



Australian Government

MEA604 Inspect, test and troubleshoot aircraft stores management systems and components

Release: 1

MEA604 Inspect, test and troubleshoot aircraft stores management systems and components

Modification History

Release 1 - New unit of competency

Application

This unit of competency applies to members of the Australian Defence Force (ADF) who are required to apply explosive ordnance safety and handling procedures, hand skills and the use of maintenance documentation/publications in the inspection, testing and troubleshooting of stores management systems (SMS) and components.

The unit applies to all aircraft with stores management systems.

The unit is part of the Armament Certificate IV training pathway.

This unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF.

Pre-requisite Unit

MEA602 Remove and install aircraft stores management system components

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1.	Prepare to inspect, test and troubleshoot aircraft SMS and components	1.1	The task is verified from applicable documentation
		1.2	Aircraft safety devices are checked in accordance with relevant technical publications and manuals
		1.3	Correct SMS component is visually identified for inspection, testing and troubleshooting

		1.4	Appropriate tools and ground support equipment are selected in accordance with the task
2.	Inspect SMS component	2.1	Firing devices are checked and removed if fitted
		2.2	SMS component is inspected in accordance with technical publications and manuals while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE)
		2.3	Aircraft is prepared for testing and troubleshooting of SMS component in accordance with technical publications and manuals
3.	Test and troubleshoot SMS component	3.1	SMS component is functionally tested in accordance with applicable technical publications and manuals for evidence of serviceability or malfunction
		3.2	SMS component faults are identified in accordance with technical publications and manuals
		3.3	Specialist advice is obtained when required to assist with the troubleshooting process
		3.4	Corrective action is taken in accordance with technical publications and manuals while observing all relevant WHS requirements, including the use of MSDS and items of PPE
4.	Complete and process documentation	4.1	Applicable documentation is completed for SMS component inspection, testing and troubleshooting
		4.2	Completed documentation is forwarded to Maintenance Control Section (MCS)

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.

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| Task verification includes: | <ul style="list-style-type: none"> • Maintenance restrictions • Aircraft tail number • Aircraft entered as unserviceable • Nil stores fitted |
| Documentation includes: | <ul style="list-style-type: none"> • EE500 • CAMM2 documents • SMS documentation |
| Safety devices include: | <ul style="list-style-type: none"> • Earth lead • Aircraft safety pins • Aircraft switches |
| Technical publications and manuals include: | <ul style="list-style-type: none"> • Aircraft publications • Maintenance instruction manuals and process specifications • Servicing or service bulletins or structural repair manuals • Illustrated parts catalogues, aircraft wiring manuals or drawings • Tooling, equipment or manufacturer's manuals • Standard practices • Enterprise aviation regulations and publications |
| SMS components include: | <ul style="list-style-type: none"> • Mission computer • Armament computer • Encoder/decoder • Control unit • Head-up display (HUD) • Multifunction display (MFD) |
| Firing devices include: | <ul style="list-style-type: none"> • Stores release cartridges • Chaff and flares • Gun system • Missiles • Loaded stores |
| Checking includes: | <ul style="list-style-type: none"> • Visually • Physically |
| Aircraft preparation includes: | <ul style="list-style-type: none"> • Panels opened • Ground support equipment and test equipment connected |
| Specialist advice is obtained | <ul style="list-style-type: none"> • Subject matter experts |

- from:**
- Manufacturers
 - Systems program office
- Corrective action includes:**
- Repair
 - Component replacement
- Applicable documentation includes:**
- Aircraft documentation
 - SMS component documentation
- Procedures and requirements include:**
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 1 – equivalent to MEA604A Inspect, test and troubleshoot aircraft stores management systems and components

(The unit was developed from ADF Enterprise unit DDDRARM401A Inspect, test and troubleshoot aircraft stores management systems and components and is equivalent to it).

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 MEA604 Inspect, test and troubleshoot aircraft stores management systems and components

Modification History

Release 1 - New unit of competency

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 all safety procedures relating to aircraft SMS
- applying hand skills and use of applicable maintenance manuals in removal and installation of SMS components
- using ground support equipment and test equipment
- applying logic processes, taking and interpreting measurements, using test equipment and appropriate documentation and manuals to isolate SMS malfunctions
- performing system functional tests and checks to isolate system faults and assess post-maintenance serviceability
- explosive ordnance handling
- manual handling of SMS components.

The underlying skills inherent in this unit should be transferable across a range of aircraft SMS and system component inspection, testing and troubleshooting activities. It is essential that assessment confirms the ability to comply with organisational safety requirements and appropriate legislative and regulatory requirements while maintaining SMS systems. The ability to work safely within an explosive ordnance environment, conduct applicable tests and maintain relevant documentation is critical, including checking specifically for:

- failure to check aircraft safety devices are installed
- failure to ensure firing devices checked and removed if fitted
- commencing task prior to initiating documentation
- failure to comply with relevant WHS procedures and policies.

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:

- the aircraft operating and maintenance environment
- aircraft SMS and interfaces with other aircraft systems
- WHS procedures and policies
- SMS and component test procedures
- explosive ordnance safety and handling procedures
- technical publications and manuals

- hardware and component attachment methods
- technical documentation procedures.

Assessment Conditions

- Competency should be assessed on aircraft and/or simulator 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 unit may be assessed independently or in conjunction with unit MEA605 Inspect, test and troubleshoot aircraft stores suspension systems and components.
- Evidence of transferability of skills and knowledge related to SMS and system component inspection, testing and troubleshooting is essential. This is to be established through demonstration of the ability to:
 - render the system safe
 - perform relevant inspections and tests
 - troubleshoot faults and perform appropriate rectification 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 ADF 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 range of inspection, testing and troubleshooting tasks involving the following SMS components:
 - mission computer
 - armament computer
 - encoder/decoder
 - control unit
 - HUD
 - MFD.
- 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).
- In addition to evidence provided in the Log of Industrial Experience assessment methods may include questioning and observation in operational or simulated environments.
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

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