



Australian Government

MARO5001A Maintain a safe navigational watch

Release 1

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Modification History

Release 1

This is the first release of this unit.

This unit replaces and is equivalent to TDMMF3007B Maintain a safe navigational watch.

Unit Descriptor

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.

Application of the Unit

This unit has application for a Watchkeeper Deck, Master < 500 GT and Master (Unlimited).

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 Maintain watch on the bridge | <ul style="list-style-type: none">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 pilotage1.2 Proper lookout is maintained at all times according to organisational procedures and regulatory requirements1.3 <i>Lights, shapes and sound signals</i> are correctly recognised and acted upon1.4 Frequency and extent of monitoring traffic, vessel and environment are scheduled to conform with organisational procedures and regulatory requirements1.5 <i>Bridge communication</i> is maintained with other team members on matters relevant to the safety and integrity of the vessel1.6 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 understood1.7 Internal and external communications systems are used according to organisational procedures1.8 Conduct, handover and relief of the watch is completed according to organisational procedures and regulatory requirements |
| 2 Maintain watch when anchored | <ul style="list-style-type: none">2.1 Organisational procedures and regulatory requirements are complied with through frequency, timing and coverage of scheduled checks and inspections2.2 Appropriate action is taken in the event of <i>irregularities or abnormal conditions</i> to maximise the safety and integrity of the vessel2.3 Restrictions on access to the vessel by non-authorised persons are followed according to organisational procedures and regulatory requirements2.4 Internal and external communications systems are used according to organisational procedures |
| 3 Respond to potential collision and emergency situations | <ul style="list-style-type: none">3.1 Potential collision situations are analysed and appropriate action is taken in ample time according to regulatory requirements3.2 Correct responses are made to <i>emergencies</i> and situations that pose a danger to the vessel and personnel on board3.3 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 principles**
- 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 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

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Allocate and assign resources as needed in correct priority to perform necessary tasks
- Apply principles of bridge resource management
- Appropriately challenge and respond to questionable decisions and/or actions
- Clearly define responsibility for the safety of navigation at all times
- Communicate effectively with others on watchkeeping issues, arrangements and requirements
- Conform with accepted principles and procedures in the conduct, handover and relief of the watch
- Correctly provide sound signals
- Correctly recognise lights, shapes and sound signals
- Give and receive clear and unambiguous communications
- Identify and solve problems that may arise during watchkeeping duties, report problems and issues and take appropriate action based on available information
- Identify and implement effective leadership behaviours
- Interpret and implement procedures relevant to the role and responsibilities of watchkeeper
- Maintain a proper lookout at all times and in such a way as to conform to accepted principles and procedures
- Maintain a proper record of the movements and activities relating to the navigation of the vessel
- Modify 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
- Monitor traffic, the ship and the environment to conform with accepted principles and procedures
- Report according to the General Principles for Ship Reporting Systems and VTS procedures
- Select and use appropriate internal and external communications equipment during watchkeeping
- Share an accurate understanding of current and predicted vessel state, navigation path and external environment with team members
- Use information from navigational equipment to maintain a safe navigational watch
- Use routing according to the General Provisions on Ships' Routing

Required Knowledge:

- 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
- 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 routing 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

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment

Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- ensuring behaviour reflects relevant current legislative and regulatory requirements
- ensuring currency of relevant legislative and regulatory knowledge.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- appropriate vessel or simulator to demonstrate maintaining a safe navigational watch
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate maintaining a safe navigational watch
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required

Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

Lights, shapes and sound signals must include:

- Alternative power source for lights
- 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 may include:

- Communication with engine room
- Verbal instruction relating to watchkeeping duties
- Written Masters instructions

Irregularities or abnormal conditions may include:

- Dragging anchor
- Fog and restricted visibility
- Heavy weather, including cyclones

Emergencies may include:

- Person overboard
- Search and rescue operations

Matters relevant to safety and integrity of vessel may include:

- Maintenance of proper lookout
- Navigation path and maintenance of vessels position
- Traffic density
- Visibility
- Weather and sea conditions

Questionable decisions and/or actions may include:

- Excessive speed in heavy weather or reduced visibility
- Inappropriate action to avoid collision
- Incorrect helm orders

Proper records may include:

- Course recorder
- Courses steered and vessel position
- Echo sounder recordings
- Log book entries
- Passage plan
- Radar log book
- Weather reports

Unit Sector(s)

Not applicable.

Competency Field

Watchkeeping