Assessment Requirements for MARH010 Use bridge equipment to determine vessel position

Assessment Requirements for MARH010 Use bridge equipment to determine vessel position

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:

- clearly and concisely communicating at all times in a seamanlike manner
- correctly interpreting and analysing information obtained from radar and automatic radar plotting aids (ARPAs) taking into account the limitations of equipment and prevailing circumstances and conditions
- correctly interpreting information received from other bridge equipment and applying appropriate corrections
- determining latitude by meridian altitude
- making adjustments to vessel course and speed to maintain safety of navigation
- making decisions to amend course or speed in a timely manner according to accepted navigation practice
- making manoeuvring signals at the appropriate time according to International Regulations for Preventing Collisions at Sea
- planning and conducting celestial observations using a sextant and plotting a position
- taking action to avoid close encounter or collision according to International Regulations for Preventing Collisions at Sea.

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:

- ARPA system performance and accuracy, tracking capabilities, limitations and processing delays
- course and speed of other vessels
- critical echoes, exclusion areas and trial manoeuvres
- detecting course and speed changes of other vessels
- detection of misrepresentation of information, false echoes, sea and rain clutter etc., racons and search and rescue transponders (SARTs)
- effect of changes in own vessel course and speed or both
- factors affecting performance and accuracy of radar and other navigational equipment
- fundamentals of radar and ARPAs
- ground and sea stabilisation and their effects on ARPA data

- identification of critical echoes
- International Regulations for Preventing Collisions at Sea
- meeting overtaking vessels
- methods of position fixing using celestial observations with a sextant
- methods of target acquisition and their limitations
- parallel indexing
- plotting techniques and relative- and true-motion concepts
- principal types of ARPAs, their display characteristics, performance standards and the consequences of over reliance on ARPAs
- range and bearing by radar
- sea and ground stabilisation and their effect on ARPA data
- setting up and maintaining displays on radar
- time, distance and bearing of closest point of approach of a closing vessel
- true and relative vectors, graphic representation of target information and danger areas
- use of operational warnings and system tests
- 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