



Australian Government

**AVIY0102 Launch, control and recover a
remotely piloted aircraft (7-25kg)**

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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 launch, control and recover a remotely piloted aircraft system (RPAS) in the 7-25kg category in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes planning and preparing equipment, pre-launching procedures, launching and climbing RPAS. It also includes responding to launch emergencies, maintaining straight and level flight, turning RPAS in flight, descending RPAS, performing RPAS landing procedure and recovering RPAS.

This unit addresses aviation technical skill requirements and 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 as a single operator or within a team environment.

Licensing/Regulatory Information

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

Pre-requisite unit(s)

No pre-requisite units

Competency field(s)

Y - Aircraft Operation and Traffic Management

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	Plan and prepare equipment	1.1	Review manufacturer aircraft configuration limits, endurance and performance, including weight category considerations relevant to 7–25 kg operations
		1.2	Review aircraft and payload checklists in accordance with manufacturer and organisational requirements
		1.3	Verify payload/sensor configuration and secure mounting to maintain aircraft controllability and stability in accordance with manufacturer instructions and operational requirements
		1.4	Perform pre-flight maintenance and serviceability checks in accordance with manufacturer requirements
2	Carry out pre-launch procedures	2.1	Conduct pre-launch briefing is according to operations manual and workplace procedures
		2.2	Undertake fail-safe checks according to operations manual and workplace procedures
		2.3	Complete approved pre-launch checklists according to operations manual and workplace procedures
		2.4	Position RPAS correctly for launch, considering heavier multirotor ground hazards and rotor wash
		2.5	Determine airspace and launch area are clear for launch
3	Launch RPAS	3.1	Apply power, launch and maintain RPAS alignment in the launch direction
		3.2	Maintain situational awareness, lookout and air traffic separation
		3.3	Maintain listening watch according to regulatory requirements
		3.4	Communicate with others when launching RPAS
		3.5	Perform after launch checks according to operational requirements

4	Respond to emergencies	4.1	Identify abnormal RPAS operations and make corrective actions as required
		4.2	Maintain control and bring RPAS to safe recovery state appropriate to aircraft type and operating environment
		4.3	Initiate emergency procedures, respond to the emergency, complete checklists and other relevant documentation
5	Operate and manage RPAS during normal flight	5.1	Observe the flight path and mitigate risks according to operational procedures
		5.2	Adjust RPAS attitude and power to achieve a safe climb
		5.3	Set power, altitude and configuration to maintain straight and level flight
		5.4	Monitor flight path and mitigate risks during flight operations
		5.5	Maintain RPAS operating limits during turns according to manufacturer instructions
		5.6	Identify and manage potential hazards during flight
		5.7	Maintain RPAS operating limits and safety during descent according to manufacturer instructions
		5.8	Complete descent checks according to operational procedures and regulatory requirements
6	Perform RPAS landing procedure	6.1	Conduct landings in accordance with operations manual procedures appropriate to the RPAS type, allowing for wind velocity
		6.2	Complete all mandated checklists
		6.3	Monitor air space and landing area to ensure safe landing
		6.4	Configure the RPAS for landing according to manufacturer instructions
7	Recover RPAS	7.1	Recover RPAS at a controlled rate of descent
		7.2	Conduct an aborted landing and recovery procedure
		7.3	Maintain directional control at all times and if required adjust landing orientation based on wind direction

		7.4	Minimise ground effect on RPAS appropriately
		7.5	Land and stop the RPAS within the available area
		7.6	Perform post-recovery checks according to approved checklists, manufacturer instructions and operational requirements

Range of conditions

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

Assessment Requirements for AVIY0102 Launch, control and recover a remotely piloted aircraft (7-25kg)

Performance Evidence

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

- adapting to differences in equipment and operating environment according to workplace procedures
- demonstrating techniques of climb, straight and level, turns and descent suitable to heavier multirotor aircraft and payload effects
- communicating effectively with others during operations, including radio and listening watch where required
- complying with air traffic instructions and regulatory requirements
- conducting pre-launch planning, checklists, fail-safe verification and post-flight actions according with operations manual and workplace procedures
- configuring and operating payloads and sensors and mitigating impacts on stability, handling and endurance
- launching, controlling, manoeuvring, landing and recovering a multirotor RPAS while maintaining separation and situational awareness across phases of flight
- managing abnormal or contingency events including activation of emergency procedures and completing associated documentation
- operating in a manner that reflects typical industry use cases enabled by 7-25 kg platforms as permitted by organisational requirements.

Knowledge Evidence

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

- aeronautical decision-making processes and threat and error management
- communication requirements during RPAS operations, including maintaining a listening watch where applicable
- effects of specialised payloads or equipment on launch performance, stability and handling
- fail safe functions and monitory requirements
- human factors including situational awareness, workload, stress and fatigue risk management
- manufacturer specifications for operating a multirotor RPAS in the 7-25 kg category

- pre-launch, after-launch, descent, landing and recovery checks and purpose.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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 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
AVIY0023 Launch, control and recover a remotely piloted aircraft	Not equivalent	

Links

Companion volumes, including implementation guides, are found on the national training register - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>.