



Australian Government

AVIW3037A Manage remote pilot aircraft systems (RPAS) pre- and post-flight actions

Release 1

AVIW3037A Manage remote pilot aircraft systems (RPAS) pre- and post-flight actions

Modification History

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

This unit replaces and is equivalent to AVIW3035A Manage remote pilot aircraft systems (RPAS) pre- and post-flight actions.

Unit Descriptor

This unit involves the skills and knowledge required to obtain required flight information and authority, calculate launch and recovery performance, perform required before and after flight actions/inspections and ensure that the remote pilot aircraft meets manufacturer, maintenance and safety requirements prior to flight.

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 required to manage pre- and post-flight actions.

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

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| 1 Complete pre- and post-flight administration | <p>1.1 Pre- and post-flight planning and documentation is completed in accordance with regulatory requirements, OEM operating documents and/or operations manual</p> <p>1.2 Remote aircraft weight and balance is confirmed as applicable</p> <p>1.3 Pre- and post-flight maintenance release (Flight Technical Log) and flight administration is completed in accordance with operations manual</p> <p>1.4 RPAS serviceability is determined by approved maintenance inspection; certification of inspection for maintenance release (Flight and Technical Log) is completed in accordance with operations manual</p> |
| 2 Perform pre- and post-flight actions/ inspection | <p>2.1 Equipment and documentation is identified and carried according to regulatory requirements</p> <p>2.2 Internal and external checks are completed in accordance with approved checklist</p> <p>2.3 RPAS is secured in accordance with manufacturers specifications and organisational procedures</p> |
| 3 Perform and record pre-flight inspection | <p>3.1 Pre-flight inspection of RPAS is performed in accordance with OEM documentation and operations manual</p> <p>3.2 Appropriate actions are undertaken to rectify discrepancies and recorded</p> <p>3.3 Pre-flight inspection is recorded in accordance with operations manual</p> |

Required Skills and Knowledge

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

Required knowledge:

- Risk identification, analysis and control
- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- In Defence context, relevant Defence Orders and Instructions
- Pre- and post-flight planning administration procedures including flight authorisations
- Relevant WHS/OHS and environmental procedures and regulations
- Aircraft maintenance release requirements and procedures for intended flight
- Minimum equipment list for applicable RPAS
- Checklist use and procedures
- Inspection procedures including rectification actions
- Flight specific reports including incident reporting
- 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.

Required skills:

- Access and apply relevant regulations, orders and information to the performance of the required planning, pre- and post-flight administrative functions
- Understand and meet the obligations placed on a remote pilot with regard to all inspections
- Calculate aircraft weight and balance
- Conduct maintenance and flight briefings
- Perform securing of RPAS post operation
- Select and use relevant equipment required during the management of pre- and post-flight actions
- Apply air safety practices and regulations
- Comply with flight authorisations
- Perform input and downloading of data from flight planning systems if applicable
- Communicate effectively with others when managing pre- and post-flight actions
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to pre- and post-flight actions

- Operate electronic communication equipment to required protocol
- Work collaboratively with others when managing pre- and post-flight actions
- 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 managing pre- and post-flight actions in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when managing pre- and post-flight actions
- Apply precautions and required action to minimise, control or eliminate hazards that may exist during pre- and post-flight actions
- 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 managing pre- and post-flight actions

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:	• An area appropriate to conduct maintenance activities on the RPA
Performance may be demonstrated in:	• single engine aircraft • multi engine aircraft
Aircraft may include:	• Remotely Piloted Aircraft (RPA)/Unmanned aircraft
Limitations may be imposed by:	• local noise abatement requirements and curfews
Production methods for flight plans may utilise:	• manual planning methods, and • Automated Flight Planning Systems
Pre-flight planning may include consideration of:	• consumables required for flight, • availability of consumables en route and/or at destination
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 • relevant Defence Orders and Instructions • Flight Manual • Maintenance Release • Flight and Technical Log • NOTAMs (Notices to Airmen) • meteorological forecasts • En Route Supplement Australia (ERSA) • aeronautical charts • 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
- 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
 - approved curricula and training documentation

Performance includes tolerances specified in either of:

Unit Sector(s)

Not applicable.

Competency Field

W - Equipment and Systems Operations