

LEBANESE AVIATION REGULATIONS (LARs)

Part V – Airworthiness

Standard 545 - Approved Maintenance Organization

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APPENDIX - I. Maintenance Organization Exposition

Standard 545 - Approved Maintenance Organizations

Information notes:

- a) In these standards, "the person responsible for maintenance" means any person appointed pursuant to LAR 545.03. (AMO accountable manager)
- b) Where the holder of an AMO Certificate also holds any other certificate, which requires an approved manual, a separate manual can be provided with respect to each separate approval.
- c) Where the certificate holder chooses to combine these separate manuals, each division of the manual should identify its source regulation (e.g. combined AMO-Air Operator manual can be divided into Division I for the AMO, and Division II for the air operator requirements).
- d) Notwithstanding these standards, applicants for an AMO Certificate are reminded that applicable national codes may specify minimum requirements applicable to building standards, security and other environmental factors applicable to the work place.

s545.01 Application for Approval

Form LAR-0545, should be obtained from the Lebanese DGCA and completed by the Person Responsible for Maintenance. The required number of copies of the Maintenance Organization Exposition normally includes one for the DGCA office, but in a particular case, additional copies may be required.

s545.02 AMO Certificates (extent of approval)

(1) An AMO Certificate is issued with ratings in one or more of the following categories:

- (a) Aircraft;
- (b) Avionics;
- (c) Engine;
- (d) Propeller;
- (e) Structure;
- (f) Component;
- (g) Welding; and
- (h) NDT.

Where machining, grinding, electro-plating and metalizing are performed as part of the maintenance of an aeronautical product, they must be carried out under the control of an AMO with a category for that product. The AMO is responsible for the conformity of the (special process) to the applicable design standard for that product. Where work is sent to an external agent, a maintenance arrangement meeting the applicable requirements of LAR 545.11(2) is required.

(2) Ratings in the aircraft category are issued to authorize the performance of work, other than specialized maintenance, on aeroplanes and helicopters operated under a Flight Training Organization Certificate or on aircraft that are operated under an Air Operator Certificate. Other AMO categories are issued to authorize the performance of specialized maintenance that is beyond the privileges of an AMO with only an aircraft category.

(3) A rating in the aircraft category will specify one or more types or groups of aircraft that are eligible to be maintained. Each type or group will be further subject to one of these limitations:

(a) Non-specialized

Any maintenance on the aircraft of the types specified, or any of their component parts, provided the maintenance is not specialized maintenance under the provisions of Subpart 575.

(b) Check Limited

Any type of maintenance required to accomplish the level of check or inspection indicated on the limitations section, including the rectification of defects on the aircraft types specified, provided the maintenance is not specialized maintenance under the provisions of *Subpart 575*.

(c) Line Maintenance

Maintenance of the specified aircraft types is limited to pre-flight, daily and weekly checks, and includes the rectification of aircraft defects, provided the maintenance is not specialized maintenance. A line maintenance limitation may include (A check) segments, but must not include any scheduled checks that include segmented portions of higher levels.

(4) Ratings in the Engine category will be issued in respect of the maintenance, up to and including overhaul, of one or more types or groups of engines.

(5) Ratings in the Propeller category will be issued in respect of specialized or non-specialized maintenance of one or more types or groups of propellers.

(6) Ratings in the Structure category will be issued in respect of the repair or modification of structures of the following kinds.

(a) Wooden

A wooden structure rating covers all repairs and modifications to wooden structure and includes the repair or making of any metal attachment bracket forming part of the structure, provided that welding is not required. This includes the repair of laminated structures, including metal sheathed laminated structures, provided the core material is wood.

(b) Sheet Metal

A sheet metal structure rating covers all repairs and modifications to sheet metal structures including airframes, floats, and skis, and includes the repair of metal sheathed honeycomb structures. This rating does not include repairs to tubular structures within sheet metal aircraft

(c) Tubular

A tubular structure rating covers all repairs and modifications to tubular metal structures. This rating will not be issued unless the applicant also holds a rating for Tig, Mig or Oxy-acetylene welding, as applicable to the type of structure being repaired. A tubular structure rating includes the repair of tubular engine mount assemblies.

(d) Composite

A composite structure rating covers all repairs and modifications to composite structures, including any integral bonded metal members or fasteners. This rating also covers the repair of metal or wood sheathed laminated structures.

The term "Composite Structure" includes, but is not limited to graphite, aramid (kevlar), and glass fiber filaments.

(7) Ratings in the Avionics category will be issued in respect of the incorporation of a modification, which provides for the installation of one of the following types of equipment into an aircraft, or the repair or modification of one of the following categories of avionics equipment, this rating includes:

(a) Radio

- (i) all RF receivers or transceivers including Emergency Locator Transmitters (ELT) and Underwater Locating Devices (ULD);
- (ii) Air Traffic Control (ATC) transponders (not including the aneroid sensing devices used in altitude reporting systems);
- (iii) radar;
- (iv) Distance Measuring Equipment (DME);
- (v) radar altimeters;
- (vi) Traffic Collision Avoidance Systems (TCAS);
- (vii) Ground Proximity Warning Systems (GPWS); and
- (viii) Flight Data Recorders (FDRs) and Cockpit Voice Recorders (CVRs).

(b) Electrical:

This rating includes electrical components used in power generation, distribution or control. It is also applicable to devices using electrical power as their primary source, other than a device for which another limitation applies. This rating includes:

- (i) galley electrical components;
- (ii) heating and lighting devices; and
- (iii) fire detection equipment.

(c) Instrument:

this rating includes:

- (i) gyroscopic instruments,
- (ii) pitot-static instruments including aneroid sensing devices used in altitude reporting systems; and
- (iii) any other instruments or displays device.

(d) Autoflight:

this rating includes:

- Any device used in an autoflight system, including flight guidance computers and their associated display devices.

Work carried out under these ratings includes on-aircraft work. Where on-aircraft work is authorized, the provisions of LAR575 and LAR 545 will apply to any person who is authorized to issue a maintenance release for work conducted on an aircraft.

(8) Ratings in the Component category will be issued in respect of the maintenance of one of the following categories of components or appliances .

- (a) hydraulic or pneumatic power valves, or power packs;
- (b) fuel metering or air metering components;
- (c) pressure type fuel, oil, and pneumatic or hydraulic pumps;
- (d) speed-regulating governors, including engine or propeller governors and constant speed drives;
- (e) power train components. This limitation includes a rotor-head transmission, and those mechanisms used to transmit power to the rotor of a rotary wing or tilt wing aircraft;
- (f) rotor blades;
- (g) aircraft magnetos;
- (h) bladder type fuel tanks.

(9) Ratings in the NDT category will be issued in respect of inspection of aeronautical products using one of the following methods and must be carried out as per approved Standards, within limitations indicated:

- (a) Liquid Penetrant Inspection includes fluorescent and non-fluorescent methods
- (b) Magnetic Particle Inspection includes fluorescent and non-fluorescent methods
- (c) Eddy Current Inspection includes inspection methods conducted using equipment relying on eddy current technology.
- (d) Ultrasonic Inspection includes contact, immersion, and through transmission techniques.
- (e) Radiographic Inspection includes methods using X-Ray, Gamma and Neutron radiation sources.

(10) Ratings in the Welding category will be issued in respect of the repair or modification under one of the following processes:

- (a) arc welding includes tungsten inert gas, metal inert gas, and other general arc techniques
- (b) resistance welding includes spot and seam welding
- (c) gas welding
- (d) electron Beam welding

(11) An AMO certificate will not be subject to an expiry date except where the certificate is issued to an organization that is located outside Lebanon; in such a case, the certificate will be issued with an expiry date that is 2 years following the date of issue.

(12) Certificates issued to foreign AMOs are not renewable; a new application is required prior to the issue of a new certificate.

s545.03 Person Responsible for Maintenance (accountable manager)

(1) Persons appointed pursuant to Subpart 545.03 must meet the following standards of competence:

- (a) except as provided in paragraph (2), they shall have acquired a minimum of five years general experience in the performance or supervision of maintenance activities to be undertaken by the AMO.
- (b) they shall have demonstrated knowledge of Regulatory requirements by completing an examination on Lebanese Aviation Regulations (LAR);
- (c) their personal record in relation to aviation shall not include any “mensrea” conviction under the Civil Aviation “(Safety)” within the past 5 years; or any combination of three or more convictions on separate occasions to contravention's to Subpart 575.10 or 575.11 of the Lebanese Aviation Regulations.

(2) In the case of an AMO not holding an aircraft, avionics, engine, or propeller rating, the person appointed may have less experience than required by paragraph (1)(a), provided the certificate holder can demonstrate to the DGCA that the lesser experience is appropriate to the scope of work undertaken by the AMO. The amount of experience required is determined by the complexity of the work undertaken by the organization, but in no case shall it be less than one year.

The following guidelines may be applied in determining the required amount of experience:

- (a) for an AMO in the Component category with a single component rating - one (1) year;
- (b) for an AMO in the Component category with two or more component ratings - two (2) years;
- (c) for an AMO with an appropriate rating in the Welding category — two (2) years; or
- (d) for an AMO with an appropriate rating in the Structures category — two (2) years;
- (e) for an AMO with an appropriate rating in the NDT category — two (2) years.
- (f) Persons, who held the position prior implementation of LAR 545, may continue in that position without the need to comply with (1)(a) and (b), but must be in compliance with (1)(c).

(3) Reserved

Note: *The term "technician" is used in this context as an all-encompassing expression for maintenance personnel, "engineer" and "mechanic" being an acceptable alternative.*

(4) An applicant for the " Accountable manager" position within an AMO shall demonstrate, during an interview that they are knowledgeable, in respect of the AMO's approved policies, and with the following topics:

- (a) Duties and responsibilities of the appointed position;
- (b) Duties of persons who have been assigned functional responsibilities;
- (c) Responsibilities of the AMO in relation to those of the operator;
- (d) Responsibilities of the AMO for work that has been contracted out;
- (e) Responsibilities of Aircraft Certification Authority and Shop Certification Authority holders in relation to those of the AMO;
- (f) The function of Quality Assurance;
- (g) Maintenance release requirements;
- (h) Record keeping requirements;
- (i) Identification of acceptable reference data for repairs and modifications;
- (j) Parts control and traceability; and
- (k) Control of non-conforming parts and materials.

(5) The purpose of the interview is confirm the applicant's knowledge and competence. The applicant will be informed of any mistakes, and the correct answers will be discussed. Questions and responses will be recorded. Should the interview be unsuccessful, the applicant will be informed immediately, and the decision will be confirmed by a written notification to the applicant and the AMO.

(6) The person responsible for maintenance may assign management functions for specific maintenance activities where those management functions are detailed in the maintenance organization exposition (MOE) manual. These details must include:

- (a) a description of the functions being assigned which are pertinent to those duties required to ensure compliance with the LARs.
- (b) for each person who has been assigned management functions, the identity of the person to whom that person reports; in the case of a large organization, this will usually be satisfied by means of an organizational chart.

(7) Persons assigned managerial responsibility for Quality Assurance or Production shall meet the standards of competence set forth in Standard s545.03.

The requirements for persons having assigned responsibilities to comply with LAR 545.03, is intended to apply only to persons assigned responsibility for the entire Quality or Production functions, and not to persons assigned responsibility for a segment of those functions.

s545.04 Assignment of Management Functions

- (1) The person or persons nominated shall represent the maintenance management structure of the AMO and be responsible for all functions specified in *LAR-545*. Dependent upon the size of the AMO, the functions may be subdivided under individual managers and may be further subdivided or combined in any number of ways.
- (2) In essence however the AMO should have, dependent upon the extent of approval, a base manager, line accountable manager, a workshop manager and a quality assurance manager, all of whom should report to the Person Responsible for Maintenance (accountable manager); except in a small organization where any one of these managerial responsibilities may be combined, subject to DGCA acceptance.
- (3) The person responsible for maintenance (accountable manager) is responsible for ensuring that all maintenance required to be carried out, is carried out to the applicable design and quality standards specified in Subpart 545.08. He is also responsible for any corrective action resulting from the quality compliance monitoring under Subpart 545.09.
- (4) The line manager is responsible for ensuring that all maintenance required to be carried out on the line including line defect rectification is carried out to standards as specified in applicable *LARs*.
- (5) The workshop manager is responsible for ensuring that all work on aircraft components is carried out to applicable standards as specified in the *LARs*, he is also responsible for any corrective action resulting from the quality compliance monitoring.
- (6) The quality manager shall be responsible for monitoring the AMO's compliance with the *LARs*, MOE and related documents, requesting remedial action as necessary by all managers as appropriate. *The AMO may adopt any title for the foregoing managerial positions but should identify to the Minister the titles and persons chosen to carry out these functions.*
- (7) Where the organization chooses to appoint managers for all or any combination of the identified functions because of the size of the undertaking, these managers shall ultimately report to the person responsible for maintenance.
- (8) To be accepted, such managers should have relevant knowledge and satisfactory experience related to aircraft/aircraft component maintenance as appropriate and with the current Lebanese Aviation Regulations.
- (9) To demonstrate compliance with Subpart 545, the AMO should have a production man-hours plan showing that it has sufficient man-hours for the work that is intended to be carried out. Man-hour plans should regularly be updated.
- (10) Planners, mechanics, supervisors and certifying staff shall be assessed for competence by 'on the job' evaluation or by examination relevant to their particular job role within the organization before unsupervised work is permitted. To assist in the assessment of competence, job descriptions are recommended for each job role in the organization. Basically, the assessment should establish that;
 - a) Planners are able to interpret maintenance requirements into maintenance tasks, and have an appreciation that they have no authority to deviate from the aircraft maintenance program.

b) Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance instructions and will notify supervisors of mistakes requiring rectification to re-establish required maintenance standards.

c) Supervisors are able to ensure that all required maintenance tasks are carried out and where not done or where it is evident that a particular maintenance task cannot be carried out to the maintenance instructions, then such problems will be reported to the quality assurance department.

d) Certifying staff are able to determine when the aircraft or aircraft component is ready to release to service and when it should not be released to service.

Particularly, in the case of planners, supervisors and certifying staff, knowledge of organization procedures relevant to their particular role in the AMO is important.

s545.05 Qualifications for Signing a Maintenance Release

A maintenance technician license does not automatically qualify an individual to sign a maintenance release under an AMO authority. The authority to sign a release within the AMO's jurisdiction shall be separately granted by the AMO, in accordance with Subpart 545.07, following specific training in regards to AMO procedures and other regulatory training.

(1) Pursuant to Subpart 545.05, an AMO shall issue an authorization to those individuals who are entitled to sign a maintenance release in respect of work performed on an aircraft.

(i) This type of authorization is commonly known as an Aircraft Certification Authority (ACA). An ACA also permits the certification of work that is performed off the aircraft, provided it is not prohibited in the MOE. This work is only appropriate under an ACA where it is performed on products that are eligible for installation on the aircraft or system for which the AMT license, forming the basis of the ACA, is rated.

(ii) The term "technician" is used in this context as an all-encompassing expression for maintenance personnel, "engineer" and "mechanic" being an acceptable alternative

(2) When an AMO authorizes a person, who is not the holder of a maintenance technician license to sign a maintenance release in respect of work performed on parts intended for installation on an aircraft, by means of a Shop Certification Authority (SCA), the AMO shall ensure that the person has demonstrated levels of knowledge and experience that meet the applicable requirements of *LAR 545.05*, in respect of the work certified. These levels of knowledge and experience shall be determined as follows:

(a) by diploma or certificate from a course in an appropriate field or by an attestation that the person has been working in the field, under the supervision of an ACA or SCA holder for a period of not less than:

- (i) in the case of engine or propeller overhauls, 1800 hours; and
- (ii) in all other cases, including the repair of engine modules, 300 hours.

(b) the AMO has assured itself that the SCA holder understands his responsibilities applicable to the work to be certified.

(3) ACA or SCA authorizations are indicated in a document issued to each individual concerned; the identity of each person shall also be established in the records required by Subpart 545.07. In the case of an SCA, the records shall include details in respect of paragraph (2)(a) and (b).

s545.06 Training Program

(1) An AMO Certificate holder shall ensure that all staff with technical responsibilities is provided appropriate training to the extent necessary to ensure the competence of the person in the areas for which the person is responsible as described in the MOE.

(2) For the purposes of this section the following definitions apply:

"Initial training" - is the training provided to ensure that persons taking on new responsibilities are aware of their technical, administrative, and regulatory responsibilities;

"Recurrent training" - is the training provided to ensure that personnel remain competent, and are made aware of any change to their area of responsibility; intervals should not exceed 24 months.

"Additional training" - is the training provided where it is shown to be necessary by a finding made under the quality system or required due to changes in the regulations, applicable standards, or company procedures.

(3) Until such time as it is revised through an assessment made in respect of the quality system required by Subpart 545.09, the initial cycle for update training shall not exceed two years.

s545.07 Personnel Records

(1) The following minimum information should be kept on record in respect of each certifying person:

- a. Name
- b. Date of Birth
- c. Basic Training, including educational level
- d. Type Training
- e. Continuation Training
- f. Experience
- g. Qualifications relevant to the approval
- h. Scope of the authorization
- i. Date of first issue of the authorization
- j. If appropriate - expiry date of the authorization
- k. Identification Number of the authorization

(2) These records may be kept in any format but should be controlled by the organization's quality assurance department. This does not mean that the quality department should run the record system.

(3) Persons authorized to access the record system should be maintained at a minimum to ensure that records cannot be altered in an unauthorized manner or that such confidential records become accessible to unauthorized persons.

(4) The certifying person should be given reasonable access on request to his own records.

(5) The Lebanese DGCA inspectors, are authorized persons when investigating the records system for initial and continued approval or when the DGCA has cause to doubt the competence of a particular certifying person.

s545.08 Facilities and Equipment

(1) For the purposes of this standard, equipment includes, but is not limited to technical and regulatory information, hand tools, jigs, fixtures, work stands, test equipment, calibrated tools, hoists, jacks, ladders, portable lighting, electrical power supplies, hydraulic or pneumatic ground support equipment.

(2) Subpart 545.08 requires the AMO Certificate holder to provide detailed information on the various locations where aircraft maintenance is to be performed. For the purpose of these standards, facilities shall include, as appropriate to the scope of work to be performed:

- (a) lighted hangars;
- (b) maintenance docks;
- (c) workshops;
- (d) clean rooms;
- (e) storage; and
- (f) other housing and support facilities to enable maintenance to be performed in clean conditions protected from the elements.

(3) When the work is to be performed on the aircraft, all scheduled maintenance, including the rectification of defects whose repair has been deferred, shall be carried out in a hangar that is capable of completely enclosing the aircraft, where that work:

- (a) is, in respect of a large aircraft, C, D or E checks, or any equivalent check scheduled at an interval greater than 12 months;
- (b) except where otherwise specified by the manufacturer's maintenance manual for the aircraft type, involves the placing of the complete aircraft on jacks;
- (c) requires the use of environmentally sensitive testing equipment, unless that equipment has been calibrated to take the environment into account; or
- (d) involves the disassembly of components, which would require lubrication upon re-assembly and could affect safety of the aircraft if exposed to contaminants such as dirt, water, sand, snow, etc.

(4) The facilities may be owned by the AMO, or be available through a lease agreement, provided the facilities are available on a "when needed" basis, or otherwise subject to pre-arranged periods of hangar availability.

(5) In the case where the AMO has agreed, through a maintenance arrangement, to perform maintenance for an Air Operator on an aircraft routinely operated away from the AMO's facilities (deployed operations), the MOE shall address provisions for outside work, paying particular attention to environmental factors.

Some operators may be operating in remote areas for extended periods and it may not be feasible to return to the main base for scheduled maintenance. These operators must submit details of the level of

maintenance that will be conducted and how the maintenance will be controlled, what temporary shelter will be provided, and any special procedures that will be instituted to ensure that maintenance conforms to the LAR requirements.

(6) Compliance with LAR 575.02 performance rules requires that only the equipment recommended by the aeronautical product manufacturer, or its equivalent, be used to perform maintenance on an aeronautical product. To determine equivalence, an applicant shall compare performance criteria for the equipment and ensure that the substituted equipment can provide at least the same output as the equipment recommended by the manufacturer.

(7) The equipment that the AMO has at its facilities or has access to as required shall include the technical and regulatory information consistent with the maintenance or services specified in the AMO categories, ratings, and the scope of work.

(8) Except for tools commonly available for commercial rental, all other pieces of equipment and information to which the AMO has access but which it does not own, shall be shown to be available by a contract or other documented agreement. The organization must be prepared to make available for inspection all facilities and equipment whether owned by the organization or otherwise.

s545.09 Quality System

(1) Pursuant to Subpart 545.09, each AMO Certificate holder must establish and maintain a program to ensure that the maintenance system continues to comply with the regulations.

This program should provide for periodic verifications of all aspects of the systems and practices used in the performance of maintenance, to ensure compliance with regulations and approved company procedure. It should Verify that activities and results comply with the MOE and confirm that the MOE and the systems and procedures described within it remain effective and are achieving the AMO's objectives.

(2) The program must:

- (a) be under the sole control of either the person responsible for maintenance, or a person to whom, pursuant to LAR 545.04, the management function for the program has been assigned;
- (b) as a minimum, cover all functions defined within the approved manual;
- (c) include all elements necessary to confirm that the AMO is in compliance with the LARs and the MOE;
- (d) ensure that all referenced procedures remain applicable and effective;
- (e) be responsive to any changes within the AMO that could affect the MOE or the AMO certificate ratings, and it must address the need for MOE amendments resulting from such changes. The MOE must be reviewed periodically to ensure compliance with current regulations.
- (f) employ audit checklists to identify all functions controlled by the MOE, having regard to the complexity of the AMO's activities. Checklists must be sufficiently detailed to ensure

that all maintenance functions are addressed. Specifically, the program must include the following elements:

- (i) an initial internal audit, using the audit checklists, that covers all aspects of the AMO's technical activities, within 6 months of the date on which the certificate is issued;
- (ii) a recurring cycle of further internal audits, conducted at intervals established in the approved MOE;
- (iii) records of findings of compliance and non-compliance resulting from the audits required by (i) and (ii);
- (iv) procedures to ensure that the findings of the audits are communicated to the person appointed pursuant to *LAR 545* and made available to the AMO certificate holder;
- (v) where appropriate, an immediate and long-term action to correct the root cause of each non-compliance noted;
- (vi) follow up procedures, to ensure that necessary corrective actions (both immediate and long term) instituted by the AMO are effective; and
- (vii) a record keeping system to ensure that details of audit findings, corrective actions, and follow up inspections are recorded, and that the records are retained for two complete audit cycles.

(3) The audits required may be conducted on a progressive or segmented basis, provided that the entire organization system is verified within the applicable interval.

(4) Wherever practical, having regard to the size of the organization, quality assurance duties related to specific tasks or functions shall be undertaken by persons who are not responsible for, and have not been involved in, the performance or certification of those tasks or functions.

(5) Functions related to quality assurance may be performed by persons within the AMO or by external agents. Personnel may be assigned responsibilities for other duties, in addition to those related to the program, provided that the quality assurance responsibilities take precedence over all other responsibilities.

s545.10 Maintenance Organization Exposition (manual)

(1) The purpose of the Maintenance Organization Exposition (MOE) is to set forth the procedures, means and methods in regard to the AMO's maintenance policies and procedures. Compliance with its contents will assure compliance with LARs requirements, which is a pre-requisite to obtaining and retaining an Approved Maintenance Organization (AMO) certificate.

(2) Subpart 545.10(2) and (3) specify the working procedures of the organization and therefore as stated in the requirement may be produced as separate procedure manuals. It should be remembered that these documents should be cross-referenced from the management MOE.

(3) Personnel must be familiar with those parts of the manuals that are relevant to the maintenance work they carry out.

(4) The AMO will specify in the MOE who should amend the manual particularly in the case where there are several parts.

(5) The Quality Manager shall be responsible for monitoring the amendment of the MOE, unless otherwise agreed by the DGCA, including associated procedure manuals and submission of the proposed amendments to the DGCA.

(6) the MOE has to cover four main parts:

- a. The management MOE covering the parts specified earlier.
- b. The maintenance procedures covering all aspects of how aircraft components may be accepted from outside sources and how aircraft will be maintained to the required standard.
- c. The quality system procedures including the methods of qualifying mechanics, inspection, certifying staff and quality audit personnel.
- d. Contracted operators procedures and paperwork.

(7) The accountable manager's exposition statement must satisfy the intent of the following paragraph and in fact this statement may be used without amendment. Any modification to the statement should not alter the intent.

This exposition defines the organization and procedures upon which the Lebanese DGCA , LAR-545 Approval is based. These procedures are approved by the undersigned and must be complied with, as applicable, when maintenance and associated work is being processed under the terms of the LAR-545 approval. It is accepted that these procedures do not override the necessity of complying with any new or amended regulations published by the Lebanese DGCA, from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the Lebanese DGCA will approve this organization once it is satisfied that the procedures are being followed and work standards maintained. It is further understood that the Lebanese DGCA reserves the right to suspend, vary or cancel the LAR-545 approval of the organization if the (Authority*) has evidence that procedures are not followed or standards not upheld.

Signed

Dated

Accountable manager and ...(quote position)

For and on behalf of ...(quote organization's name).....

(8) Whenever the accountable manager changes, the new accountable manager must sign paragraph 7 statement within 15 days following transition as part of the acceptance by the Authority. Failure to carry out this action may invalidate the LAR 545 Approval.

(9) When an organization is approved against any other Part of the *LARs* containing a requirement for an exposition, a supplement covering the differences will suffice to meet the requirements except that the supplement must have an index showing where those parts missing from the supplement are covered.

(10) For use in emergency situations, the provisions of *LAR 545.10. (4)*, provides a mean to authorize an AMO to conduct maintenance outside the policies and procedures contained in the MOE. This can occur for any number of reasons; however, approval shall not be granted unless the applicant can demonstrate that safety will not be adversely affected.

(11) Where a MOE no longer meets the requirements of this part, whether through a change in the requirements, a change in the organization or its activities, or through an inadequacy shown to exist by verification inspections conducted under the quality system, or any other reason that affects the manuals conformity to requirements, the certificate holder must prepare and have approved an amendment to its MOE.

(12) An AMO certificate holder shall make a copy of the MOE, or relevant portions thereof available to each person who performs or certifies work on an aeronautical product. In the case where only a portion of the manual is provided, it shall be sufficiently comprehensive to ensure that the person performing the tasks has all relevant information. For unscheduled work, temporary copies of the relevant portions of the MOE, or any incorporated reference, can be sent via facsimile transmission.

Appendix 1 contains an example of a MOE layout.

s545.11 Maintenance Arrangements

(1) Subpart 545.11 requires that an AMO develop specific approval procedures governing maintenance arrangements, and that the procedures be detailed in its MOE. However, where an AMO chooses not to include in its MOE detailed approval procedures in respect of maintenance arrangements, each specific maintenance arrangement entered into by the AMO shall be individually submitted to the DGCA for approval.

(2) Where an AMO certificate holder requests that an external agent perform work, the AMO is responsible for specifying the tasks to be performed, and, in addition, when that external agent is not the holder of an AMO certificate, or a foreign equivalent, the AMO is also responsible for the completion and certification of the work.

(3) For the purposes of this section where an AMO has a maintenance arrangement for the performance of work with an organization other than an AMO, "direct supervision" means that the person from the AMO tasked with certifying the work must personally ensure compliance with applicable *LAR* requirements.

(4) With respect to maintenance performed on an aeronautical product, a maintenance release shall be completed. It is a declaration that, with respect to the maintenance performed, the performance rules have been complied with, and the applicable standards of airworthiness have been met.

s545.12 Service Difficulty Reporting

The standards applicable to the reporting of service difficulties are found in Subpart 585.

s545.13 Foreign Approvals

(1) The issuance of a foreign AMO approval, or its renewal, shall only take place where there is an application from the foreign organization seeking a Lebanese approval.

(2) Foreign AMO approvals will only be issued in rare cases;

(a) where no other practical alternative exists, such as in the case where, due to local regulation, a state will not allow the extension of a Lebanese AMO approval;

(b) where the nature of the work is such that the expertise to perform the work is not available in Lebanon or in a state with which Lebanon has entered into an agreement that provides for recognition of such work.

APPENDIX - I

Example of a Maintenance Organization Exposition

The exposition may be put together in any subject order as long as all applicable subject are covered.

PART 1 MANAGEMENT

- 1.1 .Corporate commitment by the accountable manager.
- 1.2 .Management personnel.
- 1.3 .Duties and responsibilities of the management personnel.
- 1.4 .Management Organization Chart.
- 1.5 .List of certifying staff.
NOTE: A separate document may be referenced.
- 1.6 .Manpower resources.
- 1.7. General description of the facilities at each address intended to be approved.
- 1.8 . Organizations intended scope of work.
- 1.9 . Notification procedure to the DGCA regarding changes to the organization's activities/approval/location/personnel.
- 1.10.Exposition amendment procedures.

PART 2 MAINTENANCE PROCEDURES

- 2.1. Supplier evaluation procedure.
- 2.2 . Acceptance/inspection of aircraft components and material from outside contractors.
- 2.3 . Storage, tagging and release of aircraft components and material to aircraft maintenance.
- 2.4 . Acceptance of tools and equipment.
- 2.5 . Calibration of tools and equipment.
- 2.6 . Use of tooling and equipment by staff (including alternate tools).
- 2.7 . Cleanliness standards of maintenance facilities.
- 2.8 . Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff.
- 2.9 . Repair procedure.
- 2.10. Aircraft maintenance program compliance.
- 2.11. Airworthiness Directives procedure.
- 2.12. Optional modification procedure.
- 2.13. Maintenance documentation in use and completion of it.
- 2.14. Technical record control.
- 2.15. Rectification of defects arising during base maintenance.
- 2.16. Release to service procedure.
- 2.17. Records for the operators.
- 2.18. Reporting of defects to the DGCA/Operator/Manufacturer.
- 2.19. Return of defective aircraft components to store.
- 2.20. Defective components to outside contractors.
- 2.21. Control of computer maintenance record systems.

- 2.22. Reference to specific maintenance procedures such as -
Engine running procedures,
Aircraft pressure run procedures,
Aircraft towing procedures,
Aircraft taxiing procedures.

PART L2 ADDITIONAL LINE MAINTENANCE PROCEDURES

- L2.1. Line maintenance control of aircraft components, tools, equipment etc.
L2.2. Line maintenance procedures related to servicing/fuelling/deicing etc.
L2.3. Line maintenance control of defects and repetitive defects.
L2.4. Line procedure for completion of technical log.
L2.5. Line procedure for pooled parts and loan parts.
L2.6. Line procedure for return of defective parts removed from aircraft.

PART 3 QUALITY SYSTEM PROCEDURES

- 3.1 . Quality audit of organization procedures.
3.2 . Quality audit of aircraft.
3.3 . Quality audit remedial action procedure.
3.4 . Certifying staff qualification and training procedures.
3.5 . Certifying staff records.
3.6 . Quality audit personnel.
3.7 . Qualifying inspectors.
3.8 . Qualifying mechanics.
3.9 . Aircraft or aircraft component maintenance tasks exemption process control.
3.10. Concession control for deviation from organizations' procedures.
3.11. Qualification procedure for specialized activities such as NDT, welding etc.

PART 4 MAINTENANCE ARRANGEMENTS WITH OPERATORS

- 4.1 . List of contracts or maintenance arrangements.
4.2 . Operator procedures and paperwork.
4.3 . Operator record completion.
Note: A list may be kept separate from the exposition.

PART 5 APPENDICES

- 5.1. Sample of documents.
5.2. List of Sub-contractors
5.3. List of Line maintenance locations

NOTE: These two lists may be kept separate from the exposition and may be kept on a computer database as long as an adequate backup system is available that can permit access to the information cross-reference is included in the exposition.

Certificate of Approval

This is to certify that

Name of Organization

of

Address, Lebanon

Approved Maintenance Organization

is approved for the maintenance of aeronautical products, and holds ratings in the following categories:

Aircraft
Engine
Propeller
Structure
Components
Avionics
NDT
Welding

The scope of privileges applicable to each category is limited to that specified in the respective rating documents that accompany this certificate, and is conditional upon compliance with the approved procedures and limitations specified in the organization's maintenance organization exposition manual.

Signed: _____

For the Minister

Dated:

Supersedes certificate dated:

This Certificate is not transferable. The approval is valid until surrendered, suspended or canceled.

Approved Maintenance Organization Ratings

– Aircraft Category –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized maintenance, on commercially operated aircraft of the types listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating	Scope of work	Limitations
Boeing 737-300/400/500	- Line checks - Scheduled Inspections	Checks A, B and C excluding D check
Airbus 319, 320,321 series.	All schedule inspections	Limited to Air LXM aircraft, as per maintenance arrangement.
Cessna 150, 152, 310 series.	All Scheduled inspection	

Issued: _____ Signed: _____ Supersedes list dated: _____

Approved Maintenance Organization Ratings

– Avionics Category –

Name of Organization

Approved Maintenance Organization

Is authorized to perform maintenance, on avionics systems and equipment of the kinds listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Structures Category –

Name of Organization

Approved Maintenance Organization

Is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the kinds of structures listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____

Signed: _____

Supersedes list dated: _____

Approved Maintenance Organization Ratings

– Engines Category –

Name of Organization

Approved Maintenance Organization

Is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the types of engine listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Propellers Category –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the kinds of propeller listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____

Signed: _____

Supersedes list dated: _____

Approved Maintenance Organization Ratings

– **Components Category** –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the kinds of components listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– **Welding Category** –

Name of Organization

Approved Maintenance Organization

is authorized to repair and modify aeronautical products by means of the welding techniques listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Limitations

Issued: _____ Signed: _____ Supersedes list dated: _____

Approved Maintenance Organization Ratings

– NDT Category –

Name of Organization

Approved Maintenance Organization

is authorized to inspect aeronautical products, using the Non Destructive Testing techniques listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____

Signed: _____

Supersedes list dated: _____

Approved Maintenance Organization Ratings

– Aircraft Category (continued) –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized maintenance, on commercially operated aircraft of the types listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Avionics Category (continued) –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, on avionics systems and equipment of the kinds listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Engines Category (continued) –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the types of engine listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Propellers Category (continued) –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the kinds of propeller listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____ Signed: _____ Supersedes list dated: _____

For the Minister of Transport

Approved Maintenance Organization Ratings

– Components Category (continued) –

Name of Organization

Approved Maintenance Organization

is authorized to perform maintenance, other than specialized welding or non-destructive testing, on the kinds of components listed below, within the scope of work shown and subject to any further limitations specified in the maintenance policy manual.

Rating

Scope of work

Issued: _____

Signed: _____

Supersedes list dated: _____