



Australian Government

DEFTP003B Operate a vehicle over difficult terrain

Release: 2

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Modification History

Release	TP version	Comments
2	DEF12 V2	Layout adjusted.
1	DEF12 V1	First release.

Unit Descriptor

This unit covers the competency required to prepare a **vehicle** and drive over **difficult terrain**, including cross-country and other off road situations.

This involves the application of low-risk driving techniques, dealing with hazards, and the assessment of (where necessary) and the safe negotiation of obstacles, including water courses such as rivers and streams. The driver must be able to deal with contingencies related to an emergency that may occur in the hazardous situations that may be encountered in driving over difficult terrain under **field conditions**.

Application of the Unit

As agreed in the creation of this Training Package, applications for units transferred from the PUA00 Public Safety Training Package will be developed as part of continuous improvement plans, and taking into account the change in Unit of Competency format as detailed in templates for Streamlined Training Packages.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

TLIF3013A Coordinate breakdowns and emergencies

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. Prepare a vehicle for driving over difficult terrain	1.1 <i>Serviceability check</i> of a vehicle for driving over difficult terrain is conducted in accordance with <i>standard procedures</i> 1.2 Any vehicle faults are rectified and/or reported in accordance with standard procedures 1.3 <i>Vehicle is configured</i> for driving in difficult terrain in accordance with standard procedures
2. Drive over difficult terrain	2.1 <i>Reconnaissance</i> of the terrain to be traversed is conducted by map and/or visual observation identifying potential hazards, including entry and exit routes, obstructions and bypasses 2.2 <i>Task is planned</i>, and potential hazards and contingency actions are discussed with a supervisor 2.3 <i>Vehicle is reconfigured</i> and the load is adjusted as necessary 2.4 <i>Low-risk driving techniques</i> are applied when driving over difficult terrain 2.5 Vehicle contingency actions are applied when required and in accordance with standard procedures to deal with accidents and emergencies that may occur when negotiating hazards
3. Refurbish vehicle	3.1 Vehicle is inspected for damage after <i>hazardous situations</i> are negotiated and on completion of the task 3.2 Faults and damage are rectified and/or reported to the supervisor in accordance with standard procedures 3.3 Vehicle and load are cleaned and reconfigured as necessary for standard driving conditions

Required Skills and Knowledge

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

Required Skills

- carry out contingency actions
- recover a vehicle
- first aid
- evacuation of injured people
- 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
- read and implement written or verbal orders and procedures
- read maps and use navigational aids

Required Knowledge

- route and task planning
- obstacles and hazards
- vehicle capabilities
- team work principles and strategies
- 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 prepare and drive a vehicle over difficult terrain in a range of environments by day and night, and deal with contingencies in hazardous situations.

Critical to this competency is the application of sound judgement by the driver. This must be displayed in the analysis of difficult terrain to determine whether it is trafficable, and if so, what are the implications for vehicle preparation, safety of passengers and load planning.

Assessment must also confirm the ability to:

- conduct route reconnaissance and task planning
- drive a vehicle over difficult terrain including:
 - crossing a defile
 - crossing soft terrain
 - crossing a water obstacle
 - negotiating thick scrub
- deal with contingencies including:
 - engine stall on a steep grade
 - breakdown of a vehicle while crossing a water obstacle
 - recovery of a vehicle from an obstacle
 - recondition a vehicle after driving in difficult terrain.

Consistency in performance

Competency should be demonstrated over a time frame that allows for driving a vehicle over a variety of difficult terrain, encountering hazardous situations and applying contingency actions all under a range of field conditions.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed using a number of practical assessments of driving over difficult terrain including inclines and declines (to the rated capability of the vehicle), waterways, thick scrub, defiles, sand and soft bottoms. Individuals should be assessed in each of these environs and then collectively over a 'vehicle-run' in which a number of the types of difficult terrain, including watercourses, are encountered requiring a contingency response.

Assessment should focus on the reconnaissance and planning conducted by the driver. Verbal questioning of underpinning knowledge may complement practical assessment. While low risk driving skills and the negotiation of difficult terrain are central to this competency, just as important is the driver's use of judgement in carrying out contingency actions on encountering hazards. Judgement must also be assessed in such areas as to whether the obstacle is physically negotiable, and if so, what safety requirements are needed in terms of vehicle preparation, dismounting of personnel, unloading of cargo and securing of recovery lines.

Specific resources for assessment

Access to:

- suitable training and assessment area with a variety of terrain (defiles, waterway, sand, inclines and declines to the rated limit of the vehicle, mud flats and thick scrub)
- wheeled vehicles authorised for off-road driving
- specialist equipment required for configuration of vehicle for driving in difficult terrain.

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.

<i>Vehicles</i> may include:	• All wheeled road transport vehicles (in Defence this equates to B class general service vehicles authorised for off-road driving)
<i>Difficult terrain</i> may include:	• Steep inclines and declines • Waterways including rivers, streams and coastal flats • Soft and slippery surfaces including sand, mud, snow and icy surfaces • Dry defiles and uneven surfaces • Thick scrub • Any combination of the above
<i>Field conditions</i> may include:	• Work conducted under exposed conditions • A variety of road, terrain and vegetation conditions • A range of weather conditions
<i>Serviceability check</i> may include:	• Start up check of fuel, oil and water • Engine operation • Brakes and tyres • Instruments and electrical • Winches and jacks • Chains and towing ropes • Weight, security and distribution of the load • Visual inspection of the vehicle
<i>Standard procedures</i> refer to:	• Written and verbal orders and instructions given by a supervisor or other authority • Standing orders, routine orders, procedures manuals, doctrine pamphlets, job guides and other publications • Defence Road Transport Instructions, Driver's Handbook, vehicle user's handbook • Procedures prescribed for the vehicle by the relevant state/territory traffic authority and parent unit/formation
<i>Configuring/reconfiguring the vehicle</i> may include:	• Reducing tyre pressures • Engaging low range four wheel drive • Fitting chains • Adding specialist tools, accessories and equipment to the complete equipment schedule including items such as crowbars and shovels

	• Removing/fixing extraneous objects such as mirrors and antennae • Protecting the engine/bonnet with canvas or plastic coverings • Pre-rigging recovery and survival lines • Securing, re-distributing and/or removing load • Dismounting all unnecessary passengers
Reconnaissance may include:	• Map or visual check of the ground to be traversed • Physically walking the route or through particular hazards along the route • Identifying obstacles, obstructions, bypasses and alternate crossing places • Testing water depth and flow • Testing road/track surfaces
Task planning may include:	• Identifying the route to be traversed including any obstacles, bypasses and alternative routes • Identifying hazards • Vehicle recovery • Estimating vehicle speeds
Low-risk driving techniques may include:	• Applying rules for ascending and descending hills and steep inclines • Engine stall procedures • Engaging and disengaging low range and four wheel drive • Fitting protective coverings and load restraints • Applying procedures for the safe crossing of water obstacles including: • reconnaissance • selection of safe entry and exit points • use of guides • drying and testing of brakes • Recovery of vehicles • Towing and winching vehicles
Hazardous situations and contingencies actions may include:	• Dealing with a range of accident and emergency situations including: • stalled vehicle on a steep grade • loss of control while negotiating an obstacle • threatened roll over or actual roll over • breakdown in a hazard • injury to a passenger • loss or movement of load • negotiating the uncertainties of rivers, streams

	- and waterways • break-up and collapse of surfaces • negotiating slippery surfaces and surfaces effected by water and ice • taking action on encountering engine stalls and breakdowns when traversing obstacles • reacting to vehicle damage caused by striking obstacles • First aid and evacuation of injured • Positioning of guides, passengers and dismounted personnel • Locating static recovery anchor points such as trees • Recovery of a vehicle • Requirement to winch or tow vehicles • Repairing tyre punctures • Repairing damage caused by mines, explosives or other enemy action
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Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s

Nil