



Australian Government

AVIY4056 Conduct airborne rappelling operations

Release: 1

AVIY4056 Conduct airborne rappelling 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 rappelling 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 rappelling operations, preparing for airborne rappelling operations, performing airborne rappelling operations, and responding to airborne rappelling emergencies and abnormal situations.

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

1 Prepare helicopter and personnel for airborne rappelling operations

PERFORMANCE CRITERIA

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

- 1.1 Helicopter and airborne rappelling attachment device are pre-flight checked to determine serviceability
- 1.2 Airborne rappelling location and surrounds are assessed for suitability
- 1.3 Rappelling personnel characteristics and operational variations are considered in scope of mission planning
- 1.4 Crew is briefed during mission brief
- 1.5 Airborne rappelling supervisor is briefed
- 1.6 Static ground rehearsals are conducted with personnel and equipment
- 1.7 Fitness of rappelling personnel to complete task is confirmed in accordance with established procedures

2 Prepare for airborne rappelling operations

- 2.1 Ropes are attached to airborne rappelling attachment device and are checked for security
- 2.2 Rappellers are restrained in aircraft prior to take-off
- 2.3 Fitting of rappeller personnel protective equipment is checked
- 2.4 Deployment checks are conducted prior to rope deployment
- 2.5 Helicopter safety hazards are communicated using workplace procedures
- 2.6 Wind speed and direction are communicated
- 2.7 Approach and overshoot paths are communicated

3 Perform airborne rappelling operations

- 3.1 Helicopter is manoeuvred to rappelling point
- 3.2 Ropes and rappellers are deployed in accordance with workplace procedures
- 3.3 Situational awareness of rappelling position and aircraft flight performance is maintained

- | | | |
|---|-----|---|
| | 3.4 | Rappelling ropes are recovered or released as required |
| | 3.5 | Clearance for aircraft departure is provided by airborne rappelling dispatcher at completion of deployment |
| 4 Respond to airborne rappelling emergencies and abnormal situations | 4.1 | Airborne rappelling emergencies and abnormal situations are identified, diagnosed and communicated |
| | 4.2 | Airborne rappelling 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 rappelling equipment must include one or more of the following items:

- attachment devices
- eye goggles
- fast ropes
- head protection
- hearing protection
- rappelling attachment device
- rappelling gloves
- rappelling harness
- rappelling ropes
- experience of personnel (advanced, beginners)
- size
- variations in rappelling equipment to be worn
- weight

Rappelling personnel characteristics to be considered include:

- single or multiple rappellers
- basic airborne rappelling
- advanced airborne rappelling
- airborne fast roping

Airborne rappelling operations include one or more of the following variations:

Airborne rappelling supervisor must include one of the following:

- airborne team leader
- airborne safety officer
- aircrewman

- Helicopter safety hazards must include:
- chalk commander
 - drop master
 - loadmaster
 - observer
 - rescue crewman
 - fauna
 - flora
 - foreign object damage (FOD)
 - loss of visual reference
 - man-made structures
 - meteorological conditions
 - other aircraft
 - ship movements
 - ship structures and rigging
 - smoke
 - terrain
- Airborne rappelling emergencies must include one or more of the following:
- aircraft emergencies
 - rappelling equipment/personnel snagged in trees/obstacles
 - rappelling equipment malfunction
 - rappelling personnel unable to detach from rope/s

Unit Mapping Information

This unit replaces and is equivalent to AVIY4056A Conduct airborne rappelling operations.

Links

Companion Volume implementation guides are found in VETNet -

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