



**Australian Government**

# **MEM234037 Perform maintenance-related integrated logistic support management activities**

**Release: 1**

## MEM234037 Perform maintenance-related integrated logistic support management activities

### Modification History

Release 1. Supersedes and is equivalent to MEM234037A Perform maintenance-related integrated logistic support management activities.

### Application

This unit of competency defines the skills and knowledge required to perform a range of maintenance-related integrated logistic support (ILS) activities at a managerial level for any complex system or product where ILS has been selected as the through-life management system. It also includes the application of data produced through the configuration management (CM) process where that process has been selected to establish and maintain the design baseline of a system or product. Technical information may also be taken from maintenance records and data.

This unit requires application of competencies relating to ILS elements and related data management and analysis tools in maintenance-related management and support of systems/products throughout their life of type.

Application of the CM process is covered by unit MEM234036 Apply configuration management procedures in engineering project management.

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

### Pre-requisite Unit

MEM23003 Operate and program computers and/or controllers in engineering situations

MEM234028 Produce and manage technical documentation

MEM234029 Produce and manage technical publications

### Competency Field

Engineering science

### Elements and Performance Criteria

| Elements                                           | Performance Criteria                                                                                   |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>   | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i> |
| 1. Assist to develop and maintain logistic support | 1.1 Draft accurate and complete technical content for logistic support analysis plans                  |

| Elements                                                                              | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                                      | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| analysis plans                                                                        | <p>1.2 Review the technical content of logistic support analysis plans in line with trends in system supportability and affordability and with changes in the design baseline</p> <p>1.3 Propose revisions to logistic support analysis plans</p>                                                                                                                                                                                                                                                                                                                                   |
| 2. Perform life cycle cost analysis                                                   | <p>2.1 Identify actual and anticipated costs through to life of type</p> <p>2.2 Analyse cost data and extract key information for ILS activities</p>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3. Establish and maintain baselines for reliability, availability and maintainability | <p>3.1 Gather data on in-service reliability, availability and maintainability (RAM) and establish baselines</p> <p>3.2 Review data against established baselines and initiate action to deal with deviations from established baselines</p>                                                                                                                                                                                                                                                                                                                                        |
| 4. Develop and maintain a maintenance plan and identify associated requirements       | <p>4.1 Perform a level of repair analysis (LORA)</p> <p>4.2 Specify maintenance activities and timelines</p> <p>4.3 Identify and document support and test equipment requirements</p> <p>4.4 Identify and document skills and maintenance manpower requirements</p> <p>4.5 Identify and document requirements for maintenance facilities</p> <p>4.6 Identify and document technical documentation requirements</p> <p>4.7 Provide data for initial spares assessment</p> <p>4.8 Revise the maintenance plan and applicable associated requirements required by baseline changes</p> |
| 5. Revise technical logistic support analysis record data                             | <p>5.1 Analyse logistic support analysis parameters using current data</p> <p>5.2 Enter analysis results in the logistic support analysis record</p>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6. Manage data                                                                        | <p>6.1 Develop and manage a technical data management system in accordance with contractual and regulatory requirements</p> <p>6.2 Monitor the relevance of technical data and initiate amendment action where necessary</p> <p>6.3 Apply and support logistic support management information systems</p>                                                                                                                                                                                                                                                                           |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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.

|                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analysis results include:                                          | <ul style="list-style-type: none"><li>• in-service failure mode effects and criticality analysis</li><li>• corrective and reliability-centred maintenance analysis</li><li>• maintenance task and repair level analysis.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                     |
| ILS standards and references include one or more of the following: | <ul style="list-style-type: none"><li>• Army Regulation 700-127 Integrated Logistics Support</li><li>• Defence Standard 00-600 Integrated Logistic Support for MOD Projects</li><li>• Defence Standard 00-40 Reliability and Maintainability Pt 1</li><li>• Defence Standard 00-41 Reliability and Maintainability MOD Guide to Practices and Procedures</li><li>• MIL-STD 1390D Level of Repair Analysis</li><li>• NAVAIR-00 -25-403 Guidelines for the Naval Aviation Reliability-Centred Maintenance Process</li><li>• Integrated Logistic Support Handbook, third edition</li><li>• NASA Fault Tree Assessment Handbook.</li></ul> |

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM234037A Perform maintenance-related integrated logistic support management activities.

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>