



Australian Government

MEA60315 Advanced Diploma of Aviation Non-Destructive Testing

Release 2

MEA60315 Advanced Diploma of Aviation Non-Destructive Testing

Modification History

Release 2 - Total number of units required to achieve qualification corrected from 'forty-one (41) to fifty (50)' to **'thirty-nine (39) to forty-eight (48)'**.

Release 1 - New qualification

Qualification Description

This qualification applies to individuals who perform aircraft and aircraft component non-destructive testing (NDT), develop NDT techniques and provide training in NDT in accordance with *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* at Level 3. The qualification also meets the regulatory requirements of the Civil Aviation Safety Authority (CASA) and of the Australian Defence Force (ADF).

The requirement for the awarding of MEA60315 Advanced Diploma of Aviation Non-Destructive Testing is demonstrated competency in listed units of competency under the conditions set out below. It consists of core units and electives chosen from Electives Group A.

Core units include:

- preliminary common and technical stream units for individuals who do not have a Certificate IV in Aeroskills or the Diploma of Aeroskills (Non-Destructive Testing)
- 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 and 3 personnel
 - imported units that cover competencies in the development, delivery and assessment of training.

Elective Group A units consisting 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 at *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* Level 3

Individuals who have a Certificate IV in Aeroskills and/or the Diploma of Aeroskills (Non-Destructive Testing) will already have a significant number of credits towards this qualification.

The qualification also provides credits towards the MEA60215 Advanced Diploma of Aviation Maintenance Management (Mechanical).

This qualification applies to workplaces that operate under the airworthiness regulatory systems of the ADF and CASA. Any regulatory/licensing requirements associated with any MEA units of competency must be met.

Entry Requirements

Not applicable

Packaging Rules

To be awarded the MEA60315 Advanced Diploma of Aviation Non-Destructive Testing, competency must be demonstrated in **thirty-nine (39)** to **forty-eight (48)** units, depending on the entry level.

Core units of competency

- Individuals who do not have at least a Certificate IV in Aeroskills must complete the following **nine (9)** 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	MEA101, MEA107 MEA109
MEA341	Apply basic aircraft design characteristics	MEA101, MEA107 MEA109
MEA342	Apply basic aircraft power plant design characteristics	MEA101, MEA107 MEA109

- Individuals who have at least a Certificate IV in Aeroskills and those who have completed the preliminary units must complete the following **thirty-five (35)** core units.

Unit code	Unit title	Prerequisites
MEA116	Apply work health and safety procedures at	

	supervisor level in aviation maintenance	
MEA120	Manage an aviation maintenance quality system	
MEA133	Communicate aviation technical and maintenance management knowledge	
MEA134	Establish, maintain and evaluate the organisation's work health and safety system	
MEA135	Use computers in aviation maintenance-related integrated logistic support activities	
MEA137	Write aviation technical publications	MEA135
MEA138	Perform aviation technical publication management activities	MEA137
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
MEA705	Apply basic scientific principles and techniques in aeronautical engineering situations	MEM23004A
MEA708	Select and test aeronautical engineering materials	
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 4)
MEM23004A	Apply technical mathematics	
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) MEM24012C
MEM24008B	Perform ultrasonic testing	MEM18001C (see Note 1) MEM24012C
MEM24010B	Perform radiographic testing	MEM13013B MEM18001C

		(see Note 1) MEM24012C
MEM24011B	Establish non-destructive tests	MEM13013B MEM16010A (see Note 3) MEM18001C (see Note 1) MEM24002B MEM24004B MEM24006B MEM24008B MEM24010B MEM24012C
MEM24012C	Apply metallurgy principles	
MEM30007A	Select common engineering materials	
MEM30012A	Apply mathematical techniques in a manufacturing, engineering or related environment	
MSAENV672B	Develop workplace policy and procedures for environmental sustainability	
TAEDEL402A	Plan, organise and facilitate learning in the workplace	
TAEASS401B	Plan assessment activities and processes	
TAEASS402B	Assess competence	
TAEASS403B	Participate in assessment validation	
TAEASS502B	Design and develop assessment tools	

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. MEA137 is equivalent to MEM16010A
4. MEA103 is equivalent to MEM14005A

Electives units of competency

Group A

- Complete **four (4)** 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
MEA123	Manage aviation maintenance work environment policy and practices		
MEA140	Supervise aviation maintenance teams and perform maintenance quality inspections		Mandatory for ADF regulatory system
MEM09009C	Create 2D drawings using computer aided design systems	MEM09002B MEM16008A	
MEM15010B	Perform laboratory procedures		
MEM16002C	Conduct formal interviews and negotiations		
MEM16008A	Interact with computing technology		
TAEDES401A	Design and develop learning programs		

Qualification Mapping Information

Supersedes and is equivalent to MEA60311 Advanced Diploma of Aviation Non-Destructive Testing

Links

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