



ADVISORY CIRCULAR

AC 1-04 v1.0

Registered operator responsibilities for continuing airworthiness

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Advisory circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to aerial work operators, aerial application operators and flight training operators not subject to Part 42 of the *Civil Aviation Safety Regulations 1998 (CASR)*. It does not specifically apply to operators of Part 131 aircraft.

Purpose

This AC provides guidance for operators relating to their management of the continuing airworthiness, and maintenance, of aircraft being used for their operations. The intention is to provide background information and expand on the operator obligations that apply prior to the eventual introduction of Part 43 of CASR and the completion of CASA's Air Transport Continuing Airworthiness (ATCA) project.

For further information

For further information, contact CASA's Flight Standards Branch (telephone 131 757).

Status

This version of the AC is approved by the Branch Manager, Flight Standards.

Version	Date	Details
v1.0	March 2023	Initial AC. This AC contains an abbreviated summary of information from the pre-2 December 2021 Volume 3 of the Air Operator's Certificate Handbook.

Unless specified otherwise, all subregulations, regulations, Divisions, Subparts and Parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Contents

1	Reference material	3
1.1	Acronyms	3
1.2	Definitions	4
1.3	References	5
2	Introduction	7
3	Airworthiness responsibilities	8
3.1	Persons responsible for continuing airworthiness	8
3.2	Management of maintenance – Maintenance control -Maintenance records	9
3.3	Recording aircraft time-in-service – Maintenance logs and record keeping requirements	9
3.4	CASA Maintenance Releases or Tech Log – Recording and management of aircraft defects	9
3.5	Airworthiness directives	10
3.6	Maintenance controller	10
3.7	Stores control and spares holding	11
3.8	Weight and balance control	12
3.9	Special flight permits, MEL, permissible unserviceabilities, exemptions, variations and exclusions	12
3.10	Pilot maintenance	12
3.11	Pilot maintenance - approval of non-Schedule 8 tasks	12
3.12	Overseas maintenance	13

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	advisory circular
AD	Airworthiness Directive
AFM	aircraft flight manual
AMC	acceptable means of compliance
AWL	Airworthiness Limitations
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
CEO	Chief Executive Officer
GM	guidance material
HAAMC	Head of Aircraft Airworthiness and Maintenance Control
MC	maintenance controller
MCM	maintenance control manual
MEL	minimum equipment list
MOS	manual of standards
MR	maintenance release
OEM	original equipment manufacturer
PIC	pilot in command
PSEA	prescribed single-engine aircraft operations
RO	registered operator of an aircraft
SOM	system of maintenance
TCDS	type certificate data sheet

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by grey shading. Should there be a discrepancy between a definition given in this AC and the legislation, the definition in the legislation prevails.

Term	Definition
aeronautical product	<p>Any part or material that is, or is intended by its manufacturer to be, a part of or used in an aircraft, unless excluded by the regulations.</p> <p>Note: Clause 1 of Part 2 of the CASR Dictionary lists the exclusions from the definition of aeronautical product.</p>
aerial work operation	<p>One or more of the following:</p> <ol style="list-style-type: none"> a. an external load operation b. a dispensing operation c. a task specialist operation. <p>Note: Aerial work operations also include training for such operations. See regulation 138.010 of CASR.</p>
air transport operation	<ol style="list-style-type: none"> 1. An air transport operation is a passenger transport operation, a cargo transport operation or a medical transport operation, that: <ol style="list-style-type: none"> a. is conducted for hire or reward; or b. is prescribed by an instrument issued under regulation 201.025. 2. Despite subclause (1), an air transport operation does not include an aerial work operation or a balloon transport operation.
Australian aircraft	<p>Means:</p> <ol style="list-style-type: none"> a. aircraft registered in Australia; and b. aircraft in Australian territory, other than foreign registered aircraft and state aircraft. <p>Note: Some references to Australian aircraft may be affected by the operation of section 4A of the Civil Aviation Act 1988.</p>
Chief Executive Officer	A key person required under the Act and described in Subpart 119.D and Subpart 138.B.4 of CASR
exposition	<ol style="list-style-type: none"> a. for an Australian air transport operator, means: <ol style="list-style-type: none"> i the set of documents approved by CASA under regulation 119.075 in relation to the operator; and ii if the set of documents is changed under regulation 119.085, 119.095 or 119.105, or in accordance with the process mentioned in regulation 119.100—the set of documents as changed. <p>Note: The full definition of exposition from the CASR Dictionary includes elements relevant to ASAOs and balloon transport operators which have not been replicated here.</p>
flight crew member	a crew member who is a pilot or flight engineer assigned to carry out duties essential to the operation of an aircraft during flight time.
instructions for continuing airworthiness	<p>Means instructions:</p> <ul style="list-style-type: none"> • that form part the type certification process, including the TCDS • issued by the manufacturer of an aircraft, aircraft components or aircraft

Term	Definition
	<p>material</p> <ul style="list-style-type: none"> • issued by the holder of a Supplemental Type Certificate • issued by designer of a modification or repairs of an aircraft or aircraft component • that specify one or more the following: <ul style="list-style-type: none"> ○ what maintenance is to be carried out ○ when maintenance is to be carried out ○ how maintenance is to be carried out on the aircraft or aircraft component or material included in the aircraft. <p>Note: The legal definition of instructions for continuing airworthiness is in clause 10 of Part 2 of the CASR Dictionary. The definition above is a plain language description.</p>

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website <https://www.legislation.gov.au/>

Document	Title
Subpara 28(1)(b)(iii)	Civil Aviation Act (1988)
Subpart 119.D	Organisation and Personnel for Australian air transport operators
Subpart 119.H	Expositions for Australian air transport operators
Subpart 137.C	Operator certification and supervision Note: Particularly regulations 137.035, 137.040, 137.055, 137.080, 137.085 and 137.090 which pertain to operations manuals.
Division 138.B	Certification requirements for Aerial Work Operations Note: The regulations within this Division apply to aerial work certificate holders.
Subpart 141.I	Part 141 operators – operations manuals
Subpart 142.K	Part 142 operators – expositions
CAO 100.5	General requirements in respect of maintenance of Australian aircraft
CAO 100.7	Instrument 2015 Note: This CAO does not have a descriptive title. The general content of the CAO is related to the weight control of aircraft.
CASA EX91/21	Maintenance Control (Certain Class A Aircraft Only Engaged in Private Operations) Exemption 2021

Advisory material

CASA's advisory materials are available at <https://www.casa.gov.au/publications-and-resources/guidance-materials>

Document	Title
AC 1-02	Guide to the development of expositions and operations manuals
AC 20-03	Identification and Management of Aeronautical Products
AMC/GM Part 138	Aerial work operations
CAAP 37-1	Minimum equipment lists
CAAP 42B-1	CASA maintenance schedule
CAAP 42L-1	Inspection of aircraft after abnormal flight loads, heavy landing or lightning strike
CAAP 42M-1	Approved system of maintenance for class A aircraft
CAAP 42W-2	Authorised release certificate
CAAP 42ZC-01	Part 1 of Schedule 8 of CAR 1988 - the pilot maintenance schedule - guidance for pilots and Part 66 licence holders
CAAP 43-1	Maintenance release
CAAP 100.5-01	Maintenance of aircraft - general requirements

2 Introduction

This AC should be read in conjunction with the relevant regulations and guidance material for each operation type/category.

This AC does **not cover for aircraft operated and managed under Part 42 (CAMO)**.

This AC is not written to give substantial guidance to operations under Part 119, although some sections could provide minimum advice.

The intent of this AC is to provide a central reference document for aircraft operators conducting operations under a certificate granted by CASA for Parts 137, 138, 141 and 142 of CASR in relation to their continuing airworthiness obligations.

3 Airworthiness responsibilities

Registered Operators (RO) are required to ensure that aircraft being used in their operations are maintained in accordance with the applicable sections of Parts 4A to 4D of the *Civil Aviation Regulations 1988* (CAR) and they are in a condition for safe operation.

3.1 Persons responsible for continuing airworthiness

3.1.1 Australian air transport (Part 119/121/133/135) operators are required to have a section in their exposition which describes the operator's arrangements for managing the continuing airworthiness of the aircraft used by the operator under its AOC. The following pieces of legislation are recommended to be reviewed by the operator:

- Subparagraph 28(1)(b)(iii) of the *Civil Aviation Act 1988* (organisation has a sufficient number of suitably qualified and competent personnel)
- Regulation 119.130 Chief executive officer – responsibilities and accountabilities
- Regulation 119.140 Head of flying operations – responsibilities
- Regulation 119.205 Content of exposition
- Regulation 119.220 Compliance with exposition by personnel.

3.1.2 Aerial work (Part 138) operators are required to have a section in their operations manual which describes the operator's arrangements for managing the continuing airworthiness of the aircraft used by the operator under its aerial work certificate. The following regulations are recommended to be reviewed by the operator:

- Paragraph 138.040(1)(e) (organisation has a sufficient number of suitably qualified and competent personnel)
- Regulation 138.085 Responsibilities and accountabilities of chief executive officer
- Regulation 138.095 Responsibilities of head of operations
- Regulation 138.155 Content of operations manual
- Regulation 138.160 Compliance with operations manual by personnel.

3.1.3 Aerial application (Part 137) operators are required to nominate an individual in the organisation who will be head of aircraft airworthiness and maintenance control (HAAMC).

3.1.4 Flight training (Part 141/142) operators are required to have a process for ensuring continuing airworthiness of aircraft used for its operation (regulation 42ZV of CAR), to appoint a maintenance controller, and have a maintenance control manual that has been approved under regulation 42ZY of CAR.

3.1.5 In all cases, the operator would be expected to include in the exposition/operations manual a system to coordinate and ensure the maintenance of their aircraft is carried out at the specified time (TTIS), date and cycles of each aircraft.

3.2 Management of maintenance – Maintenance control - Maintenance records

3.2.1 It is recommended that the operator's system and manual/exposition contain:

- a process that ensures the aircraft **maintenance schedule** is complete and appropriate
- acknowledgment of the **operator's responsibility in relation to continuing airworthiness** of the aircraft which includes the **maintenance planning and scheduling**
- **responsibilities and procedures for the person employed** for scheduling and tracking of aircraft maintenance
- processes for **contractual arrangements with maintenance providers**
- and a process that explains how **configuration of aircraft equipment is managed and maintenance is traced** for items that are removed or swapped on a regular basis such as seats (for passenger to cargo reconfiguration) emergency, survival and role equipment
- a process for how **major aircraft components, rotatable items and lifed- parts are managed and tracked.**

3.3 Recording aircraft time-in-service – Maintenance logs and record keeping requirements

3.3.1 The operator is to include procedures to ensure accurate time-in-service (TIS) recording and that up-to-date and accurate maintenance records are retained for the periods specified in CAO 100.5, including:

- a nominated person to be responsible for keeping or managing maintenance records
- any contractual arrangements for outsourcing maintenance record keeping (if applicable).

3.4 CASA Maintenance Releases or Tech Log – Recording and management of aircraft defects

3.4.1 Operators are required to ensure that a current and valid maintenance release (MR) is in force for aircraft being operated under its certificate.

3.4.2 Operators are required to have procedures and training on how-to-use the CASA MR or operator's Tech Log. For the CASA MR, this should include daily review of MRs for maintenance due (Part 1) and aircraft defects (Part 2), and the recording of time in service (Part 3).

3.4.3 Training will also need to cover the recording of permissible unserviceability's and endorsing and clearing of entries.

3.4.4 If the operator or any person involved in the operation or maintenance of an aircraft becomes aware that an aircraft has a defect or has been damaged, the details must be recorded on the maintenance release or Tech Log.

3.4.5 The following are conditions where the MR ceases to be in force. Operators should be aware of these as specified in regulation 47 of CAR:

- where the aircraft has been subject to abnormal flight or ground loads
or
- where maintenance that has been carried out on the aircraft may have adversely affected to such an extent that made the aircraft unsafe
or
- where required maintenance has not been carried out
or
- where the aircraft has a major defect or received major damage

then the maintenance release ceases to be in force, and the operator must ensure that the aircraft is removed from service until the condition is rectified.

3.4.6 Where uncertainty regarding a defect or damage exists, the operator or person responsible for continuing airworthiness must ensure the defect or damage is assessed by licenced maintenance personnel to determine whether the aircraft remains airworthy or not.

3.4.7 If, the damage or defect is major damage or a major defect (regulation 51A of CAR), the operator must report the details to CASA (regulation 51 of CAR)

3.5 Airworthiness directives

3.5.1 The operator has a responsibility to ensure that an aircraft is not operated while a requirement of an applicable Airworthiness Directives (AD) is in force and has not been complied with.

3.5.2 A system of AD management is required and must include any subscription service that is necessary to receive CASA ADs and any State of Design AD from the relevant NAAs (For example, FAA, EASA, Transport Canada etc).

3.5.3 ADs must be reviewed for applicability; non-recurring ADs must be recorded as actioned and recurring ADs included in the maintenance schedule.

3.6 Maintenance controller

3.6.1 When an organisation is required to appoint a maintenance controller

3.6.1.1 If an operator is using a class A aircraft in its operations, it must appoint a maintenance controller (regulation 42ZV of CAR) and prepare a maintenance control manual (MCM) for each class A aircraft (regulation 42ZY of CAR). It is good to also be aware that class A aircraft that are in private operations only are exempt from the requirements to have an appointed Maintenance Controller¹.

¹ See CASA EX91/21.

3.6.1.2 The maintenance control manual (MCM) can be a standalone document or a chapter of the operations manual.

3.6.1.3 It is possible for an operator to appoint several maintenance controllers (MC) across their fleet. In this case each maintenance controller would be concerned only with the maintenance control of a specific list of aircraft. The operator's management and oversight of multiple MCs will be documented in their operational documents and their MCM.

3.6.2 Responsibilities of the MC

3.6.2.1 An MC must perform the following functions for the aircraft listed on their instrument of appointment:

- the control of all maintenance carried out on the aircraft, either scheduled or unscheduled
- the development, organisation and supervision of all activities and procedures specified in the MCM
- the transfer of an aircraft's maintenance records to a new RO for the aircraft
- the investigation of all defects in the aircraft that come to the attention of the aircraft's maintenance organisation.

3.6.2.2 If the operator contracts with a maintenance organisation for its aircraft maintenance, it is sufficient for the operator to ensure that the maintenance organisation is approved to carry out the maintenance and has appropriately licenced employees for the maintenance.

3.7 Stores control and spares holding

3.7.1 The procedures for the control and use of any aeronautical products used in aircraft servicing should be clearly documented in the MCM or exposition/operations manual (as applicable).

3.7.2 Spares obtained for installation from the manufacturer, overhaul agencies, another operator or maintenance organisation must meet the criteria specified in regulation 42W of CAR.

3.7.3 Procedures for the storage of aeronautical products are required to ensure they are stored IAW manufacturer's instructions. If aeronautical products are held for the operator by the maintenance provider, it is recommended that the operator's arrangements ensure that:

- procedures and conditions of storage are initially reviewed whether part of a contractual agreement or not, and regularly thereafter (typically annually) to ensure that satisfactory standards are being maintained
- the procedures to be used are documented and included in the MCM or exposition / operations manual (as applicable).

3.8 Weight and balance control

3.8.1 It is recommended that the operator include a system for weight and balance (W&B) control, including:

- a description of their weight and balance control process
- the nominated person to be responsible for weight and balance control
- assurance that modifications to the aircraft that affect Weight & Balance could result in a re-weigh.

Note: Refer to CAO 100.7 for further information.

3.9 Special flight permits, MEL, permissible unserviceabilities, exemptions, variations and exclusions

3.9.1 It is recommended that the operator include a system that addresses how they manage and apply for such things as:

- special flight permits (SFP), permissible unserviceabilities (PU), MEL initial approval (under regulation 91.935 of CASR) and variation (regulation 91.940 of CASR) and extension under regulation 91.945 of CASR
- any variations or exemptions to the aircraft's System of Maintenance (SoM)
- PSEA initial application and revisions for the approval of single-engine aircraft to be used in air-transport operations.

3.10 Pilot maintenance

3.10.1 The operator would be expected to include in the exposition/operations manual a system of approving pilots to carry out maintenance tasks permitted under Schedule 8 of CAR.

3.10.2 This would identify the process of assessing any training needs, provide any required training and keeping records.

3.11 Pilot maintenance - approval of non-Schedule 8 tasks

3.11.1 For operators that are unable to readily engage licenced maintenance personnel at remote locations, application can be made to CASA for an operator's pilots to carry out maintenance tasks that are not included in Schedule 8 of CAR (see sub regulation 42ZC(6) of CAR).

3.11.2 CASA considers that the operator would need to have an appropriate training program for pilots that includes:

- a training syllabus for the maintenance tasks, documentation and maintenance procedures, certification, access to approved data, access and use of appropriate tools, basic knowledge of systems, spare parts control
- competency - performance of each task enough times under supervision prior to being determined competent
- the person/LAME who supervises and verifies the competency of the pilot.

- 3.11.3 The operator needs to have a process outlined in their exposition/operations manual that requires the keeping of training records, including re-training events, and the CASA-issued legal approval instruments.

3.12 Overseas maintenance

- 3.12.1 If an operator is intending to have maintenance conducted overseas, then it is recommended that the operator has procedures in place to ensure:
- that all maintenance performed on the aircraft outside Australian territory will be:
 - o carried out in accordance with regulation 42ZD of CAR
 - o carried out in accordance with the aircraft approved System of Maintenance or maintenance schedule (as applicable)
 - o certified in accordance with regulation 42ZN of CAR.
 - the provision for overseas maintenance to be detailed in the operator's document suite.