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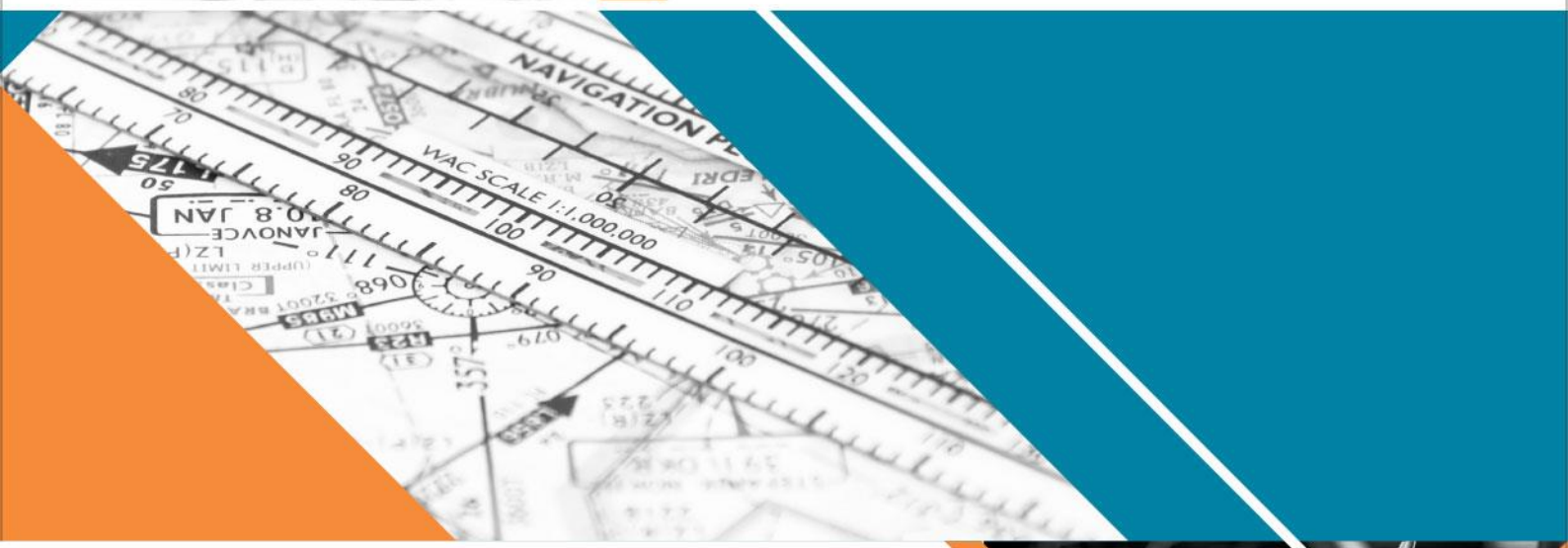

Aircraft log books and alternate to aircraft log books

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This Civil Aviation Advisory Publication (CAAP) provides guidance, interpretation and explanation on complying with the Civil Aviation Regulations 1988 (CAR) or a Civil Aviation Order (CAO).

This CAAP provides advisory information to the aviation industry in support of a particular CAR or CAO. Ordinarily, the CAAP will provide additional 'how to' information not found in the source CAR, or elsewhere.

Civil Aviation Advisory Publications should always be read in conjunction with the relevant regulations/orders.

Audience

This Civil Aviation Advisory Publication (CAAP) applies to:

- holders of an Aircraft Maintenance Engineer licence (LAME)
- Certificate of Registration (CoR) for class A and B Australian Aircraft and Regulation 30 of CAR 1988 Certificates of Approval for aircraft and aeronautical product maintenance.

Purpose

The purpose of this CAAP is to provide guidance about Aircraft Log Books and the development of an alternative to the aircraft log book as described within Sections 3 and 4 of CAO 100.5 – Aircraft Log Books. Compliance with this CAAP will enable log books and alternatives to an aircraft log book to meet the regulatory requirements. Log books that comply with this CAAP do not need to be submitted to CASA for approval however; a proposed alternative to a log book or section of a log book needs to be submitted to CASA for approval. If proposed alternatives meet the outcomes described in this CAAP then CASA would normally approve the alternative to a log book or section of a log book without change.

For further information

For further information on this CAAP, contact CASA's Airworthiness and Engineering Branch (telephone 131 757).

Status

This version of the CAAP is approved by the Branch Manager, Airworthiness and Engineering.

Note: Changes made in the current version are not annotated. The document should be read in full.

Version	Date	Details
v2.1	November 2022	Administrative review only.
(1.1)	June 2015	This CAAP replaces CAAP 50B-1(1) dated October 2014 and now includes the details of the CASA Log Book and its constituent parts.
(1)	October 2014	This CAAP replaces CAAP 50B-1(0) dated September 2012 and now includes the details of the CASA Log Book and its constituent parts.
(0)	September 2012	Initial CAAP.

Contents

1 Reference material

1.1 Acronyms

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

Acronym	Description
AD	Airworthiness Directive
CAAP	Civil Aviation Advisory Publication
CAO	Civil Aviation Order
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CoR	Certificate of Registration
IFR	Instrument Flight Rules

2 Introduction

2.1.1 This publication describes a method of complying with the requirements of regulations 50A and 50B of CAR 1988 and is advisory only.

2.1.2 CAR 1988 set out the legal requirements that must be complied with in relation to the subject matter of this publication. There may be a number of ways of ensuring that the requirements of the CARs are met. This publication sets out the method that is preferred and will ensure compliance with the regulations. However, before using the information in this publication the user should always read the CARs listed in the reference section below to ensure compliance with the legal obligations of the CARs.

3 Aircraft Log books

3.1.1 Subregulation 50A (1) of CAR 1988 specifies that a CoR holder for an Australian aircraft must keep an aircraft log book and make it available to the Civil Aviation Safety Authority (CASA) and relevant maintainers. The aircraft log book being referred to is of a kind that is a physical book.

3.1.2 CASA has issued written instructions about the contents of an aircraft log book within Section 3 of CAO 100.5 a copy of which is detailed below. Paragraph 3.2 of CAO 100.5 says an aircraft log must:

a. identify the aircraft and the type and model of engine and propeller fitted to the aircraft and must state whether the aircraft is equipped for IFR operations, VFR (Day) operations or VFR (Night) operations;
b. identify the aircraft's maintenance program (including details of maintenance release inspections);
c. identify any approved variations or exemptions to the aircraft's maintenance schedules;
d. have provision for the recording and certification of maintenance carried out on the aircraft;
e. have provision for the recording and certification of maintenance carried out on the aircraft's engine and, if applicable, the propeller;
f. contain a record of when the engine and, if applicable, the propeller, was installed or removed and a record of the date and aircraft time-in-service of the installation or removal;
g. contain a record of when any time-lifed components were installed or removed, including a record of the date and aircraft time-in-service of the installation or removal;
h. contain a record of compliance with all applicable Airworthiness Directive (AD), including a record of the date and time-in-service of the compliance;
i. contain a summary of any changes to the empty weight of the aircraft; and
j. have all log book sections incorporating certification pages sequentially numbered and bound together in a way that protects each page from inadvertent misplacement, loss or removal.

3.1.3 Any book or sections of book that meets the requirements of paragraph 3.2 of CAO 100.5 is an aircraft log book and does not require any specific approval by CASA. For example, there are some engine log books that are provided by the original equipment manufacturer designed to be used for the recording and certification of engine maintenance. If such a section of an aircraft log book provided for the engine record requirements listed in paragraph 3.2 of CAO 100.5, then that section of the aircraft log book would not require any specific approval from CASA.

3.1.4 The CASA Logbook can be ordered from the CASA Online Store as a complete logbook or by individual Section or Part. The CASA Logbook Section, Parts and Form numbers are:

Instructions

Contents Page (General and Specific Instructions and Dividers)	Form 918A
Log Book Statement Part 1	Form 925/942
Log Book Statement Part 2	Form 958
Log Book Statement Part 3	Form 959

Aircraft Section

Recurring Airworthiness Directive Control	Form 927
Recurring Airworthiness Directive Control (continued)	Form 943
Recurring Maintenance Control	Form 928
Recurring Maintenance Control (continued)	Form 939

Non Recurring AD, Special Inspection and Modification

Certification Log (bound portion)	Form 902
Aircraft Maintenance Certification Log (bound portion)	Form 924
Engine Installation and Removal Record	Form 940
Lifed Component Control (Aircraft Section)	Form 933
Non-Lifed Aircraft Equipment Record	Form 934
Component Location Record	Form 935
Weight And Balance Record	Form 936
Propellor Certification Log (bound portion)	Form 905

Engine Section (a complete Engine Section is required for each engine)

Recurring Airworthiness Directive Control	Form 927
Recurring Airworthiness Directive Control (continued)	Form 943
Recurring Maintenance Control	Form 928
Recurring Maintenance Control (continued)	Form 939

Non Recurring AD, Special Inspection and Modification

Certification Log (bound portion)	Form 902
Engine Maintenance Certification Log (Bound Portion)	Form 926
Engine Installation and Removal Record (Engine Section)	Form 940
Lifed Component Control	Form 941

Major Assembly And Component History Cards Section

Major Assembly History Card	Form 956
Component History Card	Form 946
Aircraft Radio Maintenance Log Book	Form 944

4 Alternate to aircraft log book or section of aircraft log book

4.1.1 Regulation 50B of CAR 1988 allows the CoR holder of an Australian aircraft to produce an alternative to an aircraft log book or section of an aircraft log book. Such alternatives must provide an equivalent record keeping system to that provided by an aircraft log book or its sections.

4.1.2 Many organisations already use computer software, card systems or other databases to maintain the information required within an aircraft log. Irrespective of the alternative used, it must still provide a records system equivalent to that for a log book specified in paragraph 3.2 of CAO 100.5 and must be approved for use by CASA.

4.1.3 An alternative aircraft log may be approved by CASA. An alternative aircraft log must comply with the instructions set out in paragraph 3.2 of CAO 100.5 with all parts of the electronic aircraft log incorporating certification pages or certification records managed in accordance with a secure system. The secure system needs to sequentially or chronologically number or order each page or record and protects it from:

a. any inadvertent misplacement, loss, or removal;
b. any inadvertent deletion, amendment, alteration or erasure;
c. any deletion, amendment, alteration or erasure that cannot be traced through the system to identify the user who made the deletion, amendment, alteration or erasure;
d. any deletion or amendment that renders the previous version illegible or inaccessible in the system.

5 General

5.1.1 An aircraft log book may be used to assist with performing a number of aircraft maintenance control functions, including:

- as a maintenance record:
  - airworthiness requirements and the leading particulars of the aircraft;
  - a record of all maintenance, modifications, repairs and rectifications that have been performed on the aircraft; and
  - a record of AD compliance;
- in the airworthiness control function it identifies:
  - the maintenance schedules applicable to the aircraft;
  - all applicable ADs and when they are due for compliance;
  - all time-lifed components fitted to the aircraft and when they are due for retirement or overhaul; and
  - all recurring maintenance required outside the normal maintenance schedules.

5.1.2 A ring binder may be utilised for the retention of the Log Book Statements, expired Maintenance Releases and any Major Assembly or Component History Cards.

5.1.3 To ensure a continuous record is kept of all work performed on the aircraft and the security of those pages, all pages containing certifications will be required to be control numbered, for example page 2 of 3 pages. Where a log book is being added to, it would be possible to have a control sheet, with total page numbers being crossed off as a page is added.

6 Contents of an aircraft log book

6.1.1 The first section of the log book should identify the aircraft and its leading particulars including the following information:

- the name of the constructor, the type and model of the aircraft, the manufacturer's serial number for the aircraft and the year of construction of the aircraft;
- the make and type of the engine or engines fitted to the aircraft;
- the make and type of the propeller or propellers fitted to the aircraft;
- the nationality and registration mark of the aircraft;
- the name and address of the CoR holder;
- the aircraft radio equipment fit, VFR (day), VFR (night) or IFR;
- the operational category of the aircraft, i.e. aerial work, private or charter;
- reference to the aircraft's maintenance schedule;
- an approval box, where approval by the Authority is required for the aircraft's system of maintenance;
- the identity of the maintenance release inspection and the calendar period and time-in-service between maintenance release inspections;
- approved variations to the maintenance schedule; and
- any airworthiness exemptions granted.

6.1.2 The next section should provide for the recording and certification of all maintenance, modifications, repairs and rectifications to the aircraft. This section needs to comply with the certification requirements of Schedule 6 of CAR 1988 which include:

- Certification of completion of stages of maintenance and inspections under subregulation 42G (2) of CAR 1988;
- Certification of co-ordination of maintenance; and
- Final certification.

6.1.3 Certifications identify the following:

- the date the work being certified was performed;
- time-in-service of the aircraft at the time the work was performed;
- details of the work performed; and
- the certification relative to the entry.

6.1.4 A record of engine and propeller installation details will also be required to be kept. This record will contain the following details of the installation or removal:

- the date of the installation and removal;
- the total time-in-service of the aircraft at installation and removal;
- the time-since-new or the time-since-overhaul of the engine at installation;
- the serial number of the engine or propeller; and
- the aircraft time-in-service that the engine is due for removal.

6.1.5 A record of the replacement or removal of time-lifed components will be required to be kept. This record will contain the following details:

- the date of the replacement and removal of the component;
- the total time-in-service of the aircraft at installation and removal;

- the time-since-new or the time-since-overhaul of the replacement component;
- a identity, part number and serial number of the replaced or removed component; and
- the aircraft time-in-service that the component is due for removal.

6.1.6 A record of the compliance with all applicable AD, recurring or non-recurring and the date or time-in-service of the compliance must be maintained. For maintenance planning purposes and ease of research, recurring ADs should be separated from non-recurring.

6.1.7 It is permissible to have provision for the certification of compliance with an AD incorporated in the record.

6.1.8 A summary of changes to the empty weight of the aircraft will be required to ensure that any modifications or repairs to the aircraft do not exceed the Centre of Gravity limits specified in the aircraft flight manual.

7 Contents of an engine log book

7.1.1 A separate removable section of the aircraft log book is normally utilised to cover the provisions of Section 3 of CAO 100.5 in relation to the engine. A removable section facilitates the transfer of all information pertinent to the engine to organisations involved in the overhaul of that engine. It is recommended that all certifications relating to work performed on the engine, including scheduled maintenance, be entered in the engine section.

7.1.2 The engine section of the log book must identify the engine and its leading particulars and include the following:

- the name of the manufacturer, the type and model of the engine and the manufacturer's serial number for the engine;
- the name and address of the certificate of registration holder;
- any airworthiness exemptions granted;
- an engine installation and removal record, including:
  - the registration mark of the aircraft that the engine is fitted to;
  - the date of the installation and removal;
  - the position of the engine on the aircraft;
  - the engine time-since-new or the time-since-overhaul at the installation and removal;
  - the aircraft total time-in-service at the installation and removal; and
  - the aircraft total time-in-service that the engine is due for removal;
- the engine overhaul period, or for modular turbine engines, the overhaul periods for each module;
- certification pages identifying:
  - the date the work being certified was performed;
  - time-in-service of the engine at the time the work was performed;
  - details of the work performed; and
  - the certification relative to the entry;
- an engine component change record including:
  - the date of the replacement and removal of the component;
  - the total time-in-service of the aircraft at installation and removal;
  - the time-since-new or the time-since-overhaul of the replacement component;
  - an identity, part number and serial number of the replaced or removed component;
  - the aircraft time-in-service that the component is due for removal; and
  - an AD and modification compliance record.

8 Contents of a propeller log book

8.1.1 A separate removable section of the aircraft log book is normally utilised to cover the provisions of Section 3 of CAO 100.5 in relation to the constant speed propeller. A removable section facilitates the transfer of all information pertinent to the propeller to organisations involved in the overhaul of that propeller. It is recommended that all certifications relating to work performed on the propeller be entered in this section.

8.1.2 The propeller section of the log book should identify the propeller and its leading particulars and include the following:

- the name of the manufacturer, the type and model of the propeller and the manufacturer's serial number for the propeller hub and blades;
- the year the propeller was manufactured;
- the propeller blade drawing number;
- the propeller diameter;
- the direction of rotation of the propeller;
- the high and low basic pitch settings;
- any airworthiness exemptions granted;
- the propeller overhaul period;
- the propeller diameter;
- the propeller blade reference station;
- certification pages identifying:
  - the date the work being certified was performed;
  - time-in-service of the propeller at the time the work was performed;
  - details of the work performed; and
  - the certification relative to the entry; and
- an AD and modification compliance record.

9 Major assembly and component history cards

9.1.1 As the Major Assembly History Card and the Component History Card are acceptable documents for the supply of components it is essential that provision be made in the log book for their incorporation.

9.1.2 These history cards should be kept in the back of the log book and are to accompany the major assembly or component when they are removed from the aircraft.

9.1.3 The instructions for the use of Major Assembly and Component History Card are to be complied with while that card is incorporated in the log book.

10 Log book instructions

10.1.1 The following list of instructions will ensure that aircraft log books retain an auditable trail and remain an airworthiness control tool:

- All entries in the log book are to be legible and made by pen in blue or black ink. This allows photo-copying of log book entries as other colours do not reproduce.
- No log book entry is to be obliterated or erased by any means.
- The use of correction fluid is not permitted.
- An incorrect entry shall be identified as such and shall be signed and dated by the person making the correction. Their licence/authority number must be recorded with their signature.
- Incorrect entries shall only be corrected by a person who is licensed or authorised to certify for the type of maintenance the incorrect entry relates to.
- Expired maintenance releases shall be inserted into and retained as a permanent part of the log book.
- Attachments are permitted in the aircraft and engine sections of the log book for entries such as major repairs, modifications, engine overhaul or computer generated entries etc.
- Such attachments shall bear the aircraft registration marks or the engine serial number as applicable, and will become a permanent part of that section of the log book.
- Each entry must be securely attached to a log book page which includes a certified endorsement stating:
  - an entry is attached;
  - the type of maintenance carried out;
  - the name of the organisation performing the maintenance;
  - the job number; and
  - the date and aircraft total time-in-service (TTIS).
- Where an attachment is in the form of a self-adhesive label or similar secure attachment and contains all the data and certifications required under CAR 42ZE, including the details listed above, then no further information or certifications are required to be included on the page.
- Where the fitting of a lifed component has been certified on the Maintenance Release the fitted components ‘Component History Card’ or ‘Major Assembly History Card’, must be transferred to the aircraft's log book before the issue of the next Maintenance Release.

11 Alternate to aircraft log book – instructions

11.1.1 Where an alternate to Aircraft Log Book is approved by CASA the same outcomes for that alternate as that required for the aircraft log book in Section 10 of this CAAP, will be required for the approval by CASA. For example, a proposed alternate to the aircraft log book, such as computer software, would need to be able to produce reports that contain a legible and complete record, is capable of tracking changes or prevents alterations, details the sequence of maintenance etc.