Australian Government

PUAFIR319 Take local weather observations

Release 2

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

PUAFIR319 Take local weather observations

Modification History

Release	TP Version	Comments
2	PUA12 V2.1	Editorial changes.
1	PUA12 V2	New unit.

Unit Descriptor

This unit covers the competency required to take, assess, record and report simple weather observations for a specified area.
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel responsible for taking and recording weather observations in the field in a localised area.
It covers the knowledge and skills required to attain meteorological data to provide current weather observations and to provide basic interpretations to assist with the prediction of future weather conditions and the impact of these conditions on planned field activities or an agency's ability to respond to a natural disaster such as a storm or bushfire.

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
1. Gather field-based weather observations	1.1 ***Weather instruments*** that can be used for taking weather observations are identified. 1.2 Area specific information is accessed. 1.3 ***Meteorological observations*** are collected from the field using handheld weather instruments.
2. Assess the influence of topography on local weather conditions	2.1 ***Local topographical influences*** most likely to affect weather conditions are identified. 2.2 Most likely affect that local topographical influences will have on weather conditions is determined.
3. Assess local weather signs to identify likely changes	3.1 ***Weather signs*** that may be used to interpret and predict local conditions are identified. 3.2 Weather signs for monitoring and interpreting current and future conditions are evaluated. 3.3 ***Trends*** in the weather recordings are identified. 3.4 Short- and long-term implications of weather signs are assessed.
4. Record and report weather observations	4.1 Meteorological observations are recorded in accordance with agency procedures. 4.2 Meteorological observations are reported to relevant ***personnel*** in accordance with organisational requirements.

Required Skills and Knowledge

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

Required Skills

- communicate effectively orally and in writing
- interpret and convert measurements between different scales of measurement
- solve problems and make decisions to determine the impact of meteorological observations

Required Knowledge

- basic weather factors affecting local climatic conditions
- access and using Bureau of Meteorology information related to local area weather forecasts
- maritime influence on weather and climate
- meteorological terms
- topographical influences on weather
- weather signs

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

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

Assessment must confirm the ability to:

- take representative weather observations in two different locations
- take weather observations using handheld weather instruments
- take basic visual weather observations
- record observations and pass these on to relevant authorities
- make basic interpretations of current weather effects in localised areas for an emergency management incident

Consistency in performance

Competency should be demonstrated over time in an agency approved simulated and/or workplace environment.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in an agency approved simulated and/or workplace environment.

Specific resources for assessment

Access is required to:

- agency procedures
- weather instruments

Method of assessment

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an agency-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate

- journals and workplace documentation
- third party reports from supervisors
- written or oral questions
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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.	
Weather instruments must include:	• electronic handheld weather meter • sling psychrometer
and may also include:	• anemometer • Beaufort scale • portable automatic weather station (PAWS) • rain gauge
Meteorological observations may include:	• air temperature • atmospheric stability • cloud (amount and type) • dewpoint • inversions • precipitation • relative humidity • wind (speed, direction and gusts) • wind changes (cold fronts, sea and land breezes, thunderstorms)
Local topographical influences may include:	• altitude • bodies of water • distance from coast • local air masses • local land masses • maritime influences • slope and aspect • vegetation
Weather signs may include:	• air temperature • barometric pressure changes • cloud formation and patters (fronts, inversions) • columns • convections • firewhirls • lightning • rainfall • wind direction and velocity
Trends may include:	• anticipated changes • deteriorating conditions • improving conditions

Relevant personnel may include:	• incident management teams • supervisors

Unit Sector(s)

Not applicable.