



# Australian Government

## Civil Aviation Safety Authority

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### Civil Aviation Order 82.0 Instrument 2014 as amended

made under paragraph 28BA (1) (b) and subsection 98 (4A) of the *Civil Aviation Act 1988*, subregulations 5 (1) and 209 (1) of the *Civil Aviation Regulations 1988* and subsection 33 (3) of the *Acts Interpretation Act 1901*.

This compilation was prepared on 2 December 2021 taking into account amendments up to *Civil Aviation Order (Flight Operations) Repeal and Amendment Instrument 2021 (No. 1)*. It is a compilation of *Civil Aviation Order 82.0 Instrument 2014* as amended and in force on 2 December 2021.

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Compilation No. 5

### Civil Aviation Order 82.0 Instrument 2014

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#### 1A Name of instrument

- (1) This instrument is the *Civil Aviation Order 82.0 Instrument 2014*.
- (2) This instrument may be cited as *Civil Aviation Order 82.0*.
- (3) A reference in an instrument to section 82.0 of the Civil Aviation Orders is a reference to this instrument.

#### 1 Application

This Order applies to Air Operators' Certificates authorising the flying or operation of an aircraft for a purpose prescribed by regulation 206 of CAR and sets out conditions to which such certificates are subject for the purposes of paragraph 28BA (1) (b) of the Act.

#### 2 Definitions

2.1 In this Part:

*Act* means the *Civil Aviation Act 1988*.

*AFM* means aircraft flight manual.

*certificate* means an Air Operator's Certificate issued by CASA under Division 2 of Part III of the Act.

*GPS* means Global Positioning System.

*MTOW* means maximum take-off weight.

#### 3 Conditions relating to "borrowed" certificates

- 3.1 Each certificate authorising the operation of a glider for the purpose prescribed by paragraph 206 (c) of CAR is subject to the condition that its holder ("the AOC holder") must not, without the prior written approval of CASA, enter into an arrangement with a person whose certificate is suspended or cancelled ("the other person") under which the AOC holder agrees:
  - (a) to use, in any operation covered by the AOC holder's certificate, any aircraft that the other person was authorised to operate under the certificate that is suspended or cancelled; or

- (b) to use, in connection with any operation covered by the AOC holder's certificate, any person employed or engaged by, or otherwise working for, the other person in connection with any operation covered by the certificate that is suspended or cancelled; or
  - (c) to conduct any operation, or any part of an operation, that the other person intended to conduct under the certificate that is suspended or cancelled.
- 3.2 Each certificate authorising the operation of a glider for the purpose prescribed by paragraph 206 (c) of CAR is subject to the condition that its holder ("the AOC holder") must not, without the prior written approval of CASA, enter into an arrangement with a person whose certificate has been varied ("the other person"), under which the AOC holder agrees:
- (a) to use, in any operation covered by the AOC holder's certificate, any aircraft that the other person:
    - (i) was, immediately before the variation, authorised to operate under the other person's certificate; but
    - (ii) is no longer authorised to operate under the certificate as varied; or
  - (b) to use, in connection with any operation covered by the AOC holder's certificate, any person employed or engaged by, or otherwise working for, the other person in connection with any operation that the other person:
    - (i) was, immediately before the variation, authorised to conduct under the other person's certificate; but
    - (ii) is no longer authorised to conduct under the certificate as varied; or
  - (c) to conduct any operation, or any part of an operation that the other person:
    - (i) intended to conduct under the other person's certificate as it had effect immediately before the variation; but
    - (ii) is no longer authorised to conduct under the certificate as varied.
- 3.3 Each certificate authorising the operation of a glider for the purpose prescribed by paragraph 206 (c) of CAR is subject to the condition that its holder ("the AOC holder") must not, without the prior written approval of CASA, enter into an arrangement with a person whose application for a certificate is still pending ("the other person") under which the AOC holder agrees:
- (a) to use, in any operation covered by the AOC holder's certificate, any aircraft proposed to be covered by the certificate sought; or
  - (b) to use, in connection with any operation covered by the AOC holder's certificate, any person proposed to be employed or engaged by the other person in connection with any operation proposed to be covered by the certificate sought; or
  - (c) to conduct any operation, or any part of an operation, proposed to be covered by the certificate sought.

#### **4 General AOC conditions — safety operational specifications**

- 4.1 Each certificate is subject to the condition that CASA may, by notice in writing given to the certificate holder, issue safety operational specifications to be complied with by the certificate holder.
- (a) the authorised area(s) of operations;
  - (b) the EDTO alternate aerodromes;
  - (c) the specific approved airframe/engine combinations;

- (d) the maximum EDTO for the applicable airframe/engine combinations;
  - (e) the maximum diversion time for the applicable airframe/engine combination;
  - (f) the approved OEI cruise speed for the applicable airframe/engine combination;
  - (g) for aeroplanes with more than 2 turbine engines — the approved AEO cruise speed for the applicable airframe/engine combination.
- 4.2 Each certificate is subject to the condition that, where CASA issues safety operational specifications to the certificate holder, the holder must publish the material in a separate section of the operations manual reserved solely for those specifications, and that material may not be varied without the approval of CASA.
- 4.3 Each certificate is subject to the condition that, where the certificate holder is unable to comply with the safety operational specifications so issued, the holder will cease operations under the certificate until the holder is able to comply with those specifications.

## **5 Chief Pilot**

- 5.1 Where a Chief Pilot is required by Civil Aviation Order 82.1 (**CAO 82.1**) to be appointed by an operator, it is a condition of the operator's certificate that the operator will comply with the requirements of Appendix 1 of this section.

*Note 1* From 2 December 2021, CAO 82.1 only applies to operators holding an AOC authorising operation of a glider for the purpose prescribed by paragraph 206 (c) of CAR, that is, commercial glider passenger-carrying operations.

*Note 2* From 2 December 2021, operators holding an AOC authorising operation of an aircraft for the purpose prescribed by paragraph 206 (b) of CAR (commercial Part 137 aerial application operations) are not required to have their Chief Pilot comply with Appendix 1. The requirements relating to the head of flight operations for such an operator are in Part 137 of CASR. See regulation 137.065 of CASR.

## **6 Variation of conditions or obligations**

- 6.1 A certificate holder may apply in writing to CASA for a variation in the conditions and obligations applicable to the certificate.
- 6.2 An application must be made in a form that provides details of the proposed variation.

## **11 Use of electronic flight bags (EFB)**

- 11.1 If the pilot in command of an aircraft, operated under an AOC authorising operations for the purpose prescribed by paragraph 206 (b) of CAR, uses an EFB as a means of viewing or accessing authorised aeronautical information, the certificate authorising the operations is subject to the condition that the AOC holder must comply with, and ensure flight crew compliance with, the applicable requirements in Appendix 9.
- 11.2 For this subsection, **EFB** has the meaning given to it in Appendix 9.

## Appendix 1

Subsection 5

### 1 Approval of Chief Pilot by CASA

- 1.1 A person must not be appointed as, or act as, a Chief Pilot unless the person's appointment has been approved in writing by CASA after application in writing by the operator.
- 1.2 The application must include the following details in relation to the person:
  - (a) current licences, ratings and endorsements held;
  - (b) total flight time, total time as pilot in command and, where applicable, total instrument flight time and multi-engine aircraft experience;
  - (c) a comprehensive outline of flying history, including experience in commercial operations.
- 1.3 The appointment may be approved only if the person has:
  - (a) in the opinion of CASA, maintained a satisfactory record in the conduct or management of flying operations; and
  - (b) been assessed, by an examiner appointed by CASA, as suitable to carry out the responsibilities of a Chief Pilot; and
  - (c) passed an oral examination, conducted by an examiner appointed by CASA, covering the regulatory requirements for the safe conduct of commercial operations; and
  - (d) passed a flight planning, loading and performance examination, conducted by an examiner appointed by CASA, based on the operator's most complex aircraft; and
  - (e) if required by CASA — flown with a person nominated by CASA to demonstrate his or her suitability for appointment.
- 1.4 CASA must:
  - (a) give written notice of the approval, or refusal of approval, to the operator and to the person; and
  - (b) if CASA refuses to approve the appointment — include in the notice the reasons for the refusal.
- 1.5 An approval:
  - (a) relates only to the operator mentioned in the notice of approval; and
  - (b) may be subject to conditions mentioned in the notice of approval; and
  - (c) remains in force:
    - (i) for the period mentioned in the notice of approval; or
    - (ii) if no period is mentioned — while the person maintains a satisfactory standard of performance.

### 2 Responsibilities of Chief Pilot

- 2.1 The Chief Pilot for an operator is to have control of all flight crew training and operational matters affecting the safety of the flying operations of the operator.
- 2.2 The responsibilities of a Chief Pilot must, unless CASA otherwise specifies in writing, include the following responsibilities:
  - (a) ensuring that the operator's air operations are conducted in compliance with the Act, the *Civil Aviation Safety Regulations 1998*, the Manuals of Standards, the *Civil Aviation Regulations 1998* and the Civil Aviation Orders;

- (b) arranging flight crew rosters;
- (c) maintaining a record of licences, ratings, and route qualifications held by each flight crew member, including:
  - (i) validity; and
  - (ii) recency; and
  - (iii) type endorsements and any applicable licence restrictions;
- (d) maintaining a system to record flight crew duty and flight times to ensure compliance with duty and flight time limitations in accordance with Part 48 of the Orders;
- (e) ensuring compliance with loading procedures specified for each aircraft type used by the operator and proper compilation of loading documents, including passenger and cargo manifests;
- (f) monitoring operational standards, maintaining training records and supervising the training and checking of flight crew of the operator;
- (g) conducting proficiency tests in the execution of emergency procedures and issuing certificates of proficiency as required by section 20.11;
- (h) training flight crew in the acceptance and handling of dangerous goods as required by the *Civil Aviation Regulations 1988* or the Orders;
- (i) maintaining a complete and up-to-date reference library of operational documents as required by CASA for the class of operations conducted;
- (j) allocating appropriate aircraft.

### **3 Delegation by Chief Pilot**

A Chief Pilot, in exercising any responsibility, may delegate duties to other members of the operator's staff, but may not delegate training and checking duties without the written approval of CASA.

### **4 Qualifications of Chief Pilot**

- 4.2 Where the operator engages in operations under the instrument flight rules, the Chief Pilot must hold an instrument rating appropriate to the category and class of operations conducted by the operator.
- 4.3 Unless otherwise approved in writing by CASA, a Chief Pilot must hold a licence with the appropriate endorsements and ratings to permit him or her to act as pilot in command of all operations authorised by the operator's certificate.

### **6 Cancellation or suspension of approval**

- 6.1 In spite of subclause 5.5, an approval may be cancelled or suspended at any time if, in the opinion of CASA, the performance of the Chief Pilot is no longer of an acceptable standard.
- 6.2 Where CASA cancels or suspends a person's appointment as a Chief Pilot CASA must:
  - (a) notify the person and the operator in writing of the cancellation or suspension; and
  - (b) provide the person and the operator with reasons for the cancellation or suspension.

## Appendix 9

### Requirements to be met for the use of an EFB

#### 1 Definitions

##### 1.1 In this Appendix:

**AFM** means the aircraft flight manual for the aircraft to which the abbreviation refers.

**aircraft** means an aircraft operated under the AOC of the AOC holder mentioned in subclause 11.1 of this CAO.

*Note* Subclause 11.1 of this CAO is above, in the main body of the CAO, under the heading **Use of electronic flight bags (EFB)**.

**aircraft-installed**, for an EFB, means fitted to an aircraft:

- (a) by the aircraft manufacturer in accordance with the type certificate, or supplemental type certificate, for the aircraft issued by the NAA of a recognised foreign country; or
- (b) in accordance with a supplemental type certificate under Subpart 21E of CASR 1998; or
- (c) in accordance with Subpart 21M of CASR 1998.

**approved mount** means a mount, approved in writing by CASA, which:

- (a) does not require the use of tools for mounting the EFB or dismounting it; and
- (b) whether or not the mount is holding the EFB, and whether or not a screen-protector is used, does not:
  - (i) obstruct the flight crew when entering or leaving the flight deck; or
  - (ii) affect the flight crew's physical or visual access to the operational controls and displays on the flight deck; or
  - (iii) affect the flight crew's external vision from the flight deck; or
  - (iv) if the EFB is connected to aircraft power or an external antenna — affect the operation of the aircraft or the safety of the flight crew; or
  - (v) present, including through cabling or other connectivity, a safety hazard to the flight crew at any time, including in an emergency.

**authorised EFB custodian** means a person who is authorised in writing by the HFO to have custody of an AOC holder's EFB.

**backup EFB** means an EFB that is:

- (a) of at least the same class and functionality level as the permitted EFB of the most senior flight crew member to whom an EFB was issued (**designated EFB member**); and
- (b) available to be used in the event of the failure or malfunction of the EFB of the designated EFB member.

*Note* The EFB issued to flight crew member, other than the designated EFB member, may be used as the backup EFB. Under subclause 3.7 of this Appendix, any requirements of this Appendix that apply to, or in relation to, a flight crew EFB, also apply to the backup EFB.

**class** means a Class 1 EFB or a Class 2 EFB.

**Class 1 EFB** means an EFB that is portable but not mounted.

**Class 2 EFB** means an EFB that is portable and mounted.

*Note* A Class 3 EFB means an EFB that is aircraft-installed. This Order does not deal with Class 3 EFB.

**CAR 1988** means the *Civil Aviation Regulations 1988*.

**CASR 1998** means the *Civil Aviation Safety Regulations 1998*.

**data** means digital data primarily used for the operation of an aircraft, including aeronautical maps, charts, and any other written, numerical, diagrammatic or cartographic information or instructions.

**EFB system** means the hardware, the operating system, the loaded software and any antennae, connections and power sources, used for the operation of an EFB.

**electronic flight bag, or EFB**, means the portable electronic device of an EFB system that satisfies all of the following requirements:

- (a) it is not an instrument, equipment or navigation computer to which any of the following, as in force immediately before 2 December 2021, would have applied:
  - (i) regulation 207 of CAR 1988;
  - (ii) regulation 232A of CAR 1988;
  - (iii) Civil Aviation Order 20.18;
- (b) it provides, as a minimum, data storage, search, computational and display capabilities;
- (c) it uses a screen which displays data in a size and form that is at least as easily read and used as it would be in a paper document for which the EFB would be a substitute;
- (d) it is used primarily on the flight deck of an aircraft by the flight crew of the aircraft for the purpose of accessing and using data relevant to the operation of the aircraft.

**flight crew EFB** means the permitted EFB which the AOC holder must ensure each operating flight crew member has the exclusive use of on the flight deck of an aircraft.

*Note* See subclause 3.5 of this Appendix.

**functionality level** means 1 of the following functionality levels mentioned in subclause 1.3:

- (a) functionality level 1;
- (b) functionality level 2;
- (c) functionality level 3;
- (d) functionality level 4.

**HFO**, for an AOC holder, means the head of flying operations (however described).

**mounted** has the meaning given in paragraph (b) of the definition of **portable**, and includes a mount that is:

- (a) attached to the aircraft; or
- (b) not attached to the aircraft but secured to a flight crew member, for example, a kneepad.

*Note* The mount for an EFB that is mounted to the aircraft structure requires airworthiness approval under Subpart 21.M of the CASR 1998.

**operating flight crew member** means a member of the minimum flight crew required for operation of an aircraft under its AFM.

**portable**, for an EFB, means designed by its manufacturer to be carried by hand, and carried by hand onto the flight deck of an aircraft by a flight crew member or an authorised EFB custodian, for use:

- (a) without a mount; or

- (b) when mounted in the flight deck by a flight crew member on an approved mount.

**recognised foreign country** has the same meaning as in regulation 21.012 of CASR 1998.

1.2 In this Appendix:

- (a) a reference to **training** is taken to include a reference to the contemporaneous assessment, by the trainer, of the person who has been trained; and
- (b) a reference to carrying a portable EFB **onto the flight deck of an aircraft** includes carrying the EFB off the flight deck after use.

1.3 For the definition of **functionality level**:

- (a) **functionality level 1** means that the EFB:
  - (i) is used to view authorised aeronautical information, but without the functionality to change any of that data; and
  - (ii) may have a flight planning tool to facilitate the use of the data mentioned in subparagraph (i); and
  - (iii) may be 1 or more of the following:
    - (A) subject to subparagraph (iv) — held in the hand;
    - (B) mounted on an approved mount;
    - (C) attached to a stand-alone kneeboard secured to a flight crew member;
    - (D) connected to aircraft power for battery re-charging;
    - (E) connected to an installed antenna intended for use with the EFB for situational awareness but not navigation; and
  - (iv) unless secured in accordance with sub-subparagraph (iii) (B) or (C) — must be stowed:
    - (A) during take-off and landing; and
    - (B) during an instrument approach; and
    - (C) when the aircraft is flying at a height less than 1 000 feet above the terrain; and
    - (D) in turbulent conditions; and
  - (v) has no data connectivity with the avionics systems of the aircraft; and
  - (vi) may have wireless or other connectivity to receive or transmit information for EFB administrative control processes only; and
- (b) **functionality level 2** means that the EFB:
  - (i) must have the functionality of functionality level 1; and
  - (ii) subject to subclause 1.4, has 1 or more software applications that use algorithms requiring manual input to satisfy operational requirements; and
  - (iii) has no data connectivity with the avionics systems of the aircraft; and
  - (iv) may have wireless or other connectivity to receive or transmit information for EFB administrative control processes only; and

*Note* Examples of “software applications that use algorithms requiring manual input to satisfy operational requirements” include weight and balance calculations, or performance calculations required by the aircraft’s approved flight manual.

- (c) **functionality level 3** means that the EFB has:
  - (i) the functionality of functionality levels 1 and 2; and



- (ii) 1 or more software applications that permit one-way only acceptance of data directly from the aircraft systems for use by the flight crew to satisfy operational requirements; and
- (iii) data connectivity with the avionics systems of the aircraft:
  - (A) on a one-way, read-only basis; or
  - (B) to receive or transmit information for aircraft administrative control processes only; and

*Note* For example, the link may be via Wi-Fi and as a data link must have system security.

- (d) **functionality level 4** means that the EFB has:
  - (i) the functionality of functionality levels 1, 2 and 3; and
  - (ii) 1 or more software applications that permit acceptance of data directly from the aircraft systems for direct input to the aircraft's flight management system to satisfy operational requirements; and
  - (iii) data connectivity with the avionics systems of the aircraft that:
    - (A) is secure; and
    - (B) does not have adverse effects on the avionic systems of the aircraft; and
    - (C) has High Intensity Radiated Fields and lightning protection; and
    - (D) is capable of being overridden by manual input in the event of an EFB malfunction or failure; and
    - (E) may receive or transmit information for aircraft administrative control processes.

*Note* This bi-directional link may be via wireless connectivity, for example, Wi-Fi, and system security must prevent external interference.

## 2 Software application validation

- 2.1 This clause applies for a software application (**SA**) of the kind mentioned in subparagraph (b) (ii) of the definition of **functionality level 2** in subclause 1.3 (including when functionality level 2 is adopted for functionality level 3 or functionality level 4).
- 2.2 Before first use of the SA, or after any updating of the SA, the AOC holder must:
  - (a) validate the output from the SA for the aircraft to ensure that it complies with the performance limitations set out in the AFM; and
  - (b) retain written evidence of the completion of this validation for the duration of the validation; and
  - (c) make the written evidence mentioned in paragraph (b) available to CASA on request.
- 2.3 If the SA is for use in weight and balance calculations for an aircraft, the suitability of the SA must be validated in writing by a weight control officer (within the meaning of Civil Aviation Order 100.7).

## 3 Permitted EFB

- 3.1 The AOC holder's operations manual (the **operations manual**) must clearly identify the EFB which the holder permits a flight crew member to use (a **permitted EFB**).
- 3.2 The identification of a permitted EFB in the operations manual must indicate its class and functionality level.

- 3.3 An AOC holder may make an EFB a permitted EFB for an aircraft only if he or she has first demonstrated and documented that the EFB is suitable for:
- (a) use in the aircraft for operational purposes, taking into account, for example, radiation, electromagnetic interference, and other electronic devices, instruments and equipment carried on, or installed in, the aircraft; and
  - (b) the operating conditions in which the EFB is to be used, including, for example, the expected ranges of temperature, humidity, lighting, turbulence and altitude.
- 3.4 The AOC holder must ensure that a flight crew member of an aircraft must not use an EFB other than a permitted EFB.
- 3.5 The AOC holder must issue each operating flight crew member with a permitted EFB for his or her exclusive use on the flight deck of an aircraft.
- 3.6 The AOC holder must ensure that, at the point of aircraft despatch, there is available on the flight deck and accessible to the pilot in command:
- (a) a backup EFB capable of substituting, in all respects, for the EFB of the most senior flight crew member to whom an EFB was issued; or
- 3.7 Any requirements of this Appendix that apply to, or in relation to, flight crew EFB, also apply to a backup EFB.

*Note* See Definitions in subclause 1.1.

- (b) paper versions of the authorised aeronautical information for the flight for which the EFB of the pilot in command was intended to be a substitute.

*Note* To avoid doubt, a backup EFB does not require a further backup EFB.

#### **4 EFB Administrator**

- 4.1 The AOC holder must designate a person to be his or her EFB Administrator.
- 4.2 The EFB Administrator must be a person who has undergone training in the use, management and administration of a permitted EFB, as specified in the operations manual.
- 4.3 The AOC holder must ensure that the EFB Administrator has the authority and responsibility to manage and administer, on behalf of the AOC holder and in accordance with any requirements set out in the operations manual, the obligations imposed on the AOC holder under this Appendix, including in relation to:
- (a) the continuing accuracy of the identification, class and functionality level of the permitted EFB; and
  - (b) the currency, reliability and security of the permitted EFB and EFB system; and
  - (c) the validations required under clause 2 for a software application of the kind mentioned in subparagraph (b) (ii) of the definition of **functionality level 2** in subclause 1.3 (including when functionality level 2 is adopted for functionality level 3 or functionality level 4); and
  - (d) flight crew training for, and use of, a permitted EFB; and
  - (e) permitted EFB user obligations imposed on members of the flight crew by the operations manual; and
  - (f) human factors and flight deck resource management in relation to the use of a permitted EFB; and
  - (g) backup EFB; and

- (h) the validity of authorisations and certifications required for data link security for the permitted EFB system.
- 4.4 The EFB Administrator must be accountable to the AOC holder's HFO for:
  - (a) managing and administering flight crew use of a permitted EFB; and
  - (b) ensuring that the detailed operational procedures for the use of a permitted EFB are complied with.
- 4.5 To avoid doubt, the operations manual must set out relevant requirements for each of the matters mentioned in subclause 4.3.

## **5 EFB Administrator training**

- 5.1 The AOC holder must establish, and set out in the operations manual:
  - (a) the nature, content and duration of the training that an EFB Administrator must have successfully completed before exercising responsibilities as the EFB Administrator; and
  - (b) the recurrent training that the EFB Administrator must complete while exercising those responsibilities.
- 5.2 The training and recurrent training must be:
  - (a) provided by a person approved in writing by the AOC holder; and
  - (b) specific for the functionality level and class of the permitted EFB.
- 5.3 The training and recurrent training must provide competency in the use, management and administration of a permitted EFB, including in the requirements and operational procedures set out in the operations manual and this Appendix.

## **6 Flight crew training**

- 6.1 The AOC holder must establish, and set out in the operations manual, the nature, content and duration of the training that each flight crew member of an aircraft must have successfully completed before using a permitted EFB.
- 6.2 The training must be completed before a person may use the permitted EFB, and must include training in:
  - (a) the instructions and recommendations of the manufacturer of the permitted EFB as hardware; and
  - (b) the instructions and recommendations of the developer and installer of the permitted EFB's software; and
  - (c) the procedures to be followed if the permitted EFB carried on an aircraft fails or malfunctions during the operation of the aircraft.
- 6.3 If the pilot in command of an aircraft uses a permitted EFB as a means of viewing some of the authorised aeronautical information, the training in the use of the EFB must ensure continuing flight crew proficiency in the non-EFB documents used to complement EFB use.
- 6.4 The training must be provided by a person approved by the HFO, and be specific for the functionality level and class of the permitted EFB.

## **7 Certification of completion of EFB training**

For clauses 5 and 6, the operations manual must require the AOC holder's HFO to certify in writing to the AOC holder that, for the following persons:

- (a) the EFB Administrator;

- (b) each flight crew member of an aircraft under the AOC who may use the permitted EFB;

the HFO is satisfied that the person:

- (c) has been trained and assessed in accordance with the operations manual; and
- (d) is competent:
  - (i) for the EFB Administrator — to manage and administer, in accordance with the requirements set out in the operations manual and this Appendix, flight crew use of the permitted EFB; and
  - (ii) for a flight crew member — to use a permitted EFB, in accordance with the requirements set out in the operations manual and this Appendix.

## **8 Hardware integrity for aircraft-installed EFB**

The AOC holder must establish, and set out in the operations manual, procedures which make it clear that the EFB Administrator is not responsible for the management and administration of the hardware of, and that is associated with, an aircraft-installed EFB.

## **9 Hardware integrity for EFBs**

- 9.1 Without affecting clause 8, the AOC holder must establish, and set out in the operations manual, procedures to safely manage the hardware of, and accessories for, a permitted EFB, including:
  - (a) its removal, repair, replacement, re-installation and maintenance; and
  - (b) its storage when off the aircraft, and its stowage when on the aircraft and not mounted.
- 9.2 For subclause 9.1, *hardware* and *accessories* include the following:
  - (a) the electronic device constituting the hardware of the permitted EFB;
  - (b) any mount for the EFB;
  - (c) cables and antennae for the EFB;
  - (d) screen protectors for the EFB;
  - (e) batteries and other portable power sources for the EFB.

## **10 Data integrity for permitted EFBs**

The AOC holder must establish, and set out in the operations manual, procedures for the following for a permitted EFB:

- (a) the loading of software on to the EFB (including who may do this and how it is to be done);
- (b) the entry of data into, and the verification of data in, the EFB (including who may do this and how it is to be done);
- (c) ensuring that any data loaded on to the EFB is current and up-to-date for any time that it is used in an aircraft operation;
- (d) protection of the EFB system, including protection of data in the EFB, and data links, from unauthorised use, electronic interference, corruption or viruses;
- (e) ensuring the tracking of the EFB database expiry dates, and ensuring the accurate and reliable updating of data bases;
- (f) flight crew error and defect reporting for the EFB;
- (g) procedures to be followed if a permitted EFB wholly or partially fails or malfunctions during an aircraft operation;

- (h) testing of the EFB following:
  - (i) the loading or unloading of software; or
  - (ii) EFB hardware maintenance; or
  - (iii) the occurrence of a circumstance mentioned in paragraph (g).

## **11 Flight crew procedures**

The AOC holder must establish for a permitted EFB, and set out in the operations manual, flight crew procedures for the following:

- (a) who may use the EFB;
- (b) when the EFB may be used and the purposes for which it may be used;
- (c) how the EFB is to be used;

*Note* As defined above, EFB means both the hardware and the software of the device.

- (d) if there are 2 or more sources on board the aircraft for the same operational data, one of which is the permitted EFB of the flight crew — establishing the order of precedence for the use of the sources;
- (e) the cross-checks to be carried out by each flight crew member to verify EFB data before it is relied upon, in particular safety-critical EFB data;
- (f) how the following are to be avoided or minimised in the use of the EFB:
  - (i) flight crew member error;
  - (ii) flight crew member overload;
- (g) the power sources to be used for the EFB;
- (h) the backup data, data sources and power sources to be carried on board an aircraft for the contingency of an EFB or EFB power-source failure.

## **12 Maintenance control for EFB**

- 12.1 The AOC holder must ensure that the hardware of a permitted EFB and an EFB system is maintained in accordance with this clause.
- 12.2 The AOC holder must establish, and set out in an appropriate document (for example, a maintenance control manual), detailed operational procedures for the maintenance control of a permitted EFB and EFB system.
- 12.3 The procedures must ensure that only the original manufacturer of the permitted EFB, or a person approved in writing by the original manufacturer, may maintain the hardware of a permitted EFB.
- 12.4 The procedures must ensure that only the original manufacturer of the permitted EFB, or a person approved in writing by the original manufacturer, may modify the operating system of the permitted EFB.
- 12.5 The procedures must ensure that only the original producer of a software application loaded on to a permitted EFB, or a person approved in writing by the original producer, may modify that software application for use on the EFB.

## **13 Safety paramount**

- 13.1 The procedures to be included in the operations manual, and the appropriate document mentioned in subclause 12.2, in relation to EFBs must be designed to achieve the highest practicable level of safety in the use of the permitted EFB.
- 13.2 The AOC holder must ensure that each member of the holder's personnel who has obligations under the operations manual in relation to the permitted EFB or EFB system complies with those obligations.

## Notes to Civil Aviation Order 82.0

### Note 1

The Civil Aviation Order (in force under the *Civil Aviation Act 1988*, the *Civil Aviation Regulations 1988* and the *Acts Interpretation Act 1901*) as shown in this compilation comprises Civil Aviation Order 82.0 amended as indicated in the Tables below.

### Table of Orders

| Year and number                  | Date of registration on FRLI   | Date of commencement  | Application, saving or transitional provisions |
|----------------------------------|--------------------------------|---|--|
| CAO 82.0 Instrument 2014         | 12 December 2014 (F2014L01689) | 12 December 2014 (s. 2)                                       | —  |
| CAO 82.0 2014 (No. 3)            | 22 December 2014 (F2014L01793) | 23 December 2014 (s. 2)                                       | —  |
| CAO 82.0 2014 (No. 1)            | 12 December 2014 (F2014L01693) | 1 January 2015 (s. 2)   | See Table A                                    |
| CAO 82.0 2014 (No. 2)            | 19 December 2014 (F2014L01763) | S. 2A: 19 December 2014.<br>Remainder: 1 January 2015 (2. 2B) | See Table A, Table B and Table C               |
| CAO 82.0 2015 (No. 1)            | 27 February 2015 (F2015L00226) | 28 February 2015  | —  |
| CAO 82.0 (No. 1) 2018            | 11 October 2018 (F2018L01415)  | 8 November 2018   | —  |
| CAO Amdt Instrument 2021 (No. 1) | 1 December 2021 (F2021L01680)  | 2 December 2021   | —  |

### Table of Amendments

ad. = added or inserted    am. = amended    rep.= repealed    rs. = repealed and substituted

| Provision affected | How affected  |
|--------------------|---|
| subs. 1B           | rep. LA s. 48D  |
| subs. 1C           | rep. LA s. 48C  |
| subs. 1D           | am. CAO 82.0 2015 No. 1<br>rep. F2021L01680   |
| subs. 1            | am. F2021L01680   |
| subs. 2            | am. CAO 82.0 2014 No. 3; CAO 82.0 2014 No. 2, CAO 82.0 2015 No. 1; CAO 82.0 (No. 1) 2018, F2021L01680 |
| subs. 3            | am. F2021L01680   |
| subs. 3A           | rs. CAO 82.0 2014 No. 3<br>am. CAO 82.0 (No. 1) 2018<br>rep. F2021L01680                              |
| subs. 3B           | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680   |
| subs. 3BA          | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680   |
| subs. 3BB          | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680   |
| subs. 3BC          | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680   |
| subs. 3BD          | rep. F2021L01680  |
| subs. 3C           | rep. F2021L01680  |

**Table of Amendments**

ad. = added or inserted    am. = amended    rep.= repealed    rs. = repealed and substituted

| Provision affected | How affected                                |
|--------------------|---|
| subs. 3D           | rep. F2021L01680                            |
| subs. 3E           | rep. F2021L01680                            |
| subs. 4            | am. CAO 82.0 2014 No. 2, F2021L01680        |
| sub. 5             | am. F2021L01680                             |
| subs. 7            | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680 |
| subs. 8            | rep. F2021L01680                            |
| subs. 8A           | rep. F2021L01680                            |
| subs. 8B           | rep. F2021L01680                            |
| subs. 8C           | rep. F2021L01680                            |
| subs. 9            | rep. F2021L01680                            |
| subs. 10           | rep. F2021L01680                            |
| sub. 11            | am. F2021L01680                             |
| Appendix 1         | am. F2021L01680                             |
| Appendix 2         | rep. F2021L01680                            |
| Appendix 3         | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680 |
| Appendix 4         | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680 |
| Appendix 5         | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680 |
| Appendix 6         | rep. F2021L01680                            |
| Appendix 7         | am. CAO 82.0 2014 No. 2<br>rep. F2021L01680 |
| Appendix 8         | rep. F2021L01680                            |
| Appendix 8B        | rep. F2021L01680                            |
| Appendix 8C        | rep. F2021L01680                            |
| Appendix 9         | am. F2021L01680                             |

**Table A**

*Civil Aviation Order 82.1 Amendment Instrument 2014 (No. 1) (CAO No. 1)* was registered on 12 December 2014 to commence on 1 January 2015. *Civil Aviation Order 82.1 Amendment Instrument 2014 (No. 2)* was registered on 19 December 2014 to commence on 1 January 2015, except that section 2A commenced on 19 December 2014. Section 2A repealed CAO No. 1. Therefore, CAO No. 1 never commenced.

**Table B**

1. *Civil Aviation Order 82.1 Amendment Instrument 2014 (No. 2) (CAO No. 2)* commenced on 1 January 2015. The application of the amendments in CAO No. 2 is qualified by section 3, Transitional application — aeroplanes with more than 2 engines, of CAO No. 2 (see Table C).
2. CAO No. 2 commenced on 1 January 2015. Amendment number 7 in Schedule 1 of CAO No. 2 omitted “90 minutes” and inserted “60 minutes” into the definition of **threshold time** in sub-subparagraph 2.1 (a) (i). However, under section 4, Transitional application of new definition — **threshold time**, of CAO No. 2, amendment number 7 does not apply until 1 July 2015.

3. CAO No. 2 commenced on 1 January 2015. Amendment number 19 in Schedule 1 of CAO No. 2 repealed paragraphs 3BC.5 to 3BC.8. Under section 5, Transitional application — omission of paragraphs 3BC.5 to 3BC.8, of CAO No. 2, amendment number 19 does not apply until 1 July 2015.

### **Table C Application, saving or transitional provisions**

*Sections 3, 4 and 5 of Civil Aviation Order 82.0 Amendment Instrument 2014 (No. 2) read as follows:*

#### **3 Transitional application — aeroplanes with more than 2 engines**

The amendments to Civil Aviation Order 82.0 in Schedule 1 of this instrument, other than the amendments to subsections 3B and 3BA, do not apply to an Air Operator's Certificate authorising the operation of an aeroplane with more than 2 engines until 1 July 2015.

*Note* Civil Aviation Order 82.0 Amendment Order (No. 3) 2007 (the **2007 amendment**) first created rules for EDTO. Under section 5 of the 2007 amendment, apart from subsections 3B and 3BA, the new EDTO rules do not apply to aeroplanes with more than 2 engines until 1 July 2015. Similarly, the amendments in Schedule 1 of *Civil Aviation Order 82.0 Amendment Instrument 2014 (No. 2)* do not apply to aeroplanes with more than 2 engines until 1 July 2015, except for the amendments to subsections 3B and 3BA, which apply to all aeroplanes on 1 January 2015. On 1 July 2015, when provisions as now amended take effect for aeroplanes with more than 2 engines, they will only apply to passenger-carrying operations in such aeroplanes — see paragraph 3BC.4 created by amendment number 20 of Schedule 1.

#### **4 Transitional application of new definition — *threshold time***

Amendment number 7 in Schedule 1 of this instrument does not apply until 1 July 2015.

*Note* By virtue of amendment number 7 in Schedule 1, for a twin engine aeroplane certificated to carry more than 19 passengers, or having a maximum payload capacity exceeding 3 410 kg, the threshold time is to be reduced from 90 minutes to 60 minutes. However, amendment number 7 in Schedule 1, which makes this reduction, does not take effect until 6 months after commencement of this instrument, namely, 1 July 2015.

#### **5 Transitional application — omission of paragraphs 3BC.5 to 3BC.8**

Amendment number 19 in Schedule 1 of this instrument does not apply until 1 July 2015.