Safety and Airspace Regulation Group

UK Civil Aviation Authority

CAP 1395

Safety Standards Acknowledgement and Consent (SSAC) – Consultation Version

Edition 3 Consultation Version July 2020

Contents

Revision history

First edition	**March 2015**

First edition published – initial issue.

Second edition	**March 2016**

Revisions made where it was considered that the meaning of the text could be clarified.

Third edition	**July 2020**

This version incorporates SSAC guidance and requirements previously contained in CAP632 "Operation of Permit to Fly ex-military aircraft on the UK register".

Various minor amendments throughout the document. Removal and renumbering of various chapters and appendices.

All amendments are usually highlighted by red underlining. As this edition is a comprehensive rewrite, amendments are not shown in the usual manner and the whole document should be read.

Consultation

We appreciate that the UK's aviation community has been severely affected by COVID-19 but we do need to continue to develop future rules and regulations. To meet that aim we are consulting on Edition 3 of CAP1395 which is the comprehensive source of information containing guidance and regulations pertaining to Safety Standards Acknowledgement and Consent.

Feedback

The CAA seeks to continually improve its regulation and guidance and your feedback is helpful to us in doing so. If you have any comments on or suggestions about CAP 1395 please send them to **ga@caa.co.uk** with subject line '**CAP 1395 SSAC Feedback**'. The consultation will close on 4 September 2020.

Terminology and Definitions

Throughout this CAP the following terms and definitions are used:

Term	Abbreviation	Definition
Air Navigation Order	**ANO**	Air Navigation Order 2016 (as amended).
Airworthiness Approval Notes	**AAN**	An Airworthiness Approval Note is a document that records the basis of the approval upon which a Certificate of Airworthiness or Permit to Fly **may** be issued (or reinstated following modification).
Air Operator's Certificate	**AOC**	The Certificate issued to an operator to conduct Commercial Air Transport.
General Aviation Unit	**GA Unit**	General Aviation Unit, GA@caa.co.uk. The department within the CAA that deals solely with General Aviation.
Mandatory Permit Directive	**MPD**	Mandatory Permit Directives summarise the mandatory actions that are required to be complied with by UK Owners and Operators of Permit to Fly aircraft.
Operator		The person / organisation who at the relevant time holds responsibility for the management of the aircraft as defined in Article 4 of the ANO.
Operating Staff		Any individual involved in the conduct and control of a SSAC operation, including pilots, whether paid or unpaid, fulltime or part-time.
Safety Standards Acknowledgement and Consent	**SSAC**	Safety Standards Acknowledgement and Consent (SSAC) is a means of setting out the risks involved in participating in paid recreational flights.
SSAC Operations Manual	**SSAC OM**	Operations Manual containing organisational structure, processes, procedures.

Chapter 1

Introduction

General

1.1   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.

1.2   Throughout this document the following definitions **shall** apply:

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

- ▪ **'Should'** is used to indicate strong obligation.

- ▪ **'May'** is used to indicate discretion.

1.3   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.

Intended Use

1.4   Safety Standards Acknowledgement and Consent (SSAC) is used for remunerated flights that are solely for recreational benefit and which could otherwise be conducted if they were private flights but with no money changing hands. It is not intended to provide a cheaper alternative for operators engaged in the transport of passengers or as a means of normalising extreme risk-taking. SSAC is not intended to be a replacement for AOC operations with Certificate of Airworthiness (C of A) aircraft.

1.5   SSAC is a means of setting out, in simple terms, the risks involved in participating in paid recreational flights. Aircraft operators will be able to offer flights to paying participants without having to apply the very high safety standards normally applied to commercial flights provided that:

a)   The participants are informed of the key risks involved with participating in the activity.

b)   The participants are willing to participate in the activity having been informed of the risks involved.

c)   The expected high level of safety to the general public, including other airspace users and those not participating in the activity, is maintained.

Chapter 2

Legal requirements

General

2.1　　SSAC flights are conducted under an Exemption to the Air Navigation Order 2016 (ANO) as a commercial operation and are not deemed to be Commercial Air Transport.

2.2　　The CAA will grant an SSAC Exemption once it is satisfied that the operator is competent to secure the safe operation of the proposed aircraft types for the purposes specified.

2.3　　Further information regarding the principles of SSAC can be found in the CAP 1396 "Framework for the evaluation of aviation activities for payment based on Safety Standards and Consent".

Procedure for revocation of an SSAC exemption

2.4　　Where a major or dangerous non-compliance (Level 1) with the SSAC Operations Manual is found during an audit, or where a significant breach of the CAA's exemption is identified, the exemption **may** be provisionally suspended or revoked by the CAA. This **shall** result in operations being stopped with immediate effect.

2.5　　The SSAC operator will be sent a letter by the CAA outlining the reasons for this action. The letter will also contain details of any remedial action required by the operator and details of the CAA's internal review process.

2.6　　In most circumstances, the SSAC operator concerned will be given the opportunity to rectify any deficiencies within an agreed timescale. The CAA **may** reinstate the SSAC Exemption once the deficiencies have satisfactorily been rectified.

Chapter 3
Types of SSAC operations

Classes of aviation activity

3.1   SSAC operations will be categorised into distinct classes of aviation activity, activities within each category are considered to have highly similar levels of risk.

3.2   Established Classes of Aviation Activity include:

- **Class 1: Wing-walking**

- **Class 2: Experience flight in an historic (single engine piston) warbird**

- **Class 3: Experience flight in an historic ex-military helicopter**

- **Class 4: Experience flight in an ex-military multi-engined (piston and turboprop) aeroplane**

Maximum number of participants per Class of Aviation Activity

3.3   The following maximum occupancy limitation (excluding crew) for each aircraft[1] must not be exceeded:

- Class 1: One

- Class 2: One

- Class 3: Six (with upto 3 crew)

- Class 4: Six (with upto 3 crew)

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[1] The maximum occupancy limitation stated on the aircraft's Permit to Fly **must** not be exceeded.

Chapter 4
SSAC Applications

Applications for SSAC

4.1 Initial and renewal applications **must** be submitted on form SRG1323 to ga@caa.co.uk.

4.2 When the application and supporting documentation has been received, the CAA will review and assess the application. When deemed acceptable by the CAA, an SSAC Exemption will be issued to allow SSAC flights.

Validity

4.3 SSAC Exemptions are issued for a maximum period of 12 months.

Renewals

4.4 Renewal applications received within 3 months of the existing SSAC Exemption expiry date will be granted for a further 12 months from the existing expiry date.

Charges

4.5 A charge is payable on application for an SSAC Exemption. Refer to CAA Scheme of Charges under General Aviation.

Cessation or revocation

4.6 If an operator ceases SSAC operations, or if the SSAC Exemption is revoked, the SSAC Exemption **must** be returned to the CAA GAU.

4.7 Where the CAA refuses to grant or renew an Exemption or in the case of a proposed variation, suspension or revocation, the operator will be informed of the reasons for the decision and of the process for seeking a review.

Chapter 5

Risk analysis and participant consent

General requirements

5.1   Operators applying to conduct flights under SSAC principles will be required to show that they have analysed the risks to participants and third parties, established the likelihood and severity of them occurring and set out how these risks will be explained to participants.

5.2   Certain activities such as commercial air transport involve higher expectations of safety outcomes because they have become integrated into the pursuit of everyday economic or social activity. However, activities of an adventurous nature, such as SSAC flights, **may** justify a higher acceptance of personal risk by the participant as the purpose of the activity is primarily for their recreational value.

Risk analysis

5.3   To enable a full understanding of the risks and the implementation of appropriate mitigations, attention **should** be paid to hazards that expose other airspace users, third parties on the ground and the paying participants to greater risks than would be the case if the aircraft were being operated under an AOC.

5.4   Having established the hazards, operators **must** then assess the associated risks in terms of likelihood and severity. The tables and risk matrix[2] in CAP1396 Section 3 or CAP795 "SMS: Guidance to organisations" or CAP1059 "SMS: Guidance for small, non-complex organisations" **should** be used[3] in the analysis and the SSAC Operations Manual must include the rationale behind the choice..

5.5   Once the risks have been assessed in terms of likelihood and severity, mitigating actions necessary to reduce the risk to As Low As Reasonably Practicable (ALARP) can be decided upon. Implemented mitigation measures **should** reduce the likelihood of the risk occurring and / or reduce the severity of the outcome if it does.

5.6   Human Factors issues should be considered alongside the risk analysis, acknowledging that these may not fit neatly into the likelihood/ severity matrix. Human Factors for all involved in the activity should be considered, including

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[2] The tables used here are based on risk assessment criteria as set out in the ICAO Safety Management Manual (www.icao.int).

[3] Operators **may** use other formats appropriate to the size and scope of their operation

pilots, maintenance staff, participants and observers. For further details refer to CAP 719 "Fundamental Human Factor Concepts" and CAP 715 "An Introduction to Aircraft Maintenance Engineering Human Participant risk and consent

5.7   Having identified the hazards and established the risks to participants, the participants **must** be informed of the consequences of those risks. It **must be** explained to participants that the operation does not meet AOC safety standards and that the activity could result in serious injury or death.

5.8   Operators **must** show that in explaining the risk to participants they have considered what a reasonable person's expectation for safety is and calculated the additional risk they will be exposed to, compared to the same flight or a similar operation conducted under an AOC.

5.9   Participants **must** be given sufficient opportunity to consider their decision in a relaxed and unpressurised environment. Participants **must not** be financially committed in any way before making the decision, for example, they **must not** stand to lose a deposit or down payment if they decide not to fly. The decision to participate **should** be made ideally before the participant is about to or has already boarded the aircraft.

5.10   Participants **must** give their written confirmation that they have had the risks explained to them and are willing to accept those risks and take part in the flight. Operators **must** have a process for retaining written permissions that also show that participants gave their consent freely and without any undue pressure to participate.

Methods of delivering the risk information

5.11   Operators **must** demonstrate that they have developed a clear method of informing participants in a commonly understood format. Operators **should** consider using practical examples and comparisons that enable most people to relate the consequences of those risks to something with which they are familiar.

5.12   The content and method of delivery of this information to participants **must be** consistent.

5.13   Methods to be used might include:

   a) Information pamphlets
   b) Audio briefings
   c) Video briefings
   d) Visual briefings in person by the operator

5.14   The amount of information provided and the level of engagement with the participant **must** be directly proportionate to the risk involved in the activity. Higher levels of risk will necessitate greater engagement between the operator and the participant.

Participant information packs

5.15   Each operator **must** develop a Participant Information Pack which includes all the risk information delivered to the participants. This could include information given at point of sale, prior to arrival at the airfield, and information given to the participant on the day as set out above.

5.16   The participant declaration form **should** be included as part of this pack.

5.17   Applicants **must** submit the Participant Information Pack with their SSAC application.

Minimum age of participants

5.18   The minimum age is 18 years old.

Chapter 6
Airworthiness requirements

General

6.1   The operator must be approved as a Continued Airworthiness Management Organisation (BCAR Section A, A8-25), or have a contract[4] (Continuing Airworthiness Arrangement) with such an Approved Organisation. It is the operator's responsibility to ensure any contracted organisation has the required scope of approval to manage the aircraft types in the OCM.

6.2   Operators **must** consider any airworthiness risks applicable to the particular activity. These risks **should** be evaluated by the operator and either the Continued Airworthiness Management Organisation (BCAR Section A, A8-25) or Part-M Continuing Airworthiness Management Organisation (CAMO).

6.3   An aircraft survey **may** be required. The survey might include assessing aircraft adaptations and provisions for occupants that might be necessary to mitigate certain risks associated with SSAC operations. These **may** include cladding of vertical posts if protective helmets are not worn, provision of appropriate seating and occupant restraint and, for intermiediate category aircraft, the placing of one crew member in the cabin where participants are seated.

Certificate of Airworthiness Aircraft

6.4   Where an aircraft has a Certificate of Airworthiness, any flights carrying fare paying passengers **must** be conducted under an AOC and not SSAC. An exception to this requirement are Wingwalking (SSAC Class 1) flights that can be conducted using a Certificate of Airworthiness aircraft when fitted with an approved wing-riding rig.

6.5   Aircraft types that could qualify for either a Certificate of Airworthiness or a Permit to Fly, e.g. de Havilland (DH.82) Tiger Moth, North American T6 Harvard or Consolidated PBY-5A, **must** possess a Certificate of Airworthiness and be operated under an AOC if passengers are to be carried for remuneration; these aircraft are therefore outside the scope of SSAC.

Permit to Fly Aircraft

6.6   Operators **must** address the following points and submit this information as an a attachment with the SRG1323 application form for initial applications only:

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4   BCAR A8-25 Supplement 1 Continuing Airworthiness Arrangement can be used as a contract template

a) The anticipated utilisation of the aircraft in the SSAC role as compared with current utilisation. This includes assessment of the proposed changes in operation such as increased circuit flying, shorter flights, more aerobatic flying etc.

b) Proposed changes to the maintenance programme as a result of the change in usage for the aircraft based on the previous point above. This **may** involve changes to inspection/check intervals, routine maintenance intervals and health monitoring methods along with changes to the handling of defect reports.

c) Results of a review of the modification and repair standards for the aircraft concerned, and the suitability of those standards for the intended SSAC role. Modifications fitted on a trial basis **should not** be considered for SSAC usage.

d) Results of a review of all applicable airworthiness directives, where the aircraft type has (or is of) a civil derivative, or MPDs for the aircraft to determine whether revisions to the methods of compliance or inspection intervals are justified, or any currently accepted alternative means of compliance remain applicable for SSAC operation.

e) Proposed revisions to aircraft placarding. This could include placards to identify the means to operate emergency exits. Placarding requirements for SSAC are contained in CAP 1640 "Ex-Military Aircraft: Design, restoration and continuing airworthiness approval" (www.caa.co.uk/cap1640).

f) Any further airworthiness requirements for SSAC as set out in CAP 1640 "Ex-Military Aircraft: Design, restoration and continuing airworthiness approval", particularly for intermediate aircraft types.

Maximum Aircraft Occupancy

6.7 Maximum aircraft occupancy levels are already specified for Certificate of Airworthiness and Permit to Fly aircraft.

6.8 Any proposal to increase the maximum occupancy specified on a Permit to Fly aircraft **will** require a major modification. The operator **must** make a separate application for approval of the modification by the CAA, with support from an appropriately approved design organisation.

Airworthiness Recommendation

6.9 Final acceptance of the airworthiness case by the CAA under the current Certificate of Airworthiness[5] or Permit to Fly along with any additional limitations, will be indicated by a letter to the approved person or organisation in support of the application.

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[5] Only applicable to Wingwalking (SSAC Class 1) flights that can be conducted using a Certificate of Airworthiness aircraft when fitted with an approved wing-riding rig

Aircraft Technical Log

6.10   The operator **must** record flights in an aircraft technical log. The aircraft technical log **must be** agreed with the aircraft's Continued Airworthiness Management Organisation (BCAR Section A, A8-25). The use of electronic formats may be agreed with the CAA.

6.11   The aircraft technical log **must** have instructions for completion.

6.12   Pilots **must be** able to easily determine the operational status of the aircraft prior to each flight or series of flights.

Continued Airworthiness Co-ordinator

6.13   The operator **must** ensure that the obligations of the operator as defined in the Continued Airworthiness Management Organisation (BCAR Section A, A8-25) contract are fulfilled.

6.14   The continuing airworthiness coordinator is responsible for the transfer of operational data to the contracted Continued Airworthiness Management Organisation (BCAR Section A, A8-25) in accordance with Continuing Airworthiness Arrangement. The frequency and content of this transfer should be agreed and stated in the OCM.

Chapter 7
Operational requirements

General

7.1   The operator **shall** submit to the CAA an SSAC Operations Manual and **shall** make such amendments or additions to such manual as the CAA **may** require.

7.2   The operator may use enhanced operational procedures to mitigate the identified risks associated with the activity, such as the selection of operating area(s).

Organisational Structure

7.3   The operator **must** have nominated post holders, acceptable to the CAA, who are responsible for the management and supervision of the operation.

7.4   The following post holders **must** be nominated within the SSAC Operations Manual. The roles and responsibilities should be defined by the operator taking into account the size and scope of the operation:

  a) Accountable Manager
  b) Chief Pilot
  c) Safety Manager
  d) Continued Airworthiness Co-ordinator
  e) Head of Training
  f) Ground Operations Manager

7.5   Applications for new accountable managers **should** be supported by completing the form AD458 "Biographical details for senior staff" .

SSAC Operations Manual

7.6   The SSAC Operations Manual **must** be available to those persons carrying out SSAC duties. The manual **must** contain all such information and instructions as **may** be necessary to enable such employees or persons to perform their duties in a safe manner.

7.7   A CAA Flight Standards Officer (FSO) **may** suggest amendments where they appear to be necessary, but the CAA is not responsible for the detailed information provided in manuals. It is the operator's responsibility to ensure that the manual is correct.

7.8   The SSAC Operations Manual **should** cover the content outlined in Appendix B although operators may choose a different format.

7.9   For operators of CAP 632 aircraft, the SSAC Operations Manual **must** also include the operational, maintenance and continuing airworthiness requirements

in CAP 632. Operators can produce a combined manual to cover both CAP632 and SSAC operations.

7.10   Once the CAA is satisfied that the proposed operational procedures are acceptable, the SSAC Operations Manual will be approved by the CAA and an SSAC exemption issued.

SSAC Operations Manual Amendments

7.11   Applications for amendments **must** be submitted on form SRG1323 to ga@caa.co.uk.

7.12   When an SSAC Operations Manual amendment has been received, reviewed and deemed acceptable by the CAA, an updated SSAC Exemption will be issued.

7.13   Only once the updated SSAC Exemption has been issued can those amendments take effect.

7.14   When immediate amendments or revisions are required in the interest of safety, they **may** be published and applied immediately, provided that the SSAC amendment has been submitted.

Operational Requirements

7.15   Any SSAC flight **must** be conducted to and from the same airfield.

Run and Break[6] Arrivals for SSAC Flights

7.16   Run and break arrivals for SSAC flights are not to be flown at civilian airfields. Flights **must** conform with the pattern of traffic formed by other aircraft in operation unless a specific operational requirement exists to conduct a run and break arrival in which case a risk assessment and operational procedure **must** be included in the SSAC Operations Manual. The airfield management and Air Traffic Control manager (not A/G or AFISO) **must** both give written agreement and pre-authorise each run and break arrival.

Enhancing Awareness of Helmet Limitations in SSAC aircraft

7.17   After some accidents to ex-military high-performance aircraft, references have been made to the participant's use of Impact Resistant Headgear. These references suggest that participants in SSAC Class 2 flights **should** wear suitable impact resistant headgear when flying in such aircraft.

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[6] Run and break arrivals are an established procedure for military aircraft to join the circuit usually at military airfields.

7.18   It is appreciated that different marques and different modification standards affect the headroom clearance of the participant's cockpit, so in some cases, it will be impossible for the participant to wear some types of rigid helmet.

7.19   An assessment **should** be conducted as to whether the participants in SSAC operations **should** be issued with suitable impact resistant headgear to protect against the risk of head injury.

7.20   Any risks identified **should** be included in the operators hazard log. The mitigation **should** be included to reduce the risk to as low as reasonably practicable (ALARP). This **may** include an assessment of the likely head impact area to potentially reduce sharp edges etc

7.21   The operator **should** also review the brace position to be adopted by the participant in the event of a rapid deceleration.

7.22   As this risk directly affects the survivability of the participant, there **should** be quantifiable information provided in the "Participant Information Pack" so that the participants can make an informed decision. In these cases, the briefing material provided to the participants **should** make it clear that only a cloth, leather or alternate flying helmet will be provided for the flight, and that the level of head protection will be reduced when compared to a traditional "Bone Dome".

SSAC Briefing Areas

7.23   An area within the facility **must** be dedicated to conducting the briefings prior to any SSAC flight. This area **must** be a quiet area with restricted access to allow the briefings to take place without distraction.

Safety management system

7.24   The use of a Safety Management System (SMS) is mandatory for SSAC operators. It is therefore recommended that they refer to CAP 795: SMS Guidance for Organisations and CAP 1059: SMS Guidance for small, non-complex organisations to fulfil this requirement. Further guidance is also available at www.caa.co.uk/sms.

7.25   Operators **must** conduct a risk assessment to determine the suitability for each airfield where SSAC flights are to be conducted. The risk assessment **must** be reviewed on an annual basis or when significant changes take place.

Emergency Response Plan Checklist

7.26   As part of the Safety Management System the operator **must** have an Emergency Response Plan. The list of actions in the event of an accident or incident **should** be available to relevant ground staff. A checklist format is recommended, and staff **should** be trained accordingly.

Records to be kept

7.27   To facilitate monitoring during CAA audits all records **must** be preserved for at least 2 years from the date of the last entry, or longer if required by Article 238 of the ANO. Records may be kept in electronic format.

Insurance

7.28   The operator **must** ensure that insurance cover meets the regulatory requirements contained within Articles 6 & 7 of Regulation (EC) No. 785/2004.

7.29   The operator **should** include information regarding the level of insurance cover for the participant provided by the operator prior to the flight. A participant **may** wish to obtain additional cover from their own provider prior to participating in an SSAC flight.

Safety Reporting

7.30   Operators **must** comply with the Mandatory Occurrence Reporting requirements set out in CAP382 "Occurrence Reporting Scheme" for any SSAC flight.

Chapter 8
Licensing requirements for SSAC flights

General

8.1   Following a consultation with industry in early 2019, the minimum licensing requirements were established. The table below sets out the minimum licensing requirements.

8.2   The Chief Pilot **must** hold a CPL or ATPL.

8.3   The privileges of a PPL do not allow the pilot to receive payment for their services.

8.4   The SSAC Operations Manual **must** detail requirements for pilot's licence, minimum experience, competency and recency requirements for each aircraft type.

Table for minimum licensing requirements (Class of Aviation Activity):

Class of Aviation Activity	Licence Requirements prior to 1 April 2019	Current Licence Requirements (After 1 April 2019)	Current Medical Requirements (After 1 April 2019)
Class 1: Wingwalking	**CPL or ATPL with a Wingwalking DA** Transitional Arrangements prior to 1 April 2019: PPL with Wingwalking DA and Chief Pilot (CPL or ATPL) oversight (see Para 8.3 & 8.4 above).	**CPL or ATPL with a Wingwalking DA or considerable wingwalking experience without a DA will be considered on a case-by-case basis.** Existing SSAC pilots (prior to 1 April 2019) are grandfathered (see Para 8.3 & 8.4 above). No new pilots will be allowed unless they meet the new requirements	Class Two
Class 2: Experience flight in an historic (single engine piston) warbird	**CPL or ATPL** Transitional Arrangements prior to 1 April 2019: PPL with previous Military experience and qualification on appropriate types agreed on case by case basis. Retired / lapsed CPL or ATPL	**CPL or ATPL** Existing SSAC pilots (prior to 1 April 2019) are grandfathered. (see Para 8.3 & 8.4 above). No new pilots will be allowed unless they meet the new requirements.	Class Two
Class 3: Experience flight in an historic ex-military helicopter	**CPL or ATPL** Single pilot aircraft operating with two pilots: A two-crew operation **may** consist of CPL or ATPL (as PIC) and a PPL pilot provided both pilots hold a valid type rating, type rating exemption or class rating for the aircraft.	No change	Class Two
Class 4: Experience flight in an Ex-military Multi-Engined (piston and turboprop) aeroplanes	**n/a**	**CPL or ATPL** Single pilot aircraft operating with two pilots: A two crew operation **may** consist of CPL or ATPL (as PIC) and a PPL pilot provided both pilots hold a valid type rating, type rating exemption or class rating for the aircraft.	Class Two

Chapter 9
CAA Oversight

General

9.1   SSAC operations are subject to regulatory oversight by the CAA and will follow the same format as detailed in CAP632 "Operation of Permit-to-Fly ex-military aircraft on the UK register".

9.2   Audits will be scheduled using performance-based regulation, and intervals between audits **may** vary, typically between 12 – 24 months.

9.3   The audit **may** be conducted at either the main operating base or one of the remote operating base(s) (if applicable).

The scope of the audit

9.4   In addition to the CAP632 audit scope, the audit will cover organisation management systems, SSAC operations manual and SSAC processes.

9.5   A check or proving flight may be undertaken by the CAA as part of the audit oversight programme.

9.6   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 SSAC Exemption.

APPENDIX A

Compilation checklist for SSAC Operations Manual

A1   The content of the SSAC OM **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 SSAC OM.

A2   Completion of the checklist below will assist in identifying any areas of omission or areas that require expansion. The latest changes in both CAP1395 and CAP 632 (highlighted or underlined) **should** be specifically reviewed for applicability and the changes incorporated into the SSAC OM accordingly.

SSAC Operations Manual and Application Review Checklist			
PART A: General / Basic The following items **should** be covered within this section of the SSAC OM:	Yes	N/A	OM Reference:
▪ Pilot signature sheet			
▪ Administration and control of operations manual			
▪ System of amendment and revision			
▪ Organisation and responsibilities including the following nominated personnel – Accountable Manager, Chief Pilot, Head of Training, Safety Manager, Ground operations Manager, Continuing Airworthiness Manager.			
▪ Operational control and supervision			
▪ Compliance monitoring system			
▪ Safety Management System			
▪ Qualification requirements			
▪ Crew health precautions			
▪ Flight Time Limitations			
▪ Operating procedures			
▪ Procedure for informing Participants under the principles of SSAC and obtaining Participant's informed consent.			
Maintenance procedures. The following headings **should** be covered in the Maintenance considerations section:	Yes	N/A	OM Reference:

▪ Details of BCAR A8-23/24 maintenance organisation and BCAR A8—25 continuing airworthiness organisation			
▪ 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.			
▪ 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			
▪ 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.			
▪ Details of the operator's Continued Airworthiness Coordinator and assigned tasks.			
▪ The aircraft Technical Log, formatting, Permit Maintenance Release, defect recording, deferred defects, control of hours, recording oil and hydraulic top ups, Fatigue Index monitoring, run down times, anti-deterioration engine runs and system checks			
▪ The aircraft observation log.			
▪ Aircraft maintenance programme (approval CAP 553 BCAR A3-7 refers)			
▪ 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 towards allowable deficiencies with associated flight limitations.			
▪ Pilot maintenance items including certification and daily inspection, training and authorisation by the appropriate CAP 553 BCAR A8-23/24 or A8-25 organisation.			
▪ Handling, notifying and reporting occurrences.			
PART B: Aircraft Operating Matters – type related. The following items **should** be covered in this section of the SSAC OM:	Yes	N/A	OM Reference:
▪ General information and units of measurement			

▪ A list of the aircraft to be operated including the registrations.			
▪ Operational control of flights and flight authorisation			
▪ Operational performance policy			
▪ Crew composition and duties; pilot / crew qualification			
▪ Normal procedures			
▪ Abnormal and emergency procedures			
▪ Minimum fuel states			
▪ Weather minima - at base and for diversions			
▪ Diversion criteria			
▪ In-flight emergencies - policy for handling			
▪ Performance			
▪ Flight planning			
▪ Mass and balance			
▪ Minimum equipment list			
▪ Aircraft type specific information not already covered			
▪ Examples of forms used e.g. Technical Log, etc			
PART C: Route / Airfield Instructions and Information. The following items **should** be covered within this section of the SSAC OM:	Yes	N/A	OM Reference:
▪ Approved operating airfields			
▪ Recommended operating areas, routes and diversion airfields			
▪ Charts			
▪ Aeronautical information and weather			
PART D: Training The following items **should** be covered within this section of the SSAC OM:	Yes	N/A	OM Reference:
▪ Periodic checks, including Human Factors			
▪ Pilot flight and technical/ground training records			
▪ Essential Training Requirements including Human Factors			
▪ Formation/aerobatic clearance			
▪ Authorisation and Self-authorisation approvals			
▪ Currency and policy to regain currency (if lapsed)			
▪ Form templates			
Participant Information Pack. The following items **should** be provided:	Yes	N/A	
▪ Participant Information			

	Yes	N/A	OM Reference or Stand-alone document:
▪ Risk Information relating to class of aviation activity			
▪ Participant declaration form			
Risk Assessments: The additional information is required.	Yes	N/A	OM Reference or Stand-alone document:
▪ Risk Assessment for SSAC Operations at main operating airfield and each remote base (if applicable).			
▪ Operational procedures required to mitigate any additional risk to third parties on the ground and in the air, such as keeping clear of congested areas or location of operating area.			

Name of Accountable Manager:	
Operator Name:	
SSAC reference (if known):	
SSAC Operations Manual version number:	
Signature:	
Date:	

APPENDIX B

Guidance on compilation of an SSAC Operations Manual

Purpose

B1   The purpose of an SSAC Operations Manual is to provide to all persons involved, the necessary policy guidance and specific instructions for the carrying out of operations in a safe and proper manner and in accordance with the requirements.

SSAC Operations Manual Contents

B2   Although the layout of operations manuals may differ from operator to operator, the operator **shall** ensure that the SSAC Operations Manual contains as a minimum the following aspects:

PART A: General / Basic

Administration and control of operations manual

1. Pilots signature sheet or description of electronic alternative.

2. Introduction

    a) A statement that the manual complies with all applicable regulations and with the terms and conditions of the SSAC Exemption.
    b) A statement that the manual contains operational instructions that are to be complied with by the relevant personnel.
    c) A list and brief description of the various parts, their contents, applicability and use.
    d) Explanations and definitions of terms and words needed for the use of the manual.

3. System of amendment and revision

    a) Details of the person(s) responsible for the issuance and insertion of amendments and revisions.
    b) A record of amendments and revisions with insertion dates and effective dates.
    c) Immediate amendment or revision in the interest of safety.
    d) A description of the system for the annotation of pages and their effective dates.
    e) A list of effective pages.
    f) Annotation of changes (on text pages and, as far as practicable, on charts and diagrams).
    g) Temporary revisions.
    h) A description of the distribution system for the manuals, amendments and revisions.

Organisation and responsibilities

4. A description of the organisational structure including the general company organogram, subordination and reporting lines of all.

5. Nominated postholders. The name of each nominated postholder to include the Accountable Manager, Chief Pilot, Head of Training, Ground Operations Manager, Safety Manager, and Continuing Airworthiness Co-ordinator.

6. Responsibilities and duties of operations management personnel. A description of the duties, responsibilities and authority of operations management personnel pertaining to the safety of flight operations and the compliance with the applicable regulations.

7. Authority, duties and responsibilities of the commander.
   A statement defining the authority, duties and responsibilities of the commander.

Operational control and supervision

8. Supervision of the operation by the operator. This **must** show how the safety of flight operations and the qualifications of personnel are supervised. The procedures related to the following items **must** be described:

   a) Licence and qualification validity;
   b) Competence of operations personnel; and
   c) Control, analysis and storage of records, flight documents, additional information and data.

9. System of promulgation of additional operational instructions and information. A description of any system for promulgating information which **may** be of an operational nature but is supplementary to that in the SSAC Operations Manual. The applicability of this information and the responsibilities for its promulgation **must** be included.

10. Accident prevention and flight safety programme. A description of the main aspects of the flight safety programme.

11. Powers of the Authority. A description of the powers of the Authority and guidance to staff on how to facilitate inspections by Authority personnel.

Compliance monitoring system

12. A description of the Compliance Monitoring System adopted including at least:

   a) Responsibilities
   b) Audit Procedures
   c) Compliance Monitoring Programme
   d) Compliance inspections and audits
   e) Reporting system and processing of reports
   f) Reporting forms and recording system

Safety management system

13. A system stating safety policy and objectives:

   a) Management commitment and responsibilities

   b) Safety accountabilities of managers

   c) Appointment of key safety personnel

   d) SMS implementation plan

   e) Coordination of emergency response planning and production of the emergency response plan. Checklist format recommended for the emergency response plan key actions.

   f) Documentation

14. Safety Risk Management:

   a) Hazard identification process and hazard log

   b) Risk assessment and mitigation process relevant to intended activity

15. Safety assurance:

   a) Safety performance monitoring and measurement

   b) The management of change

   c) Continuous improvement of the SMS

16. Safety promotion:

   a) Training and education

   b) Safety communication

Qualification requirements

17. A description of the required licence, rating(s), qualification/competency, experience, training, checking and recency for operations personnel to conduct their duties

Crew health precautions

18. The relevant regulations and guidance to crew members concerning health including:

   a) Alcohol and other intoxicating liquor

   b) Narcotics

   c) Drugs

   d) Sleeping tablets

   e) Pharmaceutical preparations

   f) Immunisation

   g) Deep diving

   h) Blood donation

   i) Sleep and rest

   j) Surgical operations

Flight time limitations

19. Operators **must** include details of their proposed FTL scheme within the SSAC OM. The scheme can be based upon a maximum number of flights per day / maximum number of hours at the controls and a maximum flight duty period (FDP) per day.

20. Whilst the duty period or maximum number of flights provides a maximum limitation, operators **must** be aware that pilot fatigue can be a result of cumulative factors. Operators **should** therefore include a policy for the avoidance of pilot fatigue.

Flight and duty time limitations and minimum rest requirements.

21. The FTL prescribed in Article 177 of the ANO are applicable: 100 hours in any 28-day period and 900 hours in any one year.

22. A pilot who is engaged on SSAC operations **should** not fly more than 3 hours without a 30 minute break away from the aircraft and **should** not fly more than 7 hours in any one flying duty period. When positioning the aircraft, the pilot **may** spend up to an additional 2 hours at the controls for the sole purpose of completing this task.

23. A single FDP **shall not** exceed 10 hours, except that this **may** be extended by a maximum of 2 hours for the sole purpose of positioning the aircraft from/to the operator's base.

24. The minimum rest period before undertaking a flying duty **shall be** at least 12 hours.

25. The FTL scheme **must** include at least:

   a)   Maximum duty period
   b)   Maximum number of flights permitted or maximum number of flight hours within a duty period
   c)   Days off requirement and minimum rest periods.
   d)   Duty to inform other operators of duty and flight time

26. Further information can be found in CAP 371 "The Avoidance of Fatigue in Aircrews" Section C, Annex C (www.caa.co.uk/cap371).

Operating procedures

27. Procedures for:

   a)   Establishing the minimum altitudes/flight levels for VFR flights; and
   b)   Criteria and responsibilities for the authorisation of the use of airfields
   c)   En-route operating minima for VFR Flights
   d)   Instructions for route selection with respect to the availability of surfaces which permit a safe forced landing.
   e)   Determination of the quantities of fuel and oil carried.
   f)   Mass and centre of gravity. Methods, procedures and responsibilities for preparation and acceptance of mass and centre of gravity calculations;

g) Operator's aircraft technical log. The responsibilities and the use of the operator's aircraft technical log **must** be described, including samples of the format used.

h) Procedures aimed at achieving safety whilst the aircraft is on the ramp

i) Recording of 250 KIAS exceedances below flight level 100[7]

28. Procedures for the refusal of embarkation:

a) Procedures to ensure that persons who appear to be intoxicated or who are under the influence of drugs are refused embarkation.

b) Procedures to ensure that participants who due to their physical or mental condition **may** present a hazard to the safety of the flight or to themselves are refused embarkation.

29. Flight procedures:

a) Policy and procedures for in-flight fuel management

b) Adverse and potentially hazardous atmospheric conditions. Procedures for operating in, and/or avoiding adverse and potentially hazardous atmospheric conditions.

30. Participant briefing procedures:

a) Method of briefing of participants advising them of the risks associated with the proposed activity.

b) Procedure for participants consenting to that risk and recording of acceptance of the risk.

c) Briefings regarding the use of safety equipment, normal and non-normal procedures associated with the intended activity.

Maintenance procedures

31. Details of the BCAR A8-23/24 Maintenance Organisation(s) and Continued Airworthiness Management Organisation (BCAR Section A, A8-25).

32. Proposed maintenance procedures in accordance with BCAR A8-23 or A8-24 for maintenance and A8-25 for continuing airworthiness with details of the contractual arrangements.

33. 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.

34. 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. Process for recording and rectifying defects.

35. Operator's Continuing Airworthiness Co-ordinator responsibilities including maintenance liaison coordination on behalf of the operator.

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[7] A permission to exceed 250 knots below FL 100 is required

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

37. Aircraft observation log (defects not affecting the airworthiness of the aircraft) recording and rectification/deferral.

38. Aircraft maintenance programme (approval CAP 553 BCAR A3-7 refers) including details of the maintenance programme/schedule for higher utilisation and continuing aircraft airworthiness oversight.

39. 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))

40. Policy towards allowable deficiencies with associated flight limitations.

41. Pilot maintenance items including certification and daily inspection, training and authorisation by the appropriate BCAR A8-23/24 or A8/25 approved organisation.

Reporting, analysis and follow-up of occurrences

42. Reportable occurrences **must** be submitted using the MOR scheme for all SSAC flights.

43. Procedures for the reporting, analysis and follow-up of occurrences. This section **must** include:

    a) Definitions of occurrences and of the relevant responsibilities of all persons involved

    b) Reference to forms used for reporting all types of occurrences, instructions on how they are to be completed, the addresses to which they **should** be sent, and the time allowed for this to be done;

    c) In the event of an accident, descriptions of which company departments, Authorities and other organisations that **must** be notified, how this will be done and in what sequence.

PART B: Aircraft Operating Matters − Type Related

General information and units of measurement

44. General technical information on the aircraft type to be operated. Identification of the reference documents to be utilised by crews for operational information and limitations.

Approved SSAC aircraft

45. List of aircraft registrations approved to conduct SSAC operations.

Operational control of flights and flight authorisation.

46. Procedures for the operational control of flights.

Operational performance policy

47. Statement of operational performance policy for each aircraft type.

Crew composition and duties; pilot / crew qualification.

48. Composition and duties of pilot(s) and addition crew.

Normal procedures

49. The normal procedures and duties assigned to the crew, the appropriate check-lists, and the system for use of the checklists.

Abnormal and emergency procedures

50. The abnormal and emergency procedures, the appropriate check-lists, the system for use of the check-lists. The following abnormal and emergency procedures and duties **must** be included:

51. Minimum fuel states

52. Weather minima - at base and for diversions

53. Diversion criteria

54. In-flight emergencies including:
    a) Engine failure
    b) Fire drills
    c) System failures
    d) Emergency landing/ditching
    e) Aircraft abandonment
    f) Distress communications and alerting ATC to emergencies

Performance

55. Take-off performance, including minimum take off field length.

56. Landing performance, including minimum field length.

57. Considerations affecting landing distance including surface condition and system failures.

58. Application of applicable performance factors.

Flight planning

59. The method for calculating fuel needed for the various stages of flight including minimum fuel states.

Mass and balance

60. Instructions and data for the calculation of the mass and balance including:

   a) Standard loading plans

   b) Information and instructions for completion of mass and balance documentation, including manual and computer, if required

   c) Limiting masses and centre of gravity for the individual aircraft used by the operator

   d) Dry operating mass and corresponding centre of gravity or index

Minimum equipment list

61. The establishment of a Minimum Equipment List and the process for authorising flight in accordance with the approved list. The Minimum Equipment List **must** be agreed with the Continued Airworthiness Management Organisation (BCAR Section A, A8-25). The Minimum Equipment List includes any relevant operational and maintenance procedures and the maximum deferral period.

62. This Minimum Equipment List will be part of the SSAC Operations Manual and will not require a separate approval. This is not an EASA style Minimum Equipment List which would require a CAA approval.

63. The Minimum Equipment List **should** be available to the operator, the A8-23/24 maintenance organisation and Continued Airworthiness Management Organisation (BCAR Section A, A8-25).

Aircraft specific information

64. A copy of the aircraft's permit to fly limitations.

65. State the current versions of the aircraft's flight manual, pilots notes and checklists / flight reference cards.

Form templates

66. Examples of forms used e.g. Technical Log sector record pages.

PART C: Route / Airfield Instructions and Information

Approved Operating Airfields

67. A list of approved operating airfields.

Recommended Operating Areas, Routes and Diversion Airfields

68. A description of the recommended local operating areas for each approved airfield.

69. Operators **may** include a preferred standard routing.

70. A list of recommended diversion airfields for each approved operating airfield.

Charts

71. A description of the aeronautical charts that **must** be carried on board in relation to the type of flight and the route to be flown.

Aeronautical Information and Weather

72. Recommended sources (or applications) to access aeronautical information and weather information services

PART D: Training

Training, conversion and recurrent training

73. Training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight. This **must** include training for ground operations personnel who deliver SSAC briefings and fit safety equipment.

74. Training syllabi and checking programmes **must** include:

   a) Procedures for training and checking
   b) A program of ground and periodic flight training and checking
   c) Essential Training Requirements including Human Factors
   d) Pilot flight and technical training records
   e) Formation and aerobatic clearance (if applicable)
   f) Authorisation approvals

Currency

75. Type currency

76. Operational currency

77. Process to regain currency if this has lapsed.

Form templates

78. Examples of forms used