



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 'F' PART XIII

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EFFECTIVE: FORTHWITH

F. No. 11-690/F-XIII/2017-AI(2)

Subject : Airworthiness Requirements for Gliders.

1. Applicability :

1.1 This CAR lays down the requirements for issue of Certificate of Airworthiness and issue / extension of Airworthiness Review Certificate for Gliders and for maintaining gliders in continued state of airworthiness. The Operators/Organisations, engaged in maintenance, overhaul, inspection, repair of gliders and glider components shall be responsible for maintaining the gliders in airworthy condition.

2. Definition :

2.1 "Glider component" means any part, the soundness and correct functioning of which when fitted to a glider is essential to the continued airworthiness or safety of the glider.

2.2 "Major damage" means any damage to a glider or glider component which may affect the safety of the glider or the persons on board.

2.3 "Major defect" means any fault, failure or malfunctioning of a glider or a glider component, which affect the safety of persons on board.

2.4 "Certificate of compliance" is a certification to the effect that all the work on the glider has been performed in accordance with the requirements specified by the Director General.

3. Issue of Certificate of Airworthiness:

3.1 All gliders, manufactured in the country and possessing a valid type certificate, issued by the Director General, or manufactured in a foreign country whose standards of airworthiness are acceptable to the Director General, may be granted Certificate of Airworthiness subject to such conditions as considered necessary. Applications for the issue of Certificate of Airworthiness shall be made to the DGCA Headquarters, in appropriate forms, together with the requisite fee.

Note 1:- In case there is appreciable lapse of time between the manufacture or storage after the manufacture of a glider and the issue of the Certificate of Airworthiness for the same, the glider shall be subjected to a thorough inspection even if it was subjected to such an inspection earlier, so as to detect any deterioration of structure due to storage before the issue of the Certificate of Airworthiness.

Note 2. All wooden gliders can continue in service upto 25 years TSN provided that they have been subjected to a satisfactory 20 years inspection schedule. Certificate of Airworthiness shall not be issued for a wooden glider having an age more than 25 years.

4. Validity of C of A :

4.1 The Certificate of Airworthiness shall remain valid for a period as specified in CAR Section 2 Series 'F' Part III , unless withdrawn or suspended earlier by the Director General, however, the Certificate of Airworthiness shall not be valid for a wooden glider having an age more than 25 years.

4.2-The Certificate of Airworthiness of a glider shall deemed to be suspended if;

- (i) The glider is not inspected at approved intervals in accordance with approved maintenance program.
- (ii) The mandatory modifications/inspection as required by the Director General are not carried out, and
- (iii)The modifications/repairs affecting airworthiness of the glider, not approved by the makers or by the Director General, are carried out.
- (iv) Airworthiness review certificate is not valid

Note : Manoeuvring of gliders which have completed 20 years TSN shall be prohibited. This is applicable to gliders which have been designed for Aerobatics also. Accordingly, the Certificate of Airworthiness, Pilot Handbook shall be revised with suitable placarding in the Cockpit.

5. Instruments and equipments:

5.1 Minimum

5.1 In order to qualify for the issue of a Certificate of Airworthiness / ARC, all gliders shall be equipped with the following minimum instruments and equipment which shall be of approved type and in a serviceable condition at all times:-

- (i) Safety Harness for each occupant
- (ii) Air Speed Indicator
- (iii) Altimeter
- (iv) Variometer
- (v) Bank Indicator
- (vi) Magnetic Compass (in case the Glider is engaged in Cloud or Cross Country flying)

- (vii) Turn and Bank Indicator and Magnetic Compass (in case the the Glider is engaged in Cloud Flying)
- (viii) Serviceable Parachute for each occupant if the glider is engaged in Aerobatic flying.
- ix) The Director General may require installation of additional instrument/items of equipment under certain circumstances from time to time-

5.2 Overhaul periods.

5.2.1 The instruments and equipment shall be maintained in an serviceable condition and overhauled in accordance with the approved maintenance programme

6. Issue / extension of ARC:

6.1 The Director General may issue / extend Airworthiness Review Certificate (ARC) in respect of a glider for a maximum period of 12 months after such inspection and subject to such conditions as may be prescribed. Application for the issue / extension of ARC should be made to the Regional Airworthiness Office in an appropriate form together with the requisite fees prescribed in Aircraft Rule, 62. For wooden gliders having an age more than 20 years, the ARC validity shall be restricted to six months

6.2 The ARC of the gliders should not be issued / extended unless stall/spin test are satisfactorily carried out during test flights. Cases may arise where due to non attainment of sufficient height during course of test flight, the loop test, as required in respect of certain gliders, may not be performed or Aerobatics characteristics of a glider is restricted with the flying Hrs by the Manufacturer. Considering that "loop maneuvers" are deliberate and are not carried out during normal flight, ARC under such circumstances will be issued / extended renewed, but the glider will not be cleared for such maneuvers till this exercise is satisfactorily completed by a test pilot. For this purpose a suitable placard prohibiting such maneuvers shall be affixed on the instrument panel in clear view of the pilot. Such restriction shall be recorded in ARC.

7. Glider components, spares parts and materials used on a glider:

7.1 Glider components/spare parts and materials used thereon shall be :-

- (i) Covered by a Release Note or equivalent document acceptable to the Director General.
- (ii) Manufactured or repaired/overhauled, inspected and certified as serviceable by an approved organisation or persons appropriately licensed or authorised by the Director General.

8. Certification:

8.1 A Glider which required to hold a valid C of A and ARC shall not be flown (except for a test flight) unless during the preceding 24 hours it has been inspected in accordance with the approved schedule and certified as safe for flight. The certificate shall be in the form given at appendix 'A' to this CAR and shall be

issued by an appropriately licensed Glider Maintenance Engineer or a person authorised by the Director General or by the maintenance organisation for this purpose in accordance with the procedure laid down in the organisation exposition/ manual or in compliance with MA 803 of CAR M .

8.2 The 'Certificate of Safety' shall be made in duplicate. One copy shall be handed over to the pilot and the other shall be retained by the operator for a period of one month unless the flight to which it relates ends in an accident, when such a certificate shall be retained as required by the competent authority investigating the accident.

9. Weighment:

(a) The Director General may require the glider to be weighed prior to issue of Certificate of Airworthiness/ ARC or at any time when it is considered necessary.

(b) Empty weight, all-up-weight, C.G. position corresponding to empty weight and the permissible C.G. range shall be displayed in the cockpit of all gliders.

10. Placards indicating the permissible manoeuvres, speed limitations and such other information as required by the type certificate or by the Director General shall be installed in the cockpit of the glider in a manner that the same can be clearly seen by the pilot whilst sitting in the cockpit.

11. Service documents, manuals, repair schemes etc:

(i) Operators/organisations shall not undertake maintenance/overhaul of gliders unless they have in their possession the manufacturer's manuals and have made arrangements for receiving amendments thereto. They shall ensure that Service Documents issued by the Manufacturers from time to time are received by them.

(ii) Repairs, modifications and overhaul of gliders and glider components shall be performed in accordance with the approved drawings/repair schemes, and overhaul instruments issued by the manufacturers. In certain cases the Director General may accept repairs carried out conforming to standard aeronautical practices.

(iii) Manufacturer service bulletins/instructions shall be deemed to have prior approval of the Director General unless otherwise notified by him.

(iv) Repairs/ modifications not covered by maker's documents and affecting airworthiness of the gliders shall require prior approval of the Director General.

(v) Compliance of Service bulletins/instructions, mandatory inspections/modifications, issued by the makers or by the Director General, will be governed by the CAR Series 'M' Part I.

12. Test flights :

12.1 Test flight where necessary shall be carried out prior to issuance of Maintenance Release in accordance with the requirements laid down in the Civil Airworthiness Requirements, Series 'T'.

13. Tools and equipment :

13.1 Operators/Organisations shall use the tools and equipment as recommended by the manufacturers during maintenance/overhaul of gliders.

14. Maintenance/overhaul records :

14.1 Records of all inspections, overhauls, replacements, repairs, modifications and test flights shall be maintained in appropriate log book. The log may, however, contain brief information, but full details shall be given in the work/procedure sheets. Reference of work/procedure sheets shall be given in the log book.

14.2 The record shall include full information of total time in service and time since last overhaul of all major components which have life limitations. This shall be in terms of number of flying Hrs and launches/ cycles executed. Similar records in respect of components whose life is governed by calendar period/flying hours/launches/cycles shall also be maintained. With a view to making the identification of materials and glider components possible, suitable entries shall be made with reference to applicable incoming Release Note or equivalent certification document.

14.3 The records shall be preserved for the following periods:-

- | | | |
|-----|---|--|
| (a) | Glider log book
Procedure/worksheets
pertaining to Glider | Until such time as the glider is permanently withdrawn from use and its Certificate of Registration is cancelled by the Director General provided that in the case of a glider meeting with an accident resulting in damage beyond economical repair, the glider log book and associated work sheets shall be preserved for a period of two years after the date of the accident or subject to such periods as required by the competent authority investigating the accident. |
| (b) | Records, including
work/procedure
sheets, for all
components subject
to life limitations. | Until one year after the components permanently withdrawn from service. |

15. Oversight:

15.1 Operators/organisations shall make a glider, glider components and item of equipment available for inspection to the officers of the DGCA as and when required.



(B S Bhullar)

Director General of Civil Aviation

CERTIFICATE OF SAFETY FOR FLIGHT

Operator's Name _____

Glider Type..... Regn. Mark VTI

hereby certify that I have this day inspected the above glider including its instruments and equipment and that I am satisfied that it is safe in every way for flight, provided the conditions of loading specified in the Certificate of Airworthiness are complied with.

Signatures _____

Name _____

Authority/Licence No.....

Place of Issue : _____

Time and Date of issue : _____