

## **CAP 766**

# **Light Aircraft Maintenance Programme – Aeroplanes**

CAA/LAMP/A/2007 Issue 1

Owner/operator programme ref: CAA/LAMP/A/2007 Reg: G-

Aeroplane type/model:

Engine type:

Propeller type:

AOC No: (as applicable)

Part M Subpart G Organisation: (as applicable)

Owner/operator name and address:

Applicable to EASA regulated aeroplanes





**Safety Regulation Group**



## **CAP 766**

# **Light Aircraft Maintenance Programme – Aeroplanes**

CAA/LAMP/A/2007 Issue 1

---

**October 2007**

© Civil Aviation Authority 2007

All rights reserved. Copies of this publication may be reproduced for personal use, or for use within a company or organisation, but may not otherwise be reproduced for publication.

To use or reference CAA publications for any other purpose, for example within training material for students, please contact the CAA at the address below for formal agreement.

ISBN 978 0 11790 879 6

First Published October 2007

Enquiries regarding the content of this publication should be addressed to:

Chief Surveyor's Office, Survey Department, Airworthiness Division, Safety Regulation Group, Civil Aviation Authority, Aviation House, Gatwick Airport South, West Sussex, RH6 0YR.

The latest version of this document and all applicable amendments are available in electronic format at [www.caa.co.uk/publications](http://www.caa.co.uk/publications), where you may also register for email notification of amendments.

Published by TSO (The Stationery Office) on behalf of the UK Civil Aviation Authority.

Printed copy available from:

TSO, PO Box 29, Norwich NR3 1GN

Telephone orders/General enquiries: 0870 600 5522

[www.tso.co.uk/bookshop](http://www.tso.co.uk/bookshop)

E-mail: [book.orders@tso.co.uk](mailto:book.orders@tso.co.uk)

---





## List of Effective Pages

| Section   | Page | Date         | Section | Page | Date | Section | Page | Date |
|-----------|------|--------------|---------|------|------|---------|------|------|
|           | iii  | October 2007 |         |      |      |         |      |      |
| Contents  | 1    | October 2007 |         |      |      |         |      |      |
| Section 1 | 1    | October 2007 |         |      |      |         |      |      |
| Section 2 | 1    | October 2007 |         |      |      |         |      |      |
| Section 2 | 2    | October 2007 |         |      |      |         |      |      |
| Section 3 | 1    | October 2007 |         |      |      |         |      |      |
| Section 3 | 2    | October 2007 |         |      |      |         |      |      |
| Section 3 | 3    | October 2007 |         |      |      |         |      |      |
| Section 3 | 4    | October 2007 |         |      |      |         |      |      |
| Section 4 | 1    | October 2007 |         |      |      |         |      |      |
| Section 5 | 1    | October 2007 |         |      |      |         |      |      |
| Section 5 | 2    | October 2007 |         |      |      |         |      |      |
| Section 6 | 1    | October 2007 |         |      |      |         |      |      |
| Section 6 | 2    | October 2007 |         |      |      |         |      |      |
| Section 6 | 3    | October 2007 |         |      |      |         |      |      |
| Section 6 | 4    | October 2007 |         |      |      |         |      |      |
| Section 6 | 5    | October 2007 |         |      |      |         |      |      |
| Section 6 | 6    | October 2007 |         |      |      |         |      |      |
| Section 6 | 7    | October 2007 |         |      |      |         |      |      |
| Section 6 | 8    | October 2007 |         |      |      |         |      |      |
| Section 6 | 9    | October 2007 |         |      |      |         |      |      |
| Section 6 | 10   | October 2007 |         |      |      |         |      |      |
| Section 6 | 11   | October 2007 |         |      |      |         |      |      |
| Section 6 | 12   | October 2007 |         |      |      |         |      |      |
| Section 6 | 13   | October 2007 |         |      |      |         |      |      |
| Section 6 | 14   | October 2007 |         |      |      |         |      |      |
| Section 6 | 15   | October 2007 |         |      |      |         |      |      |

INTENTIONALLY LEFT BLANK

## Contents

|                  |   |   |                  |  |    |
|------------------|---|---|------------------|--|----|
| <b>Section 1</b> | <b>Amendments to the Programme</b>                          |   | <b>Section 5</b> | <b>Pre-Flight</b>  |    |
|                  | Introduction  | 1 |                  | Pilot Pre-Flight Check   | 1  |
|                  | First Issue   | 1 |                  | Check A – Prior to First Flight of the Day   | 1  |
| <b>Section 2</b> | <b>Foreword</b>   |   | <b>Section 6</b> | <b>Scheduled Maintenance</b>   |    |
|                  | Owner/Operator Certification Statement                      | 1 |                  | Scheduled Maintenance Worksheets   | 1  |
|                  | Applicability   | 2 |                  | Final Checks (include with all checks)   | 2  |
| <b>Section 3</b> | <b>Responsibilities and Standards</b>                       |   |                  | 50 Hour Check: Task Nos. 1 – 35  | 3  |
|                  | Owner/Operator Responsibilities                             | 1 |                  | 150 Hour Check (include 50 hour check items):<br>Task Nos. 1 - 71                          | 6  |
|                  | Certificate of Release to Service                           | 1 |                  | Annual Check/Non-Aligned Tasks (include 50 and<br>150 hour check items): Task Nos. 1 – 114 | 11 |
|                  | Certifying Persons' Responsibilities                        | 1 |                  |  |    |
|                  | Performance of Maintenance                                  | 1 |                  |  |    |
|                  | Airworthiness Life Limitations (Retirement/<br>Scrap Lives) | 2 |                  |  |    |
|                  | Airworthiness Directives                                    | 2 |                  |  |    |
|                  | CAA Generic Requirements                                    | 2 |                  |  |    |
|                  | Overhaul, Additional Inspections and Test Periods           | 2 |                  |  |    |
|                  | Instructions for Continued Airworthiness                    | 3 |                  |  |    |
|                  | Changes (Modifications or Repairs)                          | 3 |                  |  |    |
|                  | Independent Inspections                                     | 3 |                  |  |    |
|                  | Scheduled Maintenance Worksheets                            | 3 |                  |  |    |
|                  | Definitions   | 4 |                  |  |    |
| <b>Section 4</b> | <b>The Maintenance Check Cycle and Permitted Variations</b> |   |                  |  |    |
|                  | The Maintenance Check Cycle                                 | 1 |                  |  |    |
|                  | Permitted Variations  | 1 |                  |  |    |

INTENTIONALLY LEFT BLANK

---

## **Section 1    Amendments to the Programme**

### **1        Introduction**

- 1.1      When necessary, amendments to the Light Aircraft Maintenance Programme – Aeroplanes (the Programme) will be made by the CAA and published on the CAA website at [www.caa.co.uk/CAP766](http://www.caa.co.uk/CAP766). On each page, material differences from the previous issue will be indicated by a marginal line.
- 1.2      CAA amendments must be incorporated in the Programme without delay and recorded on the Amendment Record in the front of this book.

### **2        First Issue**

- 2.1      Issue 1 of the Programme was published in October 2007 to account for the implementation of the European Council Regulation (EC) No. 1592/2002 and Commission Regulation 2042/2003, Annex 1, Part M M.A.302.

INTENTIONALLY LEFT BLANK

## Section 2 Foreword

### 1 Owner/Operator Certification Statement

The undersigned undertakes to ensure that the aeroplane will continue to be maintained in accordance with the Programme, Section 3 Responsibilities and Standards. It is understood that non compliance with any of these responsibilities and standards will invalidate the Certificate of Airworthiness.

When preparing the Programme to meet the requirements of Part M, recommendations made by the airframe, engine and equipment type certificate holders and any supplementary type certificate holders have been evaluated and where appropriate have been incorporated.

The Programme consists of CAA Log Books CAP 398, CAP 399, CAP 400 and Time Limited Task Record CAP 543 which will be identified by completing the required continued airworthiness and maintenance details.

In accordance with Part M M.A.302(a), the data contained in the Programme will be reviewed annually for continued validity, in the light of operating experience.

It is accepted that this Programme does not prevent the necessity for complying with any new or amended regulation published by EASA, or the CAA, where these new or amended regulations may override elements of this Programme.

Name:

Position:

Signed:

For and on behalf of the owner/operator:

Date:

**Note:** Refer to Part M M.A.201(a) and (b) for the owner/operator responsibilities.

## **2      **Applicability****

- 2.1      The basic Programme as published, is approved in accordance with Commission Regulation (EC) No. 2042/2003 Annex 1, and has been compiled by the CAA in accordance with Part M M.A.302 (c)(2).
- 2.2      The Programme addresses the scheduled maintenance requirements for all piston engine aeroplanes, with less than 2730kg MTOM, used for commercial and non-commercial air transport and is only applicable to European Aviation Safety Agency (EASA) regulated aeroplanes as per (EC) No. 1592/2002 Article 4.

## **Section 3 Responsibilities and Standards**

### **1 Owner/Operator Responsibilities**

1.1 The owner/operator is responsible for the aeroplane's continuing airworthiness in accordance with Part M M.A.201.

### **2 Certificate of Release to Service**

2.1 On completion of any of the Programme maintenance checks, a detailed, referenced entry must be made in the relevant log book(s) with an appropriate certificate of release to service (CRS) by the certifying person.

2.2 Certificates of release to service for aeroplanes operated for the purpose of commercial air transport shall be issued by a Part-145 organisation.

2.3 Except for aeroplanes released by a Part-145 organisation, the certificate of release to service shall be issued according to Part M M.A.801.

2.4 For privately operated aeroplanes of simple design, the pilot-owner may issue certificates of release to service in accordance with Part M M.A.803 for maintenance as listed in Part M, Appendix VIII as applicable.

### **3 Certifying Persons' Responsibilities**

3.1 Certifying persons must use their engineering skill and judgement in determining the depth of inspection needed and other matters, which could affect the airworthiness of the aeroplane.

3.2 Certifying persons are responsible for recording in the appropriate log book or worksheet, any defects, deficiencies or additional maintenance required, resulting from the implementation of the Programme and the issue of the certificate of release to service.

### **4 Performance of Maintenance**

4.1 All maintenance shall be performed following the methods, techniques, standards and instructions specified in Part M M.A.402.

## **5 Airworthiness Life Limitations (Retirement/Scrap Lives)**

- 5.1 Airworthiness life limitations shall be those published by the state of design type certificate holder and supplementary type certificate holders.
- 5.2 Airworthiness life limitations shall be recorded in CAP 543.

## **6 Airworthiness Directives**

- 6.1 Airworthiness directives shall be those issued by EASA, the CAA and the state of design responsible for the type certificate and supplementary type certificates.
- 6.2 Forecasting and compliance with airworthiness directives shall be recorded in CAA log book(s) CAP 398, CAP 399 or CAP 400.

## **7 CAA Generic Requirements**

- 7.1 Forecasting and compliance with CAA Generic Requirements published in CAP 747 shall be recorded in CAA log book(s) CAP 398, CAP 399, CAP 400 or CAP 543.

## **8 Overhaul, Additional Inspections and Test Periods**

- 8.1 Overhaul, additional inspections and test periods shall be those recommended by the type certificate holder or supplementary type certificate holders.
- 8.2 EASA and the CAA may vary or mandate overhaul and test periods and additional inspections by the issue of an airworthiness directive or CAA Generic Requirements.
- 8.3 The forecasting and compliance with overhaul, additional inspections and test periods shall be recorded in CAP 543.

## **9 Instructions for Continued Airworthiness**

- 9.1 Instructions for continued airworthiness consist of in-service data published by the type certificate or supplementary type certificate holder in maintenance manuals, service bulletins, service letters etc.
- 9.2 To ensure operational safety and reliability, instructions for continued airworthiness must be formally technically assessed and adopted as required by the owner/operator or Part M Subpart G continuing airworthiness management organisation.
- 9.3 Continued airworthiness instructions shall be recorded in CAA log book(s) CAP 398, CAP 399, CAP 400 or CAP 543.

## **10 Changes (Modifications or Repairs)**

- 10.1 EASA approved changes, which have been carried out, must be recorded in the appropriate CAA log book(s) CAP 398, CAP 399, CAP 400 or CAP 543.
- 10.2 Any additional instructions for continued airworthiness due to the change shall be recorded in CAA log book(s) CAP 398, CAP 399, CAP 400 or CAP 543.

## **11 Independent Inspections**

- 11.1 The type certificate holder or supplementary type certificate holder's instructions for continued airworthiness should be followed when determining the need for an independent inspection.
- 11.2 In the absence of these inspection standards, an independent inspection must be carried out after any flight safety sensitive maintenance task, in accordance with Part M M.A.402 (a) and AMC M.A.402 (a) 4.

## **12 Scheduled Maintenance Worksheets**

- 12.1 Worksheets shown in Section 6 of the Programme shall be issued and each task signed off. These worksheets become part of the maintenance records that must be kept in accordance with Part M M.A.305(h) by the owner/operator.
- 12.2 All additional maintenance carried out should be certified on suitably referenced worksheets and included in the aeroplane records.
- 12.3 Scheduled maintenance worksheets and additional worksheets shall be cross-referenced and recorded in the certification areas of the CAA log book(s) CAP 398, CAP 399 or CAP 400, giving details of airworthiness directives, component changes, scheduled and any additional maintenance carried out.

## 13 Definitions

13.1 Throughout the Programme the following terms and abbreviations have the stated definitions;

### Service/lubrication (SERVICE/LUB)

The term 'service or lubrication' requires that a component or system should be serviced and/or replenished as necessary with fuel, oil, grease, water, oxygen, etc., to a condition specified in the appropriate maintenance manual. The term may also be used to require filter cleaning or replacement.

### Inspect (INSP)

An 'inspection' is a visual check performed externally or internally in suitable lighting conditions from a distance considered necessary to detect unsatisfactory conditions/discrepancies using, where necessary, inspection aids such as mirrors, torches, a magnifying glass etc. Surface cleaning and removal of detachable cowlings, panels, covers and fabric may be required to be able to satisfy the inspection requirements.

### Operational check (OP/C)

An 'operational check' is a test used to determine that a system or component or any function thereof is operating normally.

### Functional check (F/C)

A 'functional check' is a detailed examination of a complete system, sub-system or component to determine if operating parameters are within limits of range of movement, rate of flow, temperature, pressure, revolutions per minute, degrees of travel, etc., as specified in the appropriate maintenance manual. Measured parameters must be recorded.

### Check (CHK)

A 'check' is the verification of compliance with the type design organisation's instructions for continuing airworthiness.

## Section 4 The Maintenance Check Cycle and Permitted Variations

### 1 The Maintenance Check Cycle

| Check title      | Content                             | Period   |
|------------------|-------------------------------------|--|
| Pilot pre-flight | Refer to aeroplane flight manual    | Prior to every flight  |
| Check A          | Check A                             | Prior to first flight of the day                                   |
| 50 hour check    | 50 hour check items                 | Not exceeding 50 flying hours or 6 months, whichever is the sooner |
| 150 hour check   | 50 and 150 hour check items         | Not exceeding 150 flying hours                                     |
| Annual check     | 50, 150 hour and annual check items | Not exceeding 12 months  |

### 2 Permitted Variations

| Tasks controlled by flying hours  | Maximum Variation |
|-----------------------------------|-------------------|
| 50 hour and 150 hour              | 10%               |
| Tasks controlled by calendar time | Maximum Variation |
| 6 months                          | 15 days           |
| Annual                            | 1 month           |

- NOTES:**
- 1 Permitted variations for tasks controlled by flying hours should not be understood to be a maintenance planning tool, but as an exceptional means to allow the operator to fly for a limited period of time until the required check is performed.
  - 2 Permitted variations may not be applied to Airworthiness Directives, CAA Generic Requirements, airworthiness life limitations or overhaul and test periods.
  - 3 The more restrictive limit shall be applied for tasks controlled by both flying hours and calendar time.
  - 4 Any application of a permitted variation to the maintenance check cycle period must be recorded in the appropriate log book(s) together with the reason for the variation by a person who is authorised to sign the log book entry for that particular check. Details of the permitted variation must be made visible to the pilot.
  - 5 Permitted variations are not required to be deducted from the next scheduled check.

INTENTIONALLY LEFT BLANK

## Section 5 Pre-Flight

### 1 Pilot Pre-Flight Check

Pre-flight checks shall be carried out in accordance with the Aeroplane Flight Manual.

### 2 Check A – Prior to First Flight of the Day

|    |                       |   |
|----|-----------------------|---|
| A1 | General               | <p>Remove frost, snow or ice, if present.<br/>         Check that the aircraft documents are available and in order.<br/>         Ensure all loose equipment is correctly stowed and the aircraft is free of extraneous items.<br/>         If the aeroplane has not been regularly used, ensure before resumption of flying that:</p> <p>a) either    i)    the engine has been turned weekly or run fortnightly; or<br/>                          ii)    the manufacturer's recommendations have been complied with;</p> <p>b)    Compression appears normal when the engine is turned by hand; and</p> <p>c)    Previously reported defects have been addressed.</p> |
| A2 | Powerplant/<br>engine | <p>Check    –    oil level, security of filler cap and dipstick.<br/>         Inspect  –    engine, as visible, for leaks, signs of overheating, and security of all items.<br/>         Inspect  –    air filter/intake for cleanliness.<br/>         Check    –    security of cowlings, access doors and panels.</p>   |
| A3 | Propeller             | <p>Inspect  –    blades and spinner for damage and security.</p>  |
| A4 | Windscreen            | <p>Inspect  –    for damage and for cleanliness.</p>  |
| A5 | Fuel system           | <p>Check visually that quantities are compatible with indicator readings.<br/>         Drain fuel sample from each drain point into a transparent container and check for water, foreign matter and correct colour.</p>   |
| A6 | Wings                 | <p>Inspect  –    skin covering, bracing wires, struts and flying control surfaces for damage and security of all items.<br/>         Inspect  –    pitot static vents, fuel vents and drain holes for freedom from obstruction.<br/>         Test     –    operation of stall warning device.</p>   |

|     |                         |  |  |
|-----|-------------------------|--|--|
| A7  | Landing gear            | Check<br>Check   | – shock absorbers, struts for leaks and that extension appears normal.<br>– tyres for inflation, damage and creep.   |
| A8  | Fuselage and empennage  | Inspect<br>Inspect<br><br>Inspect<br>Inspect   | – brake installation for external evidence of leaks and for damage and security.<br>– skin covering, bracing wires, struts and flying control surfaces for damage and security of all items.<br>– drain holes and vents for freedom from obstruction.<br>– radio aerials for damage and security.  |
| A9  | Cabin area              | Check<br><br>Check<br>Check<br>Check<br>Inspect<br>Check<br>Test<br>Inspect<br>Check | – flying and engine controls, including trimmers and flaps, for full and free movement in the correct sense.<br>– brake operation is normal.<br>– instrument readings are consistent with ambient conditions. Perform manual override and disengagement check on auto-pilot.<br>– avionics equipment operation, using self-test facilities where provided.<br>– seats, belts and harnesses for satisfactory condition, locking and release.<br>– emergency equipment properly stowed and inspection dates valid.<br>– operation of electrical circuits.<br>– cabin and baggage doors for damage, security and for correct operation and locking.<br>– markings and placards are legible. |
| A10 | Agricultural operations | Inspect<br><br>Check   | – hopper lid, tank, pump, boom assemblies, pipe runs, blowers and spreaders for damage and security.<br>– emergency dump doors, fan brake and pump control for correct operation.  |
|     |                         | <b>NOTE:</b>   | At the earliest opportunity, the aeroplane must be completely cleaned to remove chemicals, and an inspection of those parts of the structure which are likely to have been contaminated, e.g. skin/covering and exposed control cables, carried out before the aeroplane is returned to service.   |
| A11 | Marine aircraft         | Inspect<br><br>Drain<br>Check  | – hull floats, spreaders, struts, bracing wires, water rudders and alighting gear for damage, security and corrosion.<br>– all bilge compartments.<br>– water rudder system for full and free movement in the correct sense.   |

## Section 6 Scheduled Maintenance

### Scheduled Maintenance Worksheets

|   |                            |                  |  |
|---|----------------------------|------------------|--|
| <b>Maintenance Organisation / Pilot-Owner / AME Name:</b> |                            |                  | Workpack Ref:                              |
| Approval Reference or AME No:                             |                            |                  | Page 1 of                                  |
| Site where maintenance being accomplished:                |                            |                  | Note: Enter total pages of workpack issued |
| A/C Reg: G-   | Type:                      | Serial No:       | Total flying hours:                        |
|   | Engine type:               | Serial No:       | Hours since new/overhaul:                  |
|   | Variable propeller type:   | Serial No:       | Hours since new/overhaul:                  |
| Check being carried out:                                  | 50 Flying Hours / 6 Months | 150 Flying Hours | Annual                                     |
| Check start date:   | Check completion date:     |                  |  |
| Note: Delete checks that are not being carried out.       |                            |                  |  |

| <b>Maintenance Manual References:</b>                     | <b>Issue/Revision No:</b> | <b>Date:</b> |
|---|---------------------------|--------------|
| Note: Maintenance manuals must be to the latest revision. |                           |              |
| Airframe:   |                           |              |
| Engine:   |                           |              |
| Variable propeller:                                       |                           |              |

**Final Checks (include with all checks)**

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Inspector<br>See Note 2 |    | Certifying Person<br>See Note 1 |    |
|----------|------------------|-------------|---------------|------------------------------------|----|---------------------------------|----|
|          |                  |             |               | LH                                 | RH | LH                              | RH |

## Ground Run:

|   |  |      |            |  |  |  |  |
|---|--|------|------------|--|--|--|--|
| 1 | Powerplant, liquid, air and gas systems for leaks during and following ground run. | INSP | All checks |  |  |  |  |
| 2 | Instruments, systems and services. Radio for electromagnetic interference.         | OP/C | All checks |  |  |  |  |
| 3 | Following ground run, ensure all cowlings, access panels and doors are secure.     | CHK  | All checks |  |  |  |  |

## Certification:

|   |  |     |            |     |  |  |  |
|---|--|-----|------------|-----|--|--|--|
| 4 | Workpack and Log Book entries have been completed and certified. Ensure items due in accordance with CAP 543 have been accomplished and certified. | CHK | All checks | N/A |  |  |  |
|---|--|-----|------------|-----|--|--|--|

## Type Certificate and Schedule Review:

|   |  |     |        |     |  |  |  |
|---|--|-----|--------|-----|--|--|--|
| 5 | Aeroplane complies with the type certificate data sheet. | CHK | Annual | N/A |  |  |  |
| 6 | Mandatory placards are installed and legible.            | CHK | Annual | N/A |  |  |  |

**Notes:**

- 1. Certifying Person** Refer to Section 3 Paragraph 3.
- 2. Qualifying Inspectors** must be proven competent to ensure that all required maintenance tasks are carried out and where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the certifying person for appropriate action.
- 3. Qualifying Mechanics** must be proven competent to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of defects requiring rectification to re-establish required airworthiness standards.

**50 Hour Check: Task Nos. 1 – 35**

| <b>Task No.</b> | <b>Task Description</b> | <b>Task Nature</b> | <b>Task Interval</b> | <b>Qualifying Mechanic</b><br>See Note 3 | <b>Qualifying Inspector</b> |
|-----------------|-------------------------|--------------------|----------------------|--|-----------------------------|
|-----------------|-------------------------|--------------------|----------------------|--|-----------------------------|

## Structural/Zonal:

|    |  |      |                    |  |  |
|----|--|------|--------------------|--|--|
| 7  | External structure of fuselage, mainplanes, empennage, cowlings, nacelles, control surfaces, flaps and other high lift devices.  | INSP | 50 FH/<br>6 months |  |  |
| 8  | Surface de-icer system.  | INSP | 50 FH/<br>6 months |  |  |
| 9  | Normal and emergency doors and windows, door hinges, door hinge attachment points, required placards and operating instructions. | INSP | 50 FH/<br>6 months |  |  |
| 10 | Doors, hatches and windows latching and locking.   | OP/C | 50 FH/<br>6 months |  |  |
| 11 | Agricultural Installations: Hopper, hopper lid, tank, pump, fan, boom assemblies, pipe runs, blowers and spreaders.              | INSP | 50 FH/<br>6 months |  |  |
| 12 | Agricultural Installations: Emergency dump doors, fan brake and pump control.  | OP/C | 50 FH/<br>6 months |  |  |
| 13 | Marine Aeroplanes: Hull, floats, spreaders, struts, bracing wires, water rudders, alighting gear and bilge compartments.         | INSP | 50 FH/<br>6 months |  |  |
| 14 | Marine Aeroplanes: Water rudder system.  | OP/C | 50 FH/<br>6 months |  |  |

## Landing Gear:

|    |   |         |                    |  |  |
|----|---|---------|--------------------|--|--|
| 15 | Landing gear assemblies, shock-absorber struts/units for leaks and correct extension, brake system, brake linings, drums/discs, wheels and tyres. | INSP    | 50 FH/<br>6 months |  |  |
| 16 | Tyre pressures, hydraulic brake system fluid level.   | SERVICE | 50 FH/<br>6 months |  |  |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic |    | Qualifying Inspector |    |
|----------|------------------|-------------|---------------|---------------------|----|----------------------|----|
|          |                  |             |               | LH                  | RH | LH                   | RH |

## Flying Controls:

|    |  |      |                    |  |  |  |  |
|----|--|------|--------------------|--|--|--|--|
| 17 | Primary/secondary flight controls and trim systems for full and free movement in the correct sense. Position indicators agree with surface movement. | OP/C | 50 FH/<br>6 months |  |  |  |  |
|----|--|------|--------------------|--|--|--|--|

## Liquid, Air and Gas Systems:

|    |   |         |                    |  |  |  |  |
|----|---|---------|--------------------|--|--|--|--|
| 18 | Hydraulic, pneumatic, vacuum and other fluid systems.                                 | INSP    | 50 FH/<br>6 months |  |  |  |  |
| 19 | Fluid levels in reservoirs and accumulator pressures.                                 | SERVICE | 50 FH/<br>6 months |  |  |  |  |
| 20 | Pitot/static system vents, pitot head and drains clear. Pitot head correctly aligned. | INSP    | 50 FH/<br>6 months |  |  |  |  |

## Equipment and Environmental:

|    |  |      |                    |  |  |  |  |
|----|--|------|--------------------|--|--|--|--|
| 21 | Correct stowage of equipment, validity of date on emergency equipment. | CHK  | 50 FH/<br>6 months |  |  |  |  |
| 22 | Seats, belts/harnesses, attachment, locking and release.               | INSP | 50 FH/<br>6 months |  |  |  |  |
| 23 | Fire extinguisher for leakage or discharge.                            | CHK  | 50 FH/<br>6 months |  |  |  |  |

## Lubrication:

|    |  |         |                    |  |  |  |  |
|----|--|---------|--------------------|--|--|--|--|
| 24 | Lubricate aeroplane in accordance with type design organisation recommendations. | CHK/LUB | 50 FH/<br>6 months |  |  |  |  |
|----|--|---------|--------------------|--|--|--|--|

## Powerplant Installation:

|    |   |      |                    |  |  |  |  |
|----|---|------|--------------------|--|--|--|--|
| 25 | Engine and propeller controls for full and free movement – throttle, mixture, carburettor heat, cowl flaps and propeller pitch. | OP/C | 50 FH/<br>6 months |  |  |  |  |
| 26 | Powerplant installation.  | INSP | 50 FH/<br>6 months |  |  |  |  |

| Task No.            | Task Description   | Task Nature       | Task Interval         | Qualifying Mechanic |    | Qualifying Inspector |    |
|---------------------|--|-------------------|-----------------------|---------------------|----|----------------------|----|
|                     |  |                   |                       | LH                  | RH | LH                   | RH |
| Air Induction:      |  |                   |                       |                     |    |                      |    |
| 27                  | Air filter, intake and induction system and turbocharger impeller.   | INSP              | 50 FH/<br>6 months    |                     |    |                      |    |
| Exhaust:            |  |                   |                       |                     |    |                      |    |
| 28                  | Exhaust manifold, mufflers.  | INSP              | 50 FH/<br>6 months    |                     |    |                      |    |
| Engine Lubrication: |  |                   |                       |                     |    |                      |    |
| 29                  | Magnetic plugs.  | CHK               | 50 FH/<br>6 months    |                     |    |                      |    |
| 30                  | Engine oil change. Oil filter. Screen. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:                                | SERVICE           | 50 FH/ or<br>see Note |                     |    |                      |    |
| Fuel System:        |  |                   |                       |                     |    |                      |    |
| 31                  | Filters for cleanliness and tank vents unobstructed. Drain samples from all drain points and check for presence of water, foreign matter and correct colour. | CHK               | 50 FH/<br>6 months    |                     |    |                      |    |
| Propeller:          |  |                   |                       |                     |    |                      |    |
| 32                  | Blades, spinner and backplate.   | INSP              | 50 FH/<br>6 months    |                     |    |                      |    |
| 33                  | Accumulator dome pressure.   | CHK               | 50 FH/<br>6 months    |                     |    |                      |    |
| Electrical System:  |  |                   |                       |                     |    |                      |    |
| 34                  | Battery, stowage/compartments, vents and drains. Electrolyte level.  | INSP &<br>SERVICE | 50 FH/<br>6 months    |                     |    |                      |    |
| 35                  | Alternator/generator drive belt tension and condition.   | INSP              | 50 FH/<br>6 Months    |                     |    |                      |    |

**150 Hour Check (include 50 hour check items): Task Nos. 1 - 71**

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

Structural/Zonal:

|    |  |      |        |  |  |
|----|--|------|--------|--|--|
| 36 | Internal structure of fuselage, floors, bulkheads, mainplanes, nacelles, empennage. Control surfaces, flaps and other high lift devices, structural attachment joint assemblies, struts, bracing wires and their attachments.  | INSP | 150 FH |  |  |
| 37 | Wooden/Composite Construction: Vent holes, glued joints, bonded assemblies, protective treatments and finishes.<br><b>Note:</b> The need for removal of fabric for detailed inspection of attachments must be assessed when accomplishing this task at the annual check. | INSP | 150 FH |  |  |
| 38 | Internal corrosion protective treatments, drain holes and paths.   | INSP | 150 FH |  |  |
| 39 | Static discharge wicks and attachment bases.   | INSP | 150 FH |  |  |

Landing Gear:

|    |   |      |        |  |  |
|----|---|------|--------|--|--|
| 40 | Structural members, attachment fittings, pivot points, shock absorbing devices, bungee rubbers, torque links, shimmy dampers, main wheels, nose/tail wheels, bearings, skids, hoses and lines, hydraulic and electric actuators, jacks, struts and wheel fairing.<br><b>Note:</b> Carry out with weight off the landing gear. | INSP | 150 FH |  |  |
| 41 | Main and parking brake systems, anti-skid devices.  | OP/C | 150 FH |  |  |
| 42 | Normal/emergency retraction and extension, locking devices, doors and operating linkages, indicators and warning devices.   | OP/C | 150 FH |  |  |
| 43 | Hydraulic/pneumatic operating system.   | CHK  | 150 FH |  |  |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

## Flying Controls:

|    |   |      |        |  |  |
|----|---|------|--------|--|--|
| 44 | Hinges, brackets, push-pull rods, bellcranks, control horns, balance weights, cables, pulleys, chains, tubes, guides, fairleads, rollers, tracks, rails, screw jacks/rams, auxiliary gearboxes and other power-operated systems.<br><b>Note:</b> The need for removal of flying control cables and control system components for detailed inspection must be assessed when accomplishing this task at the annual check. | INSP | 150 FH |  |  |
| 45 | Turnbuckles, locking devices in safety.   | CHK  | 150 FH |  |  |
| 46 | Flap asymmetric protection mechanisms.  | INSP | 150 FH |  |  |

## Liquid, Air and Gas Systems:

|    |   |      |        |  |  |
|----|---|------|--------|--|--|
| 47 | Tanks, powerpacks, valves, pipelines, hoses, actuators, filters and venturis. | INSP | 150 FH |  |  |
|----|---|------|--------|--|--|

## Equipment and Environmental:

|    |                                      |                   |        |  |  |
|----|--------------------------------------|-------------------|--------|--|--|
| 48 | Cabin air system, heater and blower. | INSP &<br>OP/C    | 150 FH |  |  |
| 49 | Air conditioner, oil level.          | OP/C &<br>SERVICE | 150 FH |  |  |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic |    | Qualifying Inspector |    |
|----------|------------------|-------------|---------------|---------------------|----|----------------------|----|
|          |                  |             |               | LH                  | RH | LH                   | RH |

Powerplant Installation:

|    |  |      |                    |  |  |  |  |
|----|--|------|--------------------|--|--|--|--|
| 50 | Crankcase, accessory housings, cylinder assemblies, accessory drive belts, accessories, engine shock mounts, mount frames, bulkheads, firewalls and sealing, cooling baffles, cowlings, breathers and vents and items in engine bay for mutual interference. | INSP | 150 FH             |  |  |  |  |
| 51 | Valve operating mechanism. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:  | CHK  | 150 FH or see Note |  |  |  |  |
| 52 | Cylinder compression and leakage. Record results below.<br>Method:   | CHK  | 150 FH             |  |  |  |  |

| Eng Cyl | Result | Eng Cyl | Result |
|---------|--------|---------|--------|
| 1       |        | 4       |        |
| 2       |        | 5       |        |
| 3       |        | 6       |        |

| Eng Cyl | Result | Eng Cyl | Result |
|---------|--------|---------|--------|
| 1       |        | 4       |        |
| 2       |        | 5       |        |
| 3       |        | 6       |        |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic |    | Qualifying Inspector |    |
|----------|------------------|-------------|---------------|---------------------|----|----------------------|----|
|          |                  |             |               | LH                  | RH | LH                   | RH |

## Air Induction:

|    |  |             |        |  |  |  |  |
|----|--|-------------|--------|--|--|--|--|
| 53 | Carburettor heat, alternative air bypass doors and control system. | INSP & OP/C | 150 FH |  |  |  |  |
| 54 | Flame traps, drains.   | INSP        | 150 FH |  |  |  |  |

## Ignition:

|    |   |      |                    |  |  |  |  |
|----|---|------|--------------------|--|--|--|--|
| 55 | Magnetos, harnesses, leads, switches, starting vibrators, contact breakers, cooling system and ventilators. | INSP | 150 FH             |  |  |  |  |
| 56 | Magneto internal timing and timing to engine.   | CHK  | 150 FH             |  |  |  |  |
| 57 | Magneto cam. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:         | LUB  | 150 FH or see Note |  |  |  |  |
| 58 | Spark plugs. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:         | CHK  | 150 FH or see Note |  |  |  |  |

## Exhaust:

|    |  |      |        |  |  |  |  |
|----|--|------|--------|--|--|--|--|
| 59 | Cabin heat exchanger.                              | INSP | 150 FH |  |  |  |  |
| 60 | Turbocharger, control system, pipelines and hoses. | INSP | 150 FH |  |  |  |  |

## Engine Lubrication:

|    |  |      |        |  |  |  |  |
|----|--|------|--------|--|--|--|--|
| 61 | Tanks, sumps, coolers, hoses, pipelines and vents.                           | INSP | 150 FH |  |  |  |  |
| 62 | Engine controls in accordance with type design organisation recommendations. | LUB  | 150 FH |  |  |  |  |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic |    | Qualifying Inspector |    |
|----------|------------------|-------------|---------------|---------------------|----|----------------------|----|
|          |                  |             |               | LH                  | RH | LH                   | RH |

## Fuel System:

|    |   |      |        |  |  |  |  |
|----|---|------|--------|--|--|--|--|
| 63 | Tanks, filler caps, selector valves, pumps, pipelines, hoses, carburettor, injector systems, throttle, mixture control, fuel selector control and filler point placard. | INSP | 150 FH |  |  |  |  |
|----|---|------|--------|--|--|--|--|

## Propeller:

|    |   |      |        |  |  |  |  |
|----|---|------|--------|--|--|--|--|
| 64 | Hub, constant speed unit, governor, accumulator, de-icing boots, slip ring and brushes, fluid systems and control system. | INSP | 150 FH |  |  |  |  |
| 65 | Pitch change mechanism for backlash.  | CHK  | 150 FH |  |  |  |  |
| 66 | Lubricate propeller in accordance with type design organisation recommendations.  | LUB  | 150 FH |  |  |  |  |

## Electrical Systems:

|    |  |      |                    |  |  |  |  |
|----|--|------|--------------------|--|--|--|--|
| 67 | Components, wiring, terminals and connectors.  | INSP | 150 FH             |  |  |  |  |
| 68 | Warning circuits.  | OP/C | 150 FH             |  |  |  |  |
| 69 | Correct type and rating of fuses and circuit breakers. Correct spare fuses carried.  | CHK  | 150 FH             |  |  |  |  |
| 70 | Lamps and lighting. Correct spare lamps carried.   | CHK  | 150 FH             |  |  |  |  |
| 71 | Brushes in starter, alternator and generator. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due: | CHK  | 150 FH or see Note |  |  |  |  |

**Annual Check/Non-Aligned Tasks (include 50 and 150 hour check items): Task Nos. 1 – 114**

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

Structural/Zonal:

|    |   |      |          |  |  |
|----|---|------|----------|--|--|
| 72 | Emergency exit by internal and external release methods.  | OP/C | Annual   |  |  |
| 73 | Lightning strike bonding.   | CHK  | Annual   |  |  |
| 74 | Internal condition of struts, control tubes and similar hollow members. <b>Note:</b> In accordance with type design organisation recommendations. Next due: | INSP | See Note |  |  |

Flying Controls:

|    |   |             |        |  |  |
|----|---|-------------|--------|--|--|
| 75 | Electric flap actuation system, limit switches, pitch trim motors.                      | INSP & OP/C | Annual |  |  |
| 76 | Control cables for correct tension. Control neutrals and travels. Record results below. | CHK         | Annual |  |  |

| Cable Identification | Temperature | Tension  |        | Control and position (neutral, nose up etc.) | Angle/measurement |        |
|----------------------|-------------|----------|--------|--|-------------------|--------|
|                      |             | Required | Actual |  | Required          | Actual |
|                      |             |          |        |  |                   |        |
|                      |             |          |        |  |                   |        |
|                      |             |          |        |  |                   |        |
|                      |             |          |        |  |                   |        |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

## Liquid, Air and Gas Systems:

|    |  |            |  |  |  |
|----|--|------------|--|--|--|
| 77 | Pitot/static system sense and leak.  | F/C        | Annual   |  |  |
| 78 | Hydrostatic test of pressure vessels. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:   | INSP & CHK | 60 months or see Note                                |  |  |
| 79 | Flexible fuel and oil hoses pressure test. <b>Note:</b> In accordance with type design organisation pressure testing recommendations but in either case only until the ultimate service life, if stated, is achieved.<br>Next due: | CHK        | 72 months from new, then every 36 months or see Note |  |  |
| 80 | Internal examination and pressure testing of fluid tanks and reservoirs.<br><b>Note:</b> In accordance with type design organisation recommendations.<br>Next due:   | CHK        | See Note   |  |  |

## Equipment and Environmental:

|    |  |     |           |  |  |
|----|--|-----|-----------|--|--|
| 81 | Fire extinguisher contents by pressure/weight.                         | CHK | Annual    |  |  |
| 82 | Combustion heater. <b>Note:</b> In accordance with GR 11.<br>Next due: | CHK | iaw GR11  |  |  |
| 83 | Ground function pressurisation check.<br>Next due:                     | F/C | 36 months |  |  |

## Exhaust:

|    |  |     |                    |  |  |
|----|--|-----|--------------------|--|--|
| 84 | Cabin heat exchanger pressure test. <b>Note:</b> In accordance with type design organisation recommendations.<br>Next due: | CHK | Annual or see Note |  |  |
|----|--|-----|--------------------|--|--|

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

## Electrical Systems:

|    |  |      |                       |  |  |
|----|--|------|-----------------------|--|--|
| 85 | Over/under-volt system, warnings. Load sharing.  | OP/C | Annual                |  |  |
| 86 | All ground operable electrical circuits. Exercise manually operated circuit breakers.  | OP/C | Annual                |  |  |
| 87 | Nickel-cadmium battery capacity test. <b>Note:</b> In accordance with equipment manufacturer's recommendations where capacity checks are recommended by the equipment manufacturer.<br>Next due: | F/C  | 12 months or see Note |  |  |
| 88 | Lead-acid battery capacity test. <b>Note:</b> In accordance with equipment manufacturer's recommendations where capacity checks are recommended by the equipment manufacturer.<br>Next due:      | F/C  | 12 months or see Note |  |  |

## Instrument Systems:

|    |   |      |           |  |  |
|----|---|------|-----------|--|--|
| 89 | Air Speed Indicator calibration (in situ is permissible).<br><b>Note:</b> Measured parameters must be recorded.   | F/C  | Annual    |  |  |
| 90 | Altimeter calibration (in situ is permissible).<br><b>Note:</b> Measured parameters must be recorded.   | F/C  | Annual    |  |  |
| 91 | Instruments and indicators for satisfactory condition, mounting, marking and operation.<br><b>Note:</b> This task is applicable to all instruments and indicators that could affect the airworthiness or operating safety of the aeroplane. | F/C  | Annual    |  |  |
| 92 | Readings consistent with ambient conditions. Stall warning device operation.  | CHK  | Annual    |  |  |
| 93 | Compass 'deviation' or 'steer by' cards – valid until next check.   | CHK  | Annual    |  |  |
| 94 | Instruments, displays, controllers, panels, mounts, pipes, hoses, electrical wiring, gyro filters, flux detectors and instrument transmitters.  | INSP | Annual    |  |  |
| 95 | Compass swing.<br>Next due:   | F/C  | 36 months |  |  |

| Task No.        | Task Description   | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|-----------------|--|-------------|---------------|---------------------|----------------------|
| Avionics Radio: |  |             |               |                     |                      |
| 96              | Aerials, insulators, controllers, instruments, displays, microphones, headsets, jackplugs and sockets.   | INSP        | Annual        |                     |                      |
| 97              | Cables and terminals, cooling systems and moisture trap areas.   | INSP        | Annual        |                     |                      |
| 98              | ELT, including battery. <b>Note:</b> In accordance with equipment manufacturer's recommendations.<br>Next due:   | CHK         | See Note      |                     |                      |
| 99              | VHF Communication.   | OP/C        | Annual        |                     |                      |
| 100             | HF Communication.  | OP/C        | Annual        |                     |                      |
| 101             | VOR using a field test set, including flag warnings, omni-radial resolving, radio-magnetic indicator accuracy at 90° intervals, sense and course width.  | F/C         | Annual        |                     |                      |
| 102             | ILS Localiser and Glide Slope using a field test set, including flag warnings of single tone failure, centre-line accuracy, sense, course widths and audio.  | F/C         | Annual        |                     |                      |
| 103             | Marker using a field test set, including 3-tone operational check and high/low sensitivity.  | F/C         | Annual        |                     |                      |
| 104             | ADF ground function using station(s) of known bearing to establish accuracy. Audio on all bands.   | F/C         | Annual        |                     |                      |
| 105             | DME using a field test set, including frequency tolerance, range accuracy and audio.   | F/C         | Annual        |                     |                      |
| 106             | ATC Transponder using a field test set, including frequency tolerance, side lobe suppression, mode 'C' and 'S'.<br><b>Note:</b> The Mode 'S' checks should confirm that the aircraft assigned Mode 'S' code is correct and that any declared parameters are correct. | F/C         | Annual        |                     |                      |
| 107             | Airborne search and weather radar in all modes.  | OP/C        | Annual        |                     |                      |
| 108             | Area and satellite navigation (GPS).   | OP/C        | Annual        |                     |                      |

| Task No. | Task Description | Task Nature | Task Interval | Qualifying Mechanic | Qualifying Inspector |
|----------|------------------|-------------|---------------|---------------------|----------------------|
|----------|------------------|-------------|---------------|---------------------|----------------------|

## Avionics Radio Cont:

|     |   |      |           |  |  |
|-----|---|------|-----------|--|--|
| 109 | Audio control panel, including emergency operation.   | OP/C | Annual    |  |  |
| 110 | VHF Communication using a field test set, including frequency tolerance of transmitted frequencies. <b>Note:</b> In accordance with equipment manufacturer's recommendations, only where frequency tolerance checks are recommended by the equipment manufacturer.<br>Next due: | F/C  | 36 months |  |  |
| 111 | HF Communication system – antenna system and power output check.  | F/C  | 36 months |  |  |

## Avionics Auto-Pilot/Stabiliser:

|     |   |      |        |  |  |
|-----|---|------|--------|--|--|
| 112 | Auto-Pilot/Stabiliser in all modes including manual override disengagement functions.   | OP/C | Annual |  |  |
| 113 | Displays, instruments, controllers.   | INSP | Annual |  |  |
| 114 | Auto-pilot computer, amplifier, power supply, servo motors, connections to flying control system, automatic trim system, yaw dampers and manometric system inter-connections. | INSP | Annual |  |  |

INTENTIONALLY LEFT BLANK