



Australian Government

AVIH0006 Navigate remote pilot aircraft systems

Release: 1

AVIH0006 Navigate remote pilot aircraft systems

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Application

This unit involves the skills and knowledge required to navigate remote pilot aircraft systems (RPAS) in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes preparing charts and flight plans, complying with airspace procedures, conducting departure procedures and maintaining RPAS in operational areas. It also includes navigating RPAS in visual line of sight (VLOS), applying lost link and radio communication procedures, and executing arrival procedures.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to route planning and navigation duties of aviation personnel and contributes to safe and effective performance in complex aviation operational environments.

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

Work is performed independently or under limited supervision within a single-pilot or multi-crew remote pilot aircraft (RPA) environment.

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

Pre-requisite Unit

Not applicable.

Competency Field

H – Route Planning and Navigation

Unit Sector

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 Prepare charts and flight plan | 1.1 Suitable maps, aeronautical charts and weather briefings for intended operation are selected and flight plan is prepared |
| | 1.2 Pre-operations information and Notice to Airmen (NOTAM) is accessed, analysed and applied to flight plan |
| | 1.3 Hazards are clearly indicated on charts and risk controls are implemented |
| | 1.4 Effects of wind velocity, adverse environmental conditions and contingency actions are planned for |
| 2 Comply with CASA standard operating conditions | 2.1 CASA standard operating conditions are complied with and air traffic regulations are maintained |
| | 2.2 Airspace awareness is maintained |
| 3 Conduct departure procedures | 3.1 Remote pilot station is organised and essential information is accessed |
| | 3.2 Departure administration tasks and communications are conducted |
| | 3.3 Orientation to ground level is maintained |
| | 3.4 Control of RPAS is given precedence over conducting navigation and communication tasks |
| | 3.5 Situational awareness and lookout is maintained using a systematic scan technique |
| | 3.6 Local and published noise abatement requirements and curfews are observed |
| | 3.7 Separation with other air traffic is maintained |
| 4 Maintain RPAS in operational area | 4.1 Planned route is followed |
| | 4.2 Communication tasks are complied with |
| | 4.3 RPAS endurance is monitored and energy reserve needs are revised |

- 4.4 Pre-descent or navigation turning point checks are executed if required
 - 4.5 Air traffic separation is maintained at all times
 - 4.6 RPAS is controlled
 - 4.7 Deteriorating visual meteorological conditions are recognised and appropriate RPAS corrective actions are taken
 - 4.8 Situational awareness and lookout is undertaken using a systematic scan technique
- 5 **Navigate RPAS within VLOS**
 - 5.1 VLOS of RPAS is maintained at all times
 - 5.2 Awareness of current and forecast weather conditions is maintained
 - 5.3 Systematic scan technique is implemented at all times
 - 5.4 Hazards and threats are identified and appropriately controlled
 - 5.5 Effects of wind velocity, adverse environmental conditions and contingency actions are responded to as required
 - 5.6 Situational awareness is maintained at all times
- 6 **Apply abnormal and emergency situation response procedures**
 - 6.1 Remote piloted aircraft is configured to maintain safe operating conditions within defined airspace requirements during abnormal and emergency situations
 - 6.2 Remote piloted aircraft position and intention broadcasts are made to local and area traffic, including air traffic services
 - 6.3 Appropriate radio communication failure procedures during abnormal or emergency situations are selected
- 7 **Perform arrival and landing**
 - 7.1 Aircraft separation, lookout and tracking tolerances are maintained within the control area
 - 7.2 Wind velocity and direction are assessed to confirm clearance instructions and landing direction
 - 7.3 Aircraft is landed in the defined landing zone in

accordance with documented procedures

7.4 Perform documented shutdown procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

This unit replaces and is not equivalent to AVIH3019 Navigate remote pilot aircraft systems.

Links

AVI Training Package Companion Volume Implementation Guide available on VET Net: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIH0006 Navigate remote pilot aircraft systems

Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- applying aviation risk management processes to remote pilot aircraft systems operations
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant remote pilot aircraft systems (RPAS) aeronautical knowledge
- applying relevant approach and landing procedures
- applying relevant departure procedures
- applying sound airmanship skills during controlled aerodrome operations, including:
 - aircraft departure
 - aircraft arrival
 - aircraft landing and dispersal
- determining area wind velocity and wind direction
- identifying and correctly using relevant equipment
- identifying relevant operational information from Enroute Supplement Australia (ERSA) and Notice to Airmen (NOTAM)
- implementing contingency plans and modifying activities depending on workplace contingencies, situations and environments
- interpreting weather forecasts and local observations
- maintaining compliance with regulatory requirements
- navigating RPAS tasks, including:
 - visual line of sight (VLOS)
 - visual meteorological conditions
- obtaining and interpreting traffic information
- performing appropriate actions in abnormal operations and emergencies
- performing navigational functions within the parameters of applicable regulations, orders and operations manual procedures
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- applying appropriate radio communication failure procedures during abnormal or emergency

situations

- sourcing and interpreting aviation weather forecast products and services as appropriate
- transmitting appropriate aircraft position and intention broadcasts.

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:

- aviation map reading and understanding spot heights and elevation utilising SMS
- air navigation techniques applicable to RPAS operations
- characteristics of different visual chart types
- chart reading techniques
- identification and navigational tolerances of control area (CTA), control zone (CTR), and prohibited, restricted and danger (PRD) areas
- limitations of RPAS navigation systems
- potential impacts of specific weather phenomena on RPAS operations
- principles of operation of RPAS navigation systems
- Civil Aviation Safety Authority (CASA) approved drone safety app
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge
- Notice to Airmen (NOTAM) information requirements
- radio failure procedures
- standard radio telecommunication phraseology
- air traffic services information requirements
- Class C, D and G airspace operating requirements
- controlled airspace
- danger areas
- radio failure procedures
- restricted airspace
- standard radio telecommunication phraseology
- visual flight rules (VFR)
- visual navigation charts (VNC).

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 this is not appropriate, assessment must occur in simulated workplace operational situations that reflect 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
- acceptable means of simulation assessment
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment (PPE) currently used in industry.

Links

AVI Training Package Companion Volume Implementation Guide available on VET Net: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>