



**Australian Government**

# **MEA206 Remove and install aircraft basic radio communication and navigation system components**

**Release: 2**

# **MEA206 Remove and install aircraft basic radio communication and navigation system components**

## **Modification History**

Release 2. Equivalent to MEA206 Remove and install aircraft basic radio communication and navigation system components with amended prerequisite codes.

## **Application**

This unit of competency requires application of hand skills and the use of maintenance documentation/publications in the removal and installation of basic radio communication and navigation system components of fixed and rotary wing aircraft that have basic radio communication and navigation systems, during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Avionic Certificate IV (Aircraft Maintenance Stream) training pathway.

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).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

## **Pre-requisite Unit**

MEA201          Remove and install miscellaneous aircraft electrical hardware/components

## **Competency Field**

Aviation maintenance

## **Unit Sector**

## **Elements and Performance Criteria**

Elements describe the essential outcomes.

1. Remove basic radio communication and navigation system

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 System is rendered safe and prepared in accordance with the applicable maintenance manual and isolation tags are fitted, where necessary, to ensure personnel safety

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|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| components                                                            | <ul style="list-style-type: none"><li>1.2 Communication and navigation system component removal is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements</li><li>1.3 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures</li><li>1.4 Removed components are tagged and packaged in accordance with specified procedures</li></ul>                                                                                                                                                                                   |
| 2. Install basic radio communication and navigation system components | <ul style="list-style-type: none"><li>2.1 Communication and navigation system components to be installed are checked to confirm correct part numbers, modification status, serviceability and shelf life</li><li>2.2 Physical installation of components is performed in accordance with the applicable maintenance manual and regulatory requirements, ensuring appropriate adjustment/alignment is carried out</li><li>2.3 System is reinstated to correct operational condition in preparation for testing, as necessary</li><li>2.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures</li></ul> |

## 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.

### **Communication and navigation system components include:**

- High frequency (HF) and very high frequency (VHF) communication and applicable antennas
- Automatic direction finding (ADF) and very high frequency omni-directional range (VOR) navigation and applicable antennas
- Emergency location transmitter (ELT)

**Procedures and requirements include:**

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

## Unit Mapping Information

Release 2. Equivalent to MEA206 Remove and install aircraft basic radio communication and navigation system components

## 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 MEA206 Remove and install aircraft basic radio communication and navigation system components**

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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:

- locating and identifying radio communication and navigation system components comprising:
  - HF and VHF communications
  - VOR and ADF navigation systems
  - ELT systems
- locating and identifying applicable radio system antennas
- removing and installing communication and navigation system components including antennas
- applying relevant WHS practices.

It is essential that cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with, as well as work practices associated with electrostatic sensitive devices.

Evidence of transferability of skills and knowledge related to removal and installation is essential. This is to be demonstrated by application across a range of radio communication and navigation system components as listed in the Assessment Conditions.

## **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:

- component attachment methods
- connection of hardware and plugs
- handling precautions for electrostatic sensitive devices
- relevant WHS practices
- the use of approved maintenance documentation and aircraft publications relating to radio communication and navigation systems and components
- basic layout and working principles to block diagram level of:
  - HF communication systems

- VHF communication systems
- ADF navigation systems
- VOR navigation systems
- ELT systems
- relevant regulatory requirements and standard procedures.

## Assessment Conditions

- Competency should be assessed in the work environment or simulated work environment, using tools and equipment specified in maintenance manuals. It is also expected that general-purpose tools, test and ground support equipment found in most routine maintenance situations would be used where appropriate.
- An understanding of the attachment methods, connection of hardware, and the need for adjustment or calibration and system operation as they relate to the work must be demonstrated before undertaking any action. 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 at least one (1) item from each of:
  - HF and VHF communication and applicable antennas
  - ADF and VOR navigation and applicable antennas
  - ELT.
- 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).must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.
- Where the unit is to be used for CASA licensing purposes the Assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.

- Individuals being assessed who have already attained MEA293 Remove and install aircraft electronic system components will have covered a significant amount of the skill and knowledge requirements for this unit plus part of the performance criteria for Elements 1 and 2 and associated range of conditions items. Those who have attained MEA276 Maintain basic light aircraft communication and radio navigation systems and components, or MEA297 Maintain basic avionic systems and components, will have fully covered the requirements for this unit in common variables in the Range of Conditions. The Log of Industrial Experience and Achievement records relating to MEA293 Remove and install aircraft electronic system components, MEA276 Maintain basic light aircraft communication and radio navigation systems and components and MEA297 Maintain basic avionic systems and components may be accepted as also meeting the evidence requirements for this unit in the applicable areas.

## Links

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