



Australian Government

Assessment Requirements for DEFSUR006

Navigate using celestial aids

Release: 1

Assessment Requirements for DEFSUR006 Navigate using celestial aids

Modification History

Release	Comments
1	These Assessment Requirements were released in DEF Defence Training Package release 1.0 and meet the Standards for Training Packages. Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying celestial bodies
- navigating
 - five kilometres within a solar day, which may be broken into legs of not less than one kilometre, but must include at least four legs, as part of a navigation circuit; on completion, navigators are to submit a vector diagram detailing their final position relative to their start point accurate to within 10% (of distance and direction)
 - five kilometres within eight hours at night, which may be broken into legs of not less than one kilometre, but must include at least four legs, as part of a navigation circuit; on completion, navigators are to submit a vector diagram detailing their final position relative to their start point accurate to within 10% (of distance and direction)
- locating cardinal points and true north
 - by day: make adjustments for the shadow arc, dependent upon the time, when using only a partial segment of a solar day (maximum twenty minute fix) to locate the cardinal points; and to indicate true north to within 10% with a sun compass, using a twenty minute fix
 - by night: implement contingency skills when there is partial cloud in the night sky; and to employ five different celestial body indication techniques to locate the cardinal points, either directly or through extrapolation via the celestial pole

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- angles (in degrees)
- basic physics (velocity/distance/time)
- cardinal points (magnetic and true)
- earth's orbit and rotation in relation to the sun and night sky, including the celestial pole phenomenon
- mathematical calculations including:
 - distance travelled:
 - velocity x time
 - pace length x number of paces
 - elapsed time:
 - rate of (apparent) movement of sun (15 degrees/hour x solar angle subtended)
 - rate of (apparent) movement of night sky around the celestial pole (15 degrees/hour x angle subtended by nominated celestial body)
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Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations. Competency must be assessed in an area that has an unmodified landscape, with access to pen and paper.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

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