



**Australian Government**

# **AVIY3073A Control remote pilot aircraft (RPA) on the ground**

**Release 1**

# **AVIY3073A Control remote pilot aircraft (RPA) on the ground**

## **Modification History**

Release 1. This is the first release of this unit.

This unit replaces and is equivalent to AVIY3067A Control remote pilot aircraft (RPA) on the ground.

## **Unit Descriptor**

This unit involves the skills and knowledge required to control a remote pilot aircraft (RPA) on the ground including starting and stopping an RPA engine, fulfilling all required safety requirements, and if required, performing pre-taxi functions and manoeuvring the RPA on the ground without incident.

## **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 relating to controlling an RPA on the ground.

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

- |                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Start engine</b>                     | <p>1.1 Pre-start and after-start checks are completed in accordance with Flight Manual/POH</p> <p>1.2 RPA is positioned to ensure safety when starting engine</p> <p>1.3 Manufacturers limitations and report deviations are complied with as appropriate</p> <p>1.4 Engine/s are started in accordance with Flight Manual/POH</p> <p>1.5 Emergencies are managed in accordance with Flight Manual/POH and regulatory requirements</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>2 Taxi/position RPA as appropriate</b> | <p>2.1 ATIS reports and taxi clearance are obtained where applicable</p> <p>2.2 RPA is taxied at a safe speed and in accordance with prevailing location, traffic, surface and weather conditions</p> <p>2.3 Instrument checks are performed clear of conflicting traffic and other hazards to confirm serviceability</p> <p>2.4 Handling and braking on the ground is in accordance with Flight Manual/POH</p> <p>2.5 Airfield markings/lights/signals/indicators, where appropriate, are interpreted and complied with</p> <p>2.6 Lookout and right-of-way rules are complied with when applicable</p> <p>2.7 Adverse effects on other aircraft, facilities and personnel is avoided</p> <p>2.8 Inspection of taxi path is carried out when surface conditions are obscured where applicable</p> <p>2.9 RPA (and launch system) is positioned in accordance with launch point requirements and applicable safety precautions</p> |

**3 Perform RPA  
Shutdown**

- 3.1 Pre-and post shutdown checks are completed in accordance with Flight Manual/POH
- 3.2 Engine is shut down in accordance with Flight Manual/POH
- 3.3 Required documentation is completed in accordance with workplace procedures

## 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
- Relevant aircraft/equipment type characteristics
- On-ground control procedures as applicable
- Relevant sections of the Flight Manual/POH
- ATIS Reports
- Taxi clearance information
- Airfield markings, indicators and lights
- Weather information

### Required skills:

- Control a RPA on the ground in accordance with Flight Manual/POH
- Control and manage emergencies
- Manoeuvre RPA on the ground without incident
- Perform various on-ground functions simultaneously as required
- Comply with regulatory requirements and local air traffic control instructions where applicable
- Interpret and communicate operational information
- Select and use relevant equipment
- Use instruments to monitor aircraft performance
- Communicate effectively with others when controlling a RPA on the ground
- Read and interpret instructions, regulations, procedures and other information relevant to controlling a RPA on the ground
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to controlling a RPA on the ground

- Operate electronic communication equipment to required protocol
- Work collaboratively with others when controlling RPA on the ground
- 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 controlling a RPA on the ground in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when controlling a RPA on the ground
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when controlling a RPA on the ground
- 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 controlling a RPA on the ground

## 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:                                                                                      | <ul style="list-style-type: none"><li>• visual line of sight,</li><li>• visual meteorological conditions (VMC)</li><li>• Day Visual Flight Rules</li></ul>                                                                                                                                                                                                                                                    |
| Performance may be demonstrated in:                                                                               | <ul style="list-style-type: none"><li>• single engine aircraft</li><li>• multi engine aircraft</li><li>• variable air traffic conditions</li><li>• variable weather conditions</li><li>• variable ground traffic conditions</li><li>• abnormal situations</li></ul>                                                                                                                                           |
| Aircraft may include:                                                                                             | <ul style="list-style-type: none"><li>• remotely piloted aircraft/unmanned aircraft</li></ul>                                                                                                                                                                                                                                                                                                                 |
| Crew may include:                                                                                                 | <ul style="list-style-type: none"><li>• remote pilot</li><li>• observer</li></ul>                                                                                                                                                                                                                                                                                                                             |
| Instruments may be:                                                                                               | <ul style="list-style-type: none"><li>• fitted flight instruments</li><li>• head up displays</li></ul>                                                                                                                                                                                                                                                                                                        |
| Limitations may be imposed by:                                                                                    | <ul style="list-style-type: none"><li>• local noise abatement requirements and curfews</li></ul>                                                                                                                                                                                                                                                                                                              |
| Classes of airspace may be:                                                                                       | <ul style="list-style-type: none"><li>• in Class G airspace as designated by the regulator and may be in:</li><li>• restricted and danger areas</li><li>• military control zones</li></ul>                                                                                                                                                                                                                    |
| Surfaces may include:                                                                                             | <ul style="list-style-type: none"><li>• sealed</li><li>• gravel</li><li>• grass</li></ul>                                                                                                                                                                                                                                                                                                                     |
| Dependent on the type of organisation concerned and the local terminology used, workplace procedures may include: | <ul style="list-style-type: none"><li>• company procedures</li><li>• enterprise procedures</li><li>• organisational procedures</li><li>• established procedures</li><li>• standard operating procedures</li></ul>                                                                                                                                                                                             |
| Information/documents may include:                                                                                | <ul style="list-style-type: none"><li>• relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders pertaining to the control of RPA on the ground including Day Visual Flight Rules (Day VFR)</li><li>• in Defence context, relevant Defence Orders and Instructions</li><li>• Flight Manual/Pilot's Operating Handbook (POH)</li><li>• Manual of Standards - Pilot Licensing</li></ul> |

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- operations 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
- in Defence context, 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