



Australian Government

AVIM5001 Operate a simulator

Release: 1

AVIM5001 Operate a simulator

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

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. Use of this unit for simulation activities outside of an aviation context is to be in accordance with relevant regulatory, organisational or enterprise procedures.

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

This unit addresses technical skill requirements (physical, mental and task-management abilities) related to training and assessment duties of simulator operators, instructors and assessors, and contributes to safe and effective performance in simple and/or complex operational or training environments.

Operations are conducted as part of recreational, commercial and military simulation activities across a variety of operational contexts within the Australian aviation industry, or other vocational operating environments when required.

Work is performed independently or under limited supervision as a single operator or within a team environment.

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

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

M – Training and Assessment

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Apply simulation operations safety

- 1.1 Access and egress to simulator is conducted in accordance with workplace procedures
- 1.2 Safety and emergency procedures are communicated and actioned as required
- 1.3 Simulator serviceability is monitored in accordance with workplace procedures
- 1.4 Effects of simulation sickness are communicated to participants and treated as required in accordance with workplace procedures
- 1.5 Workplace safety communications are followed in accordance with workplace procedures

2 Conduct pre-operation planning

- 2.1 Appropriate simulation equipment is selected
- 2.2 Simulation activity plan is developed in accordance with activity requirements
- 2.3 Operating manuals are used to support work practices
- 2.4 Simulation data is accessed to suit work practices, in accordance with workplace procedures
- 2.5 Simulation data is manipulated to suit work requirements, in accordance with workplace procedures
- 2.6 Simulation data is saved in accordance with workplace procedures
- 2.7 Simulation data is stored to suit work requirements, in accordance with workplace procedures

3 Control a simulation activity

- 3.1 Liaison with relevant personnel is conducted to determine simulation activity requirements
- 3.2 Simulation activity is commenced
- 3.3 Simulation equipment is employed
- 3.4 Communication with simulation activity participants is

		maintained
	3.5	Abnormal/unusual conditions are monitored and addressed
	3.6	Variations to activity conditions are made as requested/required
	3.7	Activity is ceased in accordance with simulation activity plan
4 Perform post-operation activities	4.1	Simulation results are saved in accordance with workplace procedures
	4.2	Activity participants are debriefed as required
	4.3	Simulator faults are recorded in accordance with workplace procedures
	4.4	Simulation equipment is refurbished/maintained in accordance with workplace procedures

Foundation Skills

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

Range of Conditions

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

Access and egress must include:

- appropriate and safe entry to simulator in accordance with organisational work health and safety (WHS)/occupational health and safety (OHS) 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/security briefs as required

Simulator must include one or more of the following:

- associated simulator computer hardware and software
- desktop simulator
- full motion simulator
- flight training device
- operating system
- part-task trainer
- simulator

Abnormal/unusual conditions must include one or more of the following:	• single, multiple or team operator simulator • synthetic training device • virtual reality training system • emergency communications • equipment malfunction/failure • hardware malfunction/failure • loading stops • motion stops • participant simulation sickness • personnel equipment malfunction/failure • poor/unusual participant performance • smoke or overheat warnings • software malfunction/failure
Monitoring simulator serviceability must include:	• ensuring simulator is maintained to a level satisfactory to comply with organisational requirements • recording hardware/software issues that may arise during the course of routine equipment operation • submission of routine maintenance documentation
Simulation sickness effects must include:	• nausea subscale: • increased salivation • sweating • nausea • stomach awareness • burping • oculomotor subscale: • fatigue • headache • eyestrain • difficulty focusing • disorientation subscale: • vertigo • dizzy (eyes open) • dizzy (eyes closed)blurred vision
Appropriate simulation equipment must include one or more of the following:	• access database • compact discs • computer software subclass • digital insertion devices • gaming software • personnel equipment (e.g. hearing protection, eye protection, clothing, footwear) • software applications

- storage strategy within organisational databases
 - synthetic environment software (e.g. SETHI)
 - universal serial bus devices
 - web-based database
- Accessing simulation data must include one or more of the following:
- downloading from database
 - inserting a digital storage device
 - opening applications, directories and files

Unit Mapping Information

This unit replaces and is equivalent to AVIM5001A Operate a simulator.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIM5001 Operate a simulator

Modification History

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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:

- applying fine physical motor skills
- communicating safety and emergency procedures
- communicating simulation sickness effects
- completing administrative tasks and functions related to simulator operations:
 - simulation activity planning
 - participant performance records and reports
 - simulation safety briefs
 - participant briefings/debriefings
- conducting briefings and debriefings
- coordinating activities that involve a range of simple and/or complex tasks
- coordinating information communication technology related activities
- creating and storing documents using information communication technology
- identifying and rectifying abnormal/unusual simulator conditions:
 - 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 work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- implementing simulation activity variations:
 - adapting scenarios/activities based on participant feedback and/or performance
 - modifying hardware configurations
- modifying software settings

- manipulating, saving and storing simulation data in accordance with workplace procedures
- monitoring and addressing abnormal/unusual conditions
- reading, comprehending and interpreting written technical English
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- recording simulator faults
- refurbishing/maintaining simulator equipment and operating systems in accordance with workplace procedures
- 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 hardware, software and equipment malfunction/failure and poor/unusual participant performance
- application of simulation and synthetic activities including live, virtual and constructive (LVC) simulations
- basic database management
- basic briefing and debriefing techniques
 - simulator safety
 - simulation event review
- documentation production and safe storage
- effects of simulation sickness:
 - nausea subscale:
 - increased salivation
 - sweating
 - nausea
 - stomach awareness
 - burping
 - oculomotor subscale:
 - fatigue
 - headache
 - eyestrain
 - difficulty focusing
 - disorientation subscale:
 - vertigo
 - dizzy (eyes open)

- dizzy (eyes closed)
 - blurred vision
- established procedures applicable to simulation operations
- functions of single-user, multi-user and distributed user operating systems
- identification of signs/symptoms and methods of rectifying abnormal/unusual simulator conditions:
 - 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
 - relevant WHS/OHS and environmental procedures and regulations applicable to simulation operations and personnel safety/individual safety considerations
 - safety briefings
 - access and egress procedures
 - reporting and recording simulation WHS issues
- information communications technology in the simulation and synthetic learning environment
- simulation activity variations:
 - adapting scenarios/activities based on participant feedback and/or performance
 - modifying hardware configurations
 - modifying software settings.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate,

assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

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

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