






Jordan Civil Aviation Regulatory Commission


Guidance Procedure: AWS 26

Part 145 Component, Engine and APU Certifying Staff

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1.2 Abbreviations

AMO	Approved Maintenance Organization
AMC	Acceptable Means of Compliance
CARC	Civil Aviation Regulatory Commission
C/S	Certifying Staff
CC/S	Component Certifying Staff
MOE	Maintenance Organization Exposition





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1.3. Scope and Applicability.

This Guidance Procedure is applicable to Part 145 “Approved Maintenance Organizations” approved by CARC.

1.4. Purpose.

This Guidance Procedure is designed to be used by JCAR Part 145 Approved Maintenance Organizations and the assigned CARC/AWSD inspector when:

The Maintenance Organization is:

- Defining the Component Certifying Staff qualification procedure in the MOE;
- Assessing each Component Certifying Staff authorization granted.

The assigned CARC/AWSD inspector is - as a comparison document for:

- Evaluating the Component Certifying Staff qualification procedure;
- Ensuring by sampling that Component Certifying Staff authorization granted are compliant with the minimum criteria addressed in this guidance.

1.5. Component Certifying Staff Definition.

Component Certifying Staff (CC/S) means staff authorized by the JCAR Part 145 Approved Maintenance Organization to release Engines, APU and components under the JCAR Part 145 approval.

1.6. Component Certifying Staff Authorization Procedures.

For a standardization purpose, when a Part 145 organization is nominating component certifying staff, the Part 145 organization shall detail in its Maintenance Organization exposition (MOE) the relevant CC/S authorization procedures (initial and renewal) together with the adequate qualification criteria depending on the complexity of the component and the assessment process.

1.6.1. Initial Authorization Procedure.

The Part 145 organization shall detail in its Maintenance Organization exposition the established prerequisites to be eligible as JCAR Part 145 Component Certifying Staff:

- Minimum qualification criteria including:
 - Education, basic and technical training requirements;
 - Aeronautical experience requirements;
 - Language knowledge;
 - Human Factor and Aviation Legislation training in accordance with JCAR Part 66;
 - Training on the Organization procedures.





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In addition, the Part 145 organization shall also explain in Maintenance Organization Exposition 3.4 the assessment procedure for granting CC/S authorization which shall at least specify:

- The person responsible for this process;
- when the assessment shall take place;
- the validation of qualification records;
- procedures for the initial assessment (i.e. methods, including actions to be taken when the assessment is not satisfactory);
- recording of assessment results;
- The management of the CC/S List and individual authorizations;
- The CC/S records (responsibility, content of the CC/S files, etc..).

1.6.2 Authorization Renewal Process.

The Part 145 organization shall detail in its MOE the CC/S authorization renewal prerequisites such as but not limited to:

- The continuation training requirements (Organization procedures, new technology, human factor issues);
- The maintenance experience requirements (6 months of relevant experience in the last 2-year period) and the associated records of evidence;
- The assessment procedure for renewing the CC/S authorization which shall at least specify:
 - The persons responsible for this process;
 - when the assessment shall take place;
 - the validation of qualification records;
 - means and methods for the continuous control of competence;
 - actions to be taken when assessment is not satisfactory;
 - recording of assessment results;
- The management of the CC/S List and individual authorizations;
- The CC/S records (responsibility, record of experience, content of the CC/S files).





1.7. Component Certifying Staff Qualification Criteria.

1.7.1. Basic Requirements.

1.7.1.1 Educational Requirements.

The minimum educational level shall be Tawjihi or equivalent with pass result.

1.7.1.2 Basic Training Requirements.

The CC/S shall be able to demonstrate he/she received a basic training on the appropriate field:

- A degree in engineering in the related field or;
- An aeronautical/electrical/avionics school diploma or certificate or;
- A technical school diploma / certificate, if the intended scope of work concerns noncomplex electrical components or instruments and cabin and safety equipment or;
- An aeronautical military school diploma or certificate.

Depending on the complexity of the intended scope of authorization, a higher level of the basic training shall be considered.

1.7.1.3 Aeronautical Experience Requirements.

The CC/S shall be able to demonstrate at least:

- 2 years of Aeronautical experience in the field of aviation maintenance including at least 12 months of practical experience in the specific component maintenance area / Workshop;
- 3 years in the field of aviation maintenance for complex components such as Engine/APU and Landing gears including 24 Months of practical experience in the specific component maintenance area / Workshop;

1.7.2. Technical Training Requirements.

1.7.2.1 Component Training.

Depending on the complexity and the technology of the component, the CC/S shall be able to demonstrate he/she received appropriate theoretical and practical component training from:

- the OEM or;
- the OEM recognized training organization or;





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- An appropriately rated PART 145 organization provided:
 - the person nominated to carry out the training can demonstrate he/she has received training to an appropriate level for the subject component;
 - the person nominated to carry out the training is appropriately authorized by the part 145 Organization and is able to demonstrate a significant experience on the relevant component maintenance;
 - the training syllabus has been reviewed by the AMO Manager and/or the Quality Manager;
 - the component is available for practical training purpose;

For simple component, the organization may take credit of the CC/S experience and/or a previous training on a component from the same family and same technology.

1.7.2.2 Bench Test Training.

Where there is a need to use Bench test (e.g. engine or ATEC bench test), the CC/S shall be able to demonstrate he/she received appropriate training. This training for the use of specific tools required by the OEM maintenance data shall be received from:

- The OEM or;
- The bench test manufacturer or;
- An appropriately rated PART 145 organization.

1.7.2.3 Specific Tool/Equipment Training.

Where there is a need to use specific tool/equipment, the CC/S shall be able to demonstrate he/she received the appropriate training. This training for the use of specific tool/equipment required by the OEM maintenance data shall be received from:

- The OEM or;
- The specific tool/equipment manufacturer or;
- An appropriately rated PART 145 organization.

1.7.2.4 Additional Training.

Where needed, the CC/S shall demonstrate he/she received appropriate training on:

- Fuel Tank Safety items, CDCCL level 1, or level 2,
- Electrical Wiring Interconnection System;





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- Any additional training(s) justified during the assessment performed by the Organization (e.g. human factor, aviation legislation, etc..).

1.7.3. General Requirements.

1.7.3.1 Language Knowledge.

The CC/S shall be able to demonstrate a working knowledge of the language in which the maintenance data is published and English.

1.7.3.2 Human Factor and Aviation Legislation Training.

The CC/S shall be able to demonstrate he/she received training on:

- Human factors referred to in module 9 of Appendix I of JCAR Part-66. The organization shall ensure and be in a position to demonstrate that the Human factor training syllabus and the training level are compliant to the syllabus and the level (B1/B2) of training of Appendix I of JCAR Part-66. The demonstration process is left to the discretion of the Organization;
- A training on aviation legislation referred to in module 10 of Appendix I of JCAR Part-66. The organization shall ensure and be in a position to demonstrate that the aviation legislation training syllabus and the training level are compliant to the syllabus and the level (B1/B2) of training of Appendix I of JCAR Part-66.

1.7.3.3 Training on the MOE Procedures.

The CC/S shall be able to demonstrate he/she received appropriate training on the MOE and internal procedures applicable to CC/S (including issuance of CARC Form 18-0227).

1.7.4. Recent maintenance experience

The Maintenance organization shall ensure that CC/S can demonstrate recent experience on the Component area/ workshop relevant to the component type intended to be authorized.

The recent maintenance experience shall be understood as meeting the requirement of 6 month of experience in two years period preceding the intended date of issuance of the certification authorization.





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1.7.5. Additional criteria for the renewal of individual authorization

The CC/S shall receive continuation training that covers technical development including Human Factors, FTS, EWIS and Aviation Regulation as applicable to the approval ratings and scope of work.

The CC/S shall demonstrate 6 months of experience during the two year period preceding the renewal of authorization.

1.8. Assessment.

The aim of the assessment is to ensure compliance of the CC/S with the relevant JCAR Part 145 requirements, with the criteria defined in this Guide Procedure and to ensure that each CC/S possesses the expected competence(s) associated to his/her job function (proposed scope of work and level of maintenance: level of maintenance means Overhaul, test, repair, Level 1, 2 and 3 for electronic / electric components as addressed in the CMM), before granting him/her an initial Part 145 authorization, to renew or to extend the scope of his/her issued authorization. This assessment shall also take into consideration attitude and behavior.

As a consequence the Organization shall demonstrate through a competence assessment that the CC/S:

- Meets the qualification criteria addressed above;
- Has the relevant knowledge to perform the maintenance tasks related to his/her job function;
- Has the relevant skill and ability to perform the maintenance tasks related to his/her job function including the relevant language knowledge;
- Is able to determine when the Component is ready to be released to service and when it shall not be released to service.

The competence need to be assessed by evaluation of “On the Job Performance” and/or “testing of knowledge” by appropriately qualified personnel.

The qualification criteria addressed above are summarized in table 1.11.

The minimum topics to be assessed during the initial CC/S Part 145 authorization process, the renewal or extension of his/her scope of authorization are summarized in table 1.12.





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1.9. Management of the CC/S List and Individual Authorization.

The management of the list of CC/S and the management of the individual CC/S authorization shall be detailed within the exposition and approved by CARC.

The organization is responsible to ensure that the CC/S remains current in terms of procedures, HF and technical knowledge. This continuation training should be of sufficient duration in each two year period, the organization is strongly advised to align the validity of the CC/S authorization accordingly.

1.10. Records.

The quality system shall review and archive in an exhaustive manner the relevant files resulting from the implementation of this procedure.

This means that the organization shall keep records of all evidence associated to the CC/S authorization. This means that certificates, experience log book, diploma, continuation training evidence, assessment evidence (including assessment results which could be in a form chosen by the organization) shall be kept.





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1.11 Summary Table for PART 145 Component C/S Qualification Criteria

		Engine/APU/ Propeller	Hydraulic Components (L/G assy, actuator, etc...)	Electrical Components (Motors, actuators, chargers, power supplies, batteries, etc...)	Electronic Components (card assy, mic, head set, etc...)	Mechanical Components (Wheel, Brake unit, structure, etc...)	Electronic Units (computers, com/nav receiver, indicators, power supplies,)	Instruments	Cabin Equipment (BFE, PSU, Pax Entertainment)	Safety Equipment (Life raft, life jacket, O ² bottle, O ² masks,..)
Basic requirements	Educational level	Tawjihi (Pass) or Equivalent								
	Basic training	Aeronautical & technical school or Aeronautical military school								
	Aeronautical experience	2 years of Aeronautical experience in the field of aviation maintenance including at least 12 months of practical experience in the specific component maintenance area/workshop. For complex components such as engine/APU and Landing gears including, 3 years of Aeronautical experience is required in the field of aviation maintenance including 24 Months of practical experience in the specific component maintenance area/workshop.								
Technical training	Component training	OEM, OEM recognized Training Org. or Approved Part 145 AMO.								
	Bench test training	OEM of the bench test or Approved Part 145 AMO								
	Tool training	OEM or Approved Part 145 AMO								
	CDCCL / EWIS	Where needed								
General training	Language knowledge	Working knowledge of the language in which the maintenance data is published and working knowledge of English.								
	HF and Aviation legislation training	Human Factor and aviation Legislation training as detailed in the JCAR Part 66.								
	Recent Maintenance experience	6 month of experience in two years period preceding the intended date of issuance of the certification authorization								
	MOE procedures	Appropriate training to the MOE and internal procedures applicable to CC/S (including issuance of CARC Form 227)								
Renewal requirements	Continuing training	OEM, OEM recognized Training Org. or Approved Part 145 AMO								
	Maintenance experience	6 months of relevant experience in the last 2 year period								

Note: The complexity and technology of the component shall be considered for simple component, the organization may take credit of the CC/S experience and/or a previous training on a component from the same family and same technology.





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1.12. Summary of Assessment for Component Certifying Staff.

Purpose of the Assessment		
<input type="checkbox"/> Initial grant <input type="checkbox"/> Extension <input type="checkbox"/> Renewal		
I. QUALIFICATION		
I.1.	Refer to the Summary table (§1.7) for PART 145 Component C/S qualification	X
II. KNOWLEDGE		
II.1.	Knowledge of human factors, human performance and limitations	X
II.2.	Knowledge of organization capabilities, privileges and limitations	X
II.3.	Knowledge of JCAR Part-M, JCAR Part-145 (and any other relevant regulations)	X
II.4.	Knowledge of relevant parts of the MOE and associated procedures	X
II.5.	Knowledge of safety risks linked to the working environment	X
II.6.	Knowledge on CDCCL (when relevant)	X
II.7.	Knowledge on EWIS (when relevant)	X
II.8.	Knowledge of occurrence reporting system and understanding of the importance of reporting occurrences, incorrect maintenance data and existing or potential defects	X
III. UNDERSTANDING		
III.1.	Understanding of professional integrity, behavior and attitude towards safety	X
III.2.	Understanding of conditions for ensuring continuing airworthiness of aircraft and components	X
III.3.	Understanding of his/her own human performance and limitations	X
III.4.	Understanding of personnel authorizations and limitations	X
III.5.	Understanding critical task	X
IV. ABILITY		
IV.1	Ability to supervise the performance of tasks carried out by non C/S personnel (i.e. mechanics, etc.)	
IV.2	Ability to compile and control completed work cards	X
IV.3	Ability to consider human performance and limitations.	X
IV.4	Ability to determine required qualifications for task performance	X
IV.5	Ability to identify and rectify existing and potential unsafe conditions	X
IV.6	Ability to check and document proper accomplishment of maintenance tasks	X
IV.7	Ability to identify and properly plan performance of critical task	X
IV.8	Ability to prioritize tasks and report discrepancies	X
IV.9	Ability to process the work requested by the customer	X
IV.10	Ability to properly process removed, uninstalled and rejected parts	X
IV.11	Ability to properly record and sign for work accomplished	X
IV.12	Ability to determine the acceptability of parts to be installed prior to fitment	X
IV.13	Ability to understand work orders, work cards and refer to and use applicable maintenance data	X
IV.14	Ability to use information systems	X
IV.15	Ability to use, control and be familiar with required tooling and/or equipment	X
	Adequate communication and literacy skills: The Component certifying staff shall be able to demonstrate a working knowledge of the language in which the maintenance data is published. In addition, should the language of the maintenance data not be English, then English language working knowledge is required.	X
Note: This list shall not be considered as exhaustive. It remains the responsibility of the organization/applicant to adjust it.		

