



Australian Government

MARH011 Forecast weather and oceanographic conditions to plan a safe passage

Release: 1

MARH011 Forecast weather and oceanographic conditions to plan a safe passage

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package Release 3.0.

Application

This unit involves the skills and knowledge required to forecast weather and oceanographic conditions to plan a safe passage.

This unit applies to maritime workers working in the maritime industry as a Master Unlimited.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

H – Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Forecast area weather

PERFORMANCE CRITERIA

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

- 1.1 Synoptic chart is interpreted and recorded
- 1.2 Information received by weather fax is interpreted and recorded
- 1.3 Weather reports are obtained, interpreted and recorded
- 1.4 Observations of weather and cloud formations are made, interpreted and recorded

- 1.5 Statistical data and observations are used to predict likely weather conditions for a determined period
- 2 Use information to predict oceanographic conditions**
 - 2.1 Information on ocean current systems is interpreted and recorded
 - 2.2 Nautical publications on tides and currents are used to calculate tidal conditions
 - 2.3 Wave height and swell forecast is made using available information
 - 2.4 Potentially dangerous oceanographic conditions are identified and appropriate action is taken to maintain safety of navigation and to minimise risk to safety of vessel
- 3 Maintain records of weather and oceanographic information and forecasts**
 - 3.1 Statistical data and observations are recorded and filed according to organisational procedures
 - 3.2 Actions taken to maintain safety of navigation and to minimise risk to safety of vessel as a result of weather and oceanographic forecasts, are documented according to organisational procedures
 - 3.3 Meteorological and nautical publications are updated and stored according to organisational procedures

Foundation Skills

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

Range of Conditions

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

Weather conditions include one or more of the following:

- air masses and fronts
- cloud classifications
- cyclones, storms and gales
- heat exchange process
- ocean currents
- pressure systems and cold fronts
- sea state
- synoptic chart analysis
- tide prediction
- tropical revolving storms
- use of tide tables
- vertical division of the atmosphere
- weather data provided by shipboard instruments

Dangerous oceanographic conditions include one or more of the following:

- excessively high sea state and swells
- ice formations
- tornados, tropical revolving storms, hurricanes and gales

Appropriate action includes one or more of the following:

- avoiding storm centres and dangerous quadrants by adjusting course and speed
- ensuring all crew and passengers are informed
- ensuring all vessel equipment is properly secured
- securing cargo and stores
- taking action to avoid extreme adverse weather conditions

Unit Mapping Information

This unit replaces and is equivalent to MARH6001A Forecast weather and oceanographic conditions to plan a safe passage.

MARH6001A replaces and is equivalent to TDMMH907B Forecast weather and oceanographic conditions.

Links

Companion Volume implementation guides are found in VETNet -

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