



Australian Government

DEFCA324 Assist in the construction and maintenance of field structures

Release: 1

DEFCA324 Assist in the construction and maintenance of field structures

Modification History

Release	TP Version	Comments
1	DEF12V2	First release. Replaces and is equivalent to DEFCA308B Assist in the construction and maintenance of field structures. Pre-requisites removed. Unit Descriptor updated. Application added. Minor Range Statement change. Evidence Guide updated.

Unit Descriptor

This unit covers the competency required to construct and maintain a range of field structures, such as bunkers, strongpoints, towers and shelters.

Construction is usually of a temporary nature and is undertaken employing expedient construction methods using both commercially available and improvised materials.

Construction will normally be carried out in a field environment.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication. In a Defence context, this means that there is no civilian need to hold this unit in order to meet licensing, legislative, regulatory or certification requirements.

Application of the Unit

This competency was developed for combat arms personnel required to construct and maintain a range of field structures, such as bunkers, strongpoints, towers and shelters in a deployed operational environment but is applicable to any individual in this field of work.

The individual will usually work as part of a team under supervision, but may undertake some autonomous tasks, use discretion and judgement, and take responsibility for the quality of their outputs.

All activities are carried out in accordance with relevant 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

ELEMENT

Elements describe the essential outcomes of a Unit of Competency.

PERFORMANCE CRITERIA

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 Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<p>1. Plan and prepare work site</p>	<p>1.1 Appropriate <i>personal protective equipment</i> is selected and worn in accordance with WHS requirements.</p> <p>1.2 <i>Site layout and preparation</i> is carried out in accordance with approved sketches, drawings, specifications and job instructions.</p> <p>1.3 All <i>tools and equipment</i> are inspected for serviceability and prepared for operation and defects are reported to the supervisor in accordance with <i>standard procedures</i>.</p> <p>1.4 <i>Materials</i> identified from job instructions and specifications are sourced, prepared and stockpiled in accordance with work schedule, design specifications and job instructions.</p>
<p>2. Build and maintain field structures</p>	<p>2.1 Earthworks for hardstanding, pits and trenches are carried out manually or with the assistance of plant and operator support in accordance with specifications and site requirements.</p> <p>2.2 Fabricated/pre-fabricated components are correctly positioned for assembly.</p> <p>2.3 Jigs, fixtures and other equipment are assembled and applied to support construction.</p> <p>2.4 Scaffolding is erected as required in accordance with job requirements and WHS requirements.</p> <p>2.5 Concrete, bricks/blocks, timber, wire mesh, matting, steel and other materials are laid/assembled according to job specifications.</p> <p>2.6 Horizontal and vertical construction/erection is carried out to specification using expedient methods and materials available.</p> <p>2.7 Site is progressively camouflaged and concealment is maintained.</p> <p>2.8 Assembly/construction is checked for compliance with specifications.</p>
<p>3. Maintain and clean up site and equipment</p>	<p>3.1 Field structures are maintained, further developed and/or repaired to specification in accordance with standard procedures.</p> <p>3.2 Plant, vehicles, tools and other equipment are removed from the site, cleaned, serviced, maintained and stored in accordance with standard procedures and documentation is completed.</p>

	3.3 Area is cleared and waste material is disposed of safely in accordance with standard procedures.
--	--

Required Skills and Knowledge

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

Required Skills

- work safely to instructions
- read drawings and interpret plans and sketches
- select construction materials
- measure relative to the construction process
- utilise expedient and improvised methods to construct field structures
- follow instructions/directives and report information
- participate in team
- encourage other team members
- use a variety of verbal and non-verbal communication techniques including language style, active listening

Required Knowledge

- workplace and equipment safety requirements
- materials handling and storage
- measurement relative to construction
- expedient and improvised construction methods
- types and use of field structures
- drawings, plans and graphic representation including lettering, symbols tables, charts, specifications
- techniques for supporting others
- composition of teams and roles and responsibilities of team members
- verbal and non-verbal communication techniques including language style, active listening

Evidence Guide

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

Assessment must confirm the ability to construct at least three types of field structures included in the Range Statement using a variety of materials and expedient construction methods. At least one above and one below ground structure should be constructed.

Assessment must also confirm the ability to:

- interpret job instructions and plans, and layout a site
- prepare materials and equipment for construction
- apply appropriate expedient construction methods and procedures to the construction including accurate measuring and levelling
- use standard processes to handle and place materials
- complete the construction of field structures to the specified standard
- work in a team and interactively communicate with others

Consistency in performance

Competency should be demonstrated under field conditions over a time frame that allows for constructing and maintaining a number of field structures utilising expedient construction methods and a variety of materials.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access to:

- construction materials relevant to the task
- hand tools, power tools, plant and other equipment appropriate to the construction process
- suitable training areas for construction.

Range Statement

<p>The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. <i>Bold italicised</i> wording in the Performance Criteria is detailed below.</p>	
<p><i>Personal protective equipment</i> may include:</p>	<ul style="list-style-type: none"> • boots • dust masks/respirators • ear plugs/muffs • gloves • hard hat/cap • safety glasses/goggles
<p><i>WHS requirements</i> may include:</p>	<ul style="list-style-type: none"> • manual handling of materials • safe use of scaffolding • use of protective clothing and equipment • workplace environment and equipment safety
<p><i>Site layout and preparation</i> may include:</p>	<ul style="list-style-type: none"> • constructing jigs and other field machines • identifying assembly method from job instructions and technical specifications • requesting plant support • setting out to dimensions contained in job instructions and technical specifications • stockpiling materials
<p><i>Tools and equipment to be used in construction</i> may include:</p>	<ul style="list-style-type: none"> • anchorages • chain saws and paving breakers • concrete mixers • cordage • crow bars • explosives • hand, power and explosive tools • measuring tape/rule • mechanical aids • scaffolding • steel wire rope • various types of plant
<p><i>Standard procedures and instructions</i> may include:</p>	<ul style="list-style-type: none"> • standing orders, routine orders, procedures manuals, field engineering pamphlets, job guides and other publications • technical specifications, plans, sketches • written and verbal orders and job instructions
<p><i>Materials</i> may include:</p>	<ul style="list-style-type: none"> • bricks/blocks • cement and sand • masonry • other commercial or improvised materials including locally

	<p>sourced materials</p> <ul style="list-style-type: none">• pierced aluminium plank (PAP)• pierced steel plank (PSP)• rigid or flexible sheet materials• rock• sandbags• steel• timber• wire mesh
--	---

Unit Sector(s)

Not applicable.