

CIVIL AVIATION AUTHORITY — AUSTRALIA

CIVIL AVIATION ADVISORY PUBLICATION

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SUBJECT: MAINTENANCE REQUIREMENTS FOR CLASS B AIRCRAFT

IMPORTANT

This publication describes the preferred method of complying with the directions given under regulations 41, 42A, 42B, 42C and 42ZE of the CARs.

The information in this publication is advisory only. The Civil Aviation Regulations 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 which experience has shown should, in the majority of cases, 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.

PURPOSE

Regulation 41 of the CARs provides that maintenance schedules must be in force for the maintenance of a class B aircraft. This publication describes those schedules acceptable to the Authority as defined by regulation 42A, 42B and 42C and the appropriate certification requirements under regulation 42ZE for the certification for the completion of maintenance for this class of aircraft.

STATUS

This is the first issue of CAAP 41-2, and will remain current until withdrawn or superseded.

REFERENCES

This publication should be read in conjunction with Civil Aviation Regulations 41, 42A, 42B, 42C, 42ZE and Schedule 5 to the CARs.

HOW TO OBTAIN COPIES OF THIS PUBLICATION

Copies of this publication may be obtained from:

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1 - GENERAL

1.1 A Certificate of Registration holder for class B aircraft is required, by regulation 41 of the CARs, to select a maintenance schedule from one of three options. These options are referred to in regulations 42A, 42B and 42C of the CARs and are: the manufacturer's maintenance schedules, the CAA Maintenance Schedule, or a schedule developed by the Certificate of Registration holder and approved by the Authority. So that the maintenance organisation is aware of which schedule has been selected this schedule should be stated in the aircraft's Log Book Statement Part 1.

1.2 Manufacturer's schedules are the most appropriate schedules for maintenance of aircraft. However for a number of older aircraft, and for aircraft where the manufacturer's schedules are non-existent or not very comprehensive, the CAA Maintenance Schedule has been developed. This schedule, an updated version of the old Appendix 4 Schedule to CAO 100.5.1, may also be used by those Certificate of Registration holders wishing to use it as an alternative to the manufacturer's schedules.

1.3 The Certificate of Registration holder may, for maintenance planning purposes, stagger the compliance period for the category inspections contained in the CAA Maintenance Schedule. The periods between each category inspection must not exceed 12 months or 100 hours time-in-service. To facilitate initial staggering, the time for the first compliance of all category inspections has been extended to 150 hours time-in-service or 18 months whichever is the earlier. So that the maintenance organisation is aware of this category staggering, the period between these inspections should be stated in the aircraft's Log Book Statement Part 1 and the required inspection endorsed in the Maintenance Required Section of the maintenance release in accordance with regulation 44 of the CARs.

1.4 The provision specified in paragraph 1.3 is primarily to permit aircraft in remote areas to travel to suitable facilities

to enable these inspections to be carried out; however the provision is available to all class B aircraft Certificate of Registration holders.

1.5 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.

2 - MANUFACTURER'S SCHEDULES

2.1 If you select the manufacturer's schedule for the maintenance of your aircraft and that schedule does not adequately cover the electrical, instrument or radio category inspection requirements you may supplement the manufacturer's schedule with those category inspections from the CAA Maintenance Schedule.

2.2 Whichever schedule you elect to use, important points to remember are:

- (a) you cannot mix and match schedules, ie. if the manufacturer has both a periodic and a progressive care schedule, only one schedule may be used as the maintenance schedule for your aircraft;
- (b) make sure the schedule addresses the fit-out for your aircraft and that it relates to the latest revisions of the manufacturer's maintenance documentation for your particular aircraft.

2.3 It is recommended that when using the manufacturer's schedule the maintenance release inspection period aligns with the complete aircraft inspection. The calendar period must not exceed 12 months. To ensure that no required maintenance is missed, all interim inspections required by the schedule are to be endorsed on the Maintenance Required Section of the maintenance release. Following these guidelines will ensure compliance with regulations 43 and 44 of the CARs.

3 - CAA MAINTENANCE SCHEDULE

3.1 A reprint of the CAA Maintenance Schedule will be found in CAAP 42B-1. This reprint has been modified to make provision for certifications. It is permissible to photocopy this schedule for use as work sheets.

3.2 When using the CAA Maintenance Schedule the period between maintenance release inspections is not to exceed 100 hours aircraft time-in-service or 12 months, whichever is the earlier, except as outlined in paragraph 3.3.

3.3 The certificate of registration holder of a private class B aircraft below 5700 kg may elect to have an annual inspection using the CAA Maintenance Schedule. This inspection would be required to be completed every 12 months regardless of hours flown.

3.4 The procedures specified in the approved maintenance data detailing how maintenance is to be performed must be complied with when using the CAA Maintenance Schedule.

4 - SYSTEMS OF MAINTENANCE

4.1 Where the Certificate of Registration holder desires under CAR 42J, or is directed by the Authority under CAR 42K, to develop a system of maintenance for the aircraft, that system must be approved by the Authority and contain, as a minimum, the following:

- (a) the name of the Certificate of Registration holder;
- (b) the registration mark of the aircraft to which the system of maintenance applies;
- (c) maintenance schedules which include:
 - (i) the maintenance to be carried out at specified intervals and the intervals between the maintenance;
 - (ii) the identity of the inspection to be completed for the issue of a maintenance release;
 - (iii) structural inspections;
 - (iv) special inspections;

- (v) components subject to overhaul and the intervals between overhauls; and
- (vi) components subject to retirement and their retirement life;
- (d) the maintenance required following lightning strikes and abnormal flight and ground loads;
- (e) MEL control procedures, if applicable; and
- (f) amendment procedures for the system of maintenance.

4.2 Those parts of the system of maintenance required by subparagraphs 4.1 (c) and 4.1 (d) are, unless otherwise approved or directed by the Authority, to comply with the requirements specified in the approved maintenance data for the aircraft.

4.3 Where the details in items of paragraph 4.1 are identical to the recommendations contained in the approved maintenance data for the aircraft, the system of maintenance need only contain a reference to the documents containing those details.

5 - INDEPENDENT INSPECTIONS

5.1 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:

- (a) assembly;
- (b) adjustment;
- (c) repair;
- (d) modification; or
- (e) replacement.

5.2 For the purposes of paragraph 7.1 'correct assembly and function' means:

- (a) that the control system and its components have been correctly assembled and adjusted;
- (b) locking devices have been made safe; and

- (c) the controls have full and free movement, in the correct sense, throughout their operating range.

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

- (a) the main control surfaces;
- (b) lift and drag devices;
- (c) trim and feel systems;
- (d) flight control lock systems;
- (e) collective and cyclic pitch systems;
- (f) yaw systems;
- (g) associated operating mechanisms and/or control systems, including servo systems; and
- (h) ballonnet systems in airships.

5.4 CAR 42G directs that the first inspection will be performed and certified by the holder of a:

- (a) valid appropriate AME licence; or
- (b) valid appropriate maintenance authority.

5.5 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) a valid appropriate AME licence;
- (b) a valid appropriate maintenance authority; or
- (c) a current pilot licence, other than a student pilot licence, rated for the aircraft concerned.

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

5.7 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.

6 - LOG BOOK REQUIREMENTS

6.1 Unless using an approved alternative recording system under regulation 50B, the instructions issued by the

Authority for the compilation of the aircraft's log book are to be complied with.

6.2 Regulation 50A requires the Certificate of Registration holder to keep a log book for the aircraft. When using the CAA Aircraft Log Book, 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 the Certificate of Registration holder is using the old style DA9 or CA9 Aircraft Log Book it is recommended that a ring binder be utilised for the retention of the Log Book Statements, expired Maintenance Releases and any Component History Cards.

6.3 The Certificate of Registration holder will complete 2 copies of a Log Book Statement Part 1 (available from any airworthiness 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.

6.4 Serial numbered items contained in or referred to in the schedule for time-lifed components must also have a Lifed Component Control card contained in the body of the aircraft's log book. This 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.

6.5 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.

APPENDIX 1 - SAMPLE FORMAT FOR A SYSTEM OF MAINTENANCE

(Name).....

System of Maintenance

Applicability

This manual contains the system of maintenance for.....
(aircraft type)

VH-..... while the Certificate of Registration is held by

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2 - AMENDMENT PROCEDURES

2.1 All amendments to this manual will be submitted, by the Certificate of Registration holder, to the appropriate airworthiness office for acceptance before incorporation into this manual.

2.2 When an amendment is issued it will contain:

- (a) an amendment number;
- (b) the amendment date;
- (c) a list of effective pages;
- (d) identification, usually by means of a vertical black line or letter 'R' in the margin adjacent to the change; and
- (e) justification.

2.3 The amendment record sheet will be annotated with the amendment details.

2.4 The Certificate of Registration holder will keep a record of the distribution of all copies of this manual.

3 - GENERAL REQUIREMENTS

3.1 Except where varied by this manual the instructions contained within the current manufacturer's instructions and airworthiness directives shall be observed for the maintenance and servicing of this aircraft.

3.2 The Certificate of Registration holder will be responsible for ensuring compliance with the requirements contained in this manual.

3.3 All signatures on documents in respect of maintenance are certifications made in accordance with subregulation 42ZE of the CARs.

3.4 When the aircraft is sold all maintenance records are to be transferred to the new Certificate of Registration holder.

4 - MAINTENANCE CONTROL REQUIREMENTS

4.1 This section of the manual is to include, as a minimum, the following details:

- (a) the identity of the Certificate of Registration holder;

- (b) procedures to ensure adequate control is achieved in all matters affecting the maintenance of the aircraft;
- (c) reference to the system of maintenance, including as a minimum:
 - (i) all inspection schedules;
 - (ii) the maximum time-in-service and calendar periods between inspections;
 - (iii) the identity of the inspection required for the issue of a maintenance release;
 - (iv) where applicable, a schedule specifying time-in-service or calendar periods of additional inspections, overhaul periods or requirements for maintenance of components;
- (d) the system of certification to be observed for maintenance;
- (e) procedures related to permit-to-fly applications; and
- (f) if applicable, a Minimum Equipment List.

5 - ATTACHED SCHEDULES

5.1 Attach copies of the aircraft's maintenance schedules.
