Australian Government

AVIY3074A Launch remote pilot aircraft (RPA)

Release 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

AVIY3074A Launch remote pilot aircraft (RPA)

Modification History

Release 1. This is the first release of this unit.
This unit replaces and is equivalent to AVIY3068A Launch remote pilot aircraft (RPA).

Unit Descriptor

This unit involves the skills and knowledge required to perform a remote pilot aircraft (RPA) launch, including completing pre-launch checks, launch procedures, after launch checks.

Application of the Unit

Work must be carried out in compliance with the relevant licence and RPAS rating requirements of the Civil Aviation Safety Authority (CASA); relevant airspace control requirements; Visual Meteorological Conditions (VMC); regulations, safety codes, protocols and procedures relevant to RPA launch.
Use for Defence Aviation is to be in accordance with relevant Defence Orders and Instructions.
Operations are conducted across a variety of operational contexts within the Australian aviation industry.
Work is performed under limited supervision.

Licensing/Regulatory Information

Refer to Application of the Unit.

Pre-Requisites

Nil.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1 Carry out pre-launch procedures	1.1 Pre-launch briefing is conducted
	1.2 Fail-safe checks are undertaken in accordance with Flight Manual and company operations manual
	1.3 Obstacle clearance calculations are completed as applicable
	1.4 Air Traffic Control clearances are obtained as applicable
	1.5 Approved pre-launch checklists are completed in accordance with Flight Manual and company operations manual
	1.6 RPA is correctly positioned for launch
	1.7 Airspace is determined as clear for launch
2 Take off RPA	2.1 Launch power is applied and RPA is maintained aligned in the launch direction
	2.2 RPA is configured for nominated climb profile as applicable
	2.3 Situational awareness, lookout and air traffic separation is maintained
	2.4 Listening watch is maintained according to regulatory requirements
	2.5 Communication with others as appropriate is undertaken when launching an RPA
	2.6 After launch checks are performed in accordance with workplace policies and procedures
3 Launch emergency	3.1 Abnormal operations are identified
	3.2 RPA power settings are adjusted as applicable
	3.3 Control is maintained to bring the RPA to a safe recovery
	3.4 Associated emergency procedures are initiated and checklists and other documentation are completed in accordance with workplace policies and procedures and regulatory requirements

Required Skills and Knowledge

This section describes the knowledge and skills required for this unit.

Required knowledge:

- Risk identification, analysis and control
- Error management, including error types, causes and consequences as relevant to this unit
- Human performance and its limitations, including the senses, memory and situational awareness as relevant to this unit
- The decision making process as relevant to this unit
- Management of fatigue as relevant to this unit
- Stress, workload and time pressure management in relation to this unit
- Effective communication as relevant to this unit
- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- In Defence context, relevant Defence Orders and Instructions
- Relevant WHS/OHS and environmental procedures and regulations
- Principles of aerodynamics
- Purpose and functions of RPA systems
- Functions and effects of all RPA controls
- All pre-launch and after launch checks
- RPA launch performance
- Air traffic requirements
- Factors affecting directional control of the RPA
- Problems that may occur when launching an RPA and appropriate actions that should be taken in each case
- Manufacturers specifications relating to the operation of a RPA
- Obstacle clearance techniques
- Emergency procedures
- Required documentation

Required skills:

- Apply launch procedures in accordance with flight manual
- Interpret wind speed and direction
- Comply with air traffic instructions and regulatory requirements
- Manage launch emergencies
- Perform all pre-launch and post launch checks
- Identify obstructions or other hazards that might hinder a safe launch
- Read and interpret instructions, regulations, procedures and other information relevant to

taking off an RPA

- Interpret and follow operational instructions and prioritise work
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when launching an RPA
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may occur when launching an RPA in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when taking off a RPA
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when launching an RPA
- Check and monitor fail-safe functions
- Monitor and anticipate operational problems and hazards and take appropriate action
- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective equipment conforming to industry and WHS/OHS standards
- Implement WHS/OHS procedures and relevant regulations
- Identify and correctly use equipment required when launching an RPA

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- risk management
- human factors
- safety management systems and:
- required knowledge and skills
- relevant legislation and workplace procedures
- other relevant aspects of the range statement.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
- access to an appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment, and
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in a:

- real or appropriately simulated environment.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- knowledge and performance questions and direct observation.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Tasks must be undertaken in:	• visual line of sight, • visual meteorological conditions
Performance may be demonstrated in:	• single engine RPA • multi engine RPA
Performance may be demonstrated on a RPA with:	• fully functioning controls • with the use of a suitable simulator
Aircraft may include:	• remotely piloted aircraft (rpa)/unmanned aircraft
Crew may include:	• remote pilot • remote observer • payload and sensor operators and technicians
Instruments may be:	• instrumentation associated with the particular system
Limitations may be imposed by:	• prevailing visibility
Class of airspace is:	• Class G airspace, as designated by the Civil Aviation Safety Authority • restricted and danger areas • military control zones
Launch may include:	• variable wind • crosswind
Pre-launch briefings may include:	• departure procedures • actions in the event of abnormal or emergency situations
Aborted launch requirement may include:	• RPA malfunction • Unforeseen hazard
Dependent on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures • standard operating procedures
Information/documents may include:	• relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders pertaining to taking off a RPA, including Day Visual Flight Rules (Day VFR) • in Defence context, relevant Defence Orders and Instructions • Flight Manual

	• Manual of Standards • En Route Supplement Australia (ERSA) • approved operators manuals • approved checklists • workplace procedures and instructions and job specification • induction and training materials • conditions of service, legislation and industrial agreements including workplace agreements and awards
Applicable regulations and legislation may include:	• relevant Civil Aviation Safety Regulations and Civil Aviation Orders • relevant Defence Orders and Instructions • relevant state/territory WHS/OHS legislation • relevant state/territory environmental protection legislation • relevant Australian Standards
Performance includes tolerances specified in either of:	• relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA) such as: • Manual of Standards • relevant Defence documentation such as: • Defence Orders and Instructions

Unit Sector(s)

Not applicable.

Competency Field

Y - Aircraft Operation and Traffic Management