



ADVISORY CIRCULARS

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Adoption of National and Industrial Standard

Flight Standard Department

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General Administration of Civil Aviation of China

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1. Basis and Purpose

This advisory circular is established on the basis of Approval of Civil Aircraft Maintenance Organization (CCAR-145-R2) issued on Dec.21st, 2001. It aims at providing guidance for the maintenance organization on how to meet CCAR-145's requirements when adopting the national and industrial standard.

2. Applicability

This adversary circular is applicable to all maintenance organizations.

3. Cancellation

Intentionally left blank

4. Explanations:

No matter which maintenance organization, domestic or overseas/regional will inevitably get involved with the national or regional industrial standard when performing maintenance. The above mentioned national and industrial standard won't be automatically or completely applicable to civil aviation aircraft maintenance organization due to the speciality of civil aviation aircraft maintenance activities.

Article 15, 20, 21, 23 and 24 of CCAR-145 accept the national or industrial standard corresponding to special service, special work environment requirements, calibrations of tools and equipment etc, and request the maintenance organization to meet these standards. This advisory circular aims at providing guidance on how to apply these standards.

There are no applicable national and industrial standards available now regarding to welding, electronic plating and surface treatment and heat treatment, so the related requirements in this AC are temporary, and will be revised accordingly with the issuance of the applicable standard.

5. Calibration of Tools and Equipment

5.1 Special tools and equipment used in maintenance activities by any maintenance organization shall be calibrated i.a.w. standard and requirements stipulated by tools and equipment manufacturers.

5.2 When common tools and equipment used by domestic maintenance organization in the process of maintenance activities are calibrated, the following requirements shall be satisfied;

- (1) Maintenance organization may work out calibration standard of tools and equipment i.a.w. the related national calibration provisions associated with their own actual conditions, which shall not be lower than national calibration provisions.
- (2) Calibration standards for calibrating tools and equipment can't be used until they are tested and accepted by National Calibration Administration Committee. Calibration standards shall be calibrated by Verification Organization which is authorized by National Calibration Administration Committee, as well as accepted by National Lab. Certification Committee i.a.w. Validation Rule for Test and Calibration Lab (CNAL/AC01). Calibrated standards shall be covered in the authorization scope.
- (3) Calibration personnel of tools and equipment shall hold calibrator certificate issued by National Calibration Administration Committee or its authorized organization.

5.3 For overseas/regional maintenance organizations, internal calibrations of general tools and equipment by maintenance organization shall follow the equivalent national or regional standard as well as personnel qualification.

Furthermore calibration standards for calibrating tools and equipment shall be calibrated in labs accepted by members of International Laboratories validation Cooperation Organizations i.a.w. updated Validation Rule for Test and Calibration Laboratory (ISO/IEC17025).

5.4 Subcontractors shall meet the following requirements when calibration of tools and equipment of maintenance organization is contracted outside to other organizations;

- (1) Subcontractors shall be the original manufacturers of tools and equipment;
or
- (2) For contractors of domestic maintenance organizations, they shall be those accepted by National Lab. Certification Committee i.a.w. current Validation Rule for Test and Calibration Lab (CNAL/AC01). Calibrated standards shall be covered in the authorization scope.
- (3) For contractors of overseas/regional maintenance organization, they shall be laboratories accepted by members of International Laboratories validation Cooperation Organizations i.a.w. updated Validation Rule for Test and Calibration Laboratory (ISO/IEC17025).

6. Non Destructive Test (NDT)

6.1 Various NDT tasks in maintenance activities shall be performed i.a.w. standards given by aircraft or aircraft component manufacturers.

6.2 For domestic maintenance organization, NDT performance shall meet the following requirements;

- (1) Qualification of NDT personnel shall meet requirements of civil aviation standard MH/T3001 "Technical Qualification Appraisal Regulations of Aircraft NDT personnel".
- (2) Worksite and equipment used when performing NDT shall meet civil aviation standard MH/T3002 "Regulations for civil aircraft Non Destructive Test".

6.3 NDT contractors of domestic maintenance organizations may not hold the approval by CCAR-145. In that case, the maintenance organization have to make confirmation before every NDT tasks performed to assure that it is carried out in compliance with the requirements for personnel, worksite and equipment given in the civil aviation standard MH/T3001 and MH/T3002.

6.4 In case that NDT tasks are performed by foreign or regional maintenance organization, the country or the area in which maintenance organization is located shall have the related standards about personnel qualification, worksite and equipment. The maintenance organization shall meet those standards.

6.5 When NDT tasks of foreign or regional maintenance organizations contracted outside, contractors shall obtain the approval by their local civil aviation authority.

7. Welding

7.1 Various welding tasks in maintenance activities shall be carried out i.a.w. standards given by aircraft or aircraft components manufacturers.

7.2 Welding personnel employed by domestic maintenance organizations shall hold qualification certificates issued by National Labor Department.

7.3 The contractor may not be a CCAR-145 approved organization when welding tasks undertaken by domestic maintenance organization are contracted outside. Contractors shall be organizations undertaking aviation or aeronautics manufacturing, maintenance or research, and employing qualified personnel who meet the para.7.2 requirements.

7.4 For foreign/regional maintenance organizations, their local civil aviation authority shall have the qualification requirements for welding personnel. The maintenance organization shall meet these requirements.

7.5 When welding tasks contracted outside by foreign/regional maintenance organizations, contractors must be approved by their local civil aviation authority.

8. Surface Treatment and Heat Treatment

8.1 Various heat treatment and surface treatment shall be performed i.a.w. standards given by aircraft or aircraft component manufacturers.

8.2 Electro-plating personnel employed by domestic maintenance organizations shall hold qualification certificates issued by national labor department or i.a.w. military standard of People's Republic of China GJB480A.

8.3 Contractors may not be a CCAR-145 approved organization when heat treatment and surface treatment tasks undertaken by domestic maintenance organization are contracted outside. Contractors shall be organizations undertaking aviation or aeronautics manufacturing, maintenance or research, and having trained & authorized personnel.

8.4 Surface treatment and heat treatment performed or contracted outside by foreign or regional maintenance organizations must be approved by their local civil aviation authority.