



REPUBLIC OF LEBANON
MINISTRY OF TRANSPORT
DIRECTORATE GENERAL OF CIVIL AVIATION

LARs

LEBANESE AVIATION REGULATIONS

Part V
AIRWORTHINESS

Subpart 515
DESIGN AND CERTIFICATION STANDARDS

***** FINAL PROPOSAL *****

UNDP / ICAO PROJECT LEB / 95 / 001
Civil Aviation Technical Training and Safety Oversight Programme

Republic of Lebanon 



LEBANESE AVIATION REGULATIONS (LARs)

Part V – Airworthiness

Subpart 515 - Design and Certification Standards

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515.05 Mandatory Continuing Airworthiness Information

The DGCA shall ensure that, when it first enters on its register an aircraft of a particular type for which it is not the State of Design, shall advise the State of Design that it has entered such an aircraft on its register

The DGCA shall make provisions, in respect of aeroplanes over 5700 kg and helicopters over 3175 kg maximum certificated take-off mass, to receive any generally applicable information which The State of Design of an aircraft has found necessary for the continuing airworthiness of the aircraft, including its engines and propellers when applicable. Such continuing information includes the provisions in LAR s 515.06 (2) & (3).

The DGCA shall make provisions; in respect of aeroplanes over 5700 kg and helicopters over 3175 kg maximum certificated take-off mass to receive any notification of suspension or revocation of a Type Certificate;

515.06 Provision of Documents

The owner or operator, in respect of a first type or model of aeronautical product to be imported or operated in Lebanon, shall

- (a) supply the DGCA, with the Instructions for Continued Airworthiness (ICAS), manuals and technical data specified in Standard 515.06.
- (b) Make provisions to ensure amendments of documents stated in subsection (1) above are directly supplied to the DGCA from the concerned manufacturers.

LEBANESE AVIATION REGULATIONS (LARs)

STANDARD 515 - DESIGN AND CERTIFICATION STANDARDS

s515.03 Applicable Certification Standards

The applicable standards in respect of the acceptance of aeronautical products in Lebanon are

(a) Federal Aviation Regulations (FARs) - United States
Parts 21, 23, 25, 27, 29, 31, 33, 33, 34, 35, 36;

(b) Joint Airworthiness Requirements (JAR) - Europe
JAR-21, JAR 22, JAR 23, JAR- 25, JAR-27, JAR-29, JAR-36, JAR- APU, JAR-E engine,
JAR-P Propellers and JAR-TSO Technical Standard Orders;

(c) Canadian Aviation Regulations (CAR)- Canada
Subparts 11, 13, 16, 22, 23, 25, 27, 29, 31, 33, 35, 41, 49, 51; or

(d) equivalent Certification Standards.

s515.04 Evaluation

(1) The evaluation process may be accomplished through different levels of review, dependent upon the country of origin and the complexity of the product. The different review levels are:

(a) Review Level 1- is an acceptance of the type certificate issued by the Exporting Airworthiness Authority for the given type of aeronautical product.

(b) Review Level 2- is an on-site review and would include assistance and cooperation of the Foreign Regulatory Authority Airworthiness system.

(2) A level 2 review would normally include, an initial briefing from the manufacturer, the review of compliance documentation, one or more visits by DGCA personnel to the design and/or manufacturing facilities. In general the evaluation will include the following activities:

- initial briefing from the design holder
- review of compliance documentation
- on-site review of the product

(a) Initial Briefing; the purpose of the briefing is to provide DGCA personnel, with general information on the design of the product and on the domestic certification of the product. It is therefore necessary that the briefing be presented by individuals with sufficient knowledge of both the product design and the manner in which it was certificated. The briefing should include an overview of the product; emphasis should be placed on novel or unusual design features or design changes. It would also be appropriate to address service experience.

(b) Review of Compliance Documentation; the review of compliance and certification documentation will take place during the visit to the design or manufacturer's facility, when such a visit is necessary. DGCA may elect to require provision of compliance documentation, relating to the equipment and furnishings determined by a review of the *Lebanese Aviation Regulations* (LARs), in particular Parts [VI](#) and [VII](#).

(c) On-Site Review of aeronautical products.

(1) **Purpose of the Visit.** A visit to the type design holder's location and/or the site of manufacturing is undertaken, when necessary, for the purpose of:

(i) obtaining more detailed knowledge of the product design in order to support the type certification acceptance activity, the Lebanese operation of the product and the continuing airworthiness of the in-service product.

(ii) obtaining adequate knowledge of the manner in which the product complies with the proposed type certification basis.

(2) **Activities.** The objectives are normally achieved by the following activities:

(i) overview of the product - its components, its systems and the manner in which they function. A condensed version of the Pilot Training Ground School lasting one to two days has been found to provide an appropriate level of information.

(ii) design review - specific attention is paid to particular areas or components of the product, both on drawings and by review of the hardware at various stages of manufacture. This includes the review of the complete product in the final form, as per the type design.

(iii) briefing - the company will be initially briefed on the purpose for the visit and finally debriefed on the findings of the visit.

(vi) review of manuals - all approved manuals are reviewed to determine their acceptability and to define any changes necessary for Lebanon.

(vii) maintainability review - the completed product is reviewed in terms of its maintainability in the Lebanese operating environment.

(viii) establishing an appropriate Aircraft Flight Manual, or equivalent.

(iv) evaluating the different aircraft configurations permitted.

(3) **Aircraft Configuration.** The owner or operator is responsible for providing a representative aircraft. Where differences exist these must be identified and reviewed by DGCA.

(4) A compliance checklist, or an equivalent document, is required showing the means of demonstrating compliance with the equivalent type certification basis, including compliance with all additional technical conditions.

(d) **Findings.** The findings if any, are presented and discussed during the visit, with both the Foreign Aviation Authority and the company. Formal transmission to both parties is completed as soon as possible after the DGCA has returned from the visit.

(i) **Findings** - each one represents an open item that requires resolution prior to the acceptance of a type certificate and is pertinent to the introduction of the product into Lebanon

(ii) **Observations** - are not considered as open items requiring resolution prior to the acceptance issuance of the type certificate.

s515.05 Mandatory Continuing Airworthiness Information

The owner or operator, in respect of a first type or model of aeronautical product to be imported or operated in Lebanon, shall supply the DGCA with the Instructions for Continued Airworthiness-ICAS, manuals and technical data in accordance to LAR s515.06 as applicable.

The owner or operator shall develop or adopt requirements to ensure the continuing airworthiness of the aircraft during its service life, including requirements to ensure that the aircraft:

- i) Continues to comply with the appropriate airworthiness requirements after a modification, a repair or the installation of a replacement part; and
- ii) Is maintained in an airworthy condition and in compliance with the maintenance requirements of ICAO Annex 6, and where applicable, Parts III, IV and V of this Annex;
- iii) Upon receipt of mandatory continuing airworthiness information from the State of Design, adopt the mandatory information directly or assess the information received and take appropriate action;

DGCA shall ensure the transmission to the State of Design of all mandatory continuing airworthiness information in respect of a product or a modification which it, as the State of Registry, originated in respect of that aircraft; and ensure that, in respect of aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum certificated take-off mass, information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft, LAR Part V Subpart 585 (SDR) is transmitted to the organization responsible for the type design of that aircraft.

Where a continuing airworthiness safety issue is associated with a modification, DGCA shall ensure that the above information is transmitted to the organization responsible for the design of the modification.

s515.06 Provision of Documents

(1) The owner or operator, in respect of a first type or model of aeronautical product to be imported or operated in Lebanon, shall supply the DGCA with the following Instructions for Continued Airworthiness-ICAS, manuals and technical data in accordance to LAR 515.07.as applicable;

- (a) Maintenance Manual and related schedule.
- (b) Overhaul Manual
- (c) Structural Repair Manual
- (d) Illustrated Parts Catalogue
- (e) Wiring Diagram Manual
- (f) Equipment Maintenance and Overhaul Manual (*if not part of (a))*)
- (g) Weight and Balance Handbook

- (h) Maintenance Planing Document (MPD)
 - (i) Maintenance Review Board Report (MRBR)
 - (j) Engine(s) Manuals or documents
 - (k) Propeller(s) Manuals or documents
 - (l) Electronic Equipment's Manuals
 - (m) Service Bulletins
 - (n) Approved Flight Manuals and related documents
 - (o) The approved Master Minimum Equipment List (where appropriate)
 - (p) Any other Technical or Operations manuals pertaining to the aeronautical product concerned.
- (2)** Provisions, shall be made to supply amendments of above manuals direct to the DGCA from the manufacturers concerned.
- (3)** Provisions, shall be made to ensure the DGCA be supplied with, all applicable Airworthiness Directives directly from the appropriate Civil Aviation Authorities holding jurisdiction over certification of the aircraft, engine(s), propeller(s)and associated components, appliance and equipment.