



**Australian Government**

# **AVIY4059 Pilot a helicopter during rappelling operations**

**Release: 1**

# **AVIY4059 Pilot a helicopter during 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 pilot a helicopter during rappelling operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes planning rappelling operations, conducting pre-flight briefings, and operating a helicopter. It also includes managing abnormal and emergency situations, and conducting post-flight briefings.

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.

#### 1 Plan rappelling operations

### PERFORMANCE CRITERIA

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

- 1.1 Tasking requirements are identified, including operational variations
- 1.2 Crew and equipment required to ensure safe achievement of task are determined
- 1.3 Helicopter performance data is interpreted and calculated to ensure suitability of aircraft for rappelling operations
- 1.4 Transit, rappelling operation communications and recovery is planned in accordance with workplace procedures
- 1.5 Operations at rappelling site including obstructions, terrain and any factors that may adversely affect deployment, are planned
- 1.6 Abnormal and emergency rappelling situation contingency procedures are planned

#### 2 Conduct pre-flight briefings

- 2.1 Rappelling operational requirements are briefed and confirmed
- 2.2 Location, terrain features (sea state as applicable) and forecast weather conditions are obtained and confirmed
- 2.3 Timings, route/s, airspeeds and altitudes are confirmed
- 2.4 Relevant personnel are briefed about pilot, crew and rappelling personnel responsibilities and communication procedures
- 2.5 Abnormal and emergency rappelling situation contingency procedures are briefed

#### 3 Operate helicopter

- 3.1 Adequacy of hover power margin and control limits to perform rappelling operations is checked and maintained
- 3.2 Site inspection, approach and hover heading are determined in accordance with operational requirements
- 3.3 Descent and approach are controlled to terminate over rappelling site

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|----------|-----|--|
|          | 3.4 | Control is applied to helicopter to maintain position over rappelling site   |
|          | 3.5 | Obstacle clearances to obstructions, constructions and terrain are maintained during deployment and/or retrieval operation |
|          | 3.6 | Effective communications with crew and relevant personnel are maintained during operation                                  |
|          | 3.7 | Safety and security of passengers and/or cargo is managed  |
|          | 3.8 | Rappelling ropes are recovered and/or detached, and site is vacated in accordance with workplace procedures                |
| <b>4</b> |     | <b>Manage abnormal and emergency situations</b>  |
|          | 4.1 | Helicopter control is maintained   |
|          | 4.2 | Abnormal and/or emergency situations are identified and managed  |
|          | 4.3 | Rappelling equipment/personnel are safely jettisoned (as required) when flight safety or hover stability is compromised    |
| <b>5</b> |     | <b>Conduct post-flight briefings</b>   |
|          | 5.1 | Operating procedures and flight outcomes are reviewed and analysed   |
|          | 5.2 | Effectiveness, efficiency and performance of equipment is analysed and reported  |
|          | 5.3 | Inspection, servicing and stowage of rappelling equipment is organised/confirmed   |

## 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.

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| Airborne rappelling operations includes one or more of the following | <ul style="list-style-type: none"> <li>• single or multiple rappellers</li> <li>• basic airborne rappelling</li> <li>• advanced airborne rappelling</li> </ul> |
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variations:

- airborne fast roping

## **Unit Mapping Information**

This unit replaces and is equivalent to AVIY4059A Pilot a helicopter during roping operations.

## **Links**

Companion Volume implementation guides are found in VETNet -

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