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**Civil Aviation Regulation of the IR.IRAN**

**Ultralight Aircraft**

**Part-103**

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**AMENDMENTS**

The issue of amendments is announced regularly in the CAO.IRI website, which holders of this publication should consult. The space below is provided to keep a record of such amendments.

**RECORD OF AMENDMENTS AND CORRIGENDA**

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Operation and maintenance

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## Volume 2 Certification specification

**Foreword**

1. For the definitions and abbreviations on this Part may refer to the CAO.IRI Part-Definitions.
2. The content of Volume 1 of this Part is maintenance and operation requirement and Volume 2 are design requirement (certification specification) for ultralight aircraft.
3. The content of Section A of this Part is applicant requirement and the content of Section B is requirement for CAO.IRI.

## SECTION A

### Subpart A — General

#### 103.A.1 Scope

This Part establishes the requirements for the:

- (a) operation of ultralight aircraft; and
- (b) the airworthiness and maintenance requirements for ultralight aircraft.

#### 103.A.3 Definitions and limitation

In this Part:

**Ultralight aircraft;** means aircraft , and powered parachutes

- (a) having a maximum take-off mass (MTOM), as recorded by the ICAO Contracting States, of no more than:
  - 1. 300 kg for a land plane, single-seater; or
  - 2. 315 kg for a land plane single-seater equipped with an airframe mounted total recovery parachute system;
  - 3. 330 kg for an amphibian or floatplane single-seater; or
    - 3.1 This exemption weight is applied to amphibian or seaplane only
  - 4. 450 kg for a land plane, two-seater; or
  - 5. 472.5 kg for a land plane, two-seater equipped with an airframe mounted total recovery parachute system;
  - 6. 495 kg for an amphibian or floatplane two-seater, provided that, where operating both as a floatplane and as a land plane, it falls below both MTOM limits, as appropriate;
    - 6.1 This exemption weight is applied to amphibian or seaplane only
  - 7. 600 kg for aircraft which prototype production date is before 07.04.2012 .
- (b) designed to carry not more than two persons; and
- (c) having the stall speed or the minimum steady flight speed in landing configuration not exceeding 35 knots calibrated air speed (CAS);
- (d) an ultralight aircraft granted a Permit to Fly will be permitted only non-aerobatic operation. Non-aerobatic operation is intended to include:
  - 1. Any maneuver necessary for normal flying.
  - 2. Stalls (except whip stall).
  - 3. Chandelle, Lazy eight and Steep turns in which the angle of bank does not exceed 60°.
- (e) The maximum speed in straight and level flight shall not exceed 120 knots (CAS) at maximum continuous power.

- (f) Aircraft with a single reciprocating engine (spark or compression ignition)

This applicable to all ultralight aircraft s whether they have 'rigid' or 'flexible' flying surfaces and whether their means of flight control is by conventional control surfaces or any other means.

**Certificate;** in relation to an ultralight, or a personnel qualification required by this Part, means a certificate issued by the CAO.IRI for that purpose.

### 103.A.5 Pilot requirements

- (a) Each person acting as the pilot of an ultralight aircraft shall:
1. hold an appropriate current ultralight pilot certificate with an appropriate type rating; or
  2. hold a current pilot licence issued by the CAO.IRI with an appropriate type rating; or
  3. Operate under the direct supervision of the holder of an ultralight pilot instructor certificate meeting the requirements of 103.A.7.
- (b) Each pilot shall comply with the privileges and limitations of the licence or certificate issued by the CAO.IRI, and any applicable ratings.

### 103.A.7 Flight instruction

No person shall exercise the privileges of an ultralight flight instructor unless that person holds a type rating for the ultralight aircraft being used, and holds the qualification being taught, and:

- (a) that person:
- (a) holds an ultralight pilot instructor certificate; and
  - (b) complies with the procedures established in the exposition of the Approved Ultralight Training Organization (AUTO); or
- (b) that person:
1. holds an instructor rating issued by the CAO.IRI; and
  2. has demonstrated competence in the piloting of an ultralight aircraft to an ultralight pilot instructor specified in paragraph (a).



**103.A.9 Flight radiotelephone operator requirements**

A person operating an ultralight aircraft that used an aeronautical radiotelephone transceiver shall be passed the flight radiotelephony written examination.

**Subpart B —Reserved**

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**Subpart C —Reserved**

**Subpart D —Reserved**

## Subpart E — Operating Requirement

### 103.A.101 Registration

- (a) Each applicant for the grant of a certificate of registration under Part 47 for an ultralight aircraft shall provide the CAO.IRI with evidence that the aircraft meets:
  - 1. requirements of 103.A.3; and
  - 2. a type design standard listed in 103.A.207(a)(1)(ii) or volume 2 to this part.
- (b) Each operator of an ultralight aircraft accepted for registration shall ensure that the aircraft continues to conform to the requirements of paragraph (a).
- (c) The registration mark consist UL-XXX which last three digits may be proposed by applicant and shall be granted by CAO.IR.
- (d) The owner of an ultralight aircraft shall ensure that Registration mark appropriately printed on the aircraft according to CAO.IRI requirement.

### 103.A.103 Aircraft Pilot's Handbook

- (a) Each aircraft shall be furnished with a Pilot's Handbook, Flight Manual or equivalent.
- (b) Each Pilot's Handbook shall at least contain the information specified in volume 2 to this part.
- (c) Any information not specified in paragraph (a) that is required for safe operation, or because of unusual design, operating or handling characteristics, shall be furnished.
- (d) Units; the units of measurement used shall be the same as those used on the indicators.

### 103.A.105 Documents to be carried

A person shall not operate an ultralight aircraft unless the following documents are carried in the aircraft:

- (a) the permit to Fly required by 103.A.203(b) is carried in the aircraft; and
- (b) the certificate of registration; and

- (c) the current certificate of insurance; and
- (d) the aircraft Pilot's Handbook or Flight Manual or an equivalent document acceptable to the CAO.IRI.

### 103.A.107 Markings and Placards

- (a) The aircraft shall be (if applicable) marked with:
  - 1. The markings and placards specified in paragraph (d) to (i); and
  - 2. Any additional information, instrument markings, and placards required for safe operation.
- (b) Each marking and placard prescribed in paragraph (a) :
  - 1. Shall be displayed in a conspicuous place; and
  - 2. Should not be easily erased, disfigured, or obscured.
- (c) The units of measurement used to indicate air speed on placards shall be the same as those used on the indicator.
- (d) Each operator of an ultralight aircraft shall ensure that a legible placard is installed in clear view of the seated passenger:
  - 1. With a title advising that the placard is a passenger warning; and
  - 2. Stating that:  
  

***“This aircraft was manufactured in accordance with ultralight aircraft airworthiness standards and does not conform to airworthiness requirements for certificate of airworthiness. You fly in this aircraft at your own risk“***
  - 3. You fly in this aircraft at your own risk in Persian language.
- (e) Operating limitations placard; The following information shall be placarded so that it is plainly visible to the pilot:
  - 1. Airspeed limitations:
    - (i) The never-exceed speed VNE, and if appropriate;
    - (ii) The maximum speed(s) for flaps extended, VFE;
    - (iii) The maximum speed for the landing gear extended, VLO.
    - (iv) The maximum maneuvering speed, VA.

2. Powerplant limitations: such pressure, temperature, rpm and other limitations.

(f) Compass;

If a compass is fitted and unless the deviation is less than  $5^{\circ}$  on all headings, the deviation values for magnetic headings in not more than  $30^{\circ}$  increments shall be placarded near the compass.

(g) Powerplant instruments;

For each required powerplant instrument, as appropriate to the type of instrument, each maximum and, if applicable, minimum safe operating limit shall be marked with a red radial line.

(h) Fuel quantity indicator and controls;

1. Each fuel quantity indicator shall be calibrated to read 'zero' during level flight when the quantity of fuel remaining in the tank is equal to the unusable quantity  
Control markings

2. Each control shall be clearly marked as to its function and method of operation.

3. For powerplant fuel controls:

(i) Each fuel tank selector control shall be marked to indicate the position corresponding to each tank;

(ii) If safe operation requires the use of any tanks in a specific sequence, that sequence shall be marked on or near the selector for those tanks.

(i) Miscellaneous markings and placards

1. Baggage compartment: Each baggage compartment shall have a placard stating the loading limitations.

2. Fuel and oil filler openings:

The following apply;

(i) Fuel filler openings shall be marked at or near the filler cover with the minimum fuel grade and fuel/oil ratio.

(ii) Oil filler openings shall be marked at or near the filler cover:

- with the grade; and
- If the oil is detergent or non detergent.

3. Fuel tanks: The usable fuel capacity of each tank shall be marked either at the selector or on the gauge (when provided) or on the tank if this is translucent and visible to the pilot in flight.
4. Loading:
  - (i) The following data shall be placarded in each aircraft so as to be plainly visible to the pilot:
    - Empty weight (actual);
    - Maximum weight;
    - Maximum and minimum load in each seat;
  - (ii) Removable ballast. If removable ballast is used, the place for carrying ballast shall have a placard stating instructions for the proper placement and securing of the removable ballast under each loading condition for which removable ballast is necessary.
5. Aerobatic maneuvers: A placard prohibiting aerobatic maneuvers and intentional spinning shall be plainly visible to the pilot



## Subpart F — Flight Requirement

### 103.A.151 Reserved

### 103.A.153 Minimum heights

A pilot of an ultralight aircraft should operate an ultralight aircraft below 500 feet AGL for the purpose of:

- (a) ultralight gyroplane circuit training, provided such operations are not carried out below 200 feet AGL; and
- (b) practice for, and participation in, ultralight aircraft competition flying, provided such operations are:
  - 1. conducted with the knowledge and approval of the CAO.IRI; and
  - 2. carried out in accordance with any conditions imposed by the CAO.IRI; and
  - 3. not carried out below 200 feet AGL.

### 103.A.155 Flight criteria

- (a) A pilot shall only operate an ultralight aircraft:
  - 1. by DAY and
  - 2. in VFR meteorological minima equal to or better than below :
    - (i) when the flight visibility is less than that prescribed for the corresponding class of airspace in Table 1; or
    - (ii) at a distance from clouds that is less than that prescribed for the Corresponding class of airspace in Table 1.
- (b) A pilot-in-command shall not takeoff or land an aircraft, or fly in the vicinity of an aerodrome, under VFR when the flight visibility, or the cloud ceiling, is less than:
  - 1. at aerodromes within a control zone, that prescribed in Table 2; and
  - 2. at aerodromes in uncontrolled airspace, that prescribed in Table 3.

**Table 1:** Airspace VFR meteorological minima

Class of airspace		Distance from cloud	Flight visibility
B		Clear of cloud	8 km at or above 10 000 feet AMSL 5 km
C, D, and E		2 km horizontally 1000 feet vertically outside a control zone 500 feet vertically within a control zone	
F and G	Above 3000 feet AMSL or 1000 feet above terrain whichever is the higher	2 km horizontally 1000 feet vertically	below 10 000 feet AMSL
	At or below 3000 feet AMSL or 1000 feet above the terrain whichever is the higher	Clear of cloud and in sight of the surface	5 km

**Table 2.** VFR minima at aerodromes within a control zone.

		Ceiling	Flight visibility
All aircraft	Day and Night	1500 feet	5 km

**Table 3.** VFR minima at aerodromes within an uncontrolled zone.

		Ceiling	Flight visibility
All aircraft	Day	600 feet	1500 m
All aircraft	Night	1500 feet	8 km

- (c) A pilot of an ultralight aircraft shall not operate:
1. over any congested area of a city, town, or settlement; or
  2. in controlled airspace or within 3 nautical miles (5.5 km) of an aerodrome certificated under Part 139 unless:
    - (i) the pilot has gained a pass in the air law examination required by 61.153(a)(6)(i) and has demonstrated required capability or an equivalent examination; or
    - (ii) The pilot is under the direct supervision of the holder of an ultralight pilot instructor certificate who meets the requirement of paragraph (c)(2)(i).
- (d) Reserved

#### **103.A.157 Towing hang gliders**

- (a) Each pilot of an ultralight aircraft towing a hang glider in flight shall hold an ultralight pilot certificate or licence with ultralight tow rating. an ultralight organization should insert a statement of competence in the pilot logbook.
- (b) Eligibility for the issue of an ultralight tow rating are as follow:
1. has at least 150 hours flight time experience including:
    - (i) at least 80 hours as pilot-in-command of a ultralight; and
    - (ii) at least 20 hours as the pilot of the type of ultralight aircraft being used; and
  2. has been briefed on hang glider towing emergencies and procedures by the holder of a hang glider instructor certificate issued by the holder of a delegation from the Director operating within a hang glider organization; and
  3. has been briefed on ultralight towing emergencies and procedures by the holder of an ultralight pilot instructor certificate.
- (c) A pilot of an ultralight aircraft shall not tow a hang glider in flight unless:
1. the towing aircraft is of a type that is capable of controlled flight at speeds below the maximum permissible aero-tow speed prescribed in the specifications of the towed hang glider; and
  2. the towing aircraft complies with the equipment requirements of 103.A.223; and
  3. Release mechanisms on both aircraft have been checked for serviceability prior to the first flight of the day.

**103.A.159 Carriage of passengers**

(a) A pilot shall not carry another person in an ultralight aircraft unless:

1. the pilot has been authorized by a CAO.IRI to do so; and
2. the aircraft has a statement of airworthiness entered in the applicable maintenance record in accordance with 103.A.213.

## Subpart G — Airworthiness and Maintenance

### 103.A.201 Reserved

### 103.A.203 Requirement for permit to Fly

- (a) A person operating an ultralight aircraft shall not required a current airworthiness certificate;
- (b) A person shall not fly an ultralight aircraft unless there is in force for the aircraft, a permit to Fly or a temporary permit to fly issued in accordance with this Part.

### 103.A.205 Application for permit to Fly

- (a) An applicant for a permit to fly for an ultralight aircraft or amendment to such permit shall complete CAO.IRI Form 21 and submit it to the CAO.IRI.
- (b) An applicant for a permit to Fly for an ultralight aircraft shall submit the information required by 103.A.207 to the CAO.IRI.
- (c) An applicant for import an ultralight aircraft shall obtain CAO.IRI acceptance before importing the aircraft. In this case applicant shall submit the information required by 103.A.207 with her/his official importing request.

### 103.A.207 Issue of permit to Fly

- (a) The CAO.IRI should issue an ultralight permit to Fly for an ultralight aircraft if:
  - 1. the applicant for the permit to Fly provides documented evidence that:
    - (i) an ultralight permit to Fly, or equivalent document acceptable to the CAO.IRI, has been issued for the type by the competent authority of an ICAO Contracting State; and
    - (ii) the aircraft conforms to a type design that complies with one of the following standards:
      - British Civil Airworthiness Requirements Section S (CAP 482 issued by the Civil Aviation Authority of the United Kingdom);
      - Civil Aviation Orders 95.32 and 101.55 issued by the Civil Aviation Safety Authority of Australia;
      - Document TP10141E issued by Transport Canada;
      - any other equivalent standard acceptable to the CAO.IRI; or

- (iii) eight or more aircraft of the type have been operated and the aircraft type has achieved a documented satisfactory airworthiness history of at least 250 hours of flight including at least 100 hours of flight on one aircraft; or
  - (iv) A temporary permit to Fly has been issued for the aircraft under paragraph (b) and the aircraft has completed an endurance test in accordance with 103.A.211; and
2. the applicant provides:
- (i) satisfactory evidence that the aircraft complies with every applicable requirement prescribed under this part; and
  - (ii) a statement of hours flown by the aircraft both in total and since any previous permit to Fly or equivalent document was issued; and
  - (iii) a statement that any inspection, replacement, overhaul, or other maintenance of the ultralight aircraft or its engine or engine components that is considered mandatory by the manufacturer has been complied with; and
3. the aircraft has been inspected by a person authorized or approved maintenance organization by the CAO.IRI and that person has certified in the applicable aircraft maintenance record that the aircraft has no hazardous features; and
4. The aircraft maintenance record refer to in paragraph (a)(3) shall be as follow:
- (i) For each airframe, and each product and component that has a finite life or a TBO recommended by the manufacturer, accurate records are compiled in the appropriate maintenance logbook for the total time-in-service, and if applicable the total cycles.
  - (ii) for each product and appropriate component, the maintenance records required are compiled and retained.
  - (iii) An owner or operator of an aircraft that is involved in an accident shall ensure that descriptive details of the circumstances of the accident, and descriptive details of the resultant damage to the aircraft are recorded in the appropriate aircraft logbook.
  - (iv) The records required in (i), (ii), and (iii) should be kept in plain language form or in coded form provided that the coded form provides for the preservation and retrieval of information that is required to be recorded.
5. The Insurance Certificate in accordance with related current IR.Iran regulations.
- (b) The permit to Fly will be issued for a period of not more than 12 months
  - (c) The CAO.IRI should issue a temporary ultralight permit to Fly for a IR.Iran designed and manufactured prototype ultralight aircraft that does not comply with the requirements in paragraphs (a)(1)(i), (ii), or (iii) if the prototype aircraft has comply with volume 2 of this part and passed a wing static limit load test and a landing gear drop test according to volume 2 to this part.
  - (d) A temporary ultralight permit to Fly issued under paragraph (b) shall:

1. contain operating limitations that the CAO.IRI considers necessary in the interests of aviation safety; and
  2. Not be issued for a period of more than 6 months.
- (e) The pilot of an ultralight aircraft that is operated under the authority of a temporary ultralight permit to Fly shall comply with the operating limitations contained in the temporary permit to Fly .
- (f) An ultralight permit to Fly remains in force until it expires or it is suspended or revoked.

#### **103.A.209 Modification**

Where an ultralight is modified in any manner that should affect the airworthiness of the aircraft, the operator shall ensure that the aircraft is reinspected and reassessed for compliance with 103.A.207 before further flight.

#### **103.A.211 Endurance testing**

- (a) An endurance test for an ultralight aircraft shall consist of:
1. for aircraft constructed from drawings and raw materials, 40 hours of flight; or
  2. for series aircraft constructed from a kitset of raw materials, 25 hours of flight; or
  3. for series aircraft constructed from a kitset of prefabricated components, 10 hours of flight; or
  4. For series aircraft constructed entirely from pre-manufactured factory components and assemblies, 2 hours of flight.
- (b) The endurance test shall be restarted after any modification is made or defect occurs.
- (c) Notwithstanding paragraph (a) if constructor received Part 21 Subpart G/F approval from CAO.IRI the endurance test will be carry out according to CAO.IRI approved procedure.
- (d) Notwithstanding paragraph (a) and (c) if constructor met the requirement of appendix II to this part the endurance test will be reduce to :
3. for aircraft constructed from drawings and raw materials, 20 hours of flight; or
  4. for series aircraft constructed from a kitset of raw materials, 12 hours of flight; or
  5. for series aircraft constructed from a kitset of prefabricated components, 5 hours of flight; or

6. For series aircraft constructed entirely from pre-manufactured factory components and assemblies, 2 hours of flight.

### 103.A.213 Statement of airworthiness

An appropriate Test Pilot of an ultralight aircraft, who completes the endurance testing in accordance with 103.A.211, shall enter in the applicable maintenance record and aircraft logbook:

- (a) details of every maneuver completed during the testing together with details of the demonstrated flight speeds; and
- (b) the following statement (which shall include the flight time hours completed) followed by the pilot's name, licence or certificate number, signature and the date of the final test:

*I certify that this aircraft has satisfactorily completed ..... hours flight time in compliance with Part 103 and the aircraft has adequate performance, is controllable through its normal range of speeds and throughout all maneuvers completed, and is airworthy.*

### 103.A.215 Ultralight Aircraft Licence

- (a) an Ultralight Aircraft Licence (UAL) issued for the following categories:

- Category A Ultralight maintenance person.
- Category B Ultralight Maintenance certifying technician
- Category C Ultralight construction/assembly certifying technician.

- (b) Basic and type/task training requirement:

An applicant for an Ultralight aircraft licence shall demonstrate, by examination, a level of knowledge in the appropriate subject modules in accordance with Appendix IV to this Part. The basic knowledge examinations shall be conducted by a training organisation appropriately approved under Part-147 or ultralight training organization requirement.

- (c) An applicant for an aircraft maintenance licence shall:

1. be at least 18 years of age.
2. has high school graduation certificate.

- (a) Privileges:



1. A category A Ultralight aircraft licence permits the holder to issue certificates of release to service following minor scheduled maintenance up to annual inspection and simple defect rectification.
2. A category B Ultralight aircraft licence shall permit the holder to issue certificates of release to service following maintenance, including aircraft structure, powerplant and mechanical, electrical and avionics systems shall also be included in the privileges. Category B shall automatically include the category A privileges.
3. A category C Ultralight aircraft licence shall permit the holder to issue certificates of release to service following Ultralight aircraft construction/assembly. Category C shall automatically include the category A privileges.
4. the holder of a category A, B or C UAL may also exercise certification privileges, when the licence is endorsed with the appropriate group ratings, or manufacturer group ratings, unless the CAO.IRI has determined that the complexity of the aircraft in question requires a type rating.
  - (i) Manufacturer group ratings may be granted after complying with the type training requirements of two aircraft types' representative of the group from the same manufacturer.
  - (ii) Full group ratings may be granted after complying with the type training requirements of three aircraft types representative of the group from different manufacturers.
  - (iii) The groups shall consist of the following:
    - Ultralight helicopter.
    - Ultralight aircraft — metal structure
    - Ultralight aircraft — wooden structure
    - Ultralight aircraft — composite structure

(d) Experience requirement.

An applicant for an UAL shall have acquired:

1. for category A UAL at least one time practical maintenance experience on annual inspection.
2. for category B UAL at least one year practical maintenance experience on annual and/or overhaul inspection.
3. for category C UAL at least two time practical experience on aircraft construction/assembly.

(e) Continued validity of the Ultralight aircraft licence

The Ultralight aircraft maintenance licence becomes invalid 3 years after its last issue.

The aircraft maintenance licence is only valid when issued and/or amended by the CAO.IRI and when the holder has signed the document.

**103.A.217 Maintenance and inspection requirements**

- (a) An operator of an ultralight aircraft shall ensure that:
1. the aircraft is maintained in an airworthy condition; and
  2. every applicable airworthiness directive is complied with in accordance with the requirements prescribed by CAO.IRI ; and
  3. between required inspections, every defect is rectified.
- (b) a person shall not operate an Ultralight aircraft unless ensure that Ultralight aircraft inspection:
1. up to daily check carried out by the CAO.IRI Ultralight Pilot Licence holder or Ultralight Aircraft Licence (UAL) holder.
  2. up to annual inspection carried out by the category A UAL.
  3. up to complete overhaul carried out by category B UAL .
- (c) The holder of aircraft maintenance licence is entitle to carry out all Ultralight aircraft inspection if have completed Ultralight aircraft/aircraft group type/task training .
- (d) An operator of an ultralight aircraft that meets a type design standard listed in 103.A.207(a)(1), shall ensure that the aircraft is maintained in accordance with the designer or kitset manufacturer maintenance requirements.
- (e) Subject to paragraphs (d) and (g), a person shall not operate an ultralight aircraft unless:
1. All required inspection carried out within schedule time specify by manufacturer and/or CAO.IRI .
  2. an annual inspection of the conditions of the aircraft has been carried out within the preceding 12 months; and
  3. the requirements of 103.A.217(a)(2) are complied with; and
  4. any applicable tests and inspections specified in appendix I to this part have been complied with:
- (f) The annual condition inspection required by paragraph (c)(1) shall be:
- performed by:

- (i) a person authorized by an ultralight organization to perform annual condition inspections; or
  - (ii) a person who holds a current Ultralight Aircraft Maintenance Licence (UAML) with appropriate group ratings issued by the CAO.IRI in accordance with appendix IV to this Part; and
  - (a) acceptable to the CAO.IRI for inspected components.
- (g) The person who performs the annual condition inspection required by paragraph (c)(1) shall, if the person finds the aircraft to be in an airworthy condition,:
- 1. certify in an inspection form that the aircraft is airworthy; and
  - 2. permanently affix the inspection form required under paragraph (e)(1) to the aircraft in a prominent place adjacent to the point of entry; and
  - 3. retain a copy of the inspection form required under paragraph (e)(1) as a record of the certification; and
  - 4. For an ultralight aircraft, enter the details of the certification in the applicable maintenance record required under 103.A.207 (a)(4).
- (h) The aircraft inspection form required under paragraph (e)(1) shall include the:
- 1. aircraft registration markings; and
  - 2. aircraft type; and
  - 3. due date for the next annual condition inspection; and
  - 4. date, signature, and licence or certificate number of the UAML who carried out the annual condition inspection.
- (i) If the annual condition inspection that is required under paragraph(c)(1) shows that the aircraft is not airworthy, the operator of the aircraft shall not permit the aircraft to be flown until it has been reinspected and certified as airworthy in accordance with paragraphs (d), (e),and (f).
- (j) Reserved

#### **103.A.219 Construction**

- (a) A person is not required to comply with Part 21 if they are constructing an ultralight aircraft :
- 1. from drawings and raw materials; or
  - 2. from a kitset of raw materials; or
  - 3. from a kitset of prefabricated components; or
  - 4. from pre-manufactured factory components and assemblies.

- (b) A person constructing an Ultralight aircraft shall have:
1. A category C UAML and satisfactory complete construction training course on that aircraft or other similar aircraft ; or
  2. A category B aircraft maintenance licence and satisfactory complete construction training course on that aircraft or other similar aircraft.
- (c) Notwithstanding paragraph (a) and (b), the constructor can apply to receive CAO.IRI production approval according to Part 21 Subpart G / F or Appendix II to this Part.

### **103.A.221 Instrument and equipment requirements**

- (a) Each operator of an ultralight aircraft shall equip the aircraft with :
1. instruments and equipment required to conform to the aircraft type design; and
  2. the aircraft designer or kit manufacturer requirement; and
  3. the following required flight and navigation instruments:
    - (i) An airspeed indicator,
    - (ii) An altimeter,
    - (iii) magnetic heading
- (b) The operator of a powered parachute is not required to equip the aircraft with a means of indicating airspeed.
- (c) Instruments and equipment required for IR.IRAN designed and manufactured prototype ultralight aircraft specified in volume 2 to this part.

### **103.223 Hang glider towing aircraft**

Each person operating an ultralight aircraft towing a hang glider in flight shall, in addition to 103.A.221, ensure that:

- (a) the aircraft is equipped with:
1. a towing installation enabling the tow pilot to release the tow rope at any time, comprising a tow hook and attachment assembly which meets the aircraft's design standard; and
  2. a rear vision mirror; and
  3. a tow line, which has a weak link incorporated at the tow plane end, with a breaking strength of not more than 100 kg; and

- (b) the hang glider is equipped with a quick release mechanism for hang glider pilot activation with a simple and positive releasing action with tow rope loads of up to 100 kg rearward from the tow hook within a cone of 45 degrees upwards, 30 degrees downwards, and 30 degrees sideways.

**Subpart H — Responsibility**

**103.A.230 Records**

- (a) The owner or operator of an ultralight aircraft shall retain all aircraft records until two years after the aircraft has been permanently withdrawn from service or transferred to new owner/operator according to 103.A.230 (b).
- (b) The owner or operator of an ultralight aircraft shall ensure when an aircraft is permanently transferred from one owner or operator to another the records and technical log are also transferred.

**103.A.235 Flight Instrument Calibration**

All flight instrument, required to be installed on the aircraft according to this Part shall be calibrated according to manufacturer instruction.

**103.A.240 continued airworthiness**

- (a) The owner and operator of an ultralight aircraft are responsible for continued airworthiness of the aircraft.
- (b) The person/organisation which carry out maintenance or inspection on an ultralight aircraft is responsible for work performed, but shall release the ultralight aircraft for flight only when ensure the aircraft is safe and in airworthy condition.

## SECTION B PROCEDURE FOR THE CAO.IRI

### SUBPART A GENERA

#### 103.B.05 Scope

This section establishes the administrative requirements to be followed by the CAO.IRI and the enforcement of Section A of this Part.

#### 103.B.10 Resources and Procedures

##### Resources

The CAO.IRI shall be appropriately staffed to carry out the requirements of this Part.

##### Procedures

The CAO.IRI will establish procedures detailing how compliance with this Part is accomplished. The procedures shall be reviewed and amended to ensure continued compliance.

#### 103.B.15 Acceptable means of compliance

The CAO.IRI shall develop acceptable means of compliance that may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

#### 103.B.20 Record-keeping

- (a) The CAO.IRI shall establish a system of record-keeping that allows adequate traceability of the process to issue, renew, continue, vary, suspend or revoke each permit to Fly or a temporary permit to fly.
- (b) The records for the oversight of ultralight aircraft shall include as a minimum:
  1. the application for an permit to Fly or a temporary permit to fly.
  2. The ultralight organisation approval certificate including any changes.

3. details of any exemption and enforcement actions.

(c) The minimum retention period for the paragraph (b) records shall be four years.

**147.B.25 Exemptions**

(a) Any exemption to requirements of this part shall be approved by CAO.IRI.

(b) All exemptions granted in accordance with CAO.IRI Regulations shall be recorded and retained by the CAO.IRI.



**SUBPART B**  
**Issue of a permit to fly or temporary permit to fly**

**APPENDISES**  
**Appendix I**  
**Additional Required Inspection**

1. The test and inspection of automatic pressure altitude reporting system shall be carry out in accordance with the manufacturer instruction if the ultralight aircraft is equipped with a SSR transponder or other equivalent instructions acceptable to the CAO.IRI.
2. Every SSR transponder that is required to be installed in the aircraft has been tested and inspected in accordance with the manufacturer instruction or other equivalent instructions acceptable to the CAO.IRI.
3. All flotation equipment that is required to be installed in the aircraft has been inspected for condition and tested in accordance with the manufacturer's instructions or other equivalent instructions acceptable to the CAO.IRI.

**Appendix II**  
**Requirement for reduced endurance test**  
**Ultralight organisation Production approval**

If constructor constructed at least 10 aircraft and met the organisation requirement of this appendix, the endurance test duration will be reduce according to paragraph 103.A.211 (d)

(a) Production Organisational Review


1. The constructor shall demonstrate that it has established and is able to maintain a Production organisational review system. This system shall be such as to enable the constructor to ensure that each product, part or appliance produced by the constructor or by its partners, or supplied from or subcontracted to outside parties, is in a condition for safe operation.
2. The system for organisational review shall contain:
  - (i) As applicable within the scope of approval, control procedures for:
    - Document issue, approval, or change;
    - Verification that incoming products, parts, materials, and equipment are as specified in the applicable design data;
    - Manufacturing processes;
    - Inspection and testing, including production flight tests;
    - Calibration of tools and test equipment;
    - Non-conforming item control;
    - Airworthiness co-ordination with the applicant for, or holder of, the design approval;
    - Records completion and retention;
    - Personnel competence and qualification;
    - Issue of airworthiness release documents;
    - Internal quality audits and resulting corrective actions;
    - Request Permit to Fly and establishment of associated flight conditions.
    - The control procedures need to include specific provisions for any life-limited parts.
  - (ii) An internal quality assurance function to monitor compliance with, and adequacy of, the documented procedures of the organisational review system. This monitoring shall include a feedback system to the person or group of persons and as necessary, corrective action.

3. Exposition :

- (i) The organisation shall submit to the CAO.IRI an exposition providing the following information:
- A statement signed by the accountable manager confirming that the exposition and any associated manuals which define the approved organisation's compliance with this part will be complied with at all times;
  - The title(s) and names of nominated managers;
  - The duties and responsibilities of the manager(s);
  - An organisational chart showing associated chains of responsibility of the managers;
  - A list of certifying staff;
  - A general description of manpower resources;
  - A general description of the facilities located at each address specified in the organisation's certificate of approval;
  - A general description of the scope of work relevant to the terms of approval;
  - The procedure for the notification of organisational changes to the CAO.IRI;
  - The amendment procedure for the exposition;
  - A description of the organisational review system and associated procedures.
- (ii) The exposition shall be amended as necessary to remain an up-to-date description of the organisation, and copies of any amendments shall be supplied to the CAO.IRI.

Appendix III  
Forms

In the name of God



Islamic Republic of Iran  
Civil Aviation Organization

**Ultralight Aircraft**

*Letter of Approval*

Number: ULA-XX

Pursuant to the rules and regulations of the IR. of IRAN for the time being in force  
and subject to the conditions specified below, this letter issued to

(Manufacturer) سازمان هواپیمایی کشوری

This letter shows that the (Make and Model) Ultralight Aircraft meets the design requirements of  
Part 103. This letter and the attached Data Sheet which is a part hereof, shall remain in effect until  
surrendered, suspended or revoked.

CAO.IRI

Date of issue: XX.XX.XXXX

Captain .R.Nakhjavani  
Vice minister of roads and  
urban development &  
President of CAO.IR. of IRAN

APPENDIX IV

**Ultralight Aircraft Licence  
Basic knowledge requirements**

1. An applicant for Category a UAL shall satisfactory completed at least 200 hours basic training course in following subject.
2. An applicant for Category B UAL shall satisfactory completed at least 400 hours basic training course in following subject
3. An applicant for Category C UAL shall satisfactory completed at least 800 hours basic training course in following subject

Module No.	modules Subject	A	B	C
0	English language	X	X	X
1	Mathematics	X	X	X
2	Physics	X	X	X
3	Electrical fundamentals	X	X	X
4	Electronic fundamentals	X	X	X
5	Digital techniques electronic instrument systems	X	X	X
6	Materials and hardware	X	X	X
7	Maintenance practices	X	X	X
8	Aerodynamics	X	X	X
9	human factors	X	X	X
10	Aviation legislation	X	X	X
11	Structure and systems	X	X	X
12	Piston engine and Propeller	X	X	X

## Volume 2

Volume 2 will be prepared

### تصویب و اجراء:

این دستورالعمل در تاریخ ۱۳۹۰/۰۱/۱۹ توسط معاون وزیر راه و شهرسازی و رئیس سازمان هواپیمایی کشوری به تایید رسیده است لذا از تاریخ مذکور لازم الاجرا بوده و کلیه دستورالعملها و رویه های مغایر با آن ملغی اعلام می گردد.