



Australian Government

MARO002 Maintain a safe navigational watch

Release: 1

MARO002 Maintain a safe navigational watch

Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to apply the accepted principles and procedures to be observed in maintaining a watch according to bridge resource management principles, to ensure a safe navigational watch on a vessel.

This unit applies to a Watchkeeper Deck, a Master up to 500 gross tonnage (GT), a Master up to 80 metres Near Coastal, or a Master Unlimited.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

O – Watchkeeping

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 Maintain watch on the bridge

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|-----|---|
| 1.1 | Own responsibility for the safety of navigation is clearly defined at all times including periods when the Master is on the bridge and while under pilotage |
| 1.2 | Proper lookout is maintained at all times according to organisational procedures and regulatory requirements |
| 1.3 | Lights, shapes and sound signals are correctly recognised and acted upon |
| 1.4 | Frequency and extent of monitoring traffic, vessel and environment are scheduled to conform with organisational procedures and regulatory requirements |

- 1.5 Bridge communication is maintained with other team members on matters relevant to the safety and integrity of the vessel
 - 1.6 Clear and unambiguous bridge communications are maintained and clarification is sought from or given to other team members when watch information or instructions are not clearly understood
 - 1.7 Internal and external communications systems are used according to organisational procedures
 - 1.8 Conduct, handover and relief of the watch is completed according to organisational procedures and regulatory requirements
- 2 Maintain watch when anchored**
 - 2.1 Organisational procedures and regulatory requirements are complied with through frequency, timing and coverage of scheduled checks and inspections
 - 2.2 Appropriate action is taken in the event of irregularities or abnormal conditions to maximise the safety and integrity of the vessel
 - 2.3 Restrictions on access to the vessel by non-authorised persons are followed according to organisational procedures and regulatory requirements
 - 2.4 Internal and external communications systems are used according to organisational procedures
- 3 Respond to potential collision and emergency situations**
 - 3.1 Potential collision situations are analysed and appropriate action is taken in ample time according to regulatory requirements
 - 3.2 Correct responses are made to emergencies and situations that pose a danger to the vessel and personnel on board
 - 3.3 Distress signals are recognised and appropriate action is taken to initiate search and rescue operations
 - 3.4 Master is called in the event of a navigational incident which falls outside own responsibility
- 4 Resource the bridge according to bridge resource management**
 - 4.1 Bridge resource management principles are interpreted to establish the functions and responsibilities of the watchkeeping team on board a vessel
 - 4.2 Resources are allocated and assigned as needed in correct

principles	priority to perform necessary tasks to obtain and maintain situational awareness
	4.3 Watchkeeping schedule is developed with due consideration to team experience
	4.4 Instructions on watchkeeping and lookout requirements are clearly and unambiguously given in relation to monitoring traffic, vessel and environment
	4.5 Clear and unambiguous roles and responsibilities of watchkeeping team are determined and allocated
	4.6 Effective communication is maintained with team on matters relevant to safety and integrity of vessel
	4.7 Questionable decisions and/or actions are dealt with using an appropriate challenge and response
5 Maintain navigation records	5.1 Proper record of the movements and activities related to the navigation of the vessel is maintained
	5.2 Records are filed and stored according to organisational procedures

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.

Lights, shapes and sound • alternative power source for lights

- signals must include:
- day time shapes for a vessel more than 500 gross tonnage
 - emergency lights for a vessel more than 500 gross tonnage
 - means of making sound signals for a vessel more than 500 gross tonnage
 - navigation lights for a vessel more than 500 gross tonnage
- Bridge communication includes one or more of the following:
- communication with engine room
 - verbal instruction relating to watchkeeping duties
 - written Master instructions
- Irregularities or abnormal conditions include one or more of the following:
- dragging anchor
 - fog and restricted visibility
 - heavy weather, including cyclones
- Emergencies include one or more of the following:
- person overboard
 - search and rescue operations
- Matters relevant to safety and integrity of vessel include one or more of the following:
- maintenance of proper lookout
 - navigation path and maintenance of vessels position
 - traffic density
 - visibility
 - weather and sea conditions
- Questionable decisions and/or actions include one or more of the following:
- excessive speed in heavy weather or reduced visibility
 - inappropriate action to avoid collision
 - incorrect helm orders
- Proper records include one or more of the following:
- course recorder
 - courses steered and vessel position
 - echo sounder recordings
 - logbook entries
 - passage plan
 - radar logbook
 - weather reports

Unit Mapping Information

This is a new unit. This unit is equivalent to MAR5001A Maintain a safe navigational watch.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MARO002 Maintain a safe navigational watch

Modification History

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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:

- allocating and assigning resources as needed in correct priority to perform necessary tasks
- applying principles of bridge resource management
- appropriately challenging and responding to questionable decisions and/or actions
- clearly defining responsibility for the safety of navigation at all times
- communicating effectively with others on watchkeeping issues, arrangements and requirements
- conforming to accepted principles and procedures in the conduct, handover and relief of the watch
- correctly providing sound signals
- correctly recognising lights, shapes and sound signals
- giving and receiving clear and unambiguous communications
- identifying and solving problems that may arise during watchkeeping duties, reporting problems and issues and taking appropriate action based on available information
- identifying and implementing effective leadership behaviours
- interpreting and implementing procedures relevant to the role and responsibilities of watchkeeper
- maintaining a proper lookout at all times and in such a way as to conform to accepted principles and procedures
- maintaining a proper record of the movements and activities relating to the navigation of the vessel
- modifying activities dependent on differing vessel contingencies, risk situations and environments
- monitor and anticipate hazards and risks that may arise during watchkeeping duties and take appropriate action
- monitoring traffic, the ship and the environment to conform to accepted principles and procedures
- reporting according to the General Principles for Ship Reporting Systems and vessel traffic services (VTS) procedures
- selecting and using appropriate internal and external communications equipment during watchkeeping
- sharing an accurate understanding of current and predicted vessel state, navigation path and external environment with team members

- using information from navigational equipment to maintain a safe navigational watch
- using routeing according to the General Provisions on Ships' Routeing.

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:

- Australian Maritime Safety Authority (AMSA) watchkeeping procedures contained in Marine Orders
- blind pilotage techniques
- bridge instrumentation, controls and alarms relevant to the function of watchkeeping
- bridge procedures on board a vessel
- bridge resource management principles including allocation, assignment and prioritisation of resources; effective communication; assertiveness and leadership; obtaining and maintaining situational awareness; consideration of team experience
- causes of groundings, collisions and casualties
- content, application and intent of the International Regulations for Preventing Collisions at Sea
- fatigue management principles and techniques
- functions and responsibilities of the watchkeeping team on board a vessel
- International Association of Lighthouse Authorities (IALA) buoyage system A and B
- manual and electronic navigational aids available to the bridge team and procedures for their operation and use during a watch
- maritime communication techniques on board a vessel
- navigational hazards and implications for watchkeeping
- operating procedures for typical navigational aids
- precautions necessary when navigating in or near traffic separation schemes or other routeing measures
- principles and use of navigational recording devices for keeping records of the operation, behaviour and performance of the vessel and navigation equipment
- principles for the use of vessel routing and reporting systems for safe navigation
- principles to be observed in keeping a navigational watch
- procedures for the conduct, handover and relief of a watch
- procedures for the use of internal communications and alarm systems
- signs of fatigue
- typical bridge instrumentation, controls and alarms and their functions
- typical watchkeeping problems and emergency situations, and appropriate actions and solutions
- 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.

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