



Australian Government

AVIY4061 Perform aerobic manoeuvres

Release: 1

AVIY4061 Perform aerobatic manoeuvres

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 perform aerobatic manoeuvres, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes preparing for aerobatic manoeuvres, performing looping manoeuvres, performing rolling manoeuvres, and performing advanced aerobatic manoeuvring.

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

Not applicable.

Competency Field

Y – Aircraft Operation and Traffic Management

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 for aerobatic manoeuvres	<p>1.1 Operating area within suitable airspace is selected that allows for completing all aerobatic manoeuvres above the authorised minimum altitude</p> <p>1.2 Pre-manoeuve checks are performed and aircraft is configured for aerobatic manoeuvres</p> <p>1.3 Lookout is maintained using a systematic scan technique at a rate determined by traffic density, visibility or terrain</p>
2 Perform looping manoeuvre	<p>2.1 Entry airspeed is achieved that will ensure completion of looping manoeuvre</p> <p>2.2 Aircraft is pitched vertically through 360 degrees in balanced flight</p> <p>2.3 Wings are maintained parallel to the earth's horizon while applying positive 'g', without stalling</p> <p>2.4 Alignment with nominated line feature is maintained</p> <p>2.5 Engine, airframe and physiological limitations are complied with</p> <p>2.6 Direction, altitude control and height loss are maintained within prescribed limits, or as appropriate to aircraft type</p> <p>2.7 Safe entry and recovery heights are observed</p> <p>2.8 Exit airspeed/height is achieved at completion of looping manoeuvre</p>
3 Perform rolling manoeuvre	<p>3.1 Entry airspeed is achieved that will ensure completion of rolling manoeuvre</p> <p>3.2 Aircraft is rolled from a nominated airspeed around the fore and aft axis through 360 degrees</p> <p>3.3 Direction, altitude control and height loss are maintained within prescribed limits, or as appropriate to aircraft type</p> <p>3.4 Engine, airframe and physiological limitations are complied with</p> <p>3.5 Safe entry and recovery heights are observed</p>
4 Perform advanced	<p>4.1 Entry speed for aerobatic manoeuvre is achieved</p>

- aerobatic manoeuvre**
- 4.2 Control inputs are applied to achieve advanced aerobatic manoeuvre
 - 4.3 Exit airspeed/height is achieved at completion of advanced aerobatic manoeuvre
 - 4.4 Engine, airframe and physiological limitations are complied with
 - 4.5 Direction, altitude control and height loss are maintained within prescribed limits, or as appropriate to aircraft type
 - 4.6 Safe entry and recovery heights are observed

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 equivalent to AVIY4061A Perform aerobatic manoeuvres.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>