



Australian Government

Assessment Requirements for MARH008 Plan and conduct a passage

Release: 1

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Modification History

Not applicable.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- accurately measuring and observing weather conditions
- accurately preparing calculations and measurements of navigational information
- adjusting steering controls for optimum performance
- calculating courses using plane, mercator and great circle sailing methods
- changing over from manual to automatic control and vice versa
- checking reliability of information obtained from primary method of position fixing at appropriate intervals
- correctly interpreting and applying meteorological information
- determining errors in magnetic and gyro compasses, and correctly applying to courses and bearings
- determining errors of magnetic and gyro compasses using celestial and terrestrial means, and allowing for such errors
- determining vessel position by use of:
 - landmarks
 - aids to navigation including lighthouses, beacons and buoys
 - rising and dipping distances of lights and the use of horizontal angles
 - dead reckoning, taking into account winds, tides, currents and estimated speed
 - electronic navigational aids
- determining vessel position within the limits of acceptable instrument/system errors
- estimating position using dead reckoning
- interpreting nautical charts and publications
- maintaining charts and publications by applying up-to-date corrections to both paper and electronic charts and publications
- operating echo-sounders and applying the information correctly
- producing accurate and reliable information
- reading the aneroid barometer and interpreting the information obtained
- selecting mode of steering most suitable for prevailing weather, sea and traffic conditions and intended manoeuvres
- selecting most appropriate primary method of fixing vessel position for the prevailing circumstances and conditions

- using and interpreting information obtained from shipborne meteorological instruments
- using celestial bodies to determine vessel position
- using chart catalogues, charts, nautical publications, radio navigation warnings, sextant, azimuth mirror, electronic navigation equipment, echo-sounding equipment, compass
- using nautical charts and publications
- using meteorological information available.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- basic meteorological terms
- characteristics of the various weather systems, reporting procedures and recording systems
- charted information including that in the Title Block, Zones of Confidence Diagrams and Datums
- compass error from transit bearings or by bearings taken from a known position
- determining the times and heights of high and low water from Australian or local tide tables for any port and the relevance of chart datum
- effects of current and of leeway on the course and speed of the vessel (without calculations)
- finding the variation from the chart
- fixing vessel position by:
 - simultaneous bearings, transits of coastal features, and by running fix
 - radar ranges and bearings
- information given on a chart or plan
- interpreting the set and drift of the current from information available on the chart
- measuring distance on a chart
- meteorological instruments and their use
- nautical charts and publications
- plane, Mercator and great circle sailing concepts
- principles of magnetic and gyro compasses
- recognising the presence of either or both factors
- relating coastal features to a chart
- relationship between compass, magnetic, true and gyro courses and bearings
- relative bearings
- selection of suitable points for bearings
- sources of weather forecasts and the interpretation of that information
- steering control systems
- steering control systems operating procedures
- tropical revolving storms and weather associated with such storms
- use and limitations on the use of electronic position fixing equipment found on small vessels
- use of a deviation card without mathematical interpolation

- using a single position line to assist in clearing dangers
- using modern electronic navigational aids to determine vessel position
- using soundings in determining position
- using terrestrial observations to determine vessel position individually or in combination with other methods
- work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- tools, equipment, machinery, materials and personal protective equipment currently used in industry
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- range of relevant exercises, case studies and/or simulations.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>