



Australian Government

AVIY3075 Control remote pilot aircraft systems in normal flight

Release: 1

AVIY3075 Control remote pilot aircraft systems in normal flight

Modification History

Release 1. This is the first release of this qualification in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to control remote pilot aircraft systems (RPAS) in normal flight, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes climbing the RPAS, maintaining straight and level flight and turning the RPAS in flight. It also includes controlling RPAS speed in flight, descending the RPAS, performing RPAS landing approaches, and complying with airspace requirements.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and ground 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.

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

Pre-requisite Unit

Not applicable.

Competency Field

Y – Aircraft Operation and Traffic Management

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 Climb RPAS

- 1.1 Clarity of flight path is observed and risks are mitigated in accordance with workplace procedures
- 1.2 RPAS climb checks are completed in accordance with workplace policies and procedures
- 1.3 Adjustments are made to attitude and power to achieve an increase of altitude at shallow, normal and steep rates and cruise conditions of flight, during straight and turning manoeuvres as required
- 1.4 RPAS is maintained in trim condition as required
- 1.5 RPAS is levelled off at or below 400 feet above ground level (AGL)
- 1.6 Situational awareness, lookout and air traffic separation are maintained in accordance with workplace procedures and regulatory requirements

2 Maintain straight and level flight

- 2.1 Power, altitude and configuration are set to achieve straight and level flight as required
- 2.2 RPAS is maintained in trim condition as required
- 2.3 Visible signs or electronic indications of height change are identified and responded to appropriately
- 2.4 Visible signs or electronic indications of heading change are identified and responded to appropriately
- 2.5 Clarity of flight path is observed and risks are mitigated in accordance with workplace procedures
- 2.6 Situational awareness, lookout and air traffic separation are maintained in accordance with workplace procedures and regulatory requirements

3 Turn RPAS in flight

- 3.1 RPAS operating limits are maintained during turns in accordance with workplace procedures and manufacturer instructions
- 3.2 Situational awareness, lookout and air traffic separation are

			maintained during turns
		3.3	Potential hazards are identified and controlled during turns
4	Control RPAS speed in flight	4.1	Height awareness is maintained during slow speed flight
		4.2	Recovery to cruise speed is achieved while maintaining height during flight
5	Descend RPAS	5.1	Adjustments are made to altitude and power to achieve a decrease of altitude at shallow, normal and steep rates as required
		5.2	RPAS is maintained in trim condition as required
		5.3	RPAS is levelled from a descent position at a nominated altitude in accordance with workplace policies and procedures, and manufacturer instructions
		5.4	Clarity of flight path is observed during RPAS descent and risks are mitigated in accordance with workplace procedures
		5.5	RPAS operating limits are controlled during descent in accordance with workplace procedures and manufacturer instructions
		5.6	Descent checks are completed in accordance with workplace procedures and regulatory requirements
		5.7	Situational awareness, lookout and air traffic separation are maintained in accordance with regulatory requirements and workplace procedures
6	Perform RPAS landing approaches	6.1	Approaches are conducted in accordance with operations manual procedures appropriate to the RPAS type, with allowance for wind velocity
		6.2	All mandated checklists are completed and communications procedures are followed
		6.3	Traffic conflict or adverse flight conditions are recognised and a go-around/position–hold is performed from any position in the approach and landing pattern
		6.4	Radio listening watch is maintained in accordance with established procedures and regulatory requirements
		6.5	RPAS is configured for landing in accordance with workplace procedures and manufacturer instructions

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| 7 Comply with airspace requirements | <div style="margin-left: 20px;">7.1 Compliance is maintained at all times with air traffic requirements and controlled or restricted airspace conditions or limitations</div> <div style="margin-left: 20px;">7.2 Safe progress of flight is ensured at all times</div> <div style="margin-left: 20px;">7.3 Awareness of RPAS position is maintained at all times</div> <div style="margin-left: 20px;">7.4 Radio listening watch is maintained in accordance with established procedures and regulatory requirements</div> <div style="margin-left: 20px;">7.5 Weather conditions are monitored and responded to appropriately accordance with regulatory requirements, and workplace policies and procedures</div> |
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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.

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| Procedures for maintaining airspace compliance requirements must include: | <ul style="list-style-type: none">• determining geographical limits of flight area on a chart or electronic display• identifying prominent geographical features using a chart• determining position of controlled airspace using a chart and geographical features• identifying restricted areas using a chart and geographical features |
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Unit Mapping Information

This unit replaces and is equivalent to AVIY3075A Control remote pilot aircraft (RPA) in normal flight.

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 AVIY3075 Control remote pilot aircraft systems in normal flight

Modification History

Release 1. This is the first release of this qualification in the TLI Transport and Logistics Training Package.

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 precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- applying the techniques of straight and level, climbing and descending flight
- communicating effectively with others when controlling the remote pilot aircraft systems (RPAS) in normal flight, including using a radio
- identifying and correctly using relevant equipment
- 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 compliance with regulatory requirements
- maintaining separation between air traffic
- 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
- performing various functions simultaneously as required
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- remaining within a designated area while complying with airspace and air traffic requirements
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace
- responding appropriately to cultural differences
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- using instruments to monitor RPAS performance

- working collaboratively with others when controlling the RPAS in normal flight, including when using a radio
- 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 decision-making processes
- effect of angle of bank and load factor on stall speeds as applicable
- effect of wind on RPAS flight path
- effective communications
- error management, including error types, causes and consequences
- fatigue risk management
- functions and effects of all RPAS controls
- go-around/position hold procedures
- human performance and its limitations, including the senses, memory and situational awareness
- in a Defence context, relevant Defence Orders and Instructions
- post launch checks
- pre-recovery checks
- principles of aerodynamics
- procedures for setting power in engines
- relevant sections of Civil Aviation Regulations and Orders
- RPAS circuit patterns and procedures
- stress, workload and time pressure management
- use of autopilot/flight director functions
- use of instruments to monitor RPAS performance
- use of navigation sensors and equipment
- use of trim controls
- WHS/OHS and environmental procedures and regulations.

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.

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

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.

Links

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