



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **AVIF2014A Undertake aircraft underwater escape and survival**

**Revision Number: 1**

## **AVIF2014A Undertake aircraft underwater escape and survival**

### **Modification History**

Not applicable.

### **Unit Descriptor**

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This unit involves the skills and knowledge required to exit an aircraft during underwater escape situations, including making appropriate survival decisions and working with others. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

### **Application of the Unit**

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Work involves the application of safety and escape policies, regulations, protocols and procedures required to safely escape an aircraft underwater and survive in a marine environment.

Use for ADF Aviation is to be in accordance with relevant Defence Orders and Instructions and applicable Civil Aviation Safety Authority (CASA) compliance.

Work is performed under limited supervision within organisational guidelines. It may be conducted as part of a team.

This unit of competency is nominally packaged at Certificate II.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

**Employability Skills**            This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<b>1 Prepare for aircraft ditching</b>	<ul style="list-style-type: none"><li>1.1 Nature and extent of aircraft situation is communicated and acknowledgment is confirmed</li><li>1.2 Personal items within the cabin are secured prior to ditching</li><li>1.3 Restraint devices and survival equipment are checked, fastened and secured prior to ditching</li><li>1.4 Primary and secondary egress routes, exits and equipment are located</li><li>1.5 Brace position is adopted</li></ul>
<b>2 Undertake evacuation from the aircraft</b>	<ul style="list-style-type: none"><li>2.1 Spatial orientation is conducted</li><li>2.2 Egress points are located</li><li>2.3 Exits are jettisoned and cleared</li><li>2.4 Restraint devices are released</li><li>2.5 Aircraft is egressed</li><li>2.6 Surface is cleared</li></ul>
<b>3 Conduct rescue recovery process</b>	<ul style="list-style-type: none"><li>3.1 Safety equipment is deployed in accordance with workplace procedures</li><li>3.2 Position indicating and signalling devices are deployed</li><li>3.3 Rescue recovery techniques are applied</li></ul>
<b>4 Control survival hazards</b>	<ul style="list-style-type: none"><li>4.1 Potential hazards are identified and controlled</li><li>4.2 Swimming techniques with a life jacket are applied</li><li>4.3 Hypothermia management techniques are employed</li><li>4.4 Raft boarding and righting techniques are employed</li><li>4.5 Emergency supplies and equipment are managed</li></ul>

## Required Skills and Knowledge

### REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

#### Required knowledge:

- Regulations, legislation, organisational policy and procedures in relation to aircraft underwater escape and survival
- In Defence context, relevant Defence Orders and Instructions
- Relevant OH&S and environmental procedures and regulations
- Aircraft escape techniques
- Aircraft egress and exit systems
- Hazards exiting aircraft during emergency situations
- Inverted and submerged aircraft escape techniques
- Safety equipment operation
- Emergency equipment deployment and operation
- Rescue and recovery techniques
- Workplace procedures for undertaking aircraft underwater escape and survival
- Manufacturers instructions for equipment used for aircraft underwater escape and survival
- Risks that exist when undertaking aircraft underwater escape and survival and related risk control procedures and precautions
- Problems that may occur when undertaking aircraft underwater escape and survival and appropriate action that should be taken in each case

#### Required skills:

- Perform aircraft egress and exit operation
- Operate emergency equipment
- Operate safety equipment
- Perform inverted and submerged aircraft escape techniques
- Apply hypothermia prevention and reduction techniques
- Perform life jacket swimming techniques
- Communicate effectively with others when undertaking aircraft underwater escape and survival
- Read, interpret and follow instructions, regulations, procedures and other information relevant to undertaking aircraft underwater escape and survival
- Complete documentation related to undertaking aircraft underwater escape and survival
- Work collaboratively with others when undertaking aircraft underwater escape and survival
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and

## REQUIRED KNOWLEDGE AND SKILLS

interactions with others

- Promptly report and/or rectify any identified problems that may occur when undertaking aircraft underwater escape and survival in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when undertaking aircraft underwater escape and survival
- Apply precautions and required action to minimise, control or eliminate hazards that may exist when undertaking aircraft underwater escape and survival
- Monitor and anticipate operational problems and hazards and take appropriate action
- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments
- Work systematically with required attention to detail without injury to self, others or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective clothing and equipment conforming to industry and OH&S standards
- Implement OH&S procedures and relevant regulations
- Identify and correctly use equipment required to undertake aircraft underwater escape and survival

# Evidence Guide

## EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of:
  - securing all personal items, restraint devices and survival equipment prior to ditching
  - releasing restraint devices and egressing aircraft
  - applying rescue recovery techniques
  - employing life jacket swimming, raft boarding and raft righting techniques
  - employing hypothermia management techniques

### **Context of and specific resources for assessment**

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
  - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
  - access to an appropriate range of relevant operational situations in the workplace
  - In both real and simulated environments, access is required to:
    - relevant and appropriate materials and equipment, and
    - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

### **Method of assessment**

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:
  - through activities in an appropriately simulated environment at the registered training organisation, and/or
  - in an appropriate range of situations in the workplace

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

- Restraint devices may include:
- harnesses
  - crewman harness
  - operational contingency loading equipment (Military only)
- Survival equipment may include:
- emergency breathing system
  - life jackets
- Surface clearing may include
- splashing the surface to clear oil/fuel
- Safety equipment may include:
- strobe lights
  - position locating beacons
  - flares
  - life jackets
  - life rafts
- Position indicating and signalling devices may include:
- strobe lights
  - position locating beacons
  - flares
- Rescue recovery techniques may include:
- winching
  - rescue vessel
- Potential hazards may include:
- environment
  - weather
  - sea state
  - cold shock
- Swimming techniques with a life jacket may include:
- single
  - group
- Hypothermia management techniques may include:
- group help
  - help position for single person heat retention
- Emergency supplies and equipment may include:
- survival equipment
  - positioning equipment
- Dependent on the type of organisation concerned and the local terminology used, workplace procedures may be referred to as:
- company procedures
  - enterprise procedures
  - organisational procedures
  - established procedures
  - standard operating procedures
- Information/documents may include:
- relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders



## RANGE STATEMENT

- Applicable regulations and legislation may include:
- in Defence context, relevant Defence Orders and Instructions
  - operations manuals
  - workplace procedures and instructions and job specification
  - induction and training materials
  - relevant Civil Aviation Safety Regulations and Civil Aviation Orders
  - in Defence context, relevant Defence Orders and Instructions
  - relevant state/territory OH&S legislation
  - relevant state/territory environmental protection legislation
  - relevant Australian Standards
- Performance includes tolerances specified in either of:
- relevant licence and aircraft requirements of the Civil Aviation Safety Authority such as:
    - Day VFR syllabus
    - Manual of Standards
  - relevant Defence documentation such as:
    - Defence Orders and Instructions
    - approved curricula and training documentation

## Unit Sector(s)

Not applicable.

## Competency field

**Competency Field** F - Safety Management