



Australian Government

AVIY0017 Control aircraft in advanced flight manoeuvres

Release: 2

AVIY0017 Control aircraft in advanced flight manoeuvres

Modification History

Release 2. This is the second release of this unit of competency in the AVI Aviation Training Package. Spin types terminology updated as per MOS - 'erect' changed to 'upright'.

'Inverted' term deleted.

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

Application

This unit involves the application of skills and knowledge required to control aircraft in advanced flight manoeuvres in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes recovering from abnormal aircraft attitudes and recovering from an induced fully developed aircraft spin.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew 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 environment.

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

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

AVIY0083 Execute advanced aeroplane manoeuvres and procedures.

Competency Field

Y – Aircraft Operation and Traffic Management.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Recover from abnormal aircraft attitudes

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Abnormal aircraft attitude is recognised

1.2 Abnormal aircraft attitude recovery procedures are conducted in accordance with the aircraft flight manual (AFM)/pilot's operating handbook (POH)

1.3 Aircraft controllability checks are performed as required

2 Recover from an induced fully developed aircraft spin

2.1 Aircraft spin entry is induced

2.2 Aircraft fully developed spin is established and recognised

2.3 Direction of aircraft rotation is identified

2.4 Aircraft spin recovery procedures are performed in accordance with the AFM/POH

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 but is not equivalent to AVIY4066A Control aircraft in advanced flight manoeuvres.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>

Assessment Requirements for AVIY0017 Control aircraft in advanced flight manoeuvres

Modification History

Release 2. This is the second release of this unit of competency in the AVI Aviation Training Package. Spin types terminology updated as per MOS - 'erect' changed to 'upright'.

'Inverted' term deleted.

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 and performance criteria on at least one occasion and include:

- abnormal aircraft attitudes must include one or more of the following:
 - high or low nose attitudes
 - power settings
 - spiral dive
 - unbalanced flight
 - varying angles of bank.
- adapting to differences in equipment and operating environment in accordance with standard operating procedures (SOPs)
- applying precautions and required actions to minimise, control or eliminate identified hazards
- applying relevant aeroplane aeronautical knowledge
- communicating effectively with others
- compensating for the secondary and tertiary effects of controls
- completing relevant documentation
- following relevant legislation and workplace procedures
- identifying and correctly using relevant equipment
- identifying symptoms of fully developed spin and spiral dive
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- maintaining lookout using a systematic scan technique
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating aircraft within its limitations, achieving optimum performance
- operating electronic communications equipment to required protocol

- performing pre-manoeuve checks
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment in advanced abnormal aircraft flight situations
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS/OHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- spin recovery procedures, including:
 - as specified in the AFM/POH
 - centralised controls
 - opposed yaw
- spin types, including:
 - upright
- using instruments to monitor aircraft performance
- working collaboratively with others
- working systematically with required attention to detail without injury to self, others or damage to goods or equipment.

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:

- aerodynamic principles for entry into and exit from a fully developed spin and spiral dive
- aircraft limitations for type of aircraft flown, including environmental factors
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to aeroplane operations
- difference between a spin and a spiral dive
- difference between an upright and inverted spin
- in a Defence context, relevant Defence Orders and Instructions
- physiological effects applicable to maximum performance flight
- pre-manoeuve checks
- primary, secondary and tertiary effects of controls
- procedures and requirements for aircraft controllability checks
- procedures and requirements for performing pre-manoeuve checks
- regulatory requirements applicable to performing advanced abnormal aircraft flight manoeuvres
- relevant sections of CASRs and Civil Aviation Orders
- relevant WHS/OHS and environmental protection procedures and regulations
- techniques to initiate and recover from abnormal aircraft attitudes, fully developed spin and

- spiral dive
- types of abnormal aircraft attitudes.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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 PPE currently used in industry.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>