



Australian Government

RIIEGS305E Navigate in remote or trackless areas

Release: 1

RIIEGS305E Navigate in remote or trackless areas

Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to use a compass, plan a route and navigate in remote or trackless areas in metalliferous mining.

It applies to those working in operational roles. They generally perform tasks involving a broad range of skilled applications in a wide variety of contexts, which may involve some discretion and judgement in selecting equipment, services and contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Metalliferous mining

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to navigate in remote or trackless areas	1.1 Access, interpret and apply navigation in remote or trackless areas documentation and confirm work activity is compliant 1.2 Select the type of map(s) suitable for the activity 1.3 Identify possible sources of error and inaccuracies on the map 1.4 Identify symbols and information contained on the map 1.5 Identify the way in which relevant symbols and information on the map can be used in navigation
2. Use a compass	2.1 Identify the essential features of a compass 2.2 Demonstrate the manner in which a compass is used to maintain a designated course 2.3 Demonstrate how compass use reflects understanding of the factors

ELEMENT	PERFORMANCE CRITERIA
	that affect accuracy
3. Plan a route for remote or trackless areas	3.1 Apply symbols and information contained on the map to plan an efficient route/course suitable to navigation and activity-specific abilities 3.2 Obtain additional information to assist in the preparation of a navigation data sheet from the map and from other suitable sources of information 3.3 Identify potential hazards associated with navigating through adverse environmental conditions 3.4 Consider other contextual issues in the planning of a route 3.5 Prepare a navigation data sheet/route card according to work requirements 3.6 Identify emergency or contingency escape routes 3.7 Consider environmental impact issues in the planning of a route
4. Navigate in remote or trackless areas	4.1 Maintain orientation of map to surroundings 4.2 Identify possible sources of navigation error in specific locations 4.3 Use combined map, compass and other techniques whilst following a route in unmodified landscapes 4.4 Employ techniques for distance estimations of travel in the absence of identifying features 4.5 Maintain the designated course whilst bypassing obstacles 4.6 Maintain a course in adverse environmental conditions and/or poor visibility 4.7 Fix position accurately and regularly using a combination of appropriate navigation techniques 4.8 Select an efficient route choice for the surroundings and conditions 4.9 Employ suitable combinations of navigation techniques to fix position and identify unknown features when in unfamiliar surroundings/location

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Oral communication	Use verbal communication techniques and systems to communicate with others

Unit Mapping Information

Supersedes and is equivalent to RIIEGS305D Navigate in remote or trackless areas.

Links

Companion Volume implementation guides is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIEGS305E Navigate in remote or trackless areas

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- navigate in remote or trackless areas on at least two occasions, including:
 - preparing a navigation data sheet/route card
 - navigating using combined map, compass and other techniques to follow the planned route
 - observing surroundings
 - fixing position accurately and regularly using appropriate navigation techniques
 - selecting an efficient route choice for the surroundings and conditions
 - employing suitable combinations of navigation techniques to fix position and identify unknown features when in unfamiliar surroundings/location.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures
- implement the requirements, procedures and techniques for the completion of navigating in remote of trackless areas including:
 - using a compass, and identifying factors that affect their accuracy
 - identifying and applying navigational symbols and information on a map
 - identifying and applying required maps to suit work activity
- identify and apply techniques for estimating distance
- identify and apply environmental considerations
- maintaining a compass bearing in poor visibility and/or extreme conditions.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key policies, procedures and established requirements to navigate in remote or trackless areas, including those for:
 - planning and preparing navigation data sheets
 - identifying and applying techniques for estimating distance travelled in poor visibility
- route planning methods and issues that should be considered in extreme environmental conditions
- methods for estimation of travelling times in unmodified landscape and/or difficult terrain/conditions
- map types and sources of error
- navigation techniques and aids
- techniques to navigate around obstacles.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - personal protective equipment
 - equipment required to navigate in remote or trackless areas
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge

- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the RII implementation guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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