



Australian Government

MARH001 Plan and navigate a passage for a vessel up to 12 metres

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to conduct the passage of a vessel up to 12 metres within the 15 nautical mile (nm) limit; it includes using the range of equipment found on a vessel to plan and safely conduct the passage.

This unit applies to people working in the maritime industry as a Coxswain Grade 1 on a range of vessels up to 12 metres within the 15 nm limit.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

H – Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Plan passage

- 1.1 Appropriate charts and publications are accessed and checked for currency
- 1.2 Destination is identified, and course and waypoints are plotted
- 1.3 Estimated time of arrival (ETA) at waypoints and final destination are calculated

- 1.4 Safe passage is plotted to comply with all navigational buoys, marks and beacons
 - 1.5 Navigational hazards are identified to avoid dangers to vessel
 - 1.6 Weather information is accessed to determine expected weather pattern for intended passage
 - 1.7 Proposed course is modified as necessary, to meet expected weather conditions
 - 1.8 Fuel consumption for passage, including a reserve, is calculated
- 2 Conduct a pre-departure check**
- 2.1 Propulsion equipment and alarms are tested for serviceability and vessel hull is checked for seaworthiness
 - 2.2 Navigation equipment and alarms are checked to ensure they are in proper working condition and set for the passage
 - 2.3 Navigation equipment is checked for errors and allowances are made in planning the passage
 - 2.4 Fuel is checked to ensure there is adequate fuel on board for intended passage
 - 2.5 Safety equipment is checked for compliance with legislation
 - 2.6 Communications equipment is checked to ensure it is in proper working condition
 - 2.7 Anchoring and mooring equipment is checked to ensure it is adequate and in good condition
 - 2.8 Vessel and equipment are secured for sea
- 3 Conduct passage**
- 3.1 Local authorities are advised of departure and passage plan
 - 3.2 Vessel is steered and propulsion equipment is operated in a safe and controlled manner to complete pre-planned course
 - 3.3 Pilotage techniques and navigational equipment are used to monitor vessel position and maintain vessel in safe waters at all times
 - 3.4 Errors detected with navigational equipment are corrected to maintain planned passage
 - 3.5 Navigational buoys, marks and beacons are identified and

complied with

3.6 Situational awareness is maintained to avoid navigational hazards and to comply with regulations for prevention of collision at sea

3.7 Weather and sea conditions are monitored during passage and correct adjustments are made for changing conditions

4 Complete passage

4.1 Local authority is advised of completion of passage

4.2 Vessel is checked to ensure it is securely moored

4.3 Propulsion equipment is checked to ensure it is safely shut down and secured

4.4 Navigational equipment is switched off

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Charts and publications must include:

- electronic charts
- notice to mariners
- paper charts
- tide tables

- Navigation hazards include one or more of the following:
- restricted visibility
 - shallow water
 - traffic
 - unlit beacons
- Propulsion equipment includes one or more of the following:
- inboard engine
 - outboard engine
- Alarms include one or more of the following:
- bilge alarms
 - depth alarms
 - engine alarms
 - off-course alarms
 - radar range alarms
- Navigation equipment includes one or more of the following:
- automatic identification systems (AISs)
 - compass
 - echo sounder
 - electronic chart systems (ECSs) and plotter
 - paper charts
 - global positioning system (GPS)
 - radar
- Safety equipment includes one or more of the following:
- distress flares/pyrotechnics
 - electronic position indicating radio beacon (EPIRB)
 - firefighting equipment
 - life jackets
 - life rafts and hydrostatic release systems
- Communications equipment includes one of the following:
- HF radio
 - VHF radio

Anchoring and mooring equipment includes one or more of the following:

- anchor
- mooring lines
- sea anchors

Passage plan must include:

- anticipated weather conditions
- courses to steer or knowledge of navigation markers during the passage
- depths of water throughout the passage
- ETA at destination
- tidal information

Unit Mapping Information

This is a new unit. This unit is equivalent to MARH2001A Plan and navigate a passage for a vessel up to 12 metres.

Links

MAR Maritime Training Package Companion Volume Implementation Guide at: -
http://companion_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=22