Civil Aviation Safety Authority
of Papua New Guinea

Advisory Circular

AC91-6

Aircraft Technical Log

Issue 1

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GENERAL

Civil Aviation Safety Authority Advisory Circulars (AC) contain information about standards, practices and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices or procedures are found to be acceptable, they will be added to the appropriate Advisory Circular.

This Advisory Circular also includes Explanatory Material (EM) where it has been shown that further explanation is required. Explanatory Material must not be regarded as an acceptable means of compliance.

PURPOSE

The material in this Advisory Circular is intended to assist aircraft operators in providing a Technical Log for each Papua New Guinea registered aircraft.

RELATED CAR

This AC relates specifically to Civil Aviation Rule Part 91 General Operating and Flight Rules and Part 43 General Maintenance Rules.

CHANGE NOTICE

This AC replaces the Initial Issue dated 01 July 2002.

APPROVAL

This AC has been approved for publication by the Director of Civil Aviation

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Note:

All the information contained in this AC is Explanatory Material (EM) therefore all items may be regarded as tagged EM.

1. General

Part 91 requires each operator to provide a technical log for their aircraft. The technical log records information on the maintenance status of the aircraft and the progressive usage of the aircraft. The technical log also provides for the recording of maintenance arising and the rectification of that maintenance.

The pilot is responsible for the actual operation of the aircraft and is therefore required to be aware of the information provided in the technical log. Part 91 prescribes the content required in the technical log but the format of the log is up to the operator. The CASA has provided form CA006 as an acceptable example that meets the requirements of Part 91 however operators may provide the information in many different formats depending on their type of operation

2. Definitions

To assist in understanding the applicable portions of this Advisory Circular, the following definition contained in Part 1 is restated:

Time in Service means, for maintenance time records, aircraft log records, and similar purposes, the elapsed time from the aircraft leaving the surface until touching it again on landing.

3. Purpose

The technical log fulfils a role in the ongoing maintenance of an aircraft but its primary purpose is to provide information indicating the maintenance status of the aircraft to the pilot. The aircraft's maintenance status is required by a pilot to ensure that an aircraft is operated safely, within the applicable limitations, and in accordance with the general operating rules.

Part 91 requires that a technical log be carried in each aircraft requiring an airworthiness certificate. Part 91 also requires that the operator record the information required to be contained in the technical log and ensure that information is current.

4. Period

The maximum time that a technical log may remain in use is the lesser of:

- 12 calendar months
- until any section of the log is full

5. Format

Under Part 91, it is the responsibility of the operator to provide a technical log containing—

- the name of the operator

  For identification purposes

- the registration, type, and model of the aircraft

For identification purposes and to enable the pilot to ensure that the technical log refers to the correct aircraft

- the identity of the maintenance programme to which the aircraft is maintained

  To enable the pilot to better understand any maintenance listed on the technical log

- the identity of the next scheduled inspection and the due date of that inspection
- the date or hours that any other maintenance that will be due prior to the next scheduled inspection
- the date the next maintenance review is due

  To ensure that the pilot is aware of any time in service limitations to operating the aircraft

- the daily hours flown and the total time in service
- if applicable, the daily cycles and the total cycles

  To ensure that the pilot is aware of the progressive usage of the aircraft and to enable the pilot to comply with any time in service limitations when operating the aircraft

- any defects found by the pilot during or following a flight
- the details of the rectification of defects between inspections and the certificate of release to service for that rectification

  To enable faults to be recorded and rectified, particularly when the normal logbook is unavailable

- any deferred rectification, including any inoperative equipment permitted to be inoperative by Part 91

  To ensure that the pilot is aware of any limitations in the correct operation the aircraft

The form CA006 provides an acceptable means for recording the required information. The form is designed to be carried with the flight manual and other documents normally carried in an aircraft.

6. Alternate Format

Although the CASA has provided the form CA006, the format of the technical log is up to the operator. Any format chosen must provide for the recording of the above information and should take into account—

- ease of recording
- ease of carriage
- accuracy of the information
- continuity of the information
- security of the information
- subsequent retention of the information

In some cases the operator may not consider it appropriate to provide the information required on a single form. This would be the case for operators that include, but are not limited to—

- operators with continual access to the aircraft logbook
- air operators
- fixed base operators

Some operators may wish to utilise computerised systems to provide the pilot the required information.

In all cases, each pilot intending to use an aircraft must be made aware of the format of the technical log and how that log details the status of the aircraft.

6.1 Operators with Continual Access to the Aircraft Logbook

If an operator has continual access to the aircraft logbook, the logbook can form part of the technical log. That is, the logbook is acceptable for meeting the technical log requirements relating to the recording of time in service, defects, and rectification.

A summary of the maintenance status of the aircraft is still required to meet the requirement to carry a technical log. This summary is required to remind and inform any pilot of the maintenance requirements relating to that particular aircraft.

As the aircraft logbook should not be carried in the aircraft to which it refers, the provision of a technical log in this form limits the aircraft to operations from a single fixed base – the location of the logbook. Operators should take this into account when deciding on a technical log format.

6.2 Air Operators

Air operators with sophisticated aircraft may find it cumbersome to provide a concise summary of the maintenance items due. The certificated operator's documented system may provide procedures to ensure that the required information is provided to the pilot in a format that suits the organisation's operation.

For example, an air operator may utilise a computerised maintenance control system that can report the maintenance status of the aircraft to the pilot prior to each flight or prior to a series of flights.

The maintenance of an air operator's aircraft is controlled by the systems detailed in their exposition. In organisations that provide their own maintenance, the responsibility for providing the technical log information can be confused with the maintenance function. At all times it is the operator that is required to provide the maintenance information to the pilot.

6.3 Fixed Base Operators

Fixed base operators, such as flight training establishments, may be able to provide a system that fulfils much of the technical log requirements.

For example:

A fleet of aircraft may be controlled from a single location that utilises a sign out system to inform each pilot of the status of an aircraft prior to despatch. This location may also provide a system to record defects after flight and ensure that the maintenance status of the aircraft is suitably updated.

This type of system is only acceptable if the aircraft is used in the local area. If the aircraft departs the local area and could land at another location a self-contained technical log would be required.

Any alternative system must be documented and all pilots made aware of the recording and reporting requirements.

7. Retention of Technical Log

The technical log is an extension to the aircraft logbook and must be retained as such in accordance with Part 91.

Technical logs that have been completely filled should be kept securely until the next routine inspection. The

information can then be transferred to the aircraft logbook.

8. Transferring Information to Aircraft Logbook

When transferring the information from the technical log to the aircraft logbook block entries of time in service are acceptable provided the block does not include any maintenance action. Maintenance actions include the application of any extension to a maintenance period.

The rectification of defects includes a statement of release to service. This statement cannot normally be transferred. When transferring rectification details to the aircraft logbook an appropriate reference to the technical log containing the release to service should be entered as the clearance. The technical log must be retained with the logbook to complete the maintenance records.

For example:

Technical Log [*serial number****] refers. [****rectification details****] released to service by [****name, licence number****] on [****date****].***

9. Use of Form CA006* - Aircraft Technical Log

The form CA006 is a single page, double sided document designed to be folded into thirds and inserted into the aircraft Flight Manual.

The technical log comprises five sections:

- Section 1 – Maintenance Status
- Section 2 – Aircraft Hours and Cycles
- Section 3 – Maintenance Arising
- Section 4 – Rectification or Deferral Action
- Section 5 – Deferred Items or Inoperative Equipment

9.1 Section 1 – Maintenance Status

This section presents the information certified in the aircraft or component logbook to allow the pilot to check the maintenance status of the aircraft prior to flight.

The information to be recorded includes aircraft, operator, and maintenance programme identification, scheduled and out-of-phase maintenance, and maintenance review information.

Although there is an area for a certification that the information has been transferred correctly no part of this section constitutes a release to service. An appropriate person designated by the operator may complete this section.

9.2 Section 2 – Aircraft Hours and Cycles

To record the progressive utilisation of an aircraft the hours and cycles are entered in this section. The hours and cycles may be entered on a daily basis. Although no specific person is specified to enter these hours, it would be appropriate for the pilot to do so at the end of any flying activity.

Provision is made for the recording of the name of the pilot or, in some organisations, the person responsible for the pre-flight. Initials are acceptable in place of a name if the operator permits this.

9.3 Section 3 – Maintenance Arising

This section is used for recording maintenance arising before, during, or after flight. The maintenance may include scheduled and unscheduled maintenance.

If scheduled maintenance is entered in this section the operator must consider the effect of this entry on the *Inspections Due* panel of Section 1 of the form CA006. The recording of scheduled maintenance will normally be completed in the appropriate logbook and a new technical log issued.

The pilot-in-command is responsible for entering any defects in this column. The nature of the defect should be described as concisely as possible considering:

- did the defect occur in flight or on the ground?
- if the defect occurred in flight, what phase of flight?
- did the defect affect any other aircraft system?
- was an attempt made to rectify the defect in flight per the Flight Manual?
- what were the symptoms observed?
- what state has the aircraft been left in?

A defect described in this manner has more chance of being identified and rectified than if a vague statement is made. To assist in subsequent defect isolation provision has been made to enter the pilot's name reporting the defect.

9.4 Section 4 – Rectification or Deferral Action

The details of any assessment of the defect, the corrective action taken, or any deferral action is entered in this section. The release to service statement required by Part 43 is entered here.

If deferral is permitted, the applicable deferred item number from Section 5 will be entered in the second column of Section 4.

9.5 Section 5 – Deferred Items or Inoperative Equipment

This section is for recording the items deferred by an engineer, and any item of inoperative equipment that is not part of the aircraft equipment required by Part 91 or an appropriate MEL.

The second block, Rectification of Deferred Items or Inoperative Equipment, is for the clearance of deferred items in a similar manner to Section 4.