



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL**

**Revision Number: 1**

## **TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL**

### **Modification History**

Not applicable.

### **Unit Descriptor**

UNIT DESCRIPTOR:

**This unit involves the skills and knowledge required by a Master 5 or Skipper 3 to contribute to a safe navigational watch on a small domestic commercial vessel less than 80 metres in length and in compliance with Australian regulations and guidelines to ensure the safety of navigation, protection of the marine environment and the safety of the vessel and the persons on board.**

---

### **Application of the Unit**

|                                |                                                                                                                                                                                                                                                                 |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application of the unit</b> | The unit has applications in the qualification for a Master 5 and Skipper 3 as per relevant sections of Part D of the National Standard for Commercial Vessels (NSCV), i.e. Certificate III in Transport&Distribution (Coastal Maritime Operations - Master 5). |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### **Licensing/Regulatory Information**

|                                           |                                                                                                                  |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Licensing/legislative requirements</b> | The unit is consistent with the relevant sections of State and Territory maritime regulations and NSCV/USL Code. |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|

### **Pre-Requisites**

Not applicable.

## Employability Skills Information

Not applicable.

## Elements and Performance Criteria Pre-Content

|                                                                          |                                                                                                                                                                                        |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes of a unit of competency.</i> | <i>Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.</i> |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Elements and Performance Criteria

| ELEMENT                                        | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Contribute to watchkeeping procedures</b> | <ul style="list-style-type: none"><li>a Effective communication between the master and watchkeepers is correctly maintained at all times on matters relevant to the safety of the vessel during watchkeeping duties</li><li>b Wheelhouse communications are clear and concise and advice or clarification is sought from or given to the master when watch information or instructions are not clearly understood</li><li>c A proper look-out is maintained at all times and in such a way as to conform to accepted principles, procedures and regulatory requirements</li><li>d Lights, shapes and sound signals conform with the requirements contained in the International Regulations for Preventing Collisions at Sea and are correctly recognised and acted upon</li><li>e The frequency and extent of monitoring of traffic, the vessel and the environment conform with established principles and procedures</li><li>f Internal and external communication systems are used in accordance with bridge procedures and manufacturer's instructions</li><li>g Precautions and procedures are followed to implement environmental protection measures</li></ul> |

| ELEMENT                                            | PERFORMANCE CRITERIA                                                                                                                                                                                                                                        |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | h Fatigue management strategies are correctly applied within the bridge management team                                                                                                                                                                     |
| ELEMENT                                            | PERFORMANCE CRITERIA                                                                                                                                                                                                                                        |
| <b>2 Respond to potential emergency situations</b> | a Observations and emergency situations are promptly reported to the master and crew in accordance with procedures<br>b Distress signals are recognised and reported and appropriate watchkeeping action is taken in accordance with established procedures |

## **Required Skills and Knowledge**

### **REQUIRED KNOWLEDGE**

*This describes the knowledge required for this unit.*

- 1 Relevant sections of State and Territory marine regulations, NSCV and USL Code
- 2 Wheelhouse procedures on board a vessel
- 3 Functions and responsibilities of the members of a wheelhouse team on board a vessel
- 4 Procedures for the relief, maintenance and handover of a watch
- 5 Procedures for the use of internal communications and alarm systems
- 6 Factors that can affect watchkeeping functions
- 7 Causes of groundings, collisions and casualties when on board a vessel
- 8 Navigational hazards and implications for watchkeeping
- 9 Typical watchkeeping problems and emergency situations and appropriate action and solutions
- 10 Bridge instrumentation, controls and alarms relevant to the functions of a watchkeeper
- 11 Functions of machinery space controls, alarms and indicators
- 12 Rudder and propeller controls
- 13 Automated steering systems and relationship to vessel manoeuvring characteristics
- 14 Signs of fatigue and fatigue management principles and techniques
- 15 Basic environmental protection measures
- 16 Maritime communication techniques on board a vessel

### **REQUIRED SKILLS**

*This describes the basic skills required for this unit.*

## REQUIRED SKILLS

- 1 Communicate effectively with others on watchkeeping issues, arrangements and requirements
- 2 Read, interpret and apply instructions, procedures and information relevant to the role and responsibilities of a watchkeeper
- 3 Select and use appropriate internal and external communications equipment during watchkeeping duties
- 4 Work as a member of the wheelhouse team during watchkeeping duties
- 5 Take appropriate initiatives related to the protection of the environment during watchkeeping duties
- 6 Interpret and apply practices during watchkeeping duties
- 7 Modify activities dependent on differing vessel contingencies, risk situations and environments
- 8 Identify and solve problems that may arise during watchkeeping duties, report problems and issues, and take appropriate action based on available information
- 9 Monitor and anticipate hazards and risks that may arise during watchkeeping duties and take appropriate action
- 10 Adapt to differences in vessels, bridge equipment and watchkeeping procedures
- 11 Select and operate bridge equipment as required in the course of watchkeeping functions

## Evidence Guide

### Evidence Guide

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

*The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.*

|                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 Critical aspects of evidence required to demonstrate competency in this unit</b> | <p>Assessment must confirm appropriate knowledge and skills to:</p> <ul style="list-style-type: none"> <li>a Contribute to watchkeeping arrangements and procedures</li> <li>b Fulfil responsibilities of watchkeeper during a watch</li> <li>c Report observations and other emergency situations arising during a watch</li> <li>d Communicate effectively with others in the course of watchkeeping duties</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>2 Evidence required for demonstration of consistent performance</b>                | <ul style="list-style-type: none"> <li>a Performance is demonstrated consistently over a period of time and in a suitable range of contexts</li> <li>b Consistently applies underpinning knowledge and skills when: <ul style="list-style-type: none"> <li>1 carrying out watchkeeping duties</li> <li>2 identifying watchkeeping problems and reporting them to the master and/or watchkeepers</li> <li>3 applying safety precautions relevant to the role of watchkeeper</li> <li>4 reporting observations and other potentially dangerous situations to the master and/or other watchkeepers</li> <li>5 communicating effectively with the master and other watchkeepers in matters relevant to watchkeeping duties</li> </ul> </li> <li>c Shows evidence of application of relevant workplace procedures, including: <ul style="list-style-type: none"> <li>1 vessel's safety management system and procedures</li> </ul> </li> </ul> |

## Evidence Guide

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

- 2 OH&S regulations and hazard prevention policies and procedures
- 3 job procedures and work instructions
- 4 relevant guidelines relating to the role of watchkeeper on board a vessel
- 5 bridge housekeeping processes
- d Action is taken promptly to report watchkeeping incidents in accordance with established procedures
- e Work is completed systematically with required attention to detail
- f Recognises and adapts appropriately to cultural differences in the workplace, including modes of behaviour and interactions among crew and others

## Evidence Guide (continued)

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

#### Context of 3 assessment

- a Assessment of competency must comply with the assessment requirements of the relevant maritime regulations
- b Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:
  - 1 As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations, and
  - 2 Appropriate practical assessment must occur:
    - i at the registered training organisation; and/or
    - ii on an appropriate working or training vessel

## Evidence Guide (continued)

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

#### 4 Specific resources required for assessment

Access is required to opportunities to:

- a demonstrate the ability to contribute to a safe watch in range of suitably simulated of watchkeeping situations relevant to the role of a watchkeeper on a small commercial vessel; and/or
- b contribute to maintaining a safe watch as a watchkeeper on a small commercial vessel in an appropriate range of situations and weather and sea conditions

## Range Statement

### Range Statement

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

*The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.*

#### VARIABLE

#### SCOPE

#### 1. GENERAL CONTEXT

|                                     |                                                                                                                                                                                                         |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>a. Work must be carried out:</b> | 1 in compliance with the relevant sections of State and Territory marine regulations, NSCV and USL Code                                                                                                 |
| <b>b. Work is performed:</b>        | 1 as a watchkeeper on a small domestic vessel in accordance with defined operational requirements, with some accountability and responsibility for self and others in achieving the prescribed outcomes |
|                                     |                                                                                                                                                                                                         |

## Range Statement

### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

|                          |                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------|
| <b>c. Work involves:</b> | 1 the application of look-out and observation techniques across a variety of operational contexts |
|--------------------------|---------------------------------------------------------------------------------------------------|

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| <b>d. Work requires:</b> | 1 the following of operational orders and instructions for watchkeeping on a vessel |
|--------------------------|-------------------------------------------------------------------------------------|

## 2. WORKSITE ENVIRONMENT

|                                   |                                                                  |
|-----------------------------------|------------------------------------------------------------------|
| <b>a Vessel is restricted to:</b> | 1 an Australian domestic vessel of less than 80 metres in length |
|-----------------------------------|------------------------------------------------------------------|

|                                                                       |                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>b Watchkeeping arrangements and procedures may be implemented:</b> | 1 by day or night in both normal and emergency situations<br>2 under any possible conditions of weather and loading<br>3 while underway<br>4 during berthing and unberthing operations<br>5 while anchoring or mooring<br>6 while in port<br>7 while berthed, moored or at anchor |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                           |                                                                                                                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>c Watchkeeping principles include:</b> | 1 maintenance of proper lookout at all times<br>2 management of the steering and heading of the vessel<br>3 adherence to the international regulations for the Prevention of Collision at Sea |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Range Statement (continued)**

**TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL**

| <b>VARIABLE</b>                                       | <b>SCOPE</b>                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>c Watchkeeping principles include: (continued)</b> | <ol style="list-style-type: none"> <li>4 taking all necessary precautions to avoid pollution of the marine environment</li> <li>5 ensuring that appropriate assistance is available to be summoned to the bridge if required by a change in the vessel's situation</li> <li>6 regular position monitoring and maintenance of navigational safety</li> <li>7 monitoring radio reception</li> </ol> |
| <b>d Fatigue management strategies may include:</b>   | <ol style="list-style-type: none"> <li>1 recognition of symptoms of fatigue</li> <li>2 arranging to take a break when symptoms of fatigue are identified</li> <li>3 maintenance of personal fitness and health</li> <li>4 appropriate dietary habits</li> <li>5 following policy concerning alcohol/drug use prior to watchkeeping duties</li> </ol>                                              |
| <b>e Emergencies may include:</b>                     | <ol style="list-style-type: none"> <li>1 fire</li> <li>2 stranding</li> <li>3 collision</li> <li>4 heavy weather, including cyclones</li> <li>5 synchronous rolling</li> <li>6 reception of a distress signal</li> </ol>                                                                                                                                                                          |

**Range Statement (continued)**

**TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL**

- |    |                                                                      |
|----|----------------------------------------------------------------------|
| 7  | failure of bridge equipment, steering equipment, navigational lights |
| 8  | loss of main engines or propulsion controls                          |
| 9  | person overboard                                                     |
| 10 | fog and restricted visibility                                        |
| 11 | cargo shift                                                          |
| 12 | retrieval of survivors from the water                                |
| 13 | loss of watertight integrity                                         |
| 14 | intoxicated persons on board a vessel                                |
| 15 | dragging anchor                                                      |
| 16 | fouled hawse                                                         |
| 17 | loss of mooring lines or winches when berthing                       |
| 18 | entry into confined spaces                                           |
| 19 | personnel working aloft or overside                                  |
| 20 | sudden list or loll                                                  |

**Range Statement (continued)**

**TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL**

| <b>VARIABLE</b>                                 | <b>SCOPE</b>                                                                                                                                                                           |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>f Documentation and records may include:</b> | <ol style="list-style-type: none"> <li>1 safety management system plans, procedures, checklists and instructions</li> <li>2 orders and instructions of the officer on watch</li> </ol> |

### Range Statement (continued)

#### TDMMF4707B CONTRIBUTE TO MAINTAINING A SAFE WATCH ON A DOMESTIC VESSEL

|                                                                     |                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                     | <ul style="list-style-type: none"> <li>3 procedures for reporting emergencies and observations to the master</li> <li>4 instructions of relevant State and Territory maritime authorities</li> <li>5 relevant Australian standards</li> </ul>                                    |
| <b>g Applicable legislation, regulations and codes may include:</b> | <ul style="list-style-type: none"> <li>1 relevant sections of State and Territory marine regulations, NSCV and USL Code</li> <li>2 regulations for preventing collisions at sea</li> <li>3 relevant Commonwealth, State and Territory Marine and OH&amp;S legislation</li> </ul> |

### Unit Sector(s)

Not applicable.

### Field

Field MF Operational Quality and Safety

### Relationship to other units

|                                    |                                                                                                                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Relationship to other units</b> | The unit may be assessed in conjunction with other units that relate to the functions of the occupation(s) concerned. |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------|