



**Australian Government**

# **AVIY0083 Execute advanced aeroplane manoeuvres and procedures**

**Release: 1**

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## Modification History

**Release 1.** This is the first release of this unit of competency in the AVI Aviation Training Package Release 9. Updates to Element 6 and Performance Criteria.

## Application

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

It includes turning the aeroplane steeply, sideslipping, and executing short take-off and landing procedures. It also includes entering and recovering from stall conditions and recovering from wing drop at the stall.

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

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

## 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 Turn aeroplane steeply

- 1.1 Pre-manoevre checks for steep turning are performed
- 1.2 Flightpath is cleared before and during turn
- 1.3 Steep level turn of nominated bank angle is achieved without altitude change to nominated heading
- 1.4 Descending turn of nominated bank angle is achieved to nominated heading
- 1.5 Awareness of higher stall speed in turns is applied
- 1.6 Aeroplane operating limits are not exceeded

#### 2 Sideslip aeroplane

- 2.1 Yaw is induced to achieve increased rate of descent while maintaining track and airspeed
- 2.2 Recovery from sideslip is achieved and aeroplane is returned to balanced flight
- 2.3 Flightpath is cleared before and during manoeuvre
- 2.4 Glide speed is maintained

#### 3 Execute short take-off

- 3.1 Take-off performance is calculated in accordance with performance chart
- 3.2 Pre-take-off, line-up and after take-off checks are performed in accordance with approved checklist and regulatory requirements
- 3.3 Aeroplane is lined up to enable use of maximum runway length
- 3.4 Short take-off technique is applied in accordance with aircraft flight manual (AFM)/pilot's operating handbook (POH) requirements
- 3.5 Separation with other traffic is maintained
- 3.6 Appropriate allowance is made for surface and wind conditions

- 4 Execute short landing**
- 4.1** Landing performance is calculated in accordance with performance chart
  - 4.2** Aeroplane is landed at nominated touchdown point using appropriate techniques and procedures in accordance with AFM/POH requirements
  - 4.3** Separation with other traffic is maintained
  - 4.4** Appropriate allowance is made for surface and wind conditions
  - 4.5** After-landing checks are performed in accordance with approved checklist and regulatory requirements
- 5 Enter and recover from stall**
- 5.1** Pre-manoeuve checks for stalling are performed
  - 5.2** Stall signs and symptoms are recognised
  - 5.3** Aeroplane is controlled by applying required pitch, roll and yaw inputs as appropriate in a smooth, coordinated manner, and aeroplane is accurately trimmed to enter and recover from stall conditions
  - 5.4** Stall recovery in simulated partial and complete engine failure configurations is initiated and completed using established stall recovery techniques
- 6 Avoid spin in single engine aeroplane**
- 6.1** Pre-manoeuve checks for a stall are performed
  - 6.2** Stall signs and symptoms, including where the aeroplane exhibits a tendency to drop a wing at the stall in relevant manoeuvres, conditions and configurations, are recognised
  - 6.3** Aeroplane is controlled during stall manoeuvres by applying required pitch, roll and yaw inputs as appropriate in a smooth, coordinated manner, to enter and recover from stall conditions where the aeroplane exhibits a tendency to drop a wing at the stall
  - 6.4** Stall recovery is initiated and completed using established stall recovery techniques

## 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 AVIY0046 Execute advanced aeroplane manoeuvres and procedures.

## Links

Companion Volume Implementation Guides are found in VETNet -

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