



**Civil Aviation
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Maintenance requirements for class A aircraft

This publication is only advisory. It gives the preferred method for complying with the Civil Aviation Regulations.

It is not the only method, but experience has shown that if you follow this method you will comply with the Civil Aviation Regulations.

Always read this advice in conjunction with the appropriate regulations.

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The relevant regulations and other references

This publication should be read in conjunction with Civil Aviation Regulations 39 (1), 42ZE and Schedule 6 of the CARs.

Who this CAAP applies to

- Certificate of Registration (C of R) holders for class A aircraft
- Holders of a Certificate of Approval for maintenance of class A aircraft
- LAMEs and Maintenance Authority holders
- Pilots and flight engineers engaged in RPT operations or who operate transport category aircraft

Why this CAAP was written

Regulation 39 of the CARs requires that class A aircraft must have in force a system of maintenance approved by CASA. This publication describes the preferred procedures to be followed for the development and approval of that system of maintenance and the certification requirements of regulation 42ZE.

Status of this CAAP

This is the second issue of CAAP 39-1. It has been amended to clarify the maintenance requirements for class A aircraft by deletion of one sentence. The sentence referred to maintenance options available to class B aircraft and could have caused confusion.

This is an interim amendment to rectify this aspect of the CAAP only. CASA's extensive regulatory review process may result in further changes to this and other CAAPs.

Systems of maintenance

The Certificate of Registration holder of a class A aircraft is required, by regulation 39 of the CARs, to submit for approval, to CASA or an authorised person, a system of maintenance. The system of maintenance is to be referred to in the aircraft's Log Book Statement Part 1 or an approved alternative and should include, as applicable:

- the name of the Certificate of Registration holder;
- the type, model and registration mark of the aircraft to which the system applies;
- maintenance schedules which include:
 - maintenance tasks to be performed at specified intervals and the intervals between the maintenance;
 - the identity of the inspection to be completed for the issue of a maintenance release;
 - structural inspections;
 - a list of components subject to an overhaul life and the intervals between the overhauls, based upon the manufacturer's recommendations and the recommendations contained in the Maintenance Review Board (MRB) document for the aircraft;
 - a list of components subject to retirement and the retirement life.
- the maintenance required following a lightning strike or abnormal flight or ground loads;
- amendment procedures for the system of maintenance;
- servicing procedures including specification and grade of fluids;
- maintenance practices and procedures; and
- if not covered by a Maintenance Control Manual:
 - MEL control procedures;
 - maintenance control procedures, including the planning system to ensure that all maintenance is completed and certified for on or before the due time-in-service or date.

If the Certificate of Registration holder is using approved maintenance data as the system of maintenance, the system need only contain a reference to that data.

Maintenance schedules are, unless otherwise approved or directed by CASA or an authorised person, to comply with

the requirements specified in the approved maintenance data or, if applicable, the current Australian Maintenance Requirements Documents (AMRD) for the aircraft.

Where a class A aircraft is used in extended range operations approved under CAO 20.7.1B, the system of maintenance must also include provision for the practices and procedures required to comply with the additional airworthiness requirements, including those specified in the latest issue of airworthiness directives and other approved maintenance data.

As the system of maintenance will be assessed against the requirements of the current edition of the manufacturer's instructions, CARs and CAOs, it is advisable to use these documents as guidance when developing the system.

The definition for Approved Maintenance Data, in CAR 2A, specifies data that is in force from time to time. This means that the data used when performing maintenance must be the current edition in force at the time the maintenance was being performed.

Independent inspections

Regulation 42G of the CARs requires an independent inspection, to ensure correct assembly and function of the flight control systems of an aircraft, to be carried out and certified prior to the certification being made for the completion of maintenance of any part of an aircraft control system involving:

- assembly;
- adjustment;
- repair;
- modification; or
- replacement.

‘Correct assembly and function’ means:

- that the control system and its components have been correctly assembled and adjusted;
- locking devices have been made safe; and
- the controls have full and free movement, in the correct sense, throughout their operating range.

For the purposes of independent inspections, the flight control system of an aircraft includes:

- the main control surfaces;
- lift and drag devices;
- trim and feel systems;
- flight control lock systems;
- collective pitch system;
- cyclic pitch system;
- yaw system;
- associated operating mechanisms and/or control systems, including servo systems; and
- ballonnet systems in airships.

The first inspection will be performed and certified by the holder of a:

- valid appropriate AME licence; or
- valid appropriate maintenance authority.

The second inspection will be performed and certified by a person, other than the person who performed the first inspection, who is the holder of :

- a valid appropriate AME licence;
- a valid appropriate maintenance authority; or
- a current pilot licence, other than a student pilot licence, or a current flight engineer licence, rated for the aircraft type concerned.

Where adjustments of a control system are required following either the first or second inspection, the appropriate inspections should be repeated and certified.

The independent inspection and certification requirements are not required for the connection and disconnection of optional dual controls which are normally converted from one configuration to another without the use of tools.

Log book requirements

Unless using an approved alternative recording system under regulation 50B, the instructions issued by CASA for the compilation of the aircraft's log book are to be complied with.

Regulation 50A requires the Certificate of Registration holder to keep a log book for the aircraft. Reference to the aircraft's maintenance schedule will be specified in the aircraft's Log Book Statement Part 1. Approved variations to this schedule will be in the aircraft's Log Book Statement

Part 2, and any exemptions granted will be contained in the aircraft's Log Book Statement Part 3. If using an approved alternative to the log book, the alternative records must contain reference to the aircraft's system of maintenance.

The Certificate of Registration holder will complete 2 copies of a Log Book Statement Part 1 (available from any CASA District Office) nominating the maintenance schedules, inspection schedules, maintenance release period, maintenance release inspection and ownership details. When completed, the Certificate of Registration holder will attach one copy of the Log Book Statement Part 1 to the front of the aircraft's log book and submit the second copy to the airworthiness office having administrative control of the aircraft's records within 7 days of commencing operations. These schedules must be updated to reflect the latest information available from the manufacturer and CASA.

Serial numbered items contained, or referred to, in the schedule for time-lifed components may also have a Lified Component Control Record card contained in the body of the aircraft's log book. This record card is to be used as a maintenance planning document and does not replace the Component History Card also contained in the aircraft's log book.

The Recurring Airworthiness Directive Control Record and the Recurring Maintenance Control Record are maintenance planning documents and do not replace the requirement for compliance and certification to be made in the Aircraft or Engine Maintenance Certification Log sections of the log book.