GOVERNMENT OF INDIA

**OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION**

**TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI**

**CIVIL AVIATION REQUIREMENTS**
**SECTION 2 – AIRWORTHINESS**
**SERIES X PART VI**
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F. No. DGCA-25011(02)/1/2022-AW

**Subject: Log Books.**

**1. INTRODUCTION**: - Rule 67 of the Aircraft Rules 1937, stipulates that following Log books shall be kept and maintained in respect of all aircraft registered in India.

i. Journey Log Book;
ii. Aircraft Log Book;
iii. Engine Log Book for each engine installed in the aircraft;
iv. A Propeller Log Book for every variable pitch propeller installed in the aircraft;
v. A Radio Apparatus Log Book, for aircraft fitted with radio apparatus;
vi. Any other logbook that may be required by the Director General.

Further, the said rule stipulates 'Director-General may require that a technical log or flight log be provided in respect of an aircraft and be maintained in such manner as may be specified by him.

This CAR lays down the contents of Journey Log Book besides maintenance of other logbooks mentioned above.

This Civil Aviation Requirement is issued under the provision of Rule 133A of the Aircraft Rules, 1937.

**2. APPLICABILITY:** This CAR is applicable to all aircraft operators engaged in Scheduled, Non Scheduled, State Government, Aerial Work, Private, flying club operations and other operators engaged in the aircraft operations and maintenance.

**3. JOURNEY LOG BOOK (JLB):**

**3.1 The Journey log book shall contain the** following information:

i. Aircraft nationality and registration
ii. Date
iii. Names of crew members.
iv. Duty assignments of crew members.

v. Place of departure.
vi. Place of arrival.
vii. Time of departure.
viii. Time of arrival.
ix. Hours of flight.
x. Incidents, observations, if any.
xi. Signature of pilot in command.
xii. Details of Fuel and Oil uplift.

## 4. AIRCRAFT, ENGINE, PROPELLER AND RADIO APPARATUS LOG BOOK:

A manufacturer, in respect of each newly manufactured aircraft; engine or propeller may issue a logbook along with the release documents. If he does not, then the owner/ operator may raise a logbook on his own. Each logbook shall be in three sections: -

The first section will contain records of

a) hours flown date wise,
b) all routine inspection/maintenance, including higher checks carried out.
c) test flight
d) minor repairs and certification thereof,
e) the information required in the vertical columns,
   i. the date of flight,
   ii. total flight time since manufacture,
   iii. time since last overhaul/ major inspection, number of landings/cycles, etc.

Note: The routine inspections, mentioned in the Log Book may be identified by an identification number mentioned on the routine inspection sheet.

The second section will consist of differently coloured sheets, ruled horizontally. Each page will bear the caption, namely, "Replacement, Major Repairs & Overhaul". A detailed report of the Replacement, Major Repairs & Overhaul done under these headings shall be certified in this section.

Note: Major repair signifies a repair to a damage, which would affect the safety of the aircraft or the safety of persons on board.

The third section will consist of a set of still differently colored pages also horizontally ruled, and each page will bear the heading, namely, 'Modification Record'. Details of the modifications/service bulletins including mandatory modification (s) complied with and certified should be recorded along with date and time of compliance in this section. A total DGCA mandatory modifications status of the aircraft, engine and its components shall be reflected even though they are not applicable.

## 5. TECHNICAL LOG/ FLIGHT LOG

5.1 The contents for the technical log/ flight log have been specified in CAR M.

5.2 Scheduled, Non-Scheduled, Aerial work, and Flying club Operators may maintain the journey log book and technical Log/ flight log in a single document 'Flight Report Book

(FRB)'. Section 3 of the FRB shall be maintained in triplicate. One copy each of the filled Section 3 page shall be retained at the departure station, one copy shall be provided to the CAMO along with Engineering documents, one copy to be carried on board as part of the FRB.

5.3 State Government and Private Operators shall maintain the journey log book as per in the format as given in Appendix A. The Appendix A to the Journey log Book shall be maintained in duplicate. The second copy each of the filled Appendix A page shall be retained on ground along with engineering documents and first copy be carried on board as part of the document.

*Note: In case the operator is authorized for special operations, the operator shall maintain a technical log/ flight log in accordance with CAR M.A. 306 in addition to the journey log book.*

5.4 The format including the contents of the journey log book, technical log/ flight log or Flight Report Book shall be approved by the Regional Airworthiness Office for each type of aircraft for an operator.

Note: Guidance for electronic logbook, electronic signature, records and documents is given in AAC 4 of 2023.

5.5 The CAME shall include the format, content and the manner of maintaining the journey log book, technical log/ flight log or 'Flight Report Book', as the case may be including its preservation depending upon the type of aircraft operated.

## 6. GENERAL REQUIREMENTS

a. All the Pages of a Log Book shall be serially numbered. Also each logbook should be serially numbered.

b. A Log Book shall contain a detailed engineering record of the life of the aircraft, engine, propeller, radio apparatus including full particulars of all accidents, overhauls, replacements, repairs and modifications.

c. The entries in the Log Book shall be completed within 48 hours of the completion of the work. In case the aircraft is away from the main base, the "entry" containing the work details and certification thereof shall be completed in duplicate, and one copy shall be mailed to main base for placing in the Log Book and the other copy shall be kept along with Journey Log Book.

d. The CAM shall be responsible for the proper maintenance of logbook. Omission to make Log Book entries shall render the aircraft, engine, propeller, radio apparatus as un-airworthy and the authorized officer of the Regional Airworthiness Office may require such inspection as considered necessary by him to restore the airworthiness.

e. Entries in the Log Book shall be made in ink or indelible pencil and signed and dated by appropriately licensed AME/Approved individual carrying out the work or by a person, specially authorized by DGCA for the same, quoting, beneath the signature, the Licence/Approval/ Authorization number.

Note**:** Computerised records of aircraft and components are acceptable. Wherever records are computerized, hard copies may not be required. The operator should satisfy and demonstrate the accuracy of the system and procedure for creating backups to the Regional airworthiness office. The procedure of using computerized records shall be documented in the CAME or equivalent document.

**7. RECORDING OF FLIGHT TIME FOR THE PURPOSE OF MAINTENANCE PLANNING: -**

a. Flight Time:

(i) In respect of an aeroplane, means the total time from the moment the aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight

(ii) In respect of a helicopter, means the total time from the moment the helicopter's rotor blade start turning until the moment it finally comes to rest at the end of the flight, and the rotor blades are stopped

Note: Flight time as herein defined is synonymous with the term "block to block" time, or "chock to chock" time in general usage which is calculated from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.

b. Flight time for the aircraft, engine, VP propellers and radio apparatus shall be recorded in the appropriate Log Books.

Note: Where the manufacturer has defined maintenance periodicity on the basis of actual Flight Time i.e. Chocks OFF to Chocks ON or any other consideration like power etc., operator may follow the same with approval of Regional Airworthiness Office. The approved CAME should detail the procedure followed for calculating the flight time for the purpose of maintenance of aircraft and components.

**8. CERTIFICATE OF RELEASE TO SERVICE:**

a. All work involving repair, overhaul, replacement, modification, special inspection performed on the aircraft, is required to be covered with the issuance of "Certificate of Release to Service" signed by an appropriately licensed AME/Approved or authorised individuals.

b. Significance of signatures in the Log Book:

Signatures appearing in the appropriate column of Log Book against the relevant entry shall be taken as issuance of certificate, signifying that the work has been performed in accordance with approved procedures, using approved equipment and material and in accordance with the directives issued by DGCA.

Note: Guidance for electronic logbook, electronic signature, records and documents is given in AAC 4 of 2023.

c. Overhauls:

Details of overhaul work, including any test data, should be entered in the appropriate Log Book. A Certificate of Release to Service must be appended to the entry for all overhaul work recorded in log books. Test data should be preserved with cross-reference in the logbooks for traceability.

d. Repairs:

A summary of the repair should be entered in the appropriate log book, together with an indication of the reason for the repair. Details of repair work should be preserved with cross-reference in the logbooks for traceability.

**e.** Replacements**:**

When a component having its own log book (i.e. an engine or a variable-pitch propeller) is removed from an aircraft, the reason for removal should be entered in that log book, e.g. 'metal in oil filter', 'time expired'. In addition, an entry should be made in the aircraft log book stating the serial number of the component removed, the serial number of the replacement component and the position the component occupies on the aircraft.

When an engine is changed, the hours flown and the serial numbers and part numbers, as appropriate, of lifed parts, which are not changed with the engine, should be entered in the log book of the replacement engine and in the aircraft log book.

When a component, not having an individual log book, is removed, the reason for removal and its serial number, and in some cases the part number, of the item should be entered in Aircraft Log Book and also, with the exception of standard parts such as split pins, nuts and washers, the origin and numbers of release note.

When a serviceable part is removed from one aircraft and fitted on to another, the number of flying hours logged for the part should be entered in the appropriate log book together with an identification (i.e. registration letters) of the aircraft/ engine from which it was removed.

Where a replacement involves disturbing a flying or engine control system, or any system associated therewith, an independent inspection as covered in CAR M must be carried out and a certified entry to that effect included in the log book.

**9. MODIFICATIONS:**

After embodiment of a modification, an entry must be made in the appropriate Log Book quoting the number and title of the modification, as applicable. Whenever a major component is changed, the modification standard, particularly in regard to mandatory modification of the replacement component should be entered in the appropriate log book.

## 10. CARRIAGE OF LOG BOOKS ON BOARD:

Journey log book and technical log/ flight log or 'Flight Report Book (FRB), as the case may be, shall be carried on board during flight unless the aircraft is engaged in local flights i.e. making a series of flights over the same airport, on any day. Other log books shall not be carried during flight and shall be maintained at the main base. However, if an aircraft is likely to remain away from its main base, where Log Books are maintained, "working copies" of Log Books giving necessary information as required for effecting due maintenance shall be carried on board. On return to main base, entries shall be transferred from the "working copies" to the regular Log Book, within 48 hours of the return to main base.

## 11. PRESERVATION:

Log Books shall be preserved for the periods shown as under:

a) Aircraft Log book

i. The aircraft log books shall be preserved until such time as the aircraft is permanently withdrawn from use and its Certificate of Registration is cancelled by the Director General.

ii. In case of an aircraft meeting with an accident resulting in damage beyond economical repairs to the aircraft, engine, propeller, the aircraft log book, engine log book and propeller log book shall be preserved for a period of two years after the date of the accident.

b) The engine and propeller log books shall be preserved until such time as the engine/ propeller is permanently withdrawn from use.

c) Journey log book and technical log/ flight log or 'Flight Report Book (FRB)', as the case may be, shall be retained for 36 months after the date of the last entry.

d) Other log books shall be preserved for three years from the date of the last entry therein.

e) Where log books in respect of aircraft, engines or variable pitch propellers or radio apparatus are not kept in the manner and form prescribed in this CAR, the aircraft shall be deemed as not being maintained in an airworthy condition.

(Vikram Dev Dutt)
Director General of Civil Aviation

**APPENDIX A**

# FORMAT OF JOURNEY LOG BOOK

# JOURNEY LOG BOOK

## Name of the operator

.....

VT-_____

**INFORMATION INSTRUCTIONS:-**

The contents of the JLB shall be as approved by DGCA.
First page of the JLB will be issued by DGCA.
It shall be carried on board the aircraft during every flight.
Entries in this logbook in respect of each journey shall be correctly made by the crew and the pilot-in-command of the aircraft shall ensure that such entries are made in accordance with the requirements of Rule 67 of the Indian Aircraft Rules, 1937.
Entries shall be made in ink or indelible pencil and shall be made before presenting the logbook to the Aerodrome, Customs, Health or other authorities concerned on completion of the flight. The entries shall be certified by the signature of the commander or person in charge for each flight (except as provided in para 5 below)
In this book must be entered all relevant data and particulars concerning each flight. In the case of series of short flights in a close circuit, carried out with the same purpose and under the control of the same responsible commander it will suffice in respect of columns 6, 7 and 8 to enter the time of departure and of the last arrival and the total duration of the whole of these flights as well as the number of landings.
A flight comprises the period between the time of departure and the time of next landing. A separate folio shall be used for each separate journey but a series of flights forming part of one journey may be entered on one folio.
All columns shall be invariably filled.

## AIRCRAFT

a) Aircraft Nationality and Registration Marks. VT___…..
b) Classification of aircraft (Category, Sub Division)……
c) Main Base…….
d) Constructor ……..
e) Type……
f) Constructor Serial Number…….

## OPERATOR

g) Name of the Operator…….
h) Address……

## OWNER

i) Name of the owner……..
j) Address……

PLACE OF ISSUE ----------  Signature ----------
DATE- - - - - - - -

# FLIGHT SECTOR REPORT

Operators Name:

| Aircraft Type : | VT- |
|---|---|

Name of the Captain
Name of the Co-pilot
Name of the FE
Name(s) of the cabin crew

**OIL RECORD IN LTS.**

| Eng Oil | AME/ CHPL No | Sign | Time | Date |
|---|---|---|---|---|
| | | | | |
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| | | | | |

## SECTOR DETAILS

**FUEL RECORDS IN LTS**

| Date | From | To | Dep Time | Arr Time | Block Time | Airborne Time | Night Flying | Total No of ldgs | Sign of Pilot in Command | Transit Inspn Sign of AME/ Approved person | Fuel in tank before flight | Fuel Uplift | Total Fuel | AME/ CHPL No. | Sign Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sector 1 | | | | | | | | | | | | | | | |
| Sector 2 | | | | | | | | | | | | | | | |
| Sector 3 | | | | | | | | | | | | | | | |

| Total Upliftment | Note : Fuel Check as per DGCA requirement carried out. |
|---|---|
| | |

## PILOT'S DEFECT REPORT

| Defect details | Rectification Action |
|---|---|
| Sector<br>Time<br>Date<br>Pilots Signature_____ | Date _____ AME Signature_____<br>Time _____ Licence No_____ |
| Sector<br>Time<br>Date<br>Pilots Signature_____ | Date _____ AME Signature_____<br>Time _____ Licence No_____ |

## PILOT'S SPECIAL REPORT

*(Pilots Licence No. Signature)*

***Parameters to be recorded at Stabilized cruise by pilot as per the applicable engine installed***
***The parameters may be recorded as per the performance log depending on the type of engine installed. (refer A to D on the next page)***

**Pilot's Acceptance certificate** Certified that the conditions stipulated in CAR Section 8series O Part __ have been complied with.

**Sector 1----------Sign with date & time**
**Sector 2----------Sign with date & time**
**Sector 3----------Sign with date & time**

The parameters to be recorded by the pilot for performance log will depend on the type of engine installed. The operator may customize the performance log accordingly.

**A Performance log (Piston Engine) Fixed Wing**

| Sector | Time | Alt | IAS | RPM | Eng oil Pr | Eng oil Temp | MAP | CHT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
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Note: Parameters to be recorded, provided, trend monitoring procedure is given by the manufacturer and followed by the operator
Parameters to be recorded under stabilized engine conditions and the sector time is not less than 60 minutes

**OR**

**B Performance log (Piston Engine) Helicopter**

| Sector | Time Record | Alt | IAS | OAT | NR RPM | Eng Oil Pr | Eng oil Temp | Manifold pressure | CHT |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
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Note: Parameters to be recorded, provided, trend monitoring procedure is given by the manufacturer and followed by the operator
Parameters to be recorded under stabilized engine conditions and the sector time is not less than 60 minutes

**OR**

**C Performance log (Jet engine) FIXED WING**

| Sector | Time | Alt | OAT | IAS | EGT | | Thrust N1/ EPR | | N2 | | FUEL FLOW | | Eng oil Pr | | Eng Oil Temp | | Vib | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | P | S | P | S | P | S | P | S | P | S | P | S | P | S |
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Note: Parameters to be recorded, provided, trend monitoring procedure is given by the manufacturer and followed by the operator
Parameters to be recorded under stabilized engine conditions and the sector time is not less than 60 minutes

**OR**

**D Performance log for JET ENGINE Helicopters**

| Sector | Time | Alt | IAS | OAT | MGT | Torque | |
|---|---|---|---|---|---|---|---|
| | | | | | | P | S |
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Note : Parameters to be recorded at every sector.

**Deferred Maintenance (MEL release)**

| Date Time | Sector | Defect reported by AME/ Pilot | Details of defect | | Deferred To | AME's Sign and Lic. No. | Rectification carried out. | Attended statin. Time date | AME's Sign and Lic. No. |
|---|---|---|---|---|---|---|---|---|---|
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