



**Australian Government**

# **DEFSIM005 Fault find and repair simulator sound systems**

**Release: 1**

# DEFSIM005 Fault find and repair simulator sound systems

## Modification History

| Release | Comments                                                                                                          |
|---------|-------------------------------------------------------------------------------------------------------------------|
| 1       | This unit was released in DEF Defence Training Package release 1.0 and meets the Standards for Training Packages. |

## Application

This unit describes the knowledge and skills required to conduct fault finding and repairs to the simulator sound systems. This includes analysing fault reports, identifying and rectifying faults, conducting functional tests and the documentation and certification processes. In the context of this unit, simulators are used to replicate land, air, sea and undersea systems to facilitate training and development.

Simulator sound systems include communication systems, amplifiers, samplers, speakers, microphones and headsets, equalisers, mixers, tone generators, switching and control systems and audio computers.

This unit was developed in a Defence environment but may be relevant to others who work in this field.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently, or as part of a team, with minimal supervision, while performing complex tasks, including complex problem solving, in a limited range of contexts. They would use discretion and judgement and take responsibility for the quality of their outputs.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Competency Field

Simulator Operations

## Elements and Performance Criteria

| ELEMENTS                                 | PERFORMANCE CRITERIA                                                                                                                |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes | Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, |

|                                            |                                                                                                                                                                                                                                                              |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | further information is detailed in the range of conditions section.                                                                                                                                                                                          |
| <b>1. Receive and analyse fault report</b> | 1.1 Receive and analyse simulator sound system fault report.<br>1.2 Identify and select appropriate fault finding method(s) that will apply across the range of simulator sound system systems.<br>1.3 Prepare the simulator sound system for fault finding. |
| <b>2. Identify and find fault</b>          | 2.1 Apply fault finding method(s).<br>2.2 Identify and analyse fault indicators.<br>2.3 Identify simulator sound system fault.<br>2.4 Confirm that the fault is the one initially reported.                                                                  |
| <b>3. Repair fault</b>                     | 3.1 Identify and confirm cause of fault.<br>3.2 Identify and confirm repair method(s).<br>3.3 Complete simulator sound system repair.<br>3.4 Conduct post repair safety check.<br>3.5 Restart simulator sound system.                                        |
| <b>4. Conduct functional test</b>          | 4.1 Test simulator sound systems to ensure operational integrity.<br>4.2 Confirm operational parameters.                                                                                                                                                     |
| <b>5. Finalise repair process</b>          | 5.1 Finalise simulator sound system repair reports including a detailed synopsis of the fault and the repair process and any certification requirements.<br>5.2 Report the operational status of the simulator sound system.                                 |

## Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

|          |   |   |   |   |         |   |   |   |   |         |   |   |   |   |                    |   |   |   |   |          |   |   |   |   |
|----------|---|---|---|---|---------|---|---|---|---|---------|---|---|---|---|--------------------|---|---|---|---|----------|---|---|---|---|
| 1        | 2 | 3 | 4 | 5 | 1       | 2 | 3 | 4 | 5 | 1       | 2 | 3 | 4 | 5 | 1                  | 2 | 3 | 4 | 5 | 1        | 2 | 3 | 4 | 5 |
| Learning |   |   |   |   | Reading |   |   |   |   | Writing |   |   |   |   | Oral communication |   |   |   |   | Numeracy |   |   |   |   |

Performance variables

|         |   |   |   |   |         |   |   |   |   |                 |   |   |   |   |                 |   |   |   |   |
|---------|---|---|---|---|---------|---|---|---|---|-----------------|---|---|---|---|-----------------|---|---|---|---|
| 1       | 2 | 3 | 4 | 5 | 1       | 2 | 3 | 4 | 5 | 1               | 2 | 3 | 4 | 5 | 1               | 2 | 3 | 4 | 5 |
| Support |   |   |   |   | Context |   |   |   |   | Text complexity |   |   |   |   | Task complexity |   |   |   |   |

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

## Unit Mapping Information

No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

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# Assessment Requirements for DEFSIM005 Fault find and repair simulator sound systems

## Modification History

| Release | Comments                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1       | These Assessment Requirements were released in DEF Defence Training Package release 1.0 and meet the Standards for Training Packages. |

## Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- undertaking research and analysis related to simulator sound systems
- following logical, complex fault finding techniques
- using measuring instruments including audio sound analysers and acoustic calibrators
- applying simulator sound systems repair methodologies
- following configuration management processes
- using tools including signal generators and sound generators
- using appropriate information technology and software including at least one of:
  - general online diagnostic tools
  - proprietary sound analysis software
  - proprietary simulator management databases
  - proprietary simulator performance test systems
- identifying, reviewing and analysing information that may impact on the simulator sound systems fault finding
- conducting simulator sound systems functional testing
- negotiating and communicating effectively with key stakeholders

## Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- operational capabilities and limitations of the relevant simulator
- operational capabilities and limitations of the relevant simulator sound systems
- simulator operating modules comprising the simulator system being worked on
- fault indicators related to the simulator sound systems being worked on

- repair methodologies related to the simulator sound systems being worked on
- legislative and regulatory requirements related to the simulator being worked on
- organisational policy and procedures related to the relevant simulator sound systems
- configuration management related to the simulator sound systems being worked on
- product knowledge related to systems and/or equipment in service

## Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

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