



GOVERNMENT OF INDIA  
**OFFICE OF DIRECTOR GENERAL OF CIVIL AVIATION**  
TECHNICAL CENTRE, OPPOSITE SAFDARJUNG AIRPORT, NEW DELHI

**CIVIL AVIATION REQUIREMENTS**  
**SECTION 2 – AIRWORTHINESS**  
**SERIES O PART VI**  
**ISSUE IV, DATED \_\_\_\_\_**

**EFFECTIVE: FORTHWITH**

**F. No.: 11-690/CAR/O-VI/2006/AI(2)**

**SUBJECT: Manufacture, Registration and Operation of Powered Hang Gliders**

**1 INTRODUCTION**

This part of the Civil Airworthiness Requirements specifies requirements relating to, manufacture, registration, maintenance, operation and security of Powered Hang Gliders. For the purpose of this CAR, Powered Hang Glider is a vehicle that -

- 1.1 is used or intended to be used for manual operation in the air by a single occupant/ double occupant.
- 1.2 is used or intended to be used for recreation, sport or any other purpose approved by DGCA in writing.
- 1.3 has the maximum AUW less than 275 kgs for a single seater.
- 1.4 has the maximum AUW less than 375 kgs for a double seater.
- 1.5 is not capable of more than 70 knots calibrated air speed at full power in level flight, and
- 1.6 has a power-off stall speed which does not exceed 30 knots calibrated air speed.

**2 DEFINITION**

- 2.1 "Acrobatic flight" means manoeuvres intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude or abnormal variation in speed.
- 2.2 "Air Traffic Control Clearance" means authorisation by an Air Traffic Control unit for an aircraft to proceed within controlled airspace under specified conditions.

- 2.3 "Controlled Airport" means an airport at which an Air Traffic Control unit is provided.
- 2.4 "Controlled airspace" means airspace of defined dimensions within which Air Traffic Control service is provided.
- ~~Permit to fly is a document issued to Powered Hang Glider that do not meet or have not been shown to meet, applicable airworthiness requirements but capable of performing safe flight under defined conditions.~~
- 2.5 "Special Certificate of Airworthiness" means a document issued by the Director-General to an aircraft which has a restricted type certificate or complies with airworthiness specifications as specified by the Director-General for ensuring adequate safety;

### **3 MANUFACTURE**

- 3.1 The prospective manufacturer shall intimate DGCA, the procedure he wishes to adopt for the manufacture.
- 3.2 Applications for issue of approval for manufacture or assemble a Powered Hang Glider from kits imported shall be made on prescribed form as per Annexure - I of this CAR to the concerned regional airworthiness office.
- 3.3 For series production of Powered Hang Glider, the manufacturer shall provide an Engineering Organisation Manual along with a documented production inspection system manual for acceptance by DGCA. Contents of the Engineering Organisation Manual and Production Inspection System Manual shall minimum address the issues specified in the Annexure - II to this CAR.
- 3.4 Approval to manufacture a Power Hang Glider shall be granted after determining that the,
- (i) Established production facilities and documented process are suitable for manufacture / assembly of the power hang glider.
  - (ii) Security clearance of the registered manufacturer had been issued by the Ministry of Home Affairs.
- 3.5 The Powered Hang Glider shall be manufactured adopting manufacturing techniques recommended by the designer / design organization and in its absence standard aeronautical engineering practices. The Power Hang Glider shall be fitted with such communication and navigation equipment prescribed by the Ministry of Home Affairs at Annexure – XI.
- 3.6 Records of manufacturing including ground and flight testing, materials used and their source shall be maintained.
- 3.7 Each Powered Hang Glider shall be weighed and its centre of gravity established. A weight and balance report shall be prepared and delivered with each Powered Hang Glider.

- 3.8 Prior to delivery each Powered Hang Glider shall be tested on ground and in flight (Annexure - III). Copy of test schedule covering ground and flight tests to which the Powered Hang Glider was subjected shall be delivered with each Powered Hang Glider.
- 3.9 User's manual (Annexure - IV) and maintenance manual shall be prepared by the manufacturer and copies of the same shall be submitted to the DGCA along with application for approval of the firm.
- 3.10 The principal manufacturer shall provide a maintenance programme and also specify the overhaul life (TBO) of the engine, propeller, instruments and advise the operators about the organisations which may be approached for the overhaul or other major maintenance. The manufacturer shall also be responsible for issuance of any modifications to the aircraft to improve its safety of operations. For this purpose the manufacturer may provide kits and drawings so that the operators can carry out the modifications.
- 3.11 The manufacturer shall deliver with each Powered Hang Glider a Certificate of Compliance (Annexure – V) stating that the Powered Hang Glider has been manufactured adopting the techniques recommended by the designer / design organization / standard aeronautical practices and the Powered Hang Glider is safe for its intended operations.
- 3.12 The manufacturer shall maintain records of Powered Hang Gliders produced and details of person/personnel to whom the Powered Hang Glider is sold and provide it to the DGCA when required.
- 3.13 A permanent placard should be affixed on the Powered Hang Gliders in full view of the occupants and should be worded as: **"THE POWERED HANG GLIDER HAS NOT BEEN CERTIFICATED TO INTERNATIONAL AIRWORTHINESS REQUIREMENTS."**
- 3.14 The operator shall maintain the general log-books and documents for engines and airframe of Powered Hang Gliders.

#### **4 REGISTRATION**

- 4.1 All civil Powered Hang Gliders imported into the country or manufactured in India shall be registered in the Civil Register and a Certificate of Registration in respect thereof shall be issued.
- 4.2 Application for registration of Powered Hang Gliders should be made to the DGCA on the prescribed form CA-28 and shall be accompanied by document specified in Annexure – VI.
- 4.3 The nationality and registration marking as assigned be painted on the Powered Hang Glider or shall be affixed there to by any other means insuring similar degree of permanence. The guidelines for fixation of nationality and registration markings are detailed in CAR, Section-2, Series-F, Part-I.

- 4.4 Each Powered Hang Glider registered shall carry an identification plate showing the registration markings, manufacturer's name, Powered Hang Glider serial number and the name and address of the registered owner of the Powered Hang Glider. The plate shall be made of fireproof metal or other fireproof material of suitable physical properties. It shall be secured to the Powered Hang Glider in a prominent position and at a convenient place in order to afford readability when the Powered Hang Glider is stationary.

## 5 ~~PERMIT TO FLY~~ SPECIAL CERTIFICATE OF AIRWORTHINESS

- 5.1 DGCA may issue a "Permit to Fly Special C of A" as per Annexure ~~X~~ in respect of the Powered Hang Glider. Such permit Special C of A shall enable the operator to fly Powered Hang Glider within the specified area of operation (Annexure - VII) subject to conditions given therein and in this CAR. Requirements for issue of Special C of A are detailed in CAR section -2 Series-F, Part-XXIII.
- 5.2 The "Permit to Fly" shall be valid for one year unless cancelled or withdrawn by the DGCA. The permit may be renewed for a further period of one year at a time, by the DGCA representatives on the recommendation of any fixed wing licensed AME or by a person authorised by DGCA.
- 5.3 Non-conformity of the conditions of the permit or of the instructions specified in the User's manual or this CAR shall lead to suspension of the validity of the permit.
- 5.4 An application for issue of "Permit to Fly" shall be made in the prescribed proforma given in the Annexure ~~IX~~.

## 6 MAINTENANCE

- 6.1 The routine maintenance of the Powered Hang Glider in accordance with the manufacturer's instructions shall be the responsibility of the operator. The operator shall also be responsible for embodiment of modifications in accordance with the plan prescribed by the manufacturer. If the manufacturer is not existing, the modifications desired by the user shall be approved by the DGCA.
- 6.2 The pilot shall be responsible for carrying out the pre-flight inspections and the next higher inspections up to the 50 hour schedule, and not fly the Powered Hang Glider in case any abnormality is noticed. After every flight the pilot shall record in the log book any defects noticed during the flight. Before undertaking any flight the pilot shall ensure that the defects recorded in the log book have been attended to and rectified and that the Powered Hang Glider is safe to undertake the flight.
- 6.3 The higher than 50 hours inspection schedules and overhaul of the Powered Hang Glider, engine and its components shall be carried out by an aircraft maintenance engineer holding a licence in Category A or Category B1 or Category B3 or an person specially authorised by the Director-General. All

such persons shall undergo a training under the supervision of manufacturer or an AME or an authorised person.

- 6.4 A log book shall be maintained by the operator in order to keep a record of the flying, modifications and repair work carried out on the Powered Hang Glider. All columns of the log book should be filled up by the pilot and signed by him after every flight.
- 6.5 Notwithstanding to the above it is the responsibility of the operator to maintain his Powered Hang Glider in a satisfactory manner so as to see that no unsafe condition exists therein.

## **7 SECURITY**

- 7.1 The Powered Hang Glider shall not be sold or disposed off in any way to any person or firm without production of a certificate issued by DGCA. The certificate shall be granted by DGCA after verifying the antecedents of the prospective buyers from MHA.
- 7.2 Any person or firm intending to acquire/manufacture or register a Powered Hang Glider is required to obtain security clearance from Ministry of Home Affairs (MHA) through DGCA and comply with the requirements specified by MHA. The security and operational requirements of MHA are detailed in Annexure - XI to this CAR.
- 7.3 The prospective manufacturer / owner of Powered Hang Glider shall submit duly filled Proforma as specified at Annexure - VIII to this CAR to DGCA HQRS (Directorate of Airworthiness). The request of the applicant for security clearance shall be forwarded to MHA after ensuring that the application is complete in all respect. The applicant will be informed of security clearance from MHA as and when the same is received by DGCA.
- 7.4 Notwithstanding to the above owner/operator of Powered Hang Glider shall comply with the security related directives issued by Ministry of Home Affairs from time to time.

## **8 OPERATIONAL ASPECTS**

- 8.1 The Powered Hang Glider shall not be used for public transport or aerial work or any commercial activity. However wherever there is a provision for two occupants, one person could be carried for purpose of training, or sports / recreation etc.
- 8.2 No person shall operate a Powered Hang Glider except in accordance with Visual Flight Rules.
- 8.3 No person shall operate a Powered Hang Glider at night.
- 8.4 The Powered Hang Glider shall be operated within the specified area (Annexure - VII) in compliance with the conditions of ~~permit to fly~~ **Special C of**

- A**, operational restrictions and other conditions stipulated by the Ministry of Home Affairs in Annexure - XI.
- 8.5 No person shall operate Powered Hang Glider unless each occupant is secured by a suitable restraining means attached to the primary structure of the Powered Hang Glider to prevent accidental egress from the ~~permit~~ Powered Hang Glider.
- 8.6 No person shall operate a Powered Hang Glider unless the occupants are wearing a protective helmet.
- 8.7 No person shall fly a Powered Hang Glider without being authorised by a DGCA approved examiner/ instructor. The examiner/ instructor shall be a person who has done 25 hours on Powered Hang Glider and has at least 10 hour on dual machine. Such approved examiner/ instructor shall check out and authorize other persons to fly.
- 8.8 Powered Hang Gliders are exempt from any VFR instruments as specified in CAR, Section - 2, Series' I', Part - II. However, it is suggested that altimeter, airspeed indicator, and RPM gauge may be installed for safe operation.
- 8.9 Person conducting test flights of a Powered Hang Glider should -
- Conduct the test over an unpopulated area and in clear airspace,
  - keep a continuous lookout; and
  - Stay well clear of cloud.
- 8.10 The details of flight plan and flying shall be notified by the pilot to the nearby aerodrome, defence establishment and district local authorities concerned as applicable and obtain necessary clearance.
- 8.11 It is the responsibility of the pilot to ensure that prior to take off the Powered Hang Glider is safe for intended operation; and weight of the fully loaded Powered Hang Glider is within limits.
- 8.12 Copy of ~~Permit to fly~~ **Special C of A** shall be provided to AAI by operator for monitoring the flying activities in their area and carried on board.
- 8.13 Details of approved owners/operators along with conditions **copy** of **Permit Special C of A** should be made available to local district administrative authority's i.e. District Magistrate and Superintendent of Police by regional office to ensure that no breach is done by them.
- 8.14 The aircraft shall be operated only by the owner in whose name the aircraft is registered and specified on the C of R.

Director General of Civil Aviation

ANNEXURE - I

**Application for Approval of an Organisation for Manufacturing or Assembly of  
Powered Hang Glider**

1. Registered name and address of the organisation:

2. Trade name (if different):

3. Locations for which the approval is applied for:

4. Brief summary of proposed activities at the item 3 addresses -

a) General:

b) Scope of approval:

c) Nature of privileges:

5. Description of organisation:

6. Approximate number of staff engaged or intended to be engaged in the activities:

7. Position and name of the accountable manager:

8. Details of fees paid:

Date

Signature of the accountable Manager

Enclosure:

Copy of company registration certificate

Engineering Organisation Manual

Fee for Initial Approval / Renewal of approval of Organisation for Manufacturing or Assembly of Powered Hang Glider, will be charged as per Rule 133 C

**ANNEXURE - II**

**Contents of Engineering Organisation Manual and Production Inspection System Engineering Organisation Manual**

1. A statement signed by the owner of the production organisation confirming that the Engineering Organisation and any associated manuals which define the approved organization's compliance with this CAR will be complied with at all times.
2. The title(s) and names of managers administering the manufacturing activity.
3. The duties and responsibilities of the manager overseeing the manufacturing activities.
4. An organizational chart showing associated chains of responsibility of the managers.
5. A list of certifying staff approved by the organisation.
6. A general description of man-power resources.
7. A general description of the facilities.
8. A general description of the production organization's scope of work.
9. Description of production inspection system.
10. The procedure for the notification of organizational changes to DGCA.
11. Procedure for the amendment of Engineering organisation manual.

**Production Inspection System**

- (i) Design and production document issue, approval, or change.
- (ii) Vendor and subcontractor assessment and control.



(iii) Verification of incoming products, parts, materials, and equipment, including items supplied new or used by buyers of products.

(iv) Manufacturing processes.

(v) Inspection and testing, including production flight tests and certification.

(vii) Non-conforming item control.

(viii) Identification and traceability.

(ix) Records completion and retention.

(x) Calibration of tools, jigs, and test equipment.

(xi) Personnel qualification and competence.

(xii) Handling, storage and packing.

(xiii) Internal quality audits and resulting corrective actions.

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**ANNEXURE - III**

**GROUND TESTS AND FLYING TESTS**

1. The components concerned with airworthiness and relevant to safety should be tested by a series of flying tests and ground tests. The program of tests should be mentioned in the Test documents required for registration of the Powered Hang Glider. The manufacturer should furnish these documents to the user.
2. The minimum test program should comprise of the following:
  - 2.1 Flying tests for determining -
    - a) Maximum weight performance described in the user's manual.
    - b) Manoeuvrability and stability of Powered Hang Glider in relation to its weight during the following phases of flight:
      - take-off and landing (with and without power)
      - climb
      - level flying
      - dive
      - behaviour of the Powered Hang Glider during vibrations.
  - 2.2 Ground tests for determining the technical characteristics of materials used in bending, tension, torsion loads and the scatter factor/margins chosen for taking into account the variation in material characteristics.
  - 2.3 Flying tests or bench tests for determining the behaviour of the engine determined for a fixed period of utilization.
3. The manufacturer shall be responsible for the execution of the test flight program. In case of a Powered Hang Glider imported into India, the owner shall be responsible for conducting the test flights by qualified pilots.
  - 3.1 All test results should be compiled in a statement stating the date and place of the tests carried out along with the parameters which influenced the results.

ANNEXURE - IV

**USER'S MANUAL (OPERATOR'S HAND-BOOK)**

The user's manual is mandatory for all Powered Hang Glider of series production. The manual should contain clear and precise instructions which should be clearly followed by the user. In general, the manual should contain description about the following:

1. All necessary details on the operation of Powered Hang Glider and its equipment and information regarding the performance, manoeuvrability and stability of the Powered Hang Glider.
2. Specific operating conditions and the associated limits for the Powered Hang Glider without giving consideration to the type or the runway to be used for the operation.
3. In general, the user's manual should contain paragraphs as per guidelines given below:
  - 3.1 Weight Limitations:
    - 3.1.1 Empty Weight: It is the weight of Powered Hang Glider structure excluding the weight of all removable equipment and usable fuel and oil quantities but including fuel and oil quantities both trapped and unusable.
    - 3.1.2 Maximum All Up Weight: It is the maximum weight to which the Powered Hang Glider has been subjected during flight tests and ground tests. The Max. AUW should be laid down in a way that it is higher than the Powered Hang Glider empty weight together with full fuel and oil tanks and 75 kgs. for each occupant seat.
  - 3.2 Maximum Weight Performance:
    - 3.2.1 Stalling Speed: It is the minimum speed at which level flight can be maintained.
    - 3.2.2 Take off
      - Take off run
      - Take off distance (to clear 15 m obstacle)
    - 3.2.3 Climb
      - Take off climb

- 3.2.4 Landing
  - Landing distance (from 15 m obstacle)
  - Landing roll
- 3.2.5 Speed associated with maximum aerodynamic efficiency.
- 3.3 Manoeuvrability and Stability:
  - 3.3.1 Behaviour of the Powered Hang Glider with respect to weight
  - 3.3.2 Specific headwind/crosswind limits for take-off and landing.
- 3.4 Structure:
  - 3.4.1 Load factors
    - negative
    - positive
  - 3.4.2 Maximum Load
    - on the movable surface
    - on the flying controls
- 3.5 Engine and Propeller:
  - engine maximum power
  - duration of maximum power
  - propeller maximum power
  - reduction type and ratio of reduction.
- 3.6 Assembly and Disassembly procedures.
- 3.7 List of controls and specific operating instructions for each item.
- 3.8 Fuel.
- 3.9 List of equipment and instruments including radio and specific instructions for the user on these items.
- 3.10 Optional equipment :
  - List of optional equipment
  - Effect of assembly of optional equipment on the limitations indicated in the manual and associated instructions for use
- 3.11 Emergency procedures.

**ANNEXURE - V**

**CERTIFICATE OF COMPLIANCE - POWERED HANG GLIDER**

1. Registration Mark
2. Type of Powered Hang Glider
3. Manufacturer
4. Empty weight with equipment
5. Maximum all up weight
6. Accommodation (crew + passenger)
7. Engine Type
8. Manufacturer of the engine
9. Power rating
10. Wing Area
11. Span

I hereby certify that the above Powered Hang Glider has been manufactured in accordance with the accepted design standards adopting recommended / standard aeronautical engineering practices.

I also certify that the flying and ground testing of the Powered Hang Glider has been carried out and the aircraft is declared safe for its intended operations.

Date:

Place:

Authorized Signatory  
on behalf of the manufacturer

**ANNEXURE - VI**

**DOCUMENTS REQUIRED FOR REGISTRATION OF POWERED HANG GLIDER**

1. Duly filled Application for registration (form CA-28).
2. Registration fee as per Rule 35 in the form of a bank draft payable to PAO,  
DGCA, MCA, New Delhi.
3. User's manual.
4. Maintenance manual.
5. An undertaking to the effect that the owner and operator shall be fully responsible  
for the safe custody, security and access control of the aircraft.
6. Test reports for flight and ground tests to which the aircraft conforms.
7. Weight and balance report.
8. Certificate of Compliance - certifying that the aircraft has been manufactured  
following the standard aeronautical manufacturing processes (not required for  
experimental aircraft) and safe for intended operations.
9. Security Clearance certificate issued by DGCA on the basis of MHA clearance.

**LIST OF IDENTIFIED AREA FOR OPERATION OF POWERED HANG GLIDER**

**Northern India**

S. No.	Name of Place	Area of Operation	Co ordinates
1.	Rajasthan	Jaipur	26° 49' 27" N 75° 48' 43" E
2.	Uttarakhand	Sakkhanpur Farm	29° 18' 15" N 79° 03' 05" E
3.	Uttarakhand	Pant Nagar Aerodrome	29° 01' 51" N 79° 28' 23" E
4.	Himachal Pradesh	Balh Valley, Mandi	32° 15' 33" N 76° 18' 42" E
5.	Uttar Pradesh	Manakapur	26° 45' 14" N 82° 09' 01" E

**Southern India**

S. No.	Name of place	Area of Operation	Co ordinates
1.	Hyderabad	Mulugu Village	17° 43' 41" N 78° 42' 02" E
2.	Karnataka	Jakkur Airfield	13° 04' 38" N 77° 35' 48" E
3.	Coorg, Karnataka	Choudigudi Estate	12° 07' 25" N 76° 03' 42" E
4.	Salem, Tamil Nadu	Pullagoundanpatti	11° 28' 49" N 77° 43' 19" E
5.	Karnataka	Ganimangala Village	12° 13' 02" N 76° 37' 33" E

6.	Munnar, Kerala	Devikulam	10° 03' 23" N 77° 07' 11" E
7.	Kerala	Idukki	09° 55' 08" N 77° 06' 08" E
8.	Erode, Tamilnadu	Nambiyur	11° 21' 28" N 77° 19' 14" E
9.	Mandakali, Mysore	Mysore Airfield	12° 13' 48" N 76° 39' 21" E
10.	Karnataka	Gundlupete	11° 48' 30" N 76° 41' 33" E
11.	Coimbatore, Tamil Nadu	Chettipalayam	10° 54' 47" N 77° 02' 12" E
12.	Tamil Nadu	Vellore	12° 54' 31" N 79° 04' 00" E
13.	Tamilnadu	Hosur	12° 39' 40" N 77° 46' 01" E
14.	Kerala	Manimuthar, Thirunelveli	08° 45' 00" N 77° 23' 00" E

**Eastern and North-Eastern India**

S. No.	Name of Place	Area of Operation	Co ordinates
1.	Sonapur, Assam	Betkuchi	26° 08' 29" N 91° 57' 17" E

**Western India**

S. No.	Name of Place	Area of Operation	Co ordinates
1.	Goa	Morjim	15° 37' 24" N 73° 43' 48" E
2.	Burhannagar, Ahmednagar	Burhannagar, Ahmednagar	19° 07' 09" N 74° 46' 18" E
3.	Gujarat	Surendranagar	22° 46' 26" N 71° 40' 02" E



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4.	Maharashtra	Nagpur	21° 08' 44" N 79° 05' 17" E
5.	Maharashtra	Amravati	20° 53' 48 " N 77° 46' 30" E
6.	Maharashtra	Satara	17° 40' 49" N 74° 01' 05" E
7.	Maharashtra	Aurangabad	19° 57' 00" N 75° 15' 00" E
8.	Gujarat	Gandhi Nagar	23° 12' 33" N 72° 38' 59" E
9.	Maharashtra	Aamby Valley, Pune	18° 36' 26" N 07° 32' 24" E
10.	Maharashtra	Majala, Kolhapur	16° 45' 32" N 74° 26' 55" E

**Note:** *The above List of Identified Area for Operation of Powered Hang Glider excludes the restricted areas notified by various Government Agencies.*

**APPLICATION FOR SECURITY CLEARANCE**

**WARNING: SUPPRESSION OF MATERIAL OR FACTUAL INFORMATION IN THIS FORM SHALL BE A DISQUALIFICATION.**

1. (a) Name of Applicant in full (in block letters)

Surname	Name	Aliases, if any
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(b) Parentage :

Surname	Name	Aliases, if any
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2. Present address in full, including Police Station:

3. (a) Permanent address in full, including Police Station:

(b) If originally a resident of a country other than India, address in that country and the date of migration to India:

4. Nationality :

5. Date and place of birth, with full address:

6. Profession/occupation after the age of 18 years :

7. Particulars of places, with full address, where the applicant has resided for more than a year during the preceding ten years:

8. a) Particulars of relatives - Indian and non-Indians working in foreign Missions, foreign organisations including foreign concerns, with full details :

(b) Particulars of relatives living abroad with their full address:

9. Is the applicant or any of his relatives a member of social or cultural organisation which is associated with or assisted by a foreign Mission or organisation?
10. Has the applicant visited a foreign country recently if so, details thereof?
11. Has the applicant ever been arrested, prosecuted, kept under detention, or convicted by a court? Give details :

12. Security Clearance from Local Police Authority:

13. Area of operation of Powered Hang Glider as per Annexure-VII of this CAR:

Certified that the information furnished in this proforma is correct and complete to the best of my knowledge and belief. I am aware that furnishing of wrong information or suppression of factual or material information will dis-entitle me from grant of the licence/permit.

Date:

Place:

Signature of the Applicant

**Note:** *The application (4 sets in original) along with documentary proofs of items at S.No. 1, 2, 3, 4, 5 and 12 are required to be submitted by the applicant.*

ANNEXURE - IX

GOVERNMENT OF INDIA DIRECTORATE GENERAL OF CIVIL AVIATION		<u>C.A.-25A (PHG)</u>
<b>APPLICATION FOR PERMIT TO FLY SPECIAL CERTIFICATE OF AIRWORTHINESS FOR POWERED HANG GLIDER</b>		
1. Name and Address of owner		
2. Nationality		
3. Name and address of applicant (if other than the owner of aircraft)		
4. Name and address of manufacturer		
5. Date of manufacture		
6. State of design		
7. Registration Mark		
<b>8. Description of aircraft</b>		
(a) New or used		(f) Number of engines fitted
(b) Type		(g) Type of propeller (where applicable)
(c) Series		(h) Passenger seating capacity
(d) Manufacturer's serial number		(i) Avionics installed.
(e) Type of engine		(j) Minimum crew required (As per manufacturers document)
9. Maximum take-off mass of aircraft (as given in manufacturers document)		
<b>10. Total number of hours flown since manufacture:</b>		
(a) Aircraft.....hours.....cycles (if applicable)	(b) Engine in hours/cycle Port .....(inboard) .....(outboard) Starboard .....(inboard) .....(outboard)	
<b>11. Date of last inspection:</b>		
12. Is the aircraft: ( <i>Applicable for aircraft manufactured in India</i> ) a) a prototype, b) Series aircraft		
13. ( <i>Applicable for foreign manufactured aircraft</i> ) (a) State of Origin of Special Certificate of Airworthiness presented (b) Serial Number of the Special Certificate of Airworthiness presented (c) Special C of A category: (Refer Para 3 of the CAR, Section-2, Series-F, Part-XXIII for Categories of Special C of A )		

14. Name and address of Organisation/ Licensed Aircraft Maintenance Personnel with whom aircraft is available for inspection	
15. Area of operation of Powered Hang Glider as per Annexure-VII of this CAR	
16. Name and Licence Nos. of pilots who may fly this ( Powered Hang Glider pilot licence holders)	
17. Purpose for which the Powered Hang Glider may fly	
18. Details of fees paid	
<p>19. DECLARATION</p> <p>I hereby declare that the particulars entered on this application and the appendix is true and correct to the best of my knowledge and belief. I am aware of the rules and regulations promulgated by the DGCA for the operation and maintenance of Powered Hang Glider and undertake to abide by them.</p> <p>Date: _____ Signature: _____ Name: _____</p>	
<p>Note: Documents which must accompany an application for the issue of a Permit to Fly Special Certificate of Airworthiness for the Microlight Aircraft -</p> <ol style="list-style-type: none"> <li>1. Details of aircraft as per <b>Appendix to C.A.-25A(PHG)</b>.</li> <li>2. Certificate of Erection signed by an Aircraft Maintenance Engineer holding current Indian A.M.E. License in Category 'A' confirming that aircraft has been assembled as per manufacturer's instructions.</li> <li>3. <i>Certificate of Flight Test</i> signed by a pilot holding a current C.P.L. and specially authorized by DGCA, quoting DGCA authorization number and date.</li> <li>4. Document certifying the clearance of area of operation from AAI/appropriate ATC authority.</li> <li>5. Operator's hand book or aircraft flight manual.</li> <li>6. Security Program approved by BCAS for security oversight.</li> <li>7. Any other documents as required in CAR, Section 2, Series-O, Part-VI and CAR, Section 2, Series-F, Part-XXIII, if applicable.</li> </ol>	

**GOVERNMENT OF INDIA**

**DIRECTORATE GENERAL OF CIVIL AVIATION**

**APPLICATION FOR PERMIT TO FLY FOR POWERED HANG GLIDER**

This form when completed, should be forwarded to the Director General of Civil Aviation, Opposite Safdarjung Airport, New Delhi and must be accompanied by the documents specified below.

1. Name of owner -
2. Address (in full) -
3. Nationality -
4. Name and address of applicant. (To be completed in cases in which the applicant is not the owner of the Powered Hang Glider). -
5. Constructor of Powered Hang Glider -
6. Nationality & Registration Marks -
7. Description of Aircraft: -
  - (a) Type (Name & Description) -
  - (b) Constructor's No. -
  - (c) Type of engine -
  - (d) Maximum number of persons to be carried including crew -
  - (e) Maximum All Up Weight (Kg.) -
  - (f) Wing Area (Sq. Meters) -
8. Area of operation of Powered Hang Glider as cleared by AAI/ appropriate ATC authority -
9. Name and Licence Nos. of pilots who may fly this ( Powered Hang Glider pilot licence holders) -
10. Purpose for which the Powered Hang Glider may fly -

~~I hereby declare that the above particulars are true in every respect. I am aware of the rules and regulations promulgated by the DGCA for the operation and maintenance of Powered Hang Glider and undertake to abide by them.~~

Signature of the Applicant

Date

Place

~~Documents which must accompany an application for the issue of a Permit to Fly Special C of A for the Powered Hang Glider.~~

~~1. Certificate of Erection signed by an Aircraft Maintenance Engineer holding current Indian A.M.E. License in appropriate category confirming that aircraft has been assembled as per manufacturer's instructions.~~

~~2. Certificate of Flying Test signed by a pilot holding a current C.P.L. or specially authorized by DGCA, quoting DGCA authorization number and date.~~

~~3. Document certifying the clearance of area of operation from AAI/appropriate ATC authority/ MHA.~~

<del>4. Operator's hand book or aircraft flight manual.</del>
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<del>5. Security Program approved by BCAS for security oversight.</del>
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APPENDIX TO C.A.-25A(PHG)

**DETAILS OF AIRCRAFT SYSTEMS, INSTRUMENTS AND EQUIPMENT  
 INSTALLED IN THE AIRCRAFT :**

<p>1. Main batteries:                  a) Nickel/ Cadmium                  b) Lead/ Acid                  c) Number fitted</p>	
<p>2. Portable fire extinguishers</p>	
<p>3. Fuel quantity indicating system</p>	
<p>4. Anti-collision lighting                  a) Rotating beacons                  b) Strobe lights</p>	
<p>5.Type of Compass:</p>	
<p><b>6. OTHER INFORMATION</b></p>	
<p>7. State total fuel capacity kg</p>	
<p>8. Give details of equipment (other than that listed above) which has been introduced by modification action (state manufacturer and type)</p>	
<p>9. Give details of changes, if any, introduced in the Flight Operating Handbook a result of modification action</p>	
<p><b>Note:</b> <i>All items should be completed as appropriate; in cases where items are not relevant, the words "Not applicable" should be entered.</i></p>	
<p><b>Date:</b></p>	<p><b>Signature:</b>  <b>Designation:</b></p>



सं० / No.:



ना०वि०-२४ / C.A.-24

भारत / INDIA

नागर विमानन महानिदेशालय / DIRECTORATE GENERAL OF CIVIL AVIATION  
विशिष्ट उड़नयोग्यता प्रमाण पत्र / SPECIAL CERTIFICATE OF AIRWORTHINESS

राष्ट्रीयता तथा पंजीकरण चिन्ह / Nationality and Registration Mark	विमान का निर्माता तथा विमान निर्माता द्वारा विमान को दिया गया नाम / Manufacturer and Manufacturer's Designation of Aircraft	विमान क्रम संख्या / Aircraft Serial No.
VT -		
वर्ग / Category		
न्यूनतम कर्मी दल / Minimum Crew Necessary		
प्राधिकृत अधिकतम कुल भार / Maximum All-Up-Weight Authorized		

इस विमान का परिचालन इस विमान के सम्बन्ध में जारी की गयी अनुमोदित उड़ान नियमावली तथा उसमें किये गए उत्तरवर्ती संशोधनों के अनुसार किया जायेगा। वह उड़ान नियमावली इस उड़नयोग्यता प्रमाण पत्र का एक भाग समझी जायेगी तथा विमान में जायेगी। / This aircraft is to be operated in accordance with the approved Flight Manual and its subsequent amendments, issued in respect of this aircraft. The Flight Manual shall form a part of this C of A and shall be carried on board.

यह उड़नयोग्यता प्रमाण पत्र, उपर्युक्त विमान जिसे पूर्वोक्त शर्तों तथा सम्बद्ध परिचालन परिसीमाओं के अनुरूप सांघारित और प्रचालित किये जाने पर उड़नयोग्य समझा जाता है; उसके लिए ०७ दिसंबर, १९४४ के अंतर्राष्ट्रीय नागर विमानन विषयक अभिसमय तथा समय-समय पर यथा संशोधित विमान नियमावली, १९३७ के अनुसार जारी किया जाता है। / This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated the 7th December, 1944 and the Aircraft Rules, 1937 as amended from time to time, in respect of the above mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent Operation Limitations.

ऊपर के अतिरिक्त इस पर निम्न प्रतिबन्ध लागू होते हैं / In addition to above the following restrictions apply –

- 1.
- 2.
- 3.

यदि उपरोक्त अनिवार्य शर्तें पूरी कर दी गयी हैं तो यह प्रमाण पत्र इस पर दी गयी तारीख तक वैध रहेगा बशर्ते कि उससे पूर्व इसे वापस नहीं ले लिया जाता अथवा निलंबित नहीं कर दिया जाता। This certificate shall remain valid subjected to the above compulsory conditions being fulfilled until the date shown, unless withdrawn, or suspended earlier.

जारी करने का दिनांक / Date of issue:

स्थान / Place: नई दिल्ली / NEW DELHI

हस्ताक्षर / Signature:

नाम / Name:

पदनाम/मुहर / Designation/Seal:

यह प्रमाण पत्र नीचे दी गयी अवधि के लिए वैध है / This Certificate is valid for the period shown below -		हस्ताक्षर, सरकारी मुहर तथा दिनांक Signature, Official Stamp and Date
से / From	तक / To	

**DIRECTOR GENERAL OF CIVIL AVIATION**

**PERMIT TO FLY**

PERMIT TO FLY NO.

Nationality and Registration Marks	Manufacturer and Type of Aircraft	Aircraft serial No. (Constructor's No.)
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Classification: Powered Hang Glider

Purpose for which the aircraft may fly: RECREATION AND SPORTS FLIGHTS

Documents associated with this permit  
Special C of A: Operator's Hand Book

Owner of the aircraft: -

Operator of the aircraft: -

Engine Type (for Powered Hang Glider): -

Maximum number of occupants  
authorized -

to be carried (including crew) :

~~Under the powers delegated to me under the proviso to Rule 15 of the Aircraft rules, I hereby exempt the above mentioned Powered Hang Glider to fly without the valid certificate of airworthiness being in force in respect thereof.~~

~~This permit Special C of A is subject to the conditions shown overleaf and can be withdrawn at any time by the DGCA in the event of violation of the conditions of operation.~~

\_\_\_\_ Dated \_\_\_\_\_ Authorized Signatory  
\_\_\_\_ Place \_\_\_\_\_ on behalf of the DGCA

~~This permit is valid for the periods shown below :~~

**From \_\_\_\_\_ To \_\_\_\_\_ Signature & official stamp**

**A. CONDITIONS OF THE PERMIT SPECIAL C of A**

1. Powered Hang Glider shall be flown in accordance with the operating requirements laid down in the aircraft Rules, 1937 and instructions issued by the DGCA from time to time.
2. Powered Hang Glider shall be operated only by the owner named overleaf. However, in case of approved flying training organizations, Powered Hang Glider may be operated as authorized by the chief flight instructor.
3. Powered Hang Glider shall not be used for public transport or aerial work or any commercial activity.
4. Powered Hang Glider shall be flown by appropriately licensed pilots only.
5. A placard shall be affixed to Powered Hang Glider in full view of the occupants and shall be worded as “Powered Hang Glider has not been certified to international airworthiness requirements”
6. A permit **Special C of A** is valid for one year and may be revalidated **renewed** for a further period of one year on the recommendation of an appropriately licensed AME/authorized person.

**B. LIMITATIONS**

1. Powered Hang Glider must be operated in compliance with the following operating limitation which shall be displayed in the pilot’s cockpit by means of placards or instrument markings:
  - a) Aerobatics and intentional spinning is prohibited
  - b) Aerobatics Limitation
  - c) Loading Limitation
  - d) Maximum total weight authorized in kgs.
  - e) C.G. range limit inches to inches after the datum point
  - f) Maximum Engine RPM: Maximum Engine RPM for continuous engine operation
  - g) Airspeed Limitation
  - h) Maximum indicated airspeed MPH (knots)

**C. OTHER LIMITATION**

1. Powered Hang Glider shall be flown under Visual Flight Rules only.
2. Smoking in the aircraft is prohibited.

~~**Note:** This permission of flight within India is not a Certificate of Airworthiness issued pursuant to the Convention on International Civil Aviation dated 7<sup>th</sup> December, 1994. Loss of Permit to Fly Special C of A should be informed at once to DGCA. Finder may forward this Permit Special C of A to the Director General of Civil Aviation, Technical Centre, Opp. Safdarjung Airport, New Delhi-110003.~~

**D. SECURITY**

1. Security measures approved by BCAS shall be adopted at **the place of parking as well as at the** place of operation before each flight by the owner / operator and ensure safe custody, security and access control of Powered Hang Glider.
2. The operator shall maintain Log Book relating to the operations and submit the same to the office of District Magistrate on quarterly basis.
3. The owner / operator shall not lease/ renting / lend the Powered Hang Glider to anyone.
4. No Powered Hang Glider shall carry any remote sensing appurtenances / weapon / photography/ video recording equipment without the express permission of MHA except those equipment required for the safe operation of the aircraft or specified in this CAR.
5. Powered Hang Glider shall not be sold or disposed of in any way to any person or firm without production of a security clearance certificate issued by the DGCA on the basis of MHA clearance

**E. EQUIPMENT**

1. The tracking and communication equipment fitted on Powered Hang Glider shall be serviceable during the operation.

**F. OPERATIONAL RESTRICTIONS**

1. The Powered Hang Glider shall be operated within the area specified in Annexure-VII of this CAR and registered by the owner / operator with the local authorities.
2. Powered Hang Glider shall be parked at the designated airports/ approved places only.

ANNEXURE – XI

**MINISTRY OF HOME AFFAIRS – REQUIREMENTS**

**A. SECURITY REQUIREMENTS**

1. Security program of the Powered Hang Glider owner / operator shall be submitted to BCAS and approved by BCAS for security oversight before issue of permit to fly Special C of A.
2. Security measures approved by BCAS shall be adopted at the place of parking as well as at the place of operation before each flight by the owner / operator and is responsible for the safe custody, security and access control of the aircraft.
3. The operator shall maintain Log Book relating to the operations and submit the same to the office of District Magistrate on quarterly basis.
4. Details of approved owners / operators along with copy of Permit Special C of A should be made available to local district authorities by the respective regional office of DGCA i.e. District Magistrate and Superintendent of Police to monitor the activity.
5. The owner / operator shall not lease/ rent / lend the Powered Hang Glider to anyone.
6. No Powered Hang Glider shall carry any remote sensing appurtenances / weapon / photography/ video recording equipment without the express permission of MHA except those equipment required for the safe operation of the aircraft or specified in this CAR.
7. The Powered Hang Glider shall not be sold or disposed of in any way to any person or firm without production of a security clearance certificate issued by the DGCA on the basis of MHA clearance.
8. Local Police shall ensure that no security breach has been committed by the operator.

**B. EQUIPMENT REQUIREMENTS:**

The Powered Hang Glider shall be fitted with a -

- (1) GPS system capable of transmitting its position at all time and facilitate the aircraft position tracking and monitoring.

(2) Two way communication system capable establishing communication with the local / district administrative authorities and aerodrome where applicable.

**C. OPERATIONAL RESTRICTIONS**

1. The Powered Hang Glider shall be operated within the area specified in Annexure - VII only.
2. The maximum range of operations shall be restricted to Horizontal Range of 100 km from the permitted place of operation and Vertical range of 5000 feet above the ground level.
3. The Powered Hang Glider shall be parked at the designated airports/ approved places only.
4. Copy of ~~Permit to fly~~ **Special C of A** should be forwarded to the district administration and/or AAI for monitoring the flying activities in their area.

**D. PENALTIES**

1. Breach of compliance to any of the requirements would attract penal action including imposition of penalties.
2. Breach if any is noticed by MHA/any Govt. Authority, the same shall be intimated to the Authority concerned for taking necessary action including imposition of penalties under the applicable statutory provisions.

**ANNEXURE – XII**

**GOVERNMENT OF INDIA  
CIVIL AVIATION DEPARTMENT**

**C.A.-25AA (PHG)**

**APPLICATION FOR RENEWAL OF SPECIAL CERTIFICATE OF  
AIRWORTHINESS FOR MICROLIGHT AIRCRAFT**

Renewal of Special Certificate of Airworthiness in respect of “VT –”				
Special Certificate of Airworthiness No.		Special Certificate of Airworthiness expiry date		
<b>Section 1: Particulars of Applicant</b>				
Name of applicant (in full)				
Address				
Name of approved organization/licensed aircraft maintenance personnel with whom aircraft is available for inspection				
Address				
<b>Section 2: Aircraft Specifications</b>				
<b>Aircraft</b>	<b>Type</b>	<b>Serial No.</b>	<b>Total Hours</b>	<b>Landings</b>
<b>Components</b>	<b>Type</b>	<b>Serial No.</b>	<b>Flight Hours since O/H</b>	<b>Date of last O/H</b>
<b>Engine</b>	1.			
	2.			
<b>Propeller</b>	1.			
	2.			
<b>Section 3: Availability of Aircraft for Inspection</b>				
We wish inspection of aircraft on one of the following dates:			1.	
			2.	
			3.	
<b>Section 4: Fees</b>				

I hereby declare that the particulars entered on this application is accurate in every respect and that all the requirements of the approved maintenance schedule, appropriate mandatory modifications/ Airworthiness Directives (or equivalent notices) and special inspections have been complied with.

**Date of Application:**

**Signature of Applicant(s)**

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