



Aviation Recreation Organization Continuing Airworthiness and Maintenance

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Chief Commissioner/CEO**





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0 Introduction

0.1 Definitions and abbreviations

For the purposes of this Guidance, the following definitions shall apply:

- **Aviation Recreation Organization (ARO)** means a certified entity granted a mandate by CARC according to JCAR Part ARO, ARO 1.005 of this Part prescribes rules governing the certification and operation of aviation recreation organizations.
- **Ultra light and micro light aircraft operations** means according to ARO 1.255 define the rules governing the operation of ultra-light and microlight aircraft in Jordan by an organization approved by CARC.
- **Principal place of business'** means the head office or registered office of the operator of the aircraft within which the principal financial functions and operational control of the activities referred to in this Regulation are exercised;
- **Pilot-in-command'** means the pilot designated as being in command and charged with the safe conduct of the flight;
- **'Crew Member'** means a person assigned by an operator to perform duties on board the aircraft or, where the duties are directly related to the operation of the aircraft, on the ground;
- **Aircraft flight manual (AFM)'** means the document containing the applicable and approved
- **operating** limitations and information with respect to the aircraft;
- **Component** means any instrument, mechanism, equipment, part, or accessory, including an airframe, aircraft engine, or propeller, that is used, or is intended to be used, in operating or controlling an aircraft in flight, or is installed in or attached to the aircraft, that has a part number or a serial number allocated by the manufacturer, unless the manufacturer has designated such an item as a standard part.
- **CARC** is the competent authority designated, where the operator has its principal place of business or, where the operator has no principal place of business, the place where the operator is established or resides.

Abbreviations

AMC	Acceptable Means of Compliance
AMO	Approved Maintenance organization
AD	Airworthiness Directive
ARO	Aviation Recreation Organization
CAMRO	Continuing Airworthiness, Maintenance, and Repair Organization
CAMRE	Continuing Airworthiness Maintenance, and Repair Organization Exposition
CARC	Civil Aviation Regulatory Commission
CEO	Chief Executive Officer
CMM	Component Maintenance Manual
CRS	Certificate of Release to Service
C/S	Certifying Staff
CC/S	Component Certifying Staff
JCAR	Jordan Civil Aviation Regulations
MSN	Manufacture Serial Number
MOR	Mandatory Occurrence Reporting
OEM	Original Equipment Manufacturer
NDI	Non Destructive Inspection
NDT	Non Destructive Test
P/N	Part Number
SB	Service Bulletin
S/N	Serial Number

0.2 Purpose

According to ARO1.005, this guidance procedure prescribes rules governing the certification and operation of aviation recreation organizations. This guidance procedure prescribes the requirements for the certification of an organization conducting an aviation recreation operation of aircraft prescribed under point 1.

0.3 Distribution

This procedure shall be published on CARC official website.

0.4 Amendments

This procedure will be reviewed each time there is a regulation change that affects it and as long as it is considered necessary by CARC.

Any amendment to this procedure will go through CARC's document control procedure; the amendment should be approved by the Chief Commissioner/CEO and becomes effective only after incorporation to this procedure and publishing it on CARC official website. Entry into force and application.

This Guidance shall enter into force on the twentieth day following that of its publication in CARC Official Website.

It shall apply from 1st September 2026.

0.5 Demonstration of Compliance

The holder of an ARO certificate shall, when so requested by CARC which is verifying continued compliance by the operator in accordance with Part ARO 1.075, demonstrate compliance with the essential requirements set out in Part ARO, CAMRE, and with the requirements of this guidance procedure.

1. Objective and scope applicability

This guidance procedure is applicable to JCAR Part ARO applicants under the rules governing the following operations:

- a. ARO1.255 prescribes rules governing the operation of ultra-light and micro-light aircraft by an organization approved by CARC.
- b. ARO1.355 prescribes rules governing parachute operations conducted.
- c. ARO1.430 prescribes rules for the operation of gliders, this guidance procedure does not apply to hang gliders.

1.1 This guidance procedure is applicable to JCAR Part ARO applicants; the provisions of this guidance procedure are complementary to the requirements of Part ARO "as amended" and does not supersede or replace the associated regulatory requirements.

- a. Part ARO Subpart-B specify the certification requirements that an aviation recreation organization certificate holder shall employ.
- b. ARO 1.255 (d) state that "the requirements in JCAR Part-47 regarding the aircraft registration do not apply to ultra-light or micro-light aircraft operations".
- c. Under Air Law 41 for the year 2007 article 37(d) an aircraft shall not be registered in the national aircraft registry unless it holds a valid certificate of airworthiness.
- d. M.100(I)(a)(1) establishes the technical requirements for ensuring continuing airworthiness of aircraft, including any components for installation thereto, which are registered in Jordan according JCAR Part-M. But according to ARO 1.255 (d) the aircraft is not registered in accordance with JCAR Part-47.
- e. ARO1.330 establishes the ultra-light and micro-light aircraft serviceability requirements, no person may operate an ultra-light or micro-light aircraft unless it:
 - i. has been inspected and certified fit to fly by a CARC approved and qualified representative of the organization within the previous 12 months;
 - ii. has been maintained in compliance with the manufacturer's specifications;
 - iii. has the required and serviceable equipment and instrumentation; and
 - iv. has a current maintenance log book.
- f. ARO 1.335 establishes the damage and defects control requirements for ultra-light and micro-light aircraft, as follows:

- i. the pilot in command of an ultra-light or micro-light aircraft shall report any damage or defects affecting safety of flight to the organization;
 - ii. the pilot in command shall ensure that an entry is made in the maintenance log book describing the damage or defect;
 - iii. the owner of an ultra-light or micro-light aircraft shall not permit the aircraft to be flown if not airworthy, safe for the intended flight, or not in compliance with manufacturer's specifications.
 - iv. the organization shall not permit a member to operate an ultra-light or microlight aircraft if it is not considered airworthy, safe for the intended flight, or not in compliance with manufacturer's specifications;
 - v. the organization, once aware of, or advised of any damage or defect, shall ensure an entry is made in the maintenance log book; and
 - vi. any damage or defect shall be endorsed in the maintenance log book once repaired according to an approved maintenance data and declared serviceable for flight.
- g. ARO 1.375 establishes radio equipment and use requirements for parachute operations, except when otherwise authorized by air traffic control. No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, in or into controlled airspace unless, during that flight:
 - i. the aircraft is equipped with a functioning two-way radio communication system appropriate to the air traffic control facilities being used;
 - ii. radio communications have been established between the aircraft and the air traffic control;
 - iii. the pilot in command of an aircraft used for any parachute operation in or into controlled airspace must, during each flight continuously monitor the appropriate frequency of the aircraft's radio communications system; and
 - iv. parachute operations must be aborted if the required radio communications system is or becomes inoperative.
- h. ARO 1.410 establishes the use of single-harness, dual-parachute Systems for parachute operations. No person may conduct a parachute operation using a single-harness, dual parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a single-harness, dual parachute system, unless that system has at least one main parachute, one approved reserve parachute, and one approved single person harness and container that are packed as follows:
 - i. the main parachute must have been packed within 120 days according to the parachute manufacturer instructions, before the date of its use of a certificated parachute rigger, the person making the next jump with that parachute, or a non-certificated person under the direct supervision of a certification parachute rigger.
 - ii. the reserve parachute must have been packed by a certificated parachute rigger:
 - 1. within 120 days before the date of its use according to the parachute manufacturer instructions, if its canopy, shroud, and harness are composed exclusively of nylon, rayon, or similar synthetic fiber or material that is substantially resistant to damage from mold, mildew, and other fungi, and other rotting agents propagated in a moist environment; or



2. within 60 days before the date of its use according to the parachute manufacturer instructions, if it is composed of any amount of silk, pongee, or other natural fiber, or material not specified in paragraph (ii)(1) above.
 - iii. If installed, the automatic activation device must be maintained in accordance with manufacturer instructions for that automatic activation device.
- i. ARO1.420 establishes the use of Static Lines for parachute operations, no person may conduct a parachute operation using a static line attached to the aircraft and the main parachute unless the requirements of this paragraph are complied with.
 - j. ARO 1.465 establishes the glider equipment requirements, a person may not operate a glider unless the following equipment and instruments are installed and operative: (i) an airspeed indicator (ii) a pressure sensitive altimeter adjustable for barometric pressure (iii) a magnetic compass (iv) a safety harness for each seat (v) a first aid kit (vi) additional equipment and instruments for powered gliders: (1) a quantity gauge for each main fuel tank (2) an oil pressure gauge or warning device for each engine other than a two-stroke engine (3) a tachometer, RPM indicator, or engine governor light for each engine (4) a radio communications transceiver that meets the applicable requirements, and is capable of communication with the appropriate ATS unit.
 - k. ARO 1.470 establishes general maintenance requirements for parachute operations, an operator of a glider must ensure that:
 - i. the glider is maintained in an airworthy condition and safe for the intended operation;
 - ii. every applicable airworthiness directive, service bulletin, and mandatory requirements are complied with in accordance with the requirements; and
 - iii. the glider is inspected in accordance with the requirements of manufacturer maintenance data and instructions, Part ARO, CAMRE, and this guidance procedure.

1.2 This guidance procedure establishes common technical requirements and administrative

procedures for the maintenance and continuing airworthiness of aircraft including any component for installation thereto.

1.3 This guidance procedure is based on JCAR Part-ARO requirements as amended, the provisions of these procedures should apply to all ultra-light, micro-light, and glider operators certified by CARC.

1.4 All aircraft operators of ultra-light, micro-light, and glider shall establish CAMRO to maintain the aircraft and related components and to manage the continuing airworthiness thereof, as stipulated in JCAR Part-ARO, manufactures of aircraft and its components maintenance data, CAMRE, and this guidance procedure.

1.5 CAMRO may subcontract specific maintenance tasks to other CARC approved organization. In such cases, CAMRO should ensure that the subcontracted maintenance is performed to an acceptable standard according to the manufacturer specifications, CAMRE, and the contract. In any case, the operator is ultimately responsible for the maintenance and airworthiness of its aircraft and its components.

1.6 CAMRO should establish procedures acceptable to CARC to comply with the applicable





requirements and provisions of this guidance procedure as amended. The responsibility for safety, maintenance, and airworthiness rests entirely with the individual owner or operator, they shall ensure compliance with the continuing airworthiness and maintenance requirements specified in the aircraft, engine, and propeller manufacturer approved data, and shall ensure that the aircraft is airworthy and safe for the intended flight, also ensure that the aircraft hold valid insurance certificate according to JCAR Part 213 and aircraft radio station license, as applicable, according to the Jordanian communication regulation 13 for the year 1995.

- 1.7 CAMRO should establish a reporting system to comply with requirements of JCAR Part- ARO, as amended, and CARC Guidance Procedure AWS 30.
- 1.8 Personnel qualified to carry out maintenance and/or manage and control continuing airworthiness tasks should meet the requirements of JCAR Part-66 as amended and authorized by CAMRO.
- 1.9 Certificates of release to service issued should meet the requirements of Paragraph 7 of this guidance procedure.
- 1.10 Operators of aircraft shall operate the aircraft in accordance with the requirements set out in the operational provisions of JCAR Part-ARO.

2. Airworthiness responsibility

It is the responsibility of the operator to establish a CAMRO to ensure that:

- 2.1 The continuing airworthiness and maintenance are compliant with the manufacturer of aircraft and related components maintenance data and CARC's guidance procedure.
- 2.2 It should monitor the subcontractor's response to the provisions of the arrangements, employing/ or engaging such technical resources as are necessary to achieve the subcontracted task(s).
- 2.3 It should have sufficient numbers of qualified personnel available to perform the required maintenance and continuing airworthiness tasks and issue certificates of release to service.
- 2.4 Sufficient number of competent ground handling personnel are available.
- 2.5 The CAMRO is responsible for the continuing airworthiness, maintenance, and safety of the aircraft and should ensure that no flight takes place unless:
 - a. The aircraft is in an airworthy condition and safe for the intended flight.
 - b. Any safety and emergency equipment is fitted correctly and is serviceable.
 - c. The maintenance of the aircraft is performed in accordance with an approved maintenance schedule/ program and in compliance with manufacturers of aircraft, engine & propeller, as applicable specifications.
 - d. A certificate of release to service should be issued by appropriately authorized certifying staff on behalf of the organization when it has been verified that all maintenance ordered has been properly carried



out by the organization, taking into account the availability and use of the maintenance data and that there are no non-compliances which are known to endanger flight safety. A certificate of release to service should be issued before flight at the completion of any maintenance. However, the responsibility for defining the airworthiness status of the aircraft is the responsibility of the CAMRO /operator.

- e. Ultra-light and micro-light aircraft, within the previous 12 months, has been inspected and certified fit to fly carried out by qualified certifying staff of the organization as required by ARO 1.330(b), according to the manufacturer of aircraft and related components maintenance data, and CAMRE. Ultra-light and micro-light aircraft has the required and serviceable equipment and instrumentation as required by ARO 1.330(e) and has a current maintenance log as required by ARO 1.330(f).
- f. The Aircraft should have a Type Certificate.
- g. Safety and emergency equipment to be carried by aircraft in flight, as applicable, provided that:
 - i. projecting object, that could cause injury to the occupants, must be padded.
 - ii. hand held fire extinguishers of an approved type for the aircraft.
 - iii. restraint harness should be installed for each person.
 - iv. a person may not operate a glider unless the equipment and operative instruments as required by ARO 1.465.
 - v. Ultra-light and micro-light aircraft has the required and serviceable equipment and instrumentation (ARO 1.330(e)).
 - vi. Ultra-light and micro-light aircraft damage and defects are reported and rectified according to (ARO 1.335).

2.6 The aircraft should be automatically grounded:

- a. If the aircraft is not inspected and maintained in accordance with an approved maintenance schedule/ program and its maintenance is not certified by qualified personnel holding authorizations from an approved CAMRO.
- b. If mandatory modifications/inspections/airworthiness directives/service bulletins/repairs as required are not carried out.
- c. If modifications/repairs affecting airworthiness of the aircraft not approved by the aircraft, engine, and propeller manufacturers, as applicable, maintenance data and by CARC are carried out;
- d. If the aircraft suffers damage or reveals any defect which may render the aircraft unsafe for flight until such a time the damage/ defect is rectified.
- e. If the aircraft is flown beyond the flight manual limitations until defects are rectified.

2.7 The instructions for Continued Airworthiness:

The organization shall maintain and comply with the updated instructions for continued airworthiness and maintenance issued by the manufacturer of aircraft and related components to cover:

- a. detailed description of the aircraft and its components, systems and installations;

- b. handling instructions;
- c. basic control and operating information describing how the aircraft components, systems and installations operate;
- d. servicing information;
- e. a maintenance schedule against which the aircraft must be inspected and maintained;
- f. maintenance and inspection instructions;
- g. repair instructions;
- h. trouble-shooting information;
- i. airworthiness limitations that set forth each mandatory replacement time, inspection interval and related inspection procedure.

2.8 The Operator should establish a procedure acceptable to CARC to ensure that pilots discharge the following responsibilities:

- a. Ensure that all servicing/maintenance is carried out including pre-flight checks.
- b. That defects affecting airworthiness or safe operation of the Aircraft are recorded in the Technical Log Book.
- c. Defects are rectified before flight, by appropriately qualified persons, or are deferred in a manner acceptable to CARC and in accordance with the established procedure.
- d. The pre-flight checks may be carried out by the pilot or another qualified person.

2.9 Airworthiness Directives (ADs) and manufacturer of aircraft, engine & propeller, as applicable, technical information and data is complied with as required.

- a. The CAMRO should establish procedures to ensure that Airworthiness Directives are complied with as required.
- b. When the manufacturer of aircraft, engine & propeller, as applicable, technical information is received, matters of significant airworthiness importance should be attended to promptly.
- c. A record of all Airworthiness Directives and non-mandatory modifications should be kept. The record should list all ADs generally applicable to the aircraft, including those not specifically applicable to the individual aircraft, including reason for non-applicability, this information is normally recorded in the Aircraft, engine, and propeller logbooks, as applicable.
- d. The CAMRO should ensure that the manufacturer of aircraft, engine & propeller, as applicable, is aware that they are operators of their Aircraft so that all relevant technical information, details of in-service experience of the Aircraft and amendments to technical data, are received and embodied in a timely manner. This is especially important where the operator is not the original owner of the aircraft.

- e. The CAMRO should hold and make available to concerned person the necessary technical data e.g. CARC publications, the manufacturer manuals, any relevant technical information and any other related literature appropriate to the aircraft types.
- f. The CAMRO should establish procedures to control and update the technical library and to disseminate the relevant information to the concerned staff.
- g. The CAMRO should notify any changes to its address and key personnel to CARC in accordance with the CAMRE.

2.10 Weighing

- a. The weighing of the aircraft shall be accomplished by the manufacturer of the aircraft or by CAMRO as applicable.
- b. The organization shall ensure that the mass of the aircraft has been established by actual weighing prior to its initial entry into service. The accumulated effects of modifications and repairs on the mass and balance shall be accounted for and properly documented. Such information shall be made available to the pilot-in-command. The aircraft shall be reweighed if the effects of modifications or repairs on the mass are not known.
- c. New aircraft that have been weighed at the factory may be placed into operation without reweighing if the mass records have been adjusted for alterations or modifications to the aircraft. Aircraft transferred from one operator to another operator do not have to be weighed prior to use by the receiving operator, unless the mass cannot be accurately established by calculation.
- d. The initial empty mass for an aircraft is the aircraft empty mass determined by a weighing performed by the manufacturer of the aircraft before the initial entry into service.
- e. The mass and balance of an aircraft is revised whenever the cumulative changes to the aircraft empty mass due to modifications or repairs exceed $\pm 5\%$ of the initial empty mass, or per the aircraft manufacturer maintenance data conditions, which is stricter. This may be done by weighing the aircraft or by calculation.
- f. The aircraft shall be reweighed every four years according to the aircraft manufacturer approved data by CAMRO authorized staff. The equipment used in the aircraft mass and balance shall be calibrated to an officially recognized standard, and the date of calibration next due of the equipment used shall be recorded on the mass and balance records.

3. Aircraft maintenance and continuing airworthiness management

- 3.1 The organization responsible for aircraft maintenance and continuing airworthiness, maintenance, and repair exposition (CAMRE) should define how the CAMRO meets the requirements of JCAR Part-ARO and this guidance procedure. The procedures to control continuing airworthiness functions should be contained in the CAMRE.

The approved organization exposition (CAMRE) should contain the following, as applicable:



- a. A statement signed by the accountable manager to confirm that the organization will comply with JCARs as applicable and the exposition at all times. Whenever the accountable manager changes it is important to ensure that the new accountable manager signs the statement at the earliest opportunity.
 - b. The organization's scope of work.
 - c. The title(s) and name(s) of key person(s) as identified in 5.1, 5.2 and 5.3.
 - d. An organization chart showing associated chains of responsibility.
 - e. A list of the qualified personnel.
 - f. A general description and location of the facilities.
 - g. Procedures specifying how the CAMRO complies with JCARs requirements as applicable.
 - h. The CAMRE amendment procedures.
 - i. The list of approved aircraft maintenance schedule/ program for those aircraft, which are part of the operator's ARO certificate.
- 3.2 The CAMRE and its amendments should be approved by CARC. Minor amendments to the exposition may be approved indirectly through an indirect approval procedure. The indirect approval procedure should define the criteria for minor amendments eligible for indirect approval.
- The indirect approval procedure should be established in the exposition and should be approved by CARC.
- 3.3 CAMRO shall ensure that all continuing airworthiness management and maintenance shall be carried out in accordance with the requirements of the manufacturer of aircraft and related components, Part-ARO, CAMRE, and this guidance procedure, as applicable.
1. develop and control the Maintenance Schedule/ Program for the aircraft managed as required by point 6, approve the Maintenance Schedule/ Program and its amendments by CARC, and provide a copy of the Maintenance Schedule/ Program to the owner;
 2. ensure that data used for any modification and repairs complies with data approved by the manufacturer of aircraft, engine and propeller, as applicable;
 3. ensure that all maintenance is performed in accordance with the Maintenance Schedule/ Program and released in accordance with point 7;
 4. ensure that all applicable ADs and all operational directives with a continuing airworthiness impact and service bulletins are implemented;
 5. ensure that all defects discovered during maintenance or reported are corrected by an appropriately authorized certifying staff;
 6. ensure that the aircraft, engine, and propeller are brought for maintenance to an appropriately CARC approved organization or to authorized certifying staff, whenever necessary;
 7. coordinate the scheduled maintenance, application of ADs and SBs, replacement of service-life-limited parts and component inspection in order to ensure the work is carried out properly; and



8. manage and archive all continuing airworthiness and maintenance records and, if applicable, the aircraft, engine, and propeller technical log books;

4. Facilities

The CAMRO shall ensure that all necessary facilities, including adequate office accommodation, are provided for it to be able to carry out all the planned work. In addition, where the scope of approval of the organization includes maintenance activities, the CAMRO shall ensure that:

- 4.1 The CAMRO should provide suitable office accommodation at appropriate locations for personnel actively involved in the maintenance and continuing airworthiness management tasks.

In addition, as part of the office accommodation, the staff should be provided with an area where they may study maintenance instructions, complete, and keep maintenance records in a proper manner.

- 4.2 Storage facilities for serviceable aircraft components should be clean, secure, controlled and well ventilated. Manufacturer of the aircraft, engine & propeller, as applicable, storage recommendations should be followed. Storage racks should be strong enough to hold components and provide sufficient support for large components such that the component is not distorted during storage. Specialized workshops, hangars and bays provide adequate protection from contamination and the environment

- 4.3 Unserviceable components should be segregated from serviceable components.

- 4.4 All serviceable and unserviceable components should be clearly identified.

- 4.5 Secure storage facilities are provided for components, equipment, tools and material, under conditions ensuring that unserviceable components and materials are segregated from all other components, material, equipment and tools, that the manufacturer's instructions for storage are complied with and that access to the storage facilities is restricted to authorized personnel.

- 4.6 Evidence of facilities ownership or tenancy shall be provided to CARC, when requested.

5. Personnel requirement

- 5.1 The organization should appoint an accountable manager acceptable to CARC, who has corporate authority for ensuring that all continuing airworthiness management activities and all maintenance required can be financed and carried out to the standard required by JCARs, manufacturer of aircraft and its related components specifications, and CAMRE.

- 5.2 The accountable manager should designate a nominated post holder for continuing airworthiness management and maintenance. The post holder should report to the accountable manager. This person should be responsible for the management and supervision of continuing airworthiness management and maintenance activities. The nominated post holder should be acceptable to CARC.

- 5.3 The CAMRO should appoint a person(s) responsible for compliance monitoring and safety or for the conduct of organizational reviews, safety management, and for evaluation of suppliers and subcontractors. If it is practically not feasible for the organization to hire such a person(s), then a contracted auditor may be engaged to perform such reviews/evaluations. The auditor should be acceptable to CARC.



- 5.4 The organization should have sufficient qualified personnel for the expected work. All persons shall have the relevant knowledge, background and experience related to continuing airworthiness management and maintenance, as appropriate for their functions. The CAMRO shall have sufficient appropriately qualified staff for it to be able to carry out the planned work. The CAMRO shall assess and record the qualification of all personnel.
- 5.5 All personnel required by para 5.2 and 5.3 should be able to demonstrate relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness and maintenance.
- 5.6 All personnel involved in aircraft continuing airworthiness and maintenance tasks including ground handling personnel should have attended safety and human factors training.
- 5.7 The records of the qualification of all personnel actively involved in continuing airworthiness management and maintenance tasks should be maintained.
- 5.8 For the accountable manager and the post holders, deputation procedure. should be established to cater for prolonged absences.
- 5.9 Subject to CARC approval, the positions required by the para 5.1,5.2,5.3 and 5.4 may be combined.
- 5.10 Additional personnel qualification requirement shall be defined by CAMRO.
- 5.11 Pre-flight inspections can be performed by the pilot of the Aircraft or by the certifying staff holding Aircraft Maintenance License issued by CARC in accordance with JCAR Part 66 and hold a certification authorization issued by CAMRO that in the opinion of CARC is suitably qualified.
- 5.12 CARC may validate other ICAO contracting states licenses approved for Aircraft if there are no Jordanian certifying staff holding Aircraft Maintenance License issued by CARC.
- 5.13 Parachute Riggers shall be experienced, qualified, trained, and authorized according to CAMRE procedure approved by CARC.

6. Maintenance schedule/ program and maintenance data

- 6.1 Maintenance of each aircraft should be carried out in accordance with an approved aircraft maintenance schedule/ program.
- 6.2 The aircraft maintenance schedule/ program and any subsequent amendments should be approved by CARC in accordance with CARC Guidance Procedure AWS 29 and Maintenance Program Assessment Checklist CARC Form 18 OF-0344 and Application Form for Maintenance Program Approval CARC Form 18 OF-0343.
- 6.3 The aircraft maintenance schedule/ program should establish compliance with:
- a. Instructions issued by CARC.
 - b. Instructions for continuing airworthiness promulgated by manufacturer of the aircraft, engine & propeller, as applicable. Instruction issued by CARC can encompass all types of instructions from a

specific task for a particular aircraft to a complete recommended maintenance schedule/ program for certain aircraft types that can be used by the owner/operator directly. These instructions may be issued by CARC in the case of absence of specific recommendation of the manufacturer of the aircraft, engine & propeller, as applicable.

- 6.4 The aircraft maintenance schedule/ program should contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to the type and the specificity of operations.
- 6.5 Maintenance schedule/ program should be based upon the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling. Furthermore, an owner or operator's maintenance schedule/ program should also take into account any maintenance data containing information on scheduling of components.
- 6.6 The aircraft maintenance schedule/ program should be subject to periodic reviews by the CAMRO and amended when necessary. These reviews will ensure that the schedule continues to be valid and adequate in light of the operating experience whilst taking into account the modification status utilization, age and new and/or modified maintenance instructions promulgated by the manufacturer of aircraft and related components.
- 6.7 The CAMRO shall hold and use applicable current maintenance data, in the performance of maintenance, including modifications and repairs. Before the commencement of maintenance, a written work order shall be agreed between the CAMRO and the person or organization requesting maintenance, in a manner that clearly establishes the maintenance to be carried out
- 6.8 Maintenance standards, when performing maintenance, the CAMRO shall comply with all of the following requirements:
 - a. ensure that any person performing maintenance is qualified in accordance with the requirements of point 5;
 - b. ensure that the area in which maintenance is carried out is well organized and clean (no dirt or contamination);
 - c. use the methods, techniques, standards and instructions specified in the maintenance data and work orders;
 - d. use the tools, equipment and material specified in manufacturer of aircraft, engine, or propeller maintenance data;
 - e. ensure that maintenance is performed in accordance with any environmental limitations specified in the manufacturer of aircraft, engine, or propeller maintenance data;
 - f. ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
 - g. ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimized;



- h. ensure that an error-capturing method is implemented after the performance of any critical maintenance task;
- i. perform a general verification after completion of maintenance in order to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts and material and that all access panels removed have been refitted; and
- j. ensure that all maintenance performed is properly recorded and documented.

At the completion of any aircraft maintenance carried out in accordance with this guidance procedure, an aircraft CRS shall be issued in accordance with point 7.

7. Certification of maintenance

7.1 The following categories of personnel may issue the certificate of release to service:

- a. Holder of maintenance license issued in accordance with JCAR Part 66; and
- b. Holder of authorization issued by the CAMRO Compliance Monitoring and Safety Manager.

7.2 A certificate of release to service should be issued by appropriately authorized qualified personnel on behalf of the organization when it has been verified that all maintenance required has been properly carried out by the organization, taking into account the availability and use of the applicable maintenance data and that there are no non-compliances which are known to endanger the flight safety.

7.3 A certificate of release to service should be issued before flight at the completion of any maintenance.

7.4 The certificate of release to service should contain the following statement:

'Certifies that the work specified except as otherwise specified was carried out in accordance with

JCARs and in respect to that work the aircraft component is considered ready for release to service'. Reference should also be made to organization approval number.

7.5 A component maintained by the CAMRO or a subcontracted organization should be released using CARC authorized release certificate CARC Form 18 OF-0227 or equivalent in accordance with CAMRE procedures. Any component maintenance should be performed in accordance with approved maintenance data. The form should include when the maintenance took place relative to any life or overhaul limitation in terms of calendar flying hours /cycles/ landings etc., as appropriate.

7.6 The maintenance data may be manufacturer of the aircraft, engine & propeller, as applicable, instructions or the approved aircraft maintenance schedule/ program, maintenance manual, component maintenance manual, etc.

7.7 Aircraft components / parts and materials used thereon should be covered by a release certificate, or equivalent document acceptable to CARC issued by the CAMRO or the sub-contracted organization.

7.8 All parts and materials used in the maintenance process shall be traceable and hold a release to service certificate or a certificate of conformity issued by the manufacturer of aircraft and related components and supplied by an approved supplier.

8. Technical log

8.1 The Operator's Technical Log system should be approved by CARC.

ARO1.340 establishes maintenance Log Books requirements which shall require the owner of an ultra-light and micro-light aircraft to maintain a current maintenance log book indicating, as applicable, aircraft, engine, and propeller type and model, identifying marks and colors, year of manufacture, modifications to basic aircraft, flight/engine hours, damage, defects and repairs carried out. The maintenance log book shall include copies of the manufacturer's specifications and pilot operating handbook.

The Technical Log should contain the following information unless cross-referred elsewhere:

- a. Details of the registered name and address of the operator, the aircraft, engine & propeller, as applicable, types and serial numbers.
- b. Instructions on how to complete the Technical Log.
- c. Sector record pages pre-serialized of a design acceptable to CARC.
- d. Each sector record page should include provision to record:
 - i. The aircraft type and S/N.
 - ii. Year of Manufacture
 - iii. The date, place and time of take-off and landing.
 - iv. Name and address of the operator (the address may be omitted if it is printed on the title page of the log).
 - v. Particulars of defects and rectification actions taken.
 - vi. Box for pre-flight inspection.
 - vii. The fuel state at departure.
 - viii. A pre-printed Certificate of Release to Service (CRS) with provision for CRS signature, date and authority for issue, in such a location as to be readily identifiable with the defect entry to which it relates.
 - ix. The running total of the aircraft, engine, and propeller, as applicable, flying hours and cycles so that flying hours and cycles remaining to the next inspection can be readily determined and the date of such inspections; and the post-flight signature of the aircraft pilot and the date.
 - x. The Sector Record Page layout should be divided to show clearly what is required to be completed in preparation for the next flight.

8.2 At the end of every flight, the aircraft pilot should enter the following details:

- a. The times when the aircraft took off and landed.
- b. Particulars of any defect known to him if it affects the airworthiness or safe operation of the aircraft.
- c. Pilot signature and the date.

- d. If there are no defects the aircraft pilot should make a NIL entry to this effect.

9. Maintenance records and retention

- 9.1 The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft maintenance records should be kept in a place safe from fire, floods and theft. They should contain basic details of all serialized aircraft components and all other significant components installed, to ensure traceability of such installed aircraft component documentations and associated maintenance data and records.
- 9.2 The maintenance records should be combination of both paper and electronic format. The records should remain legible throughout the required retention period. Paper systems should use robust material which can withstand normal handling and filing.
- 9.3 Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain program safeguards against the ability of unauthorized personnel to alter the database.
- 9.4 The CAMRO should ensure that a system has been established to keep the following records for at least five years:
- All detailed maintenance records in respect of the aircraft, engine, and propeller, as applicable, and any service life-limited component fitted thereto;
 - The total time in service (hours, calendar time, cycles and landings, as applicable) of the aircraft and all service life limited components; and
 - The time in service (hours, calendar time, cycles, and landings, as applicable) as appropriate, since last scheduled maintenance of the component subjected to a service life limit; and
 - The current status of airworthiness directives, modifications, and repairs applicable to the aircraft and related components.

10. Subcontracting and subcontractor's evaluation

- 10.1 The CAMRO may need to sub-contract specific maintenance activities to a sub-contractor. In such cases, the CAMRO should provide a clear work order to the maintenance sub-contractor. The fact that the CAMRO has sub-contracted specific maintenance tasks should not prevent it from checking at the sub-contracted maintenance facilities on any aspect of the sub-contracted work to satisfy its responsibility for the airworthiness of the aircraft. Selection and continuous engagement of maintenance sub-contractor should be done by the CAMRO based on an evaluation performed by the person identified in para 5.3. Selection should ensure that the sub-contractor has the capability to undertake the required maintenance. For aircraft maintenance (other than component maintenance), the CAMRO should not sub-contract scheduled maintenance inspections for which it has been approved, unless agreed with CARC. The CAMRO should contract scheduled maintenance inspection for which it is not approved to CARC approved organizations.

10.2 The CAMRO should be responsible for ensuring that the sub-contracted maintenance is performed to an acceptable standard so that safety is not compromised

11. Organization review

11.1 The purpose of organizational review is to ensure that the organization and the aircraft continue to meet Part ARO, CAMRE, manufacturer of aircraft and related components maintenance and continuing airworthiness data, and this guidance procedure requirement.

As a core minimum, the organizational review system should have the following features, which should be described in the exposition:

- a. Identification of the person responsible for the organizational review program as per para 5.3.
- b. By default, this person should be independent from the tasks being reviewed. He may be a contracted auditor as per para 5.3. To maintain independence of review, the organization may have two persons performing the review, where one of them reviews the tasks performed by the other reviewer.
- c. Identification and qualification criteria for the person(s) responsible for performing the organizational reviews. These persons should have thorough knowledge of the regulations and of the maintenance organization procedures as specified in section 5.0. They should also have knowledge of audits acquired through training or through experience preferable as an auditor,
- d. Details of the organizational review program.
- e. Checklist(s) covering all items necessary to be satisfied that the organization delivers a safe product and complies with the regulation. All procedures described in the CAMRE should be addressed.
- f. A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organization may choose to conduct one full review annually or to conduct several partial reviews.

11.2 Organizational review program elements:

- a. Identification of frequency, scope and content (including processing of CARC findings).
- b. Planning and performance of the review.
- c. Use of organizational review checklist and forms.
- d. Processing and correction of review findings.
- e. Reporting.

Each checklist item should be answered using an appropriate combination of:

- a. Scope of work.
- b. Maintenance data.
- c. Tools and equipment.



- d. Stores.
- e. Certification of maintenance.
- f. Personnel.
- g. Maintenance sub-contracted.
- h. Technical records and record keeping.
- i. Occurrence reporting procedure.

Corrective and preventive actions should be approved by the person(s) responsible for the organizational review program and implemented within a specified time frame. Once the person(s) responsible for the organizational review program is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action. The accountable manager should be notified of all significant findings and on a regular basis, of the overall result of the organizational review program.

12. Occurrence reporting

- 12.1 The organization should report to CARC, and the manufacturer of the aircraft or component any condition of the aircraft or component identified by the organization that has resulted or may result in an unsafe condition that hazards seriously the flight safety in accordance with CARC Guidance Procedure AWS 30. The organization should submit such report to CARC within a maximum of 72 hours from the time of occurrence. All occurrence reports should be reviewed with the aim of continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find precursors (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviors, ... etc.)
- 12.2 The organization should establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under 12.1. An internal occurrence reporting system should enable and encourage free and transparent reporting of any safety related occurrence. This will be facilitated by the establishment of a just culture according to JCAR 19. An organization should ensure that personnel are not inappropriately punished for reporting or cooperating with occurrence investigations. The internal reporting procedures should ensure that the loop is closed and ensure that the actions are taken internally to address safety hazards. Feedback to reporters, both on an individual and more general basis is important to ensure their continued support for the scheme.
- 12.3 Where an organization is contracted by the CAMRO to carry out scheduled maintenance inspections, the contract or the work order should include a provision to require the contracted organization to report occurrences to the CAMRO.

13. Waiver and Exemption

According to ARO 1.095, no person may conduct operations that require a deviation from this part except under a certificate of waiver issued by CARC, based on that waivers and exemptions shall be approved by



CARC prior to its implementation.

A waiver or exemption may be issued against a technical requirement in This guidance procedure, providing that, such waiver or exemption shall be applicable only to a particular requirement and an equivalent level of safety is demonstrated to the satisfaction of CARC, without undermining the operating rule where the particular requirement applies. Providing that, no waiver or exemption shall be granted to any part of JCAR Part-ARO and this guidance procedure that may result to potential risk to aviation safety. For the purpose of this Article, under no circumstances shall a waiver or exemption be granted against any violation, infringement, penalty and enforcement action.

14.Aircraft insurance

The aircraft shall have a valid aircraft insurance certificate according to JCAR Part 213 requirements.

15.Aircraft radio station license

An aircraft shall have an aircraft radio station license, as applicable, according to the Jordanian communication regulation 13 for the year 1995.