



**Australian Government**

# **AVIY4055 Conduct airborne extraction operations**

**Release: 1**

# AVIY4055 Conduct airborne extraction operations

## 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 conduct airborne extraction operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes preparing helicopter and personnel for airborne extraction, **performing airborne extraction operations**, and responding to airborne extraction emergencies and abnormal situations.

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

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

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

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|---|--|
| <b>1 Prepare helicopter and personnel for airborne extraction</b> | <p>1.1 Helicopter and airborne extraction equipment are checked to determine serviceability</p> <p>1.2 Extraction zone characteristics and dimensions are determined and calculated</p> <p>1.3 Extraction personnel characteristics are considered in scope of mission planning</p> <p>1.4 Crew is briefed during mission brief</p> <p>1.5 Airborne extraction supervisor is briefed</p> <p>1.6 Static ground rehearsals are conducted with personnel and equipment</p>  |
| <b>2 Prepare for airborne extraction</b>                          | <p>2.1 Extraction equipment is attached and checked for security</p> <p>2.2 Helicopter safety hazards are communicated using workplace procedures</p> <p>2.3 Extraction checks are conducted prior to extraction equipment deployment</p> <p>2.4 Wind speed and direction are communicated</p> <p>2.5 Approach and overshoot paths are communicated</p>  |
| <b>3 Perform airborne extraction operations</b>                   | <p>3.1 Helicopter is manoeuvred to extraction point</p> <p>3.2 Extraction equipment is deployed in accordance with workplace procedures</p> <p>3.3 Personnel are supervised and directed to attach to extraction equipment in accordance with workplace procedures</p> <p>3.4 Situational awareness of extraction position and aircraft flight performance is maintained</p> <p>3.5 Progress of extraction operation is communicated</p> <p>3.6 Personnel are directed to detach from extraction equipment</p> |

- |   |     |   |
|---|-----|---|
| <b>4 Respond to airborne extraction emergencies and abnormal situations</b> | 4.1 | Airborne extraction emergencies and abnormal situations are identified, diagnosed and communicated          |
|   | 4.2 | Airborne extraction emergency or remedial actions are undertaken to maintain safety of flight and personnel |

## 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.

Airborne extraction equipment must include one or more of the following items:

- attachment devices
- caving ladder
- eye goggles
- head protection
- hearing protection
- rappelling attachment device
- rappelling gloves
- rappelling harness
- suspended extraction ropes

Extraction personnel characteristics to be considered include:

- experience of personnel (advanced, beginners)
- size
- variations in extraction equipment to be worn
- weight

Airborne extraction supervisor must include one of the following:

- airborne team leader
- airborne safety officer
- aircrewman
- chalk commander
- drop master
- loadmaster
- observer
- rescue crewman

Helicopter safety hazards must include:

- fauna
- flora
- foreign object damage (FOD)
- loss of visual reference

- Airborne extraction emergencies must include one or more of the following:
- man-made structures
  - meteorological conditions
  - other aircraft
  - ship movements
  - ship structures and rigging
  - smoke
  - terrain
  - aircraft emergencies
  - extraction equipment/extracted personnel snagged in trees/obstacles
  - extraction equipment malfunction
  - extracted personnel unable to detach from rope

## Unit Mapping Information

This unit replaces and is equivalent to AVIY4055A Conduct airborne extraction operations.

## Links

Companion Volume implementation guides are found in VETNet -

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