



**Australian Government**

# **MEA50515 Diploma of Aeroskills (Non-Destructive Testing)**

**Release 1**

# **MEA50515 Diploma of Aeroskills (Non-Destructive Testing)**

## **Modification History**

Release 1 - New qualification

## Qualification Description

This qualification applies to individuals who perform non-destructive testing (NDT) on aircraft and aircraft components in accordance with *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* at Level 2 and in compliance with the regulatory requirements of the Civil Aviation Safety Authority (CASA) and of the Australian Defence Force (ADF).

The requirement for the awarding of MEA50515 Diploma of Aeroskills (Non-Destructive Testing) is demonstrated competency in listed units of competency under the conditions set out below. It consists of core units plus applicable units from electives Group A.

Core units are as follows:

- preliminary common and technical stream units for individuals who do not have a Certificate IV in Aeroskills
- mandatory units consisting of:
  - common and technical stream units that relate to the aviation maintenance environment
  - technical stream and imported units relating to the NDT work environment

imported units that specifically cover the competencies required to perform each relevant NDT technique to the standard specified in *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* for Level 2 personnel.

Elective Group A units consist of:

- common units specific to either CASA or ADF regulatory requirements
- technical stream and imported units that are applicable to various areas of employment in the NDT field.

The core and elective units provide for two training pathways to the qualification as follows:

- one that provides for Certificate IV qualified aviation tradespersons to progress to the Diploma level NDT qualification (the career path for uniformed ADF personnel and possibly some civilian personnel)
- another that provides for progression to Diploma level NDT qualification from direct entry (the career path that may be followed by NDT personnel used by the maintenance organisations other than those operating under the ADF regulatory system).

The qualification also provides credits towards the MEA50415 Diploma of Aviation Maintenance Management (Mechanical), the MEA60215 Advanced Diploma of Aviation Maintenance Management (Mechanical) and the MEA60315 Advanced Diploma of Aviation Non-Destructive Testing.

## Entry Requirements

Not applicable

## Packaging Rules

To be awarded the MEA50515 Diploma of Aeroskills (Non-Destructive Testing) competency must be demonstrated in **twenty-five (25)** to **thirty-four (34)** units, chosen as described below.

### Core units of competency

- Individuals who do not have a Certificate IV in Aeroskills must complete the following **nine (9)** core preliminary units.

Unit code	Unit title	Prerequisites
MEA101	Interpret work health and safety practices in aviation maintenance	
MEA103	Plan and organise aviation maintenance work activities	MEA101, MEA105 MEA107, MEA108
MEA105	Apply quality standards applicable to aviation maintenance processes	MEA101, MEA107
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA108	Complete aviation maintenance industry documentation	MEA105
MEA109	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA105, MEA108
MEA340	Lay out and set up aircraft systems	MEA101B, MEA107B MEA109B
MEA341	Apply basic aircraft design characteristics	MEA101B, MEA107B MEA109B
MEA342	Apply basic aircraft power plant design characteristics	MEA101B, MEA107B MEA109B

Individuals who have a Certificate IV in Aeroskills and those who have completed the preliminary units must complete the following **twenty-two (22)** core units.

Unit code	Unit title	Prerequisites
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MEA116	Apply work health and safety procedures at supervisor level in aviation maintenance	
MEA133	Communicate aviation technical and maintenance management knowledge	
MEA135	Use computers in aviation maintenance-related integrated logistic support activities	
MEA142	Manage self in the aviation maintenance environment	
MEA260	Use electrical test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA261	Use electronic test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA424	Evaluate aircraft structure non-destructive tests	MEA109, MEA133 MEM13013B MEM16010A MEM24002B MEM24004B  MEM24006B MEM24008B MEM24010B MEM24012C
MEM09002B	Interpret technical drawing	
MEM09003B	Prepare basic engineering drawing	MEM09002B
MEM12003B	Perform precision mechanical measurement	MEM12023A (see Note 1)
MEM13013B	Work safely with ionising radiation	
MEM15017B	Use and maintain reference standards	MEM11011B MEM12003B MEM12004B (see Note 2) MEM12005B MEM12023A

		(see Note 1) MEM18001C (see Note 1) MEM18002B (see Note 1)
MEM16010A	Write reports	MEM14005A (see Note 3)
MEM24002B	Perform penetrant testing	MEM18001C (see Note 1) MEM24012C
MEM24004B	Perform magnetic particle testing	MEM18001C (see Note 1) MEM24012C
MEM24006B	Perform eddy current testing	MEM18001C (see Note 1)
MEM24008B	Perform ultrasonic testing	MEM18001C (see Note 1) MEM24012C
MEM24010B	Perform radiographic testing	MEM13013B MEM18001C (see Note 1) MEM24012C
MEM24012C	Apply metallurgy principles	
MEM30007A	Select common engineering materials	
MEM30012A	Apply mathematical techniques in a manufacturing, engineering or related environment	
MSAENV472B	Implement and monitor environmentally sustainable work practices	

### Notes

1. MEA109 is equivalent to the following three units combined MEM12023A, MEM18001C and MEM18002B
2. MEA260 and MEA261 are together equivalent to MEM12004B
3. MEA103 is equivalent to MEM14005A

### Elective units of competency

#### Group A

- Complete **three (3)** units chosen in accordance with the unit selection guidelines in column 4.

Unit code	Unit title	Prerequisites	Unit selection guidelines
MEA112	Plan and implement civil aircraft maintenance activities	All relevant technical units	Mandatory for CASA regulatory system
MEA113	Supervise civil aircraft maintenance activities and manage human resources in the workplace	All relevant technical units	Mandatory for CASA regulatory system
MEA140	Supervise aviation maintenance teams and perform maintenance quality inspections		Mandatory for ADF regulatory system
MEM15010B	Perform laboratory procedures		
MEM17002B	Conduct workplace assessment		
TAEDEL301A	Provide work skill instruction		

## Qualification Mapping Information

Supersedes and is equivalent to MEA50511 Diploma of Aeroskills (Non-Destructive Testing)

## Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>