAP 1395.

DRAFT

APPENDIX H

Sample Maintenance Contract

Section 1: Aircraft Details[24] (the 'said' aircraft) and organisation details

Aircraft Type			
Variant			
Registration		Serial Number	
Maintenance Programme Ref:		Type of Operation	
Owner / Operator			
Address			
A8-25 (CAMO)		Approval ref	
Address			
A8-23/24 (Maintenance)		Approval ref	
Address			

DRAFT

[24] When the agreement covers more than one aircraft of the same type, the registrations and other details **should** be entered in to an appendix.

Section 2: Continuing Airworthiness Arrangement

H1 The owner / operator entrusts to the BCAR A8-25 the management of the continuing airworthiness of the said aircraft, the development of a maintenance programme that **shall** be approved by the CAA (or by an appropriately approved organisation) and the organisation of the maintenance of the aircraft according to said maintenance programme.

H2 According to the present contract, both signatories undertake to follow the respective obligations of this contract.

H3 The owner / operator declares, to the best of its belief, that all the information given to the BCAR A8-25 concerning the continuing airworthiness of the aircraft is, and will be, accurate and that the aircraft will not be altered without prior approval of the BCAR A8-25.

H4 In case of any non-conformity with this contract, by any of the signatories, it will become null. In such a case, the owner / operator will retain full responsibility for every task linked to the continuing airworthiness of the aircraft and the owner will undertake to inform the CAA within two full weeks.

Owner / Operator	A8-25 (CAMO)* / A8-23/24 (Maintenance organisation)*
Signed	Signed
Date:	Date:
Position:	Position:

*Delete as necessary

DRAFT

Section 2.1 Obligations of the BCAR A8-25

The BCAR A8-25 **must**:

H5 have the aircraft type in the scope of its approval;

H6 respect the conditions to manage the continuing airworthiness of the aircraft as listed below:

H7 develop a maintenance programme for the aircraft

H8 declare the maintenance tasks (in the maintenance programme) that may be carried out by the owner / pilot in accordance with BCAR A3-7 Paragraph 23

H9 organise the approval of the aircraft's maintenance programme

H10 provide a copy of the aircraft's maintenance programme to the owner / operator once approved

H11 organise a bridging inspection with the aircraft's prior maintenance programme

H12 ensure that all maintenance is carried out by an approved maintenance organisation

H13 ensure that all applicable Mandatory Permit Directives (MPDs), Airworthiness Directives (ADs) and Service Bulletins (SBs) are applied

H14 ensure that all defects discovered during scheduled maintenance, airworthiness reviews or reported by the owner are rectified by an appropriately approved maintenance organisation

H15 coordinate scheduled maintenance, the application of MPDs and ADs, the replacement of life limited parts and the management of component inspection requirements

H16 inform the owner each time the aircraft is required to be presented to an approved maintenance organisation

H17 manage and archive all technical records

H18 organise the approval of any modification to the aircraft using data approved by the CAA or by a suitably approved organisation, as appropriate;

H19 organise the approval of any repair to the aircraft using data approved by the CAA or by a suitably approved organisation, as appropriate;

H20 inform the CAA whenever the owner fails to present the aircraft to the approved maintenance organisation when requested;

DRAFT

H21 inform the CAA whenever the present contract has not been respected;

H22 ensure that the Airworthiness Review of the aircraft is carried out when necessary and ensure that the Airworthiness Review Certificate (ARC) is issued or a recommendation is sent to the CAA;

H23 send a copy of any ARC issued or extended to the CAA within 10 days;

H24 carry out all occurrence reporting mandated by applicable regulations;

H25 inform the CAA whenever the present contract is denounced by either party.

Section 2.2. Obligations of the owner / operator:

The owner / operator **shall**:

H26 have a general understanding of the approved maintenance programme;

H27 have a general understanding of the requirements of BCAR Section A3-7, A8-25, A8-24 and A8-23 as appropriate;

H28 have a general understanding of the requirements of BCAR Section A3-7, A8-25, A8-24 and A8-23 as appropriate;

H29 present the said aircraft to the approved maintenance organisation as agreed with the A8-25 at the due time designated by the A8-25 's request;

H30 inform the A8-25 of all maintenance exceptionally carried out on the said aircraft without the knowledge and control of the A8-25;

H31 report to the A8-25 through the Technical Log Records and / or aircraft logbook(s) all defects found on the said aircraft during operations;

H32 inform the competent authority of the Member State of registry whenever the present contract is denounced by either party;

H33 inform the A8-25 and competent authority of the Member State of registry whenever the said aircraft is sold;

H34 carry out all occurrence reporting mandated by applicable regulations;

H35 inform the A8-25 on a regular basis of the said aircraft’s flying hours and any other utilisation data, as agreed with the A8-25;

DRAFT

H36 inform the A8-25 not later than 30 days after completion of any owner / pilot-owner maintenance task carried out in accordance with point BCAR A3-7 Paragraph 23 no later than 30 days after completion.

H37 The owner / operator **shall not** modify the said aircraft without first consulting the A8-25;

Section 3 Maintenance Contract

H38 The following paragraphs are not intended to provide a standard maintenance contract but are to provide a list of the main points that **should** be addressed (when applicable) in a maintenance contract between an owner / operator and a maintenance organisation.

H39 The following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc.

H40 When maintenance is contracted to more than one maintenance organisation (for example, aircraft base maintenance to X and line maintenance to Z1, Z2 and Z3), attention **should** be paid to consistency between the different maintenance contracts.

H41 A maintenance contract is not normally intended to provide appropriate detailed work instructions to personnel. Accordingly, there **should** be established organisational responsibilities, procedures and routines both in the OCM and within the maintenance organisation to cover these functions such that any person involved is informed of their responsibilities and the procedures that apply[25].

H42 The following subparagraphs may be adapted to a maintenance contract that applies to aircraft base maintenance, aircraft line maintenance and engine maintenance.

H43 **Scope of work:** The type of maintenance to be performed by the maintenance organisation **should** be specified unambiguously. In case of line and / or base

[25] These procedures and routines can be included / appended to the maintenance organisation's exposition or can consist in separate procedures. In other words, procedures and routines **should** reflect the conditions of the contract

DRAFT

maintenance, the contract **should** specify the aircraft(s) type and, preferably, **should** include aircraft registrations.

H44 **Locations identified for the performance of maintenance activities:** The place(s) where base / line maintenance will be performed **should** be specified. The certificate(s) held by the maintenance organisation at the place(s) where maintenance will be performed **should** be referred to in the contract. If necessary, the contract may address the possibility of performing maintenance at any location subject to the need for such maintenance arising, either as a result of aircraft unserviceability or from the necessity to support occasional line maintenance.

H45 **Maintenance programme:** The maintenance programme under which maintenance **should** be performed has to be specified.

H46 **Quality monitoring:** The terms of the contract **should** include a provision to allow the A8-25 / OCM holder to perform quality surveillance visits (including audits) of the maintenance organisation. The maintenance contract **should** specify how the results of any quality surveillance visit are considered by the maintenance organisation

H47 **Maintenance data:** The contract **should** specify the maintenance data and any other manual required for the fulfilment of the contract and how this data is made available and kept current (regardless of whether they are provided by the A8-25 / OCM holder or by the maintenance organisation). This may include but is not limited to:

a) maintenance programme

b) ADs, MPDs, SBs

c) major repairs / modification data, AMOC

d) aircraft maintenance manual(s)

e) aircraft illustrated parts catalogue (IPC)

f) wiring diagrams

g) Minimum Equipment List (SSAC)

DRAFT

h) OCM manual

i) flight manual

j) engine maintenance manual

k) engine overhaul manual

l) ex-military publications.

H48 **Incoming conditions:** The contract **should** specify the condition in which the aircraft is to be made available to the maintenance organisation. For extensive maintenance, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed.

H49 **MPDS, ADs, SBs and modifications:** The contract **should** specify the information that the A8-25 / OCM holder is responsible to provide to the maintenance organisation, such as:

a) the status of MPDs and ADs including due date and the selected means of compliance, if applicable

b) the status of SBs

c) the status of modifications

In addition, the contract **should** specify the type of information the A8-25 will need in return to complete the control of MPDs / ADs / SBs and the modification status.

H50 **Hours and cycles control:** Hours and cycles control is the responsibility of the A8-25 / OCM holder. The contract **should** specify how the A8-25 is to provide the current hours and cycles to the maintenance organisation and whether the maintenance organisation is to receive this information on a regular basis so that it may update records for its own planning functions.

H51 **Service life-limited components:** The control of service life limited components is the responsibility of the A8-25. The contract **should** specify whether the A8-25 / OCM holder is to provide the status of life limited parts to the maintenance organisation and also detail the information the maintenance organisation is to

DRAFT

provide to the A8-25 concerning the removal / installation of service life limited components to enable the A8-25 to update its records.

H52 **Supply of parts:** The contract **should** specify the acceptance criteria for materials and / or components supplied by the A8-25, OCM holder or maintenance organisation. The contract **should** clearly state that it is the maintenance organisation's ultimate responsibility to be satisfied that any component / part meets the approved data / standard and to ensure that the aircraft component is in a satisfactory condition for installation. Additional guidance on the acceptance of components is provided in BCAR A8-23 paragraph 9 and A8-24 paragraph 10.

H53 **Scheduled maintenance:** For planning scheduled maintenance checks, the support documentation to be given to the maintenance organisation **should** be specified. This may include, but is not limited to:

a) applicable work package, including job cards;

b) scheduled component removal list;

c) modifications to be incorporated.

When the maintenance organisation determines for any reason to defer a maintenance task, it **must** be formally agreed with the A8-25 / OCM holder. If the deferment goes beyond an approved limit refer to paragraph H45 'Deviation from the maintenance programme'. This **should** be addressed, where applicable, in the maintenance contract.

H54 **Unscheduled maintenance / defect rectification:** The contract **should** specify the level to which the maintenance organisation may rectify a defect without reference to the A8-25 / OCM holder. It **should** describe the management of the approval of repairs and the incorporation of major repairs as a minimum. The deferment of any defect rectification **should** be submitted to the A8-25 / OCM holder.

H55 **Deferred tasks:** See paragraphs H42 and H43 above, as well as A8-23 paragraph 12 and A8-24 paragraph 16. In addition, in the case of a defect that cannot be rectified at the line / base station, the liaison with the A8-25 / OCM holder **should** be addressed.

DRAFT

H56 **Deviation from the maintenance programme:** Deviations from the maintenance programme **should** be managed by the A8-25 / OCM holder in accordance with the procedures established in the maintenance programme. The contract **should** specify the support the maintenance organisation is to provide to the operator to substantiate the deviation request.

H57 **Test flight:** If any test flight is required after aircraft maintenance it **should** be performed in accordance with the procedures established in the A8-25's exposition or the operator's manual.

H58 **Release to service documentation:** The release to service has to be performed by the maintenance organisation in accordance with its maintenance organisation procedures. The contract **should**, however, specify the support forms to be used (aircraft technical log, maintenance organisation's release format, etc.) and the documentation that the maintenance organisation is to provide to the A8-25 upon delivery of the aircraft. This may include but is not limited to:

a) Permit Maintenance Release (PMR) / Certificate of Release to Service (CRS)

b) flight test report,

c) list of modifications embodied,

d) list of repairs,

e) list of MPD / ADs / SBs accomplished,

f) maintenance visit report or log book certification

H59 **Maintenance record keeping:** The maintenance organisation is obliged to retain a copy of all maintenance records, and any associated maintenance data, for three years from the date that the aircraft to which the data relates was released[26].

[26] The A8-25 / OCM holder needs to establish what records it needs to hold for its purposes and arrange for copies or transfer as appropriate.

DRAFT

H60 **Exchange of information:** The contract **should** specify the information to be exchanged between the A8-25, OCM holder and maintenance organisation and state when[27], how, by whom and to whom it **must** be transferred. Necessarily this includes technical log sector record pages, clearance of defects, PMR certificates and maintenance forecasts.

H61 **Meetings:** The maintenance contract **should** include the provision for a certain number of meetings to be held between the A8-25 / OCM holder and the maintenance organisation

H62 **Contract review:** Before the contract is enforced, it is very important that the technical personnel of all parties involved in the fulfilment of the contract meet to be sure that every point leads to a common understanding of the duties of all parties.

H63 **Work scope planning meeting:** Work scope planning meetings **should** be organised so that the tasks to be performed can be commonly agreed. These can include technical and quality meetings.

a) Technical meeting - to review on technical matters such as MPDs, ADs, SBs, future modifications, major defects found during maintenance, aircraft and component reliability, etc.

b) Quality meeting - to examine matters raised by the A8-25 / OCM's holder's quality or safety management system and to agree upon necessary corrective actions.

DRAFT

[27] i.e. on what occasion or at what frequency

APPENDIX I

Commercial Operation

Commercial Operations other than remunerated flying training

I1 Commercial operation under Article 42 of the ANO 2016 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 ina Flying Display

c) test flights

d) positioning flights

e) the exhibition and / or demonstration of the aircraft

I2 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.

I3 The operator **should** submit an appendix for the specific type of commercial operation (other than those types of commercial operation listed in I1). The 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

DRAFT

I4 The operator **must** have an SMS for Commercial Operation (other than those types of commercial operation listed in I1) with any risks specific to the Commercial Operation identified.

I5 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

I6 The Air Navigation Order 2016 (as amended) limits the payments that can be made in connection with flights by aircraft with a Permit to Fly issued in accordance with Article 42 of the Order. Payment for the services of a pilot is allowed under the ANO in certain circumstances e.g. a person who is the sole owner of an aircraft can be trained to fly it. However, a person cannot normally pay to hire a Permit to Fly aircraft. This has the effect of preventing pilots who wish to fly ex-military Permit to Fly aircraft from purchasing appropriate training (remunerated flying training) unless they purchase such an aircraft.

I7 In 1998 the CAA recognised the desirability of pilots undertaking such training and decided that it would grant Exemption from the Air Navigation Order to allow an ex-military Permit to Fly aeroplane to fly so that remunerated flying training could take place. This arrangement has now been extended to enable appropriate type training on ex-military Permit to Fly helicopters where there is no civil equivalent. It should be noted that an Exemption will not be granted in respect of aircraft for which training can be conducted on a recognised equivalent type, issued with an appropriate Certificate of Airworthiness.

I8 Grant of a Permission will be subject to the following criteria:

- **Pilot:** The nominated trainee pilot **must** hold at least a valid Private Pilot's Licence and, if not covered by an appropriate class rating, an Aircraft Type Rating Exemption which allows training on the aircraft type.

DRAFT

- **Aircraft:** The nominated aircraft **must** have a valid Permit to Fly and be operated under the provisions of CAP 632. Scheduled maintenance inspections additional to those required by the operating limitations associated with the Permit to Fly may be specified by the CAA prior to flights being conducted under the Permission.
- **Instructor:** The nominated instructor(s) **must**:
    - Hold, as a minimum, a valid Private Pilot's Licence and an appropriate class or type rating, or an exemption from the need to hold a type rating which also permits the pilot to give instruction on the aircraft type; and
    - have a level of flying instructional experience, military or civilian, on the aircraft type or similar types, that is acceptable to the CAA.
- **Aerodrome:** Licensed or Government
- **Operating Limitations** - Day, Visual Meteorological Conditions (VMC) only; and no person **shall** be carried in the aircraft on such a training flight save for the person nominated and the named person(s) nominated to conduct the training and any other minimum crew specified in the Permit to Fly.
- **Training Syllabus:** The amount of pilot training required will be specified by the CAA taking into account the trainee pilot's background and experience. To facilitate this the applicant **must** submit to the CAA a summary of the pilot's previous flying experience, licences held and details of any ratings held such as an Instrument Rating; and a proposed training syllabus, including ground school content and examinations (for simple types this may be a verbal examination by the nominated instructor(s)), flying training syllabus and sample training report forms. (Note: This requirement may be omitted if the training details have been previously agreed as part of the CAP 632 Organisational Control Manual or under a Type Rating Training Organisation (TRTO) approval.

DRAFT

- **Time Scale:** The period in which it is intended to complete the training **must** be specified by the applicant.
- **Training Facilities:** Adequate briefing, operations and office facilities **must** be available for the proposed training.

I9 The process for an operator to make an application for fully remunerated flying training is detailed at the annex to this appendix. This information was previously published in AIC W 055/2016.

DRAFT

Annex to Appendix I

Application For Permission Under Article 42 (1) (b) To Conduct FULLY REMUNERATED FLYING TRAINING In Ex-Military Permit To Fly Aircraft

1. Full name and licence details of person to be trained:

.....Licence Number.....

.....

.....

2. Reason for requesting this training:

.....

.....

.....

.....

.....

.....

3. Full name and licence details of person(s) conducting the training:

.....Licence Number.....

.....

.....

4. Type and registration of aircraft to be used:

Type(s).....Registration(s).....

5. Name of CAP 632 organisation:

.....EMA number (if known).....

DRAFT

6. Proposed training syllabus:

……

……

……

……

……

7. Time period during which the training will be completed:

……

I request a Permission under Article 42 (1) (b) of the Air Navigation Order 2016 to enable remunerated flying training to take place in accordance with the details given above. I confirm that I have read Appendix I of CAP 632 and that the proposed flight(s) will be carried out in accordance with the relevant criteria.

Signed …… Date ……

Name ……

Address …… Telephone number ……

…… Mobile number ……

…… E-mail……

All applications **must** be sent to **ga@caa.co.uk** quoting the EMA reference number (if known) and **"CAP 632 FRFT Commercial Operation Application"** in the subject line.

DRAFT

APPENDIX J

Example BCAR A8-25 Maintenance Statement

J1 This is an example of a format for a maintenance statement which sets out details of when the next maintenance is due. This format (or similar) **should** be used by the A8-25 maintenance organisation to convey the airworthiness information to the operator and pilots of the aircraft.

J2 A copy of the BCAR A8-25 Maintenance Statement **should** be kept in the aircraft technical log.

J3 Space to continue the Permit Maintenance Release and/or the Out of Phase Maintenance **may** be provided on the reverse of this form if required.

DRAFT

Name of Maintenance Organisation (A8-25)			
BCAR A8-25 MAINTENANCE STATEMENT for Permit to Fly Aircraft Operating Under CAP632			
Registration Mark:		Aircraft Type:	
SCHEDULED MAINTENANCE INSPECTION: The next SCHEDULED MAINTENANCE INSPECTION (.....) is due at:			
			hours
			date
			other (landings, cycles) delete as required

OUT OF PHASE MAINTENANCE:

The following out of phase inspection / component changes are due **BEFORE** the next Scheduled Maintenance Inspection specified above:

Item	Due			Technical Log Reference on Completion
	Hours	Date	Landings / Cycles	

*Continue on reverse (if required)

This maintenance statement is not complete unless a valid Permit Maintenance Release (PMR) is attached.

PERMIT MAINTENANCE RELEASE

SCHEDULED MAINTENANCE INSPECTION: ..... has been carried out, i.a.w AMP reference.....

Work Order Number.....at, hours/cycles.....

The work recorded above has been completed to my satisfaction and in that respect the aircraft is considered fit for flight.

Signed .....CAA Auth..... Date .....

Company.....(Approval No: AI / ...../ .....)

APPENDIX K

Example of Dual Check Form (Piston Aircraft and Jet Aircraft)

Dual Check Training Form.

K1 The operator **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 is given for a piston aircraft operator and a jet aircraft operator. The operator **may** use a form based upon the example but the form **must** be tailored to suit their own operational requirements.

DRAFT

Example of Dual Check Training Form (Jet Operator)

CAP632	Name of Operator	VERSION 1

CAP632 - DUAL CHECK TRAINING FORM (JET)

Date of Dual Check		Aircraft Registration		Departure Airfield	
Flight Time		Aircraft Type		Arrival Airfield	

Pilot Name	Licence Number	Instructor Name	Licence Number

SECTION A		
ESSENTIAL TRAINING REQUIREMENTS	PASS	FAIL
Before Flight Checks		
Start up, Taxi, Take Off		
Local Area Navigation		
Stall - Clean		
Stall - Dirty		
Stall - Accelerated		
Aerobatics		
Flameout - Cold		
Flameout - Hot		
Hydraulic Failure		
Electrical Failure		
Fire - Spurious		
Fire - Real		
PFL – Open Ground		
Flapless Approach		
Go Around		
Full Stop		
Shut Down		
After Flight Checks		
Airmanship		

SECTION B		
ORAL CHECKS	PASS	FAIL
Aircraft Documentation		
Pilot's Licence, Medical, ATRE		
Mass & Balance		
Performance Factors		
Hydraulic System		
Fuel System		
Electrical System		
Engine Limitation		
Aircraft Limitations		

SECTION C		
ADDITIONAL & WRITTEN	PASS	FAIL
Escape Manoeuvres		
Spin Recovery		
Incipient Recovery		
Unusual Attitudes		
Human Factors		
Safety Equipment (AAES)		
Use of Oxygen		
Read SOPs		
Essential Knowledge Quiz		

SECTION D - NOTES

SECTION E

I certify that the pilot listed above is suitable to self-authorise for the following:

	NO	YES	LIMITATIONS
General Flight			
Land Away			
Aerobatics			
Other			
Not Self Authorising			(Under training / Solo Flight Only / Other)

Next Check Due	
6 Months	
12 Months	

Authorised By (Instructor Name): ..... Signature: ..... Date: .....

SECTION F

Agreement of Report by Pilot and Instructor. I as the instructor have fully debriefed the Pilot who has also seen and agreed this report.

PILOT NAME: _____ PILOT SIGNATURE: _____ DATE: _____

INSTRUCTOR NAME: _____ INSTRUCTOR SIGNATURE: _____ DATE: _____

Example of Dual Check Form (Piston Operator)

CAP632	Name of Operator	VERSION 1

CAP632 - DUAL CHECK TRAINING FORM (PISTON)

Date of Dual Check		Aircraft Registration		Departure Airfield	
Flight Time		Aircraft Type		Arrival Airfield	

Pilot Name	Licence Number	Instructor Name	Licence Number

SECTION A		
ESSENTIAL TRAINING REQUIREMENTS	PASS	FAIL
Before Flight Checks		
Start Up, Taxi, Take Off		
Local Area Navigation		
Stall - Clean		
Stall - Dirty		
Stall - Accelerated		
Aerobatics		
Partial Loss of Power or Asymmetric Flight		
Total Loss of Power		
Hydraulic Failure		
Electrical Failure		
Fire - Spurious		
Fire - Real		
PFL – Open Ground		
Flapless Approach		
Go Around		
Full Stop		
Shut Down		
After Flight Checks		
Airmanship		

SECTION B		
ORAL CHECKS	PASS	FAIL
Aircraft Documentation		
Pilot's Licence, Medical, ATRE		
Mass & Balance		
Performance Factors		
Hydraulic System		
Fuel System		
Electrical System		
Engine Limitation		
Aircraft Limitations		

SECTION C		
ADDITIONAL & WRITTEN	PASS	FAIL
Escape Manoeuvres		
Spin Recovery		
Incipient Recovery		
Unusual Attitudes		
Human Factors		
Safety Equipment		
Use of Oxygen		
Read SOPs		
Essential Knowledge Quiz		

SECTION D - NOTES

SECTION E

I certify that the pilot listed above is suitable to self-authorise for the following:

	NO	YES	LIMITATIONS
General Flight			
Land Away			
Aerobatics			
Other			
Not Self Authorising			(Under training / Solo Flight Only / Other)

Next Check Due	
6 Months	
12 Months	

Authorised By (Instructor Name): ..... Signature: ..... Date: .....

SECTION F

Agreement of Report by Pilot and Instructor. I as the instructor have fully debriefed the Pilot who has also seen and agreed this report.

PILOT NAME: .....PILOT SIGNATURE: .....DATE: .....

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