

Democratic Socialist Republic of Sri Lanka



Civil Aviation Authority of Sri Lanka

Directive

(Issued under Sec. 121, Civil Aviation Act No. 14 of 2010)

Title: Personnel Certification for Non Destructive Testing of Aircraft, Engines, Components and materials

Reference No.: CA-Directive-2018-AW-001 S.N. : SLCAD-008 Date: 15th February 2018

Pursuant to Section 121 of the Civil Aviation Act No.14 of 2010, Director General of Civil Aviation shall have the power to issue, such directive for the purpose of giving effect to stated provisions of the Civil Aviation Act, any regulations or rules made thereunder including the Articles of the Convention on International Civil Aviation which are specified in the Schedule to the CA Act.

Accordingly, I, undersigned being the Director General of Civil Aviation do hereby issue the Directives as mentioned in the Attachment hereto (Ref: CA-Directive-2018-AW-001-Att-01) , for the purpose of giving effect to the provisions in the aforementioned Act and Standards & Procedures described under Article 37 of the Convention and Implementing Standards IS - 145, which are specified in the Attachment.

This Directive shall be applicable to Applicants for Maintenance Organisation Approvals and Approved Maintenance Organization Certificate Holders and details applicable standards on Certification of NDT Personnel and to advise , the procedure to be adopted in certification of NDT personnel.

This Directive shall come into force with immediate effect and remain in force unless revoked and it will supersede the requirement in Aviation Safety Notice (ASN) 21.

Attention is also drawn to sec. 103 of the Act, which states inter alia that failure to comply with General Direction, issued by DGCA is an offence.

H.M.C. Nimalsiri
Director General of Civil Aviation and
Chief Executive Officer

Civil Aviation Authority of Sri Lanka
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Katunayake.

Enclosure: Attachment No. : CA-Directive-2018-AW-001-Att-01

Directive

Title: Personnel Certification for Non Destructive Testing of Aircraft, Engines, Components and material

1. General

- 1.1. This Directive advises the CAASL requirements for the qualification of Non-Destructive Testing (NDT) personnel, which shall be in accordance with European Standards EN4731 or EN41792, and the Approved Organization's Approved Maintenance Organization Exposition /Maintenance Organization Manual for the authorization of NDT personnel.
- 1.2. This Directive clarifies the CAASL policy relating to the acceptability of organization-based schemes for the qualification of NDT personnel in accordance with European NDT personnel requirements, and is intended to recognize the competence of level 3 qualified personnel.
- 1.3. The term NDT is used throughout this Directive to include, but not be limited to, liquid penetrant, magnetic particle, eddy current, ultrasonic, radiographic and other recognized methods as identified in the above referenced standards and shall be applicable to all NDT methods used by Approved Organizations. Other methods and their associated procedures will be subject to approval by the Authority under the applicable airworthiness approval standard (IS - 2 1 , IS - 1 4 5 , IS Part M subpart F, EASA 145, EASA 21, EASA Part M Subpart F.).

¹EN473 – General Principle for Qualification and Certification of NDT personnel

²EN4179 – Qualification and approval of personnel for non-destructive testing.

2. Procedures for the Qualification of NDT personnel

- 2.1. All Approved Organizations involved in any aspect of NDT shall develop and maintain procedures for the qualification and authorization of their NDT personnel in accordance with either EN473 for a central personnel Certification scheme (see Section 2.2) or EN4179 for an organization-based Personnel Certification scheme. In either case, the organization's procedures and/or written practice as defined by EN4179 shall be approved by the Nominated Level 3 (see section 3).
- 2.2. The Director-General of Civil Aviation currently recognizes the national scheme for Personnel Certification in Non-Destructive Testing (PCN) administered by the British Institute of Non-Destructive Testing as meeting the requirements of EN473.

3. Qualified Staff

- 3.1. CAASL Approved Organizations undertaking NDT in accordance with CAASL IS 145/ IS Part M Subpart F must satisfy the CAASL that they have adequate numbers of suitable qualified staff to discharge the responsibilities of the approval.
- 3.2. Organizations shall nominate in writing, supported with evidence of certification, an individual responsible to the Chief Executive/Accountable Manager, for the technical supervision of NDT. This individual will hold independent central certification at Level 3 in the appropriate Industry Sector and will be referred to as the 'Nominated Level 3'. This position shall be identified within the organization's approved Maintenance Organization Exposition /Maintenance Organization Manual, and any change in this position advised to the Authority.
- 3.3. The DGCA recognizes PCN Level 3 certified personnel under EN473 and independently centrally certified American Society for Non-Destructive Testing (ASNT) level 3 personnel suitably experienced in aerospace under EN4179, as qualified for the position of Nominated Level 3.
- 3.4. Where the Nominated Level 3 is not qualified in all methods used by the Organization, then the additional Level 3s' necessary to provide coverage shall be independently centrally certified.
- 3.5. Additional Level 3 Certification holders shall be listed in the Organization's approved Maintenance Organization Exposition/Maintenance Organization Manual or reference made in the Maintenance Organization Exposition/Maintenance Organization Manual to other documents containing the list of Level 3 holders. Any changes to this list are to be notified to the Authority through appropriate amendments.
- 3.6. The DGCA may accept personnel external to the Organization as the Nominated Level 3, provided written agreement exists between the individual and the Organization setting out the individual's responsibilities within the Organization.

4. Inspections and Certification of Inspections

- 4.1. NDT inspections shall be carried out by personnel approved in accordance with the Organization's approved Maintenance Organization Exposition/Maintenance Organization Manual. Where NDT procedures are specified by the organization responsible for the design and/or manufacture of the aircraft, material, structure or component, then these must be used, except where change is permitted and authorized as defined in paragraph 5 of this Notice. Where non- mandatory inspections are to be undertaken, for which the responsible design/manufacturing organization has not specified NDT procedures, then the NDT method, technique, procedure and instruction shall be prepared in accordance with paragraph 5 of this Directive and approved by a Level 3 holder qualified in the applicable method.
- 4.2. Normally, certification of inspections will be made by persons who hold Level 2 or above authorizations. However, where an inspection task is determined by the Nominated Level 3 to have clearly defined acceptability and rejection criteria requiring no interpretation, then certification may carried out by an authorized Level 1, as detailed within the written practice.

- 4.3. Where a Level 3 is required to carry out and certify an NDT inspection then this person must either hold current Level 2 certification in those methods, or be able to provide evidence that they have successfully completed an appropriate Level 2 practical examination and maintained continuity in the application of practical testing as defined in the referenced standards and detailed in the Maintenance Organization Exposition /Maintenance Organization Manual.

5. NDT Techniques and Instructions and their approval

- 5.1. NDT techniques, procedures and instructions, published and specified by the Type Certificate holder in NDT Manuals, Service Bulletins and Approved Drawings etc. constitute airworthiness data.
- 5.2. Where the Airworthiness data published by the Type Certificate holder permits changes (e.g. selection of equipment model, probe type etc.) then such changes must be authorized in writing by a Level 3 qualified in the appropriate method.
- 5.3. Any other change require the written agreement of the Type Certificate holder responsible for the design of the product/structure before such a change is implemented.
- 5.4. NDT Instructions prepared by a Level 2 holder shall be approved by a Level 3 holder qualified in the applicable method.
- 5.5. The procedure for the control of all NDT techniques, procedures and instructions, including their preparation and authorization within any Department Of Civil Aviation Approved organization, shall be detailed in the Organization's approved Quality procedures.

6. Suppliers and Sub-contractors to Approved Organizations

An Organization utilizing suppliers and sub-contractors for work where NDT processes are employed, shall detail within their Maintenance Organization Exposition/Maintenance Organization Manual how the Organization ensures that training and approval of NDT personnel in such suppliers or sub-contractors is controlled.