



Australian Government

MEA141 Manage risk in aviation maintenance

Release: 3

MEA141 Manage risk in aviation maintenance

Modification History

Release 2.1 Equivalent to MEA141 Manage risk in aviation maintenance. Minor amendments to references to regulations to allow flexibility in their application.

Release 2. Equivalent to MEA141 Manage risk in aviation maintenance. Updated to meet training package policy requirements.

Application

This unit of competency describes the skills and knowledge required to identify and manage risks associated with aviation maintenance activities. Work may be performed individually or as part of a team.

The unit applies to scheduled and unscheduled maintenance, and maintenance support or integrated logistic support (ILS) during maintenance. It is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

This unit forms part of the CASA requirement for maintenance certification licences under Civil Aviation Safety Regulation (CASR) Part 66. Where a CASA licensing outcome is sought, users must refer to the licensing provisions in the MEA Aeroskills Companion Volume Implementation Guide.

Pre-requisite Unit

Nil.

Competency Field

Aviation maintenance management

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1. Identify the criteria for aviation maintenance risk management

PERFORMANCE CRITERIA

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

- 1.1 Identify risk management procedures from organisation's risk management plan or aviation maintenance organisation exposition
- 1.2 Where a risk management plan does not exist, identify and document potential risks

ELEMENTS**PERFORMANCE CRITERIA**

- | | |
|--|---|
| | 1.3 Determine criteria for managing identified risks according to standard risk management procedures and document them as a risk management plan |
| | 1.4 Identify process for evaluating and reviewing risk management plan from organisation's plan, or develop an evaluation methodology and include it in the plan developed according to standard risk management procedures |
| 2. Manage aviation maintenance risk | 2.1 Monitor activities in line with risk management plan |
| | 2.2 Identify performance deviations and initiate responses according to risk management plan |
| | 2.3 Monitor and report effectiveness of risk responses according to risk management plan procedures |
| 3. Evaluate aviation maintenance risk management processes | 3.1 Review and analyse risk management outcomes to assess the effectiveness of risk management plan |
| 1 | 3.2 Develop and process recommendations on variations to the plan according to organisational policies and procedures |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

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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 MEA141 Manage risk in aviation maintenance

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, which must include the ability to:

- develop and document a risk management plan for one scheduled or one unscheduled aviation maintenance program.

In the course of the above work, the candidate must:

- identify risks and determine criteria for managing them, including:
 - determining level and degree of acceptability of each identified risk
 - legal aspects, such as regulatory violations and contractual commitments
 - cost of managing specific risks versus cost to the organisation if the risk eventuated
 - stakeholder perceptions and expectations
- apply standards and procedures for assessing and evaluating risks
- develop risk treatment processes
- assess legal impact of risk occurrence
- evaluate risk management plan operation
- demonstrate oral and written communication skills to the required level.

The above risk management plan must include:

- real and potential risks, their probability of occurrence, and degree of severity
- treatment options in each case
- responsibility for implementing treatment options and required response times
- resources required for risk management
- plan implementation timeframe
- periodic review timetable
- internal reporting system
- review methodology.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- standard risk management procedures, including:
 - organisational policies and procedures for risk management
 - websites dealing with risk management
 - relevant aviation safety regulations
 - Australian and New Zealand Standard AS/NZS 4360 Risk management
 - ISO 31000:2009 Risk management
- indicators of real and potential risks associated with the aviation maintenance program described in the performance evidence, including:
 - human factors, such as fatigue, illness and maintenance errors
 - work health and safety (WHS) issues resulting in injury or death
 - regulatory and procedural violations, such as inappropriate use of minimum equipment lists and failure to observe type certification standards
 - providing maintenance guidance to remotely-located aircrew or maintenance personnel
 - maintenance difficulties, such as spares shortages and unexpected failures of systems or components
 - support equipment failure
 - environmental problems
 - contractual issues
 - skill and experience shortfalls
 - maintenance cost escalation
 - natural events
- key features of maintenance error management programs
- regulatory impact of risks
- contractual impact of risks
- key features of cost-benefit analysis
- federal and state or territory WHS and environment protection legislation
- methodology for evaluating the operation of risk management plans, including by:
 - oversight of day-to-day operations
 - interviews with personnel in the organisation
 - physical inspections
 - incident reports
 - questionnaires
 - periodic review of risk treatment procedures and outcomes
- techniques for evaluating risks
- equity, fraud and ethics requirements set out in organisational code of conduct specific to the work described in the performance evidence.

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (Australian Defence Force [ADF] and Civil Aviation Safety Authority [CASA]) and maintenance stakeholders, and must be rigorously observed.

This unit may be assessed on the job, or a combination of on and off the job. Where assessment occurs off the job, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations encountered when managing risk in aviation maintenance.

The candidate must be permitted to refer to relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals, and reference materials.

The candidate must have access to:

- all tools, equipment, materials, and documentation required to demonstrate the performance evidence above.

Candidate capability of providing the required performance and knowledge evidence must be established via the records in the Maintenance Management Competency Log. Where the individual does not have a Competency Log, evidence of capability can be gathered through direct observation, supervisor's reports, project work, samples and questioning.

Assessors of this unit must satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

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.

Links

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