



Australian Government

AVIM0016 Operate a simulator

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Modification History

Release	Comments
1	This unit of competency was first released in AVI Aviation Training Package Release 12.0.

Application

This unit involves the skills and knowledge required to operate a simulator in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes applying simulation operations safety, conducting pre-operation planning, controlling a simulation activity and performing post-operation activities.

This unit incorporates aviation non-technical skill requirements (mental, social and personal-management abilities) for flight instructor personnel that complement the technical skills of the individual and contributes to safe and effective performance in simple and/or complex operational or training environments.

Flight instruction operations are conducted as part of recreational, commercial and/or military aviation training across a variety of operational contexts within the Australian aviation industry.

Work may be performed independently or under limited supervision as a single instructor or within a multi-crew environment.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Pre-requisite unit(s)

Not applicable.

Competency field(s)

M - Training and Assessment

Unit sector(s)

Not applicable

Elements and Performance Criteria

Elements		Performance criteria	
Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Apply simulation operations safety	1.1	Access and egress simulator according to workplace procedures
		1.2	Communicate and action safety and emergency procedures as required
		1.3	Monitor simulator serviceability according to workplace procedures
		1.4	Communicate effects of simulation sickness to participants and treat as required according to workplace procedures
		1.5	Follow workplace safety communications according to workplace procedures
2	Conduct pre-operation planning	2.1	Select appropriate simulation equipment
		2.2	Develop simulation activity plan according to activity requirements
		2.3	Use operating manuals to support work practices
		2.4	Access simulation data to suit work practices according to workplace procedures
		2.5	Manipulate simulation data to suit work requirements according to workplace procedures
		2.6	Save simulation data according to workplace procedures
		2.7	Store simulation data to suit work requirements according to workplace procedures
3	Control a simulation activity	3.1	Liaise with relevant personnel to determine requirements for simulation activity
		3.2	Commence simulation activity according to simulation plan
		3.3	Employ simulation equipment

		3.4	Maintain communication with simulation activity participants
		3.5	Monitor and address abnormal or unusual conditions
		3.6	Change activity conditions as requested or required
		3.7	Cease activity according to simulation activity plan
4	Perform post-operation activities	4.1	Save simulation results according to workplace procedures
		4.2	Debrief activity participants as required
		4.3	Record simulator faults according to workplace procedures
		4.4	Refurbish or maintain simulation equipment according to workplace procedures and regulatory requirements

Foundation skills

Foundation and digital skills essential to successful completion of this unit are mapped to the Australian Core Skills Framework (ACSF) and the European Digital Competence Framework (DigComp 3.0).

Further information is available in the AVI Companion Volume V1.1.

Range of conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Refer to the AVI Aviation Companion Volume Implementation Guide for non-essential items for this unit of competency.

Assessment Requirements for AVIM0016 Operate a simulator

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- accessing simulation data, including:
 - downloading from database
 - inserting a digital storage device
 - opening applications, directories and files
- applying fine physical motor skills
- communicating safety and emergency procedures
- communicating simulation sickness effects
- completing administrative tasks and functions related to simulator operations, including:
 - participant briefings and debriefings
 - participant performance records and reports
 - simulation activity planning
 - simulation safety briefs
- conducting access and egress, including:
 - appropriate and safe entry to simulator according to organisational work health and safety (WHS) and security policies
 - appropriate and safe exit methodologies from simulators
 - interpretation of signage, safety warnings and simulator status
 - monitoring access of visitors to simulator and providing safety and security briefs as required
- identifying and rectifying abnormal and / or unusual simulator conditions, including:
 - participant simulation sickness
 - equipment malfunction/failure
 - smoke or overheat warnings
 - emergency communication
 - loading stops
 - motion stops
 - hardware malfunction/failure

- software malfunction/failure
- poor/unusual participant performance
- personnel equipment malfunction/failure
- implementing simulation activity variations:
 - adapting scenarios or activities based on participant feedback and/or performance
 - modifying hardware configurations
- implementing WHS procedures and relevant regulations
- maintaining simulator equipment and operating systems according to workplace procedures and regulatory requirements
- manipulating, saving and storing simulation data according to workplace procedures
- modifying software settings
- monitoring and addressing abnormal and/or unusual conditions
- monitoring simulator serviceability, including:
 - ensuring simulator is maintained to a level satisfactory to comply with organisational requirements
 - recording hardware and/ software faults and issues that may arise during the course of routine equipment operation
 - submission of routine maintenance documentation
- reading, comprehending and interpreting written technical English
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- selecting and employing simulation equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- abnormal conditions, including:
 - equipment malfunction/failure
 - hardware
 - poor/unusual participant performance
 - software
- application of simulation and synthetic activities including live, virtual and constructive (LVC) simulations

- basic briefing and debriefing techniques, including:
 - simulator safety
 - simulation event review
- basic database management
- documentation production and safe storage
- effects of simulation sickness, including:
 - nausea subscale:
 - burping
 - increased salivation
 - nausea
 - stomach awareness
 - sweating
 - oculomotor subscale:
 - difficulty focusing
 - eyestrain
 - fatigue
 - headache
 - disorientation subscale:
 - blurred vision
 - dizzy (eyes closed)
 - dizzy (eyes open)
 - vertigo
- functions of single-user, multi-user and distributed user operating systems
- identification of signs and symptoms and methods of rectifying abnormal/unusual simulator conditions, including:
 - access and egress procedures
 - emergency communication
 - equipment malfunction and/or failure
 - hardware malfunction and/or failure
 - loading stops
 - motion stops
 - participant simulation sickness
 - personnel equipment malfunction and/or failure

- poor and/or unusual participant performance
- relevant WHS and environmental procedures and regulations applicable to simulation operations and personnel safety and individual safety considerations
- reporting and recording simulation WHS issues
- safety briefings
- smoke or overheat warnings
- software malfunction and/or failure
- information communications technology in the simulation and synthetic learning environment
- relevant procedures applicable to simulation operations
- simulation activity variations, including:
 - adapting scenarios and activities based on participant feedback and/or performance
 - modifying equipment configurations
 - modifying software settings.

Assessment Conditions

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment (PPE) currently used in industry.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
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AVIM0008 Operate a simulator	Equivalent	
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Links

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/AVI>.

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