



**Australian Government**

**Assessment Requirements for AVIY4018  
Manage abnormal and emergency  
helicopter flight situations**

**Release: 1**

# Assessment Requirements for AVIY4018 Manage abnormal and emergency helicopter flight situations

## Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant helicopter aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting/using a helicopter manufacturer height/velocity diagram/graph
- modifying activities depending on workplace contingencies, situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant equipment
- selecting and using required personal protective equipment conforming to industry and WHS/OHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- solving problems associated with managing a helicopter in abnormal and emergency situations
- using instruments to monitor helicopter performance
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or

damage to goods or equipment.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- actions to be conducted following a forced landing
- aerodynamic factors affecting helicopter flight performance
- all applicable checklist items
- applicable helicopter system malfunctions:
  - cautions, warnings and indications
  - engine failure/s
  - tail rotor malfunction
  - jammed or malfunctioning flight controls
  - critical flight controls:
    - fuel systems
    - hydraulics
    - flight instruments
- application of a height/velocity diagram/graph
- basic principles of aerodynamics
- CASR Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to aeroplane or helicopter operations
- emergency procedures
- emergency radio procedures
- functions and effects of all helicopter controls
- hazards and risks when managing a helicopter in abnormal and emergency flight situations and precautions for controlling the risks
- impact of high gross weight and high density altitude on key hazards
- key hazards and typical causal factors and contributing operational situations, avoidance and recognition of symptoms and recovery techniques:
  - vortex ring state
  - ground resonance
  - loss of tail rotor effectiveness (LTE)
  - low 'g' force and mast bumping
  - overpitching or low RRPM – rotor stall
  - retreating blade stall

- recirculation
- dynamic rollover
- local air traffic control procedures and instructions
- low level weather and topography effects
- managing system malfunctions
- practical action plans for use in an engine failure
- prioritising tasks when managing malfunctions
- problems that may occur when managing a helicopter in abnormal and emergency flight situations and appropriate action that should be taken in each case
- procedures for using performance charts
- purpose and functions of helicopter systems
- relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders pertaining to abnormal flight situations
- relevant WHS/OHS and environmental procedures and regulations
- threat and error management:
  - flight planning to avoid hazardous or adverse aerodynamic flight conditions and regimes
  - techniques to avoid a potentially hazardous situation developing while in flight.

## Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- acceptable means of simulation assessment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment currently used in industry.

## Links

Companion Volume implementation guides are found in VETNet -

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