



Jordan Civil Aviation Regulatory Commission

Guidance Procedure: AWS 03

Approval of foreign approved changes or repairs

June/2010



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Approval of foreign approved changes or repairs
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Abbreviations

CARC	Civil Aviation Regulatory Commission
CEO	Chief Executive Officer
CS	Certification Specifications
JCAR	Jordan Civil Aviation Regulations
TAC	Type Acceptance Certificate
TC	Type Certificate
TCDS	Type Certificate Data Sheet
STC	Supplemental Type Certificate
SN	Serial Number



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Revision Highlights

Revision 01 dated June 2010 was issued in order to clarify repairs requiring CARC approval prior to the release of an aircraft for return to service.



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I. Purpose

This procedure is intended to assist the aviation industry in Jordan, the foreign design, change or repair, approval holder and the specialists in the Airworthiness Standards Department to process applications for a foreign design, change or repair, acceptance, and the approval of embodiment of an accepted foreign designed change or repair on a product, part, or appliance over which CARC undertakes the Safety Oversight responsibilities, e.g. Jordanian registered aircraft, part/engine intended to be installed/used on a Jordanian registered aircraft, etc.

II. Distribution

This procedure shall be published on the CARC official website. The holders of this procedure are CARC airworthiness standards specialists and the key management (post holders) of the CARC approved organization. Holders are responsible to download this procedure and follow its guidelines.

III. Amendments

Any amendment to this procedure shall be approved by the Chief Commissioner/CEO and becomes effective only after incorporation to this procedure and publishing it on the CARC official website.

IV. Applicability

This procedure applies to all changes and/or repairs developed by a foreign design organization and intended to be embodied on a Jordanian approved/accepted type design product, part, or appliance, over which CARC undertakes the Safety Oversight responsibilities (e.g. Jordanian registered aircraft, part/engine intended to be installed/used on a Jordanian registered aircraft, etc.) including the following:

- 1) **Changes** which are produced by the Type Certificate (TC) holder and/or the Type Acceptance Certificate (TAC) holder and necessitate a change on the approved/accepted certification basis and require an amendment to the Type Certificate (TC) and/or to the associated Type Certificate Data Sheet (TCDS) of that product.

Note: changes such as service changes and service bulletins and those changes and/or inspection requirements mandated by Airworthiness Directives, which do not necessitate a change to the certification basis or amendment to the TC and/or the associated TCDS are not within this category, these changes and/or inspection



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requirements are approved by the CARC as provided by the manufacturer, the TC holder and/or the TAC holder.

- 2) **Repairs** on Jordanian registered aircraft shall comply with the airworthiness requirements issued by the CARC. Procedures shall be established to ensure the substantiating data supporting compliance with the airworthiness requirements are retained. The repair must be approved by the CARC prior to the release of an aircraft for return to service if a repair action specifically requires designing a repair scheme.

Note: Repairs which are performed in accordance with the data and schemes contained already in the manufacturer's Structural Repair Manual (SRM) can be readily applied by the operator, without the need for obtaining prior approval of the CARC, these repairs are regarded primarily as a maintenance function.

- 3) **Foreign approved changes or repairs** developed by a foreign design organization other than the TC holder and/or the TAC holder,
4) **Foreign approved changes and/or repairs** to the parts and/or appliances.

V. Acceptance Procedure of a foreign Approved change or repair design

1) Application;

The Jordanian operator/organization and the foreign design approval holder shall compile the application package and submit it to the CARC for acceptance; the package shall consist of the following:

- a) The written consent of the Foreign design approval holder that is issued for the Jordanian Operator to use the foreign approved design package,
- b) Administrative requirements:
 - i. The name and address of the applicants, i.e. the Jordanian Operator and the Foreign design approval holder,
 - ii. Brief description of the foreign approved design,
 - iii. 3-view drawing,
 - iv. The basic data,
 - v. The characteristics and performance,
 - vi. The applicable Certification Specifications (CS),
 - vii. The applicable environmental protection levels.
- c) Classification of the change or repair:

Changes or repairs shall be classified as minor or major in accordance with the criteria laid down in JCAR:



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- i. JCAR 21.93 for classification of changes, and
 - ii. JCAR 21.435 for classification of repairs.
-
- d) The foreign authority (State of design) approved certification plan and compliance checklist. The compliance checklist shall state compliance with the applicable CS and the applicable environmental protection requirements by reference to the compliance reports and the means of compliance.
 - e) The type of approval issued by the foreign authority (State of design of that change or repair),
 - f) The issued declaration of compliance with the applicable certification basis, i.e. the applicable CS and the environmental protection requirements.
 - g) The foreign authority approved design package; this shall, as applicable, consists of the foreign authority issued approval (e.g. Change approval, STC, Repair approval, etc.), the master data/drawing list, the instructions for installation/repair and testing, the affected publications supplements, the weight and balance report, the electrical load analysis, ...etc.

2) CARC review and evaluation

CARC Airworthiness Standards Engineering conducts a review of the application and its attachments;

- a) In case of clarification is required or the application is incomplete or incorrect, the applicant will be advised to deliver the required clarification or information within three months, and if a decision is to be taken that the application cannot be accepted, the CARC will notify the applicant with reasons and shall show good cause why it was decided to return the application without acceptance.
- b) Upon acceptance of the application, CARC informs the applicant within (1) one month after receipt of the correct application of the acceptance by means of a formal letter issued by the CARC that declares the acceptance of the application package.



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VI. Approval of change or repair embodiment

The embodiment of Jordan CARC accepted foreign change or repair shall be performed by an appropriately approved maintenance organization or production organization in accordance with its approved privileges. The embodiment approval shall be processed for an individual production Serial Number (SN), as applicable, of product, part, or appliance in accordance with the following:

- 1) **Declaration of compatibility:** The installer (an appropriately approved organization) shall review and study the CARC accepted foreign approved design repair or change package; *e.g. the STC, the conformity of the supplied parts, the installation and testing instructions/procedures, the installations and wiring diagrams, the electrical load analysis, the weight and balance data, etc.*, and determine the package compatibility with that individual product, part, or appliance configuration. A declaration of compatibility and a report of the findings shall be issued by the installer organization and submitted to the CARC along with any amended data, drawings, or procedures as may arise necessary during the accomplishment of the compatibility check. The amendments shall be made by and in coordination with the foreign design approval holder, e.g. STC holder, repair approval holder ...etc.

Note: Installation is not authorized unless a declaration of compatibility report is issued by the installer. Even If the package is fully compatible and there are no findings, the installer shall declare compatibility and make a report of No Findings.

- 2) **Installation Time Schedule:** The Operator/Owner, in coordination with the installer shall submit the schedule to the CARC for agreement and acceptance,
- 3) **Installation and processing of the approval and the records:**
 - a) The installer completes, as applicable, CARC form 109 "Repair and/or Change" blocks; 1, 2, 4, and 8,
 - b) The installer embodies the change or repair, as applicable, in accordance with the provided instructions in the data package, and releases the sign-off records,



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- c) The installer conducts conformity inspection on the installation and perform any applicable check, e.g. continuity check, power on check, LRUs installation, ...etc, and releases the associated sign-off documentations and completes Block 6 "Conformity Statement" of the CARC form 109,
- d) The installer conducts certification testing including, as applicable, ground and flight testing and any other required testing, in accordance with the provided instructions in the data package and any additional testing as required by the CARC, and releases the associated sign-off documentations,

Note: For the purpose of the flight testing referred to in the above item (VI)(3)(d), "Permit to Fly" shall be issued in accordance with the requirement of JCAR Part-21, Subpart-P.

- e) The installer submits the 109 form, at least in duplicate, along with the sign off records referred to in the above items (VI)(3) (b, c, and d) to the CARC.
- f) CARC completes block 3 "For CARC Use Only" of the form with the following statement *"The data identified herein complies with the applicable airworthiness requirements and is approved for the unit identified in block 4, subject to conformity inspection by a person authorized under JCAR Part-M, Para M.801 or CARC Airworthiness representative"* and approves the form. CARC approval of the form means CARC approval of the data for that individual product, part, or appliance.
- g) The approved form is returned to the installer to proceed with the installation release.
- h) The installer completes Block 7 of the form "Approval for Return to Service", submits one copy to the CARC, one copy to the operator/owner, and retains one copy of the form and the detailed work records for a minimum of two years from the date of release.

Note: It is up to the CARC to determine on which phases of embodiment to intervene and attend/witness the accomplishment of test, check, and/or work. This, if required by CARC, will be communicated to the installer and Operator/Owner management for coordination and arrangement



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VII. Obligations of the holder

The holder of the design approval, change and/or repair approved and/or accepted by the CARC, undertakes the obligations laid down in JCAR Part 21 "Certification of Aircraft and Related Products, Parts and Appliances, and of Design and Production Organizations" that are applicable to that design and may include:

- 1) **The obligations laid down in JCAR 21.109** for the change approval holder of a type certificate or restricted type certificate,
- 2) **The obligations laid down in JCAR 21.118** for the supplemental type certificate holders,
- 3) **The obligations laid down in JCAR 21.451** for the repair approval holder.

VIII. Charges and fees


The CARC certification and travel Charges and fees systems apply to this process.

IX. Appendices

- 1) **Appendix-1:** CARC Form 109 "Repair and/or Change".



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Appendix-1: CARC Form 109 "Repair and/or Change"

	Jordan Civil Aviation Regulatory Commission			Form Approved	
	Repair and/or Change <input type="checkbox"/> Major <input type="checkbox"/> Minor			For CARC Use Only	
	(Airframe, Powerplant, Propeller, or Part/Appliance)			Office Identification	
Instructions: Print or type all entries.					
1. Aircraft	Make			Model	
	Serial No.			Nationality and Registration Mark	
2. Owner	Name (As shown on registration certificate)			Address (As shown on registration certificate)	
	3. For CARC Use Only				
4. Unit Identification					
Unit	Make	Model	Serial No.	5. Type	
Airframe				Repair	Change
Powerplant					
Propeller					
Part/Appliance	Type:				
	Manufacturer:				
6. Conformity Statement					
A. Agency's Name and Address			B. Kind of Agency		C. Certificate No.
			Approved Maintenance Organization (AMO)		
			Manufacturer/Production Organization (PO)		
			Others (Specify)		
D. I certify that the repair and/or change made to the unit(s) identified in item 4 above and described on the second page or attachments hereto have been made in accordance with the requirements of the current regulations of CARC and that the information furnished herein is true and correct to the best of my knowledge. Pertinent details of work are on file at this agency under work order No:					
Date			Signature of Authorized Individual		
7. Approval for Return To Service					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the CARC and is <input type="checkbox"/> Approved <input type="checkbox"/> Rejected					
By	CARC Airworthiness Inspector	Manufacturer/ PO	Inspection Authorization	Other (Specify)	
	CARC Designee	AMO	Others		
Date of Approval or Rejection		Certificate or Designation No.	Signature of Authorized Individual		

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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. A Modification must be compatible with all previous modifications to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required attach additional sheets. Identify with aircraft nationality and registration mark and date of work completed).

Additional Sheets are attached.

CARC/AIRAW FORM 109D. (October 2009)