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AVIY3076A Recover remote pilot aircraft (RPA)

Release 1

AVIY3076A Recover remote pilot aircraft (RPA)

Modification History

Release 1. This is the first release of this unit.
This unit replaces and is equivalent to AVIY3070A Recover remote pilot aircraft (RPA).

Unit Descriptor

This unit involves the skills and knowledge required to recover a remote pilot aircraft (RPA), including controlling the rate of descent, maintaining directional control, minimising bouncing, and stopping the RPA within the available recovery area. It also includes completion of post recovery checks and the performance of a mis-handled landing/ go-around when required.

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 recovering an RPA.
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 Recover RPA	1.1	RPA is recovered at a controlled rate of descent
	1.2	Directional control is maintained at all times
	1.3	Bouncing of RPA is minimized appropriately
	1.4	RPA is stopped within the available area
	1.5	Post-recovery checks are performed in accordance with approved checklist and in accordance with manufacturer instructions and workplace procedures
2 Manage aborted / rejected recovery	2.1	Situations requiring go-around/position hold are correctly identified
	2.2	Go-around/position hold is performed in accordance with workplace requirements and regulatory requirements
	2.3	Effective communication with relevant others is undertaken as required according to workplace procedures
	2.4	Power is applied and RPA is manoeuvred clear of the ground as applicable and in accordance with workplace procedures
	2.5	Allowance for wind velocity is made during go-around/position hold as applicable
	2.6	Post recovery abort/rejection procedures are implemented according to 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 work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations

- Principles of aerodynamics

- Recovery procedures

- All required checklist items

- The causes of loss of directional control during Recovery

- The aerodynamic forces involved during recovery, low speed flight and flare

- The effect of wind on recovery performance

- Effect of light, and sun on recovery management

- How to calculate a cross wind component

- Windsock and other indicators that are used to determine wind velocity

Required skills:

- Exercise sound judgment sufficient to perform recovery procedures

- Recognise and respond to conditions leading to a go-around/position hold

- Carry out correct procedures in the event of a go-around/position hold

- Use of instruments and displays to monitor RPA performance

- Maintain compliance with regulatory requirements

- Communicate effectively with others when recovering an RPA including use of radio

- Read and interpret instructions, regulations, procedures and other information relevant to recovering an RPA

- Interpret and follow operational instructions and prioritise work

- Operate electronic communication equipment to required protocol

- Work collaboratively with others when recovering 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 recovering an RPA in accordance with regulatory requirements and workplace procedures

- Implement contingency plans for unexpected events that may arise when recovering an RPA

- Apply precautions and required action to minimise, control or eliminate hazards that may exist when recovering an RPA

- 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 OH&S standards

- Implement WHS/OHS procedures and relevant regulations

- Identify and correctly use equipment required when recovering 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 metrological conditions
Performance may be demonstrated in:	• single engine RPA • multi engine RPA
Performance may be demonstrated on an RPA with:	• fully functioning controls • with the use of a suitable simulator
Aircraft may include:	• remotely piloted aircraft/unmanned aircraft
Crew may include:	• remote pilot • observer
Instruments may be:	• instrumentation associated with the particular system
Limitations may be imposed by:	• local noise abatement requirements and curfews
Classes of airspace must be:	• Class G airspace, as designated by the Civil Aviation Safety Authority • restricted and danger areas • military control zones
Recoveries may include:	• normal recoveries • recoveries in crosswind • abnormal recoveries
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 the landing of a RPA • in Defence context, relevant Defence Orders and Instructions • Fight Manual • Manual of Standards • 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