



**Australian Government**

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

# **PUAAMS007B Coordinate search and rescue operations**

**Release: 2**

## PUAAMS007B Coordinate search and rescue operations

### Modification History

PUAAMS007B Release 2: Layout adjusted. Application added. Content reviewed.  
PUAAMS007B Release 1: Primary release.

### Unit Descriptor

This unit covers the competency to coordinate a Search and Rescue incident.

### Application of the Unit

This unit applies particularly to personnel coordinating search and rescue operations in and air and marine setting, however may be applied in a broader search and rescue situation. Team members and crews may be members of a range of government and/or non-government agencies.

All aspects of the unit should be implemented in line with organisational policies and procedures.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

### Employability Skills Information

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. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<b>1. Prepare search plan</b>	<p>1.1 Search and rescue <i>assets</i> and potential assets are identified and recorded in <i>databases</i>.</p> <p>1.2 Strategic and tactical objectives are identified in accordance with unit plans.</p> <p>1.3 Strategies to achieve objectives are identified.</p> <p>1.4 Risk management strategies are identified and incorporated/conducted.</p> <p>1.5 <i>Information management strategies</i> are identified and applied.</p> <p>1.6 Search and Rescue procedures and policies are communicated to interested and affected persons, groups and organisations in accordance with the needs of those people.</p>
<b>2. Apply datum search planning principles</b>	<p>2.1 A last known/most probable position is established from <i>available data</i>.</p> <p>2.2 Initial search procedures are implemented in accordance with the National Search and Rescue manual.</p> <p>2.3 <i>Calculations</i> are made to establish intended track/area/position in accordance with planned route.</p> <p>2.4 Time frame for survival of the missing person(s) is calculated.</p> <p>2.5 <i>Physiological</i> and <i>environmental factors</i> are determined as a basis for decision making.</p> <p>2.6 A search area is calculated consistent with organisational policies and procedures.</p> <p>2.7 <i>Search pattern and track spacing</i> is determined.</p> <p>2.8 A probability of detection factor is calculated.</p> <p>2.9 Acceptability of probability of detection factor is evaluated.</p> <p>2.10 Search area is recalculated or redefined, determined by availability of assets, changing weather conditions and search time available.</p>
<b>3. Apply rescue-planning principles</b>	<p>3.1 The <i>nature of problem/distress is determined</i> in accordance with the available information.</p> <p>3.2 Rescue resources are identified, mobilised and monitored.</p> <p>3.3 Operational risks are assessed and minimised.</p> <p>3.4 <i>Survivor delivery points</i> are identified in accordance with requirements and capability of the rescue platform.</p> <p>3.5 Physiological, geographic and medical factors are considered for rescue and delivery as per the situational requirements.</p>

ELEMENT	PERFORMANCE CRITERIA
	3.6 <i>Time factors</i> are considered as per the situational requirements.
	3.7 The chosen solution is evaluated and reported against the determined criteria.
4. Evaluate operational direction	4.1 The search and rescue plan is implemented and amended as dictated by the requirements of the situation.
	4.2 A process of continual evaluation is applied.
	4.3 Contingency planning is conducted.
	4.4 Regular briefings and debriefings are conducted.

## Required Skills and Knowledge

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

### Required Skills

- collecting and analysing information
- developing a compromised search area to suit available assets
- effectively communicating and consulting with a range of individuals by a range of methods
- identifying potential search patterns and their use pertaining to terrain
- plan for results
- use initiative to achieve goals

### Required Knowledge:

- coaching and team building concepts
- potential rescue platforms' capabilities and limitations
- coronial requirements in relation to SAR
- hypothermia/hyperthermia factors
- risk management principles
- personal development plan
- national search and rescue manual
- international search and rescue manuals and reference texts
- legislation relevant to the operation/incident/response and organisation
- operational, corporate, and strategic plans
- operational standing operating procedures
- operational performance standards
- organisational personnel practices and guidelines
- organisational quality standards

## Evidence Guide

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

#### Knowledge of defining the search area

preparing search and rescue plans and making recommendations to the Senior Search and Rescue Officer that are based on research.

#### Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments.

### Context of and specific resources for assessment

#### Context of assessment

Competence must be demonstrable for the relevant work situation by day or night. The assessment for this unit is most effectively undertaken on the job but may be undertaken in a simulation e.g. Search and Rescue Exercise – (SAREX).

#### Specific resources for assessment

On job assessment will not entail additional resources however, rosters may need to be amended in order for simulation e.g. Search and Rescue exercise (SAREX) to be effected.

## 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. ***Bold italicised*** wording in the Performance Criteria is detailed below.

- Assets*** may include:
- aircraft
  - including helicopters
  - Australian Defence Force aircraft
  - vessels and personnel
  - police equipment and personnel
  - civilian vessels
  - volunteer groups
  - clubs and associations

- Databases*** may include:
- contact names
  - telephone numbers
  - addresses (where appropriate)
  - aircraft/vessel details
  - aircraft/vessel requirements
  - databases are maintained by updating details on a regular basis as determined by local policies and procedures

- Information management strategies*** may include:
- communication flow
  - use of technology
  - compatibility
  - audit trails
  - standardised information reporting procedures and formats
- Available data*** may include:
- route taken
  - last verbal/radio or other contact
  - known patterns based on historical/routine data
  - navigation plan
- Calculations*** may include:
- sweep width and track spacing calculations
  - area – time – velocity – spacing calculations
  - probability of detection factors
  - time/distance/speed calculations
  - time frame for survival and mobility calculations
- Physiological factors*** may include:
- physical condition
  - age
  - sex
  - mental condition
  - health
- Environmental factors*** may include:
- terrain
  - weather conditions
- Determining a search pattern and track spacing*** may include:
- taking into account environmental factors including: weather conditions
  - currents
  - terrain
  - target type including:
    - person
    - type of vessel/life raft; and physiological factors including body mass
    - clothing
    - medical conditions and state of mind
- The nature of the problem*** may include:
- size of area
  - time of day
  - number of lives at risk
  - location/accessibility
  - condition of survivors
  - capacity of available resources and speed of rescue platform(s)
- Survivor delivery points*** may include:
- hospital facilities
  - medical facilities

- Time factors* may include:
- time frame for survival
  - speed of rescue platform
  - time of mobilisation
  - transit times
  - rescue platform endurance

## **Unit Sector(s)**

Aviation and marine search and rescue.