Australian Government

MARN012 Manage advanced operations of ships in polar waters

Release: 1

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Modification History

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

Application

This unit involves the skills and knowledge required to manage advanced operations of ships in polar waters.

This unit applies to people working in the maritime industry in the capacity of:

- Chief Mate
- Deck Officers
- Engineering Officers
- Engineers
- Masters
- Ratings.

Licensing/Regulatory Information

This unit is equivalent to and delivers the objectives of the following STCW provisions:

- STCW Reg V/4 (3 and 4) and Code Section A-V/4, Table A-V/4-2.

Legislative and regulatory requirements are applicable to this unit.

- This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as Masters, Chief Mate, Deck Officers, Engineering Officers, Engineers or Ratings for advanced operations in polar waters and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable

Competency Field

Navigation

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Plan and conduct a polar passage	**1.1** Navigational equipment, charts, ice information, ice publications and related documentation required for the voyage are enumerated and appropriate for the safe conduct of the voyage
	1.2 Route is planned using facts obtained from relevant sources, publications, statistical data, limitations of communication and navigational systems
	1.3 Voyage is planned using polar regulatory regimes, need for ice pilotage and icebreaker assistance, as required
	1.4 Potential navigational hazards are identified accurately at all times
	1.5 Positions, courses, distances and time calculations are accurate and correct within acceptable accuracy standards for navigational equipment
2 Manage operation of vessels operating in polar waters safely	**2.1** Navigational decisions concerning ice are based on proper assessments of the ship's manoeuvring, engine characteristics and the forces to be expected while navigating polar waters, at all times
	2.2 Requests for ice routeing, plot and commence voyage through ice is communicated clearly and accurately
	2.3 Decisions concerning berthing, anchoring, cargo and ballast operations are determined using an assessment of the ship's manoeuvring, engine characteristics, forces to be expected and in accordance with International Code for Ships Operating in Polar Waters (Polar Code)

		guidelines and applicable international agreements
	2.4	Ship is manoeuvred safely through moderate ice concentration in the range of 1/10 to 5/10
	2.5	Ship is manoeuvred safely through dense ice concentration in the range of 6/10 to 10/10
	2.6	Operations are planned and carried out in accordance with established rules and procedures to ensure safe operations and avoid pollution of the marine environment
	2.7	Safe navigation is maintained using strategy, adjustment of ship's speed and heading through different types of ice
	2.8	Anchoring system in cold temperatures is permitted, where appropriate, and actions taken accordingly
	2.9	Preparation for icebreaker towing and notch towing are carried out in accordance with accepted principles and practices
3 Maintain safety of ship's crew and passengers	**3.1**	Lifesaving, firefighting and other safety systems are maintained at their operational condition
	3.2	Response measures are in accordance with established plans and procedures and are appropriate to the situation and nature of the emergency

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.

Unit Mapping Information

This is a new unit. No equivalent unit.

Links

Companion Volume implementation guide can be found in VetNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2