Australian Government

Department of Education, Employment and Workplace Relations

MEA604A Inspect, test and troubleshoot aircraft stores management systems and components

Release: 2

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Modification History

Minor formatting and editorial changes made.

Unit Descriptor

This unit of competency is part of the Armament Certificate IV training pathway. It covers the competencies required to inspect, test and troubleshoot aircraft stores management systems (SMS) and components
The unit was developed from the ADF Enterprise unit DDDRARM401A Inspect, test and troubleshoot aircraft stores management systems and components and is equivalent to that unit.

Application of the Unit

This unit applies to members of the 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 SMS and components.
The unit applies to all aircraft with SMS.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEA602A	Remove and install aircraft stores management system components

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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 p*** ***manuals***
	1.3. Correct ***SMS component*** is visually identified for inspection, testing and tr
	1.4. Appropriate tools and ground support equipment are selected in accordance
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
	2.3. Aircraft is ***prepared*** for testing and troubleshooting of SMS component in a technical publications and manuals
3. Test and troubleshoot SMS component	3.1. SMS component is functionally tested in accordance with applicable techni manuals for evidence of serviceability or malfunction
	3.2. SMS component faults are identified in accordance with technical publicati
	3.3. ***Specialist advice*** is obtained, when required, to assist with the troubleshoot
	3.4. ***Corrective action*** is taken in accordance with technical publications and ma
4. Complete and process documentation	4.1. ***Applicable*** documentation is completed for SMS component inspection, tes troubleshooting
	4.2. Completed documentation is forwarded to MCS

Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- 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

Required knowledge

Look for evidence that confirms knowledge of:

- the aircraft operating and maintenance environment
- aircraft SMS and interfaces with other aircraft systems
- OHS 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

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to inspect, test and troubleshoot SMS and system components while observing all relevant safety precautions.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	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 OHS procedures and policies. 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. A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on a range of inspection, testing and troubleshooting tasks involving the SMS components listed in Groups 1 to 4 in the Range Statement. This shall be established via

	the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.
Context of and specific resources for assessment	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.
Method of assessment	In addition to evidence provided in the Log of Industrial Experience assessment methods may include questioning and observation in operational or simulated environments. The unit may be assessed independently or in conjunction with unit MEA605A Inspect, test and troubleshoot aircraft stores suspension system and components.
Guidance information for assessment	

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Task verification	Verified may include: • maintenance restrictions • aircraft tail number • aircraft entered as unserviceable • nil stores fitted
Documentation	Documentation may include: • EE500 • CAMM2 documents • SMS documentation
Safety devices	Safety devices may include: • earth lead • aircraft safety pins • aircraft switches
Technical publications and manuals	Technical publications and manuals may include: • 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
Note	Range statements listed below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide
SMS component	SMS components may include: 1. Mission computer 2. Armament computer 3. Encoder/decoder 4. Control unit

Firing devices and checking	Firing devices may include: • stores release cartridges • chaff and flares • gun system • missiles • loaded stores Checked may include: • visually • physically
Aircraft preparation	Prepared may include: • panels opened • ground support equipment and test equipment connected
Specialist advice	Specialist advice may be obtained from: • subject matter experts • manufacturer • systems program office
Corrective action	Corrective action may include: • repair • component replacement
Applicable	Applicable may include: • aircraft documentation • SMS component documentation
Application	Application of this unit may relate to: • scheduled or unscheduled maintenance activities • individual or team-related activities
Procedures and requirements	Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Sector(s)

Aviation maintenance

Competency field

Co-requisite units

Not applicable