INTRODUCTION
This Fact Sheet provides amplification on how Non-Destructive Testing (NDT) is managed under the Defence Aviation Safety Regulations (DASR). It contains details of:

• Accepted NDT standards,
• Form 4 Applications for NDT Responsible Level 3,
• Australian Standard AS3669:2006 Transition Arrangements, and
• NDT Instructions for Continuing Airworthiness.

ACCEPTABLE NDT QUALIFICATION STANDARDS
DASR 145.A.30(f) stipulates that staff who carry out NDT should be appropriately qualified “in accordance with the European or equivalent Standard recognised by the NMAA”. European Standard EN4179 is the recognised standard (refer AMC 145.A.30(f)). Australian Standard AS3669:2006 is not considered an equivalent standard to EN4179 (refer GM 145.A.30(f)).

The following standards are accepted by the Authority for the conduct of NDT activities (Part 145 & 21):

• EN4179:2017 - Qualification and approval of personnel for non-destructive testing, and
• NAS 410 Version 4 – NAS certification & Qualification of Non-Destructive Testing Personnel.

FORM 4 APPLICATIONS FOR NDT RESPONSIBLE LEVEL 3
DASR 145.A.30 stipulates that the NDT Responsible Level 3 (RL3) for a DASR 145 organisation is a nominated management position, and is accepted by the Authority through a DASR Form 4 application. Each DASR 145 organisation should only have one Responsible Level 3.

Required Evidence. The DASR Form 4 requires applicants to submit details and supporting documentation of relevant qualifications and experience. Specific for NDT RL3 applications:

• Applicants are requested to provide a copy of all personnel certification records that DASR 145 organisations are required to retain under EN4179 Para 8.2 to demonstrate they meet the EN4179 requirements to be certified as a Level 3.

• If the applicant holds certifications in multiple methods, only evidence from one NDT method is required. The employer is to ensure that certification records for all other methods are retained, as required by EN4179 Para 8.2.

Currency of evidence. Once accepted by the Authority as the NDT RL3, DASA may request the provision of ongoing evidence of EN4179 compliance as part of oversight and enforcement activities.

AUSTRALIAN STANDARD 3669:2006 TRANSITION ARRANGEMENTS
Organisations with NDT staff who are certified to Australian Standard 3669:2006 are to transition to EN4179 or NAS410 by following the guidance below:

• Transfer. Organisations can directly transfer certifications from AS 3669:2006 to EN4179 or NAS410 provided:
  ▪ Written Practice (Refer EN4179 Para 4.1). The organisation’s written practice and processes are updated to reflect all EN4179/NAS410 requirements (including annual maintenance requirements),
  ▪ Staff Training and Experience Hours (Refer EN4179 Para 6). The organisation’s staff meet the required training and experience hours as stipulated in EN4179 / NAS410. Alternatively the
organisation can apply to the Authority to utilise a competency based training system in accordance with GM 145.A.30(f), and

- **Annual Maintenance (Refer EN4179 Para 8.6).** The affected staff members have completed an initial Annual Maintenance activity to verify technical proficiency in each method and demonstrate ongoing competency.

**Note 1** – There is no requirement to re-conduct General, Specific or Practical examinations (Refer EN4179 Para 7) to transition to EN4179. Previous examinations conducted under AS3669 are acceptable under these transition arrangements. The next scheduled certification exams are to be conducted under EN4179 / NAS410 rules.

**Note 2** – The transition of certifications should be formally documented by the NDT Responsible Level 3 and approved by the organisations executive

- **Transition period.** DASA expects organisations to be EN4179 or NAS410 compliant by 31 Dec 2020.
- **Update of NDT RL3 Form 4 compliance evidence.** NDT RL3 staff who have previously been accepted by the Authority based on an AS3669:2006 Level 3 certification are required to provide updated certification records to demonstrate compliance with EN4179 (following these transition arrangements) no later than 31 Dec 2020.

**NDT INSTRUCTIONS FOR CONTINUING AIRWORTHINESS (ICA)**

NDT Instructions for Continuing Airworthiness (ICA) (or otherwise termed inspection procedures) are used to ensure the airworthiness of aircraft through the inspection of aircraft structure and components. NDT ICA is often used as part of damage tolerance inspection regimes to ensure structural integrity. Consequently, it is critical to ensure that NDT ICA is developed and applied by competent staff.

**Definitions.** DASA uses the following definitions in relation to NDT ICA:

- **Development.** The development (or amendment) of NDT ICA involves the creation of ICA to meet a prescribed requirement. Development typically involves selecting an NDT method/process/technique, drafting an inspection procedure, selecting required reference standards/equipment and conducting trials to validate that the NDT ICA meet the prescribed requirements (including providing assurance of detection).

- **Application.** The Application of NDT ICA is the selection of an NDT procedure (that has already been developed) to meet a prescribed requirement. Typically, this involves selecting a suitable OEM or General NDT Procedure to be used to investigate the serviceability of an aircraft or component.

**Recommended Practice for MTCH or DASR 21J organisations.** It is recommended that organisations who are developing or applying NDT ICA develop internal procedures to ensure the Issue of information or instructions from the MDOA meets the requirements outlined in GM 21.A.263(c)(3). Specific for each scenario, DASA recommends:

- **Development of NDT ICA.** When developing NDT ICA, organisations should utilise NDT Level 3 staff to verify the technical content and to confirm that the inspection is achievable, repeatable and detection limitations is assured.

- **Application of NDT ICA.** When applying existing NDT ICA to a specific problem, organisations should use experienced staff who understand the limitations of the NDT method/technique and how it is applied. When applying extant NDT ICA to investigate (or confirm) the serviceability of a product, the DASR 21J organisation should clearly specify the following information to DASR 145 organisations:

  - The inspection procedure to be used,
  - The inspection area,
  - The material type of the inspection area, and
  - The type of discontinuities to be detected.
ESSENTIAL INFORMATION

DASA Point of Contact: DAVENG-DASA, Non-Destructive Testing and Composite Technologies Section, RAAF Amberley:

- For questions about NDT Standards, NDT RL3 Form 4 application evidence or AS3669 transition arrangements please email: daveng-dasandtcertification@defence.gov.au
- For Questions about NDT ICA please email: dasa.ambndt&cttc@defence.gov.au

FREQUENTLY ASKED QUESTIONS

1. Can I utilise a different standard to those stipulated as Authority accepted standards?

   Organisations that wish to use an alternative NDT personnel qualification system can apply to the Authority.

2. Is the National Aerospace NDT Board (NANDTB) involved in DASRs?

   Under DASRs, there is no requirement for the National Aerospace NDT Board to be used or involved in the certification of Level 3 staff. DASA will not request or rely on NANDTB recognition when assessing NDT RL3 Form 4 applications.

3. Where can I find an NDT Level 3 qualified individual?

   The Australian National Aerospace NDT Board (NANDTB), refer (http://www.ndtboard.com) contains a non-exhaustive list of Level 3 personnel.