



Australian Government

AVIZ3052 Apply situational awareness in remote pilot aircraft systems operations

Release: 1

AVIZ3052 Apply situational awareness in remote pilot aircraft systems operations

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, knowledge and attitudes required to apply situational awareness in remote pilot aircraft systems (RPAS) operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes maintaining situational awareness, assessing situations and making decisions, setting priorities and managing tasks, and working with others in managing situational awareness.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) of aviation personnel, and contributes to safe and effective performance in complex aviation operational environments

Operations are conducted as part of recreational, commercial and military aircraft activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision within a single-pilot or multi-crew RPAS environment.

Licensing, legislative, regulatory or certification requirements are applicable to this unit at time of publication.

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

Pre-requisite Unit

Not applicable.

Competency Field

Z – Situational Awareness

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 Maintain situational awareness

- 1.1 Continuous monitoring of all critical factors relevant to the safe progress of a flight is undertaken
- 1.2 Effective visual scan is applied, crew interaction is maintained, and radio, inter-crew communication, traffic information and RPAS are used appropriately
- 1.3 Trends towards an unsafe situations are recognised and appropriate corrective action is employed in accordance with workplace procedures and regulatory requirements
- 1.4 Breakdown in situational awareness is identified and is rectified promptly

2 Assess situations and make decisions

- 2.1 Operational problems are identified and analysed
- 2.2 Operational risks are assessed and reported in accordance with workplace procedures and regulatory requirements
- 2.3 Potential solutions are identified and control measures are decided and implemented
- 2.4 Determined plan of action is communicated and tasks are allocated to others as appropriate
- 2.5 Plan of action is implemented and monitored to achieve optimum outcomes
- 2.6 Plan of action and implementation process are re-evaluated and amended as required to achieve optimum outcomes
- 2.7 Extended operational changes resulting from action plan and related risks are monitored and managed to ensure a safe flight outcome

3 Set priorities and manage tasks

- 3.1 Priorities and workload are organised to ensure completion of all tasks relevant to flight safety
- 3.2 Safe and effective operation of the RPAS is prioritised ahead of competing tasks
- 3.3 Critical events and tasks are anticipated and managed to ensure completion within available time constraints

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| | 3.4 | Technology is used to reduce workload and to improve ability to perform mental and manipulative activities safely |
| | 3.5 | Fixation on single actions/functions is avoided |
| | 3.6 | Signs and symptoms of fatigue are identified and appropriate actions are taken to manage fatigue of self or in others |
| 4 Work with others in managing situational awareness | 4.1 | Collaboration with others is undertaken to ensure safe completion of flight |
| | 4.2 | Effective and efficient communications and interpersonal relationships are established and maintained with all stakeholders to ensure safe flight outcome |
| | 4.3 | Crew members are encouraged to participate in and contribute to safe flight outcome |
| | 4.4 | Appropriate action is taken in conjunction with others to cooperatively correct any identified unsafe situations that may develop during an RPAS flight |

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.

- Factors relevant to the safe progress of a flight must include one or more of the following:
- air traffic in the vicinity of a RPAS
 - becoming lost
 - changes in wind and weather conditions at destination
 - changes in wind and weather conditions en route
 - engine or equipment malfunction or failure
 - errors in navigation
 - exceeding nominated operating parameters and tolerances for RPAS
 - instrument or display malfunction or failure
 - running out of fuel/energy
 - security threat at RPAS control station

Managing tasks must include:

- visual line of sight
- visual meteorological conditions

Unit Mapping Information

This unit replaces and is equivalent to AVIZ3052A Manage situational awareness in remote pilot aircraft systems (RPAS) operations.

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 AVIZ3052 Apply situational awareness in remote pilot aircraft systems operations

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:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures
- applying aviation safety management system policies and procedures for remote pilot aircraft systems (RPAS) flight
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using required equipment
- implementing aviation risk management processes in RPAS contexts
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- maintaining all necessary communications
- maintaining compliance with WHS/OHS and regulatory requirements
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- reading, interpreting following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems that may occur promptly, in accordance with regulatory requirements and workplace procedures
- responding appropriately to cultural differences in the workplace
- selecting and using appropriate instruments, displays, communications equipment and aids
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- sourcing and interpreting aviation weather forecast products appropriate to flight planning and navigation procedures

- transferring RPAS control between crew members as required
- working systematically with required attention to detail without injury to self or others, or damage to goods or 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:

- aeronautical communication procedures and protocols
- aeronautical decision-making processes
- air navigation techniques applicable to RPAS operations
- air traffic rules and procedures
- effective communication
- error management, including error types, causes and consequences
- fatigue risk management
- human performance and its limitations, including the senses, memory and situational awareness
- in a Defence context, relevant Defence Orders and Instructions
- operational hazards that may be identified when managing situational awareness and ways of controlling those hazards and associated risks
- principles of flight relevant to RPAS operations
- problems that may occur when managing situational awareness and action that can be taken to overcome these problems
- procedures for maintaining situational awareness
- procedures for transferring RPAS control between crew members
- relevant sections of Civil Aviation Safety Regulations (CASRs) and Civil Aviation Orders related to RPAS operations
- relevant WHS/OHS and environmental procedures and regulations
- risk identification, analysis and control
- RPAS energy source usage rates
- stress, workload and time pressure management
- use of navigational computers and equipment.

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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