



Australian Government

MEA414 Remove light corrosion from aircraft

Release: 2

MEA414 Remove light corrosion from aircraft

Modification History

Release 2. Equivalent to MEA414 Remove light corrosion from aircraft with amended prerequisite codes.

Application

This unit of competency requires application of skills and knowledge relating to the removal of light corrosion from the surfaces of fixed and rotary wing aircraft structure.

No licensing requirements apply to this unit at the time of publication, but compliance with legislation and regulations for the handling and disposal of hazardous materials is included in the unit.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

Pre-requisite Unit

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the Performance criteria describe the performance needed to

essential outcomes.	demonstrate achievement of the element.
1. Identify corrosion damage	1.1 Signs of corrosion are identified through visual inspection 1.2 The type of corrosion is identified 1.3 The severity of corrosion damage is determined and damage more severe than light surface corrosion is documented and reported in accordance with standard enterprise procedures
2. Remove light corrosion	2.1 The applicable corrosion removal method is selected in accordance with enterprise procedures 2.2 Work health and safety (WHS) requirements are identified and complied with and personal protective equipment (PPE) is checked for correct fit and function 2.3 Materials and tools required for corrosion removal are assembled 2.4 Surface is prepared and corrosion removed using the selected removal method
3. Clean area and equipment	3.1 Surface is cleaned of all chemical residue and mechanical media, in accordance with enterprise procedures, ready for the next process 3.2 Equipment is cleaned in accordance with enterprise procedures or manufacturer's instructions 3.3 Equipment is checked for serviceability and unserviceable items are dealt with in accordance with enterprise procedures 3.4 Waste material is removed and disposed of or stored in accordance with legislative, regulatory and enterprise procedures 3.5 Documentation is completed in accordance with standard enterprise procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Procedures and requirements include:	• Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise
Signs of corrosion include:	• Surface deformed • Paint blistered or flaked • Powder • Discolouration
Types of corrosion include:	• Uniform etch • Pitting • Intergranular • Exfoliation • Filiform • Galvanic
WHS requirements are identified from:	• Commonwealth/state/territory WHS legislation, regulations and codes • Procedures manuals • Safety manuals • Work instructions • Maintenance organisation manuals • Material safety data sheets (MSDS) • Defence regulations and instructions • Standing instructions
Materials and tools include:	• Micro grinder • Sanders • Plastic media blasting equipment • Abrasive pads • Wet/dry abrasive papers • Chemicals • PPE applicable to task
Selected removal methods include:	• Light mechanical using micro grinder, sander or plastic media blasting • Manual removal using wet/dry abrasive papers or abrasive pads • Chemical
Legislative, regulatory and enterprise procedures	• Commonwealth/state/territory environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials

include:

- MSDS
- Maintenance organisation manuals
- Procedures manuals
- Work instructions
- Relevant Defence regulations and instructions
- Standing instructions

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>

Assessment Requirements for MEA414 Remove light corrosion from aircraft

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Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- applying WHS procedures relating to light corrosion removal, including the selection and correct use of PPE
- recognising types of corrosion and of damage that exceeds light surface corrosion
- applying enterprise procedures for removal of light corrosion
- selection and use of applicable corrosion removal methods, equipment and tools
- using MSDS
- cleaning of surfaces following corrosion removal
- correctly disposing of waste materials
- cleaning and maintenance of equipment and tools.

The underlying skills inherent in this unit should be transferable across a range of tasks involving the removal of light corrosion damage from the surfaces of aircraft structure. It is essential that applicable processes, cleanliness requirements and safety precautions, including the correct use of PPE, and application of environmental protection procedures are fully observed, understood and complied with. Ability to interpret corrosion removal procedures and apply them in practice is critical.

This is to be demonstrated through corrosion removal using mechanical, manual and chemical means across a range of aircraft tasks.

Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- relevant enterprise procedures and maintenance publications
- WHS procedures relating to the removal of aerospace coatings, including PPE
- how to obtain MSDS
- types of chemicals used for corrosion removal and methods of application
- mechanical methods that can be used for corrosion removal
- cleaning methods following corrosion removal
- environmental legislation and regulations relating to the storage, use and disposal of hazardous materials.

Assessment Conditions

- Competency should be assessed in the workplace or simulated workplace using materials, tools and equipment specified in the maintenance manuals and applicable procedures. It is also expected that general and special-purpose tools and ground support equipment would be used where appropriate.
- The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on a representative range of light corrosion removal tasks using applicable mechanical, manual and chemical removal methods as listed in the Range of Conditions.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

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