



Australian Government

**AVIY0100 Conduct aerial application
operations using remotely piloted aircraft
systems**

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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 application of skills and knowledge required to conduct aerial application operations using remote pilot aircraft systems (RPAS) in compliance with the relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes conducting pre-operations actions to apply substances through aerial application, conducting pre-flight actions to apply substances through aerial application and apply substances through aerial application.

This unit addresses aviation technical skill requirements and physical, mental and task-management abilities related to aircraft operational duties of flight crew and contributes to safe and effective performance in complex aviation operational environments.

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

Work is performed in small teams or under limited supervision within a single-pilot or multi-crew environment.

Licensing/Regulatory Information

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

Pre-requisite unit(s)

AHCCHM304 Transport and store chemicals

AHCCHM307 Prepare and apply chemicals to control pest, weeds and diseases

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	Conduct pre-operations actions to apply substances through aerial application	1.1	Determine operational aircraft type for suitability for aerial application operations
		1.2	Check equipment is calibrated and adjusted for type of aerial application operations
		1.3	Assess planned aerial application operations for potential or actual hazards according to workplace procedures
		1.4	Determine suitability of current and forecast weather for aerial application operations
		1.5	Identify potential and actual hazards and operational requirements, assess risks for aerial application operations and implement controls according to workplace procedures
		1.6	Interpret the treatment area map correctly
		1.7	Develop management plan to ensure pattern and direction of treatment is according to workplace procedures
		1.8	Confirm acceptable aircraft performance for aerial application operational conditions through performance planning
		1.9	Identify and manage issues relating to aircraft weight, performance, dimensions and load
		1.10	Conduct aerial application operations according to regulatory requirements
2	Conduct pre-flight actions to apply substances through aerial application	2.1	Amend or modify application management plans according to aerial survey assessment results, as required
		2.2	Operate aircraft at permissible weights for aerial application operations according to manufacturer

			instructions, regulatory requirements and workplace procedures
3	Apply substances through aerial application	3.1	Apply substances safely according to the application management plan
		3.2	Determine correct application height according to terrain, application type and meteorological conditions and within safety margins
		3.3	Operate aerial application equipment within scope of the application management plan
		3.4	Monitor application flow rates, pressure and product quantities during application operations
		3.5	Make decisions to suspend or continue safe aerial application operations according to planned or actual operation conditions
		3.6	Conduct clean-up operations and hazard safety checks after completing aerial application

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 AVIY0100 Conduct aerial application operations using remotely piloted aircraft systems

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:

- assessing and checking aircraft and equipment for flight serviceability
- assessing identified environmental hazard factors
- assessing relevant wind velocity and direction
- conducting pre-flight operational planning
- determining aircraft launch weights relevant to operational conditions
- determining relevant aircraft type suitability
- developing, amending and modifying application management plans
- establishing and implementing safe operating condition margins during aerial application operations
- establishing operational energy and power requirements for normal and contingency operations
- identifying aerial application hazards
- identifying potential contingency and alternate landing areas
- implementing work health and safety (WHS) procedures and relevant regulations
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs.

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:

- aerial application role equipment
- aircraft configuration and flight characteristics for the aircraft being flown during maximum weight flight and operations
- aircraft flight manual, performance, engine and systems
- applicable regulations that relate to conducting a safe aerial application operation
- application area evaluation.

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
AVIY0026 Conduct aerial application operations using remote pilot aircraft systems	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>.