



**Australian Government**

# **MARC020 Transmit and receive information by marine radio**

**Release: 1**

# **MARC020 Transmit and receive information by marine radio**

## **Modification History**

Release 1. This unit first released with MAR Maritime Training Package Version 2.0.

## **Application**

This unit involves the skills and knowledge required to transmit and receive information by marine radio on board a commercial vessel including using marine very high frequency (VHF) and high frequency (HF) radio according to regulations.

It also involves carrying out user maintenance and fault-finding procedures on radio equipment and power supplies; and operating an emergency position indicating radio beacon (EPIRB), a search and rescue radar transponder (SART), automatic identification system - search and rescue transmitter (AIS-SART), and automatic identification system man overboard (AIS-MOB) device, and digital selective calling man overboard (DSC-MOB) device.

This unit applies to Coxswains and Masters of commercial vessels who use marine radio equipment to transmit and receive information to and from shore and vessel-based operators. They work relatively independently under broad operational requirements, with limited accountability and responsibility for themselves and others in achieving the prescribed outcomes.

The unit is consistent with the relevant maritime regulations and certification requirements as specified in the Radiocommunications Act 1992.

## **Pre-requisite Unit**

Not applicable.

## **Competency Field**

C – Equipment Operations

## **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.

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|--|---|
| <b>1 Operate VHF and HF radio equipment to transmit and receive messages</b> | <p>1.1 Appropriate VHF and HF radio equipment is selected for operation within limits of specifications</p> <p>1.2 Radio equipment is operated to transmit and receive various types of signal according to manufacturer instructions, established radio operation procedures and regulatory requirements</p> <p>1.3 Regulations and procedures applicable to vessel stations equipped with radio voice communication (radiotelephony) and digital selective calling (DSC) facilities are applied during radio communication</p> <p>1.4 Work health and safety/occupational health and safety (WHS/OHS) procedures and hazard control strategies are applied when operating radio equipment according to vessel safety management system</p> <p>1.5 Radio communication problems are documented and promptly reported according to established procedures</p> |
| <b>2 Maintain and fault-find radio equipment</b>                             | <p>2.1 Routine maintenance checks are carried out on radio voice communications (radiotelephony) equipment according to manufacturer instructions and specifications, and organisational procedures</p> <p>2.2 Out-of-specification performance and faults in radio equipment are correctly identified and investigated using prescribed fault-finding techniques according to established user maintenance procedures and manufacturer instructions</p>  |
| <b>3 Access search and rescue radio facilities</b>                           | <p>3.1 Request is made to the appropriate organisation for the provision of the required search and rescue services</p> <p>3.2 Information required by the Modernised Australian Ship Tracking and Reporting System (MASTREP) is supplied and received in the required format</p>   |
| <b>4 Deploy and operate an EPIRB, SART and AIS-SART</b>                      | <p>4.1 Routine checks are carried out on EPIRBs, SARTs and AIS-SARTs to confirm their operational capability according to manufacturer instructions and specifications</p> <p>4.2 Appropriate action is taken to rectify or replace EPIRBs, SARTs or AIS-SARTS that are found to be malfunctioning or are inoperable according to manufacturer instructions and</p>   |

- organisational procedures
- 4.3 EPIRBs, SARTs and AIS-SARTs are deployed as required according to manufacturer instructions and established search and rescue procedures
- 5 Operate a man overboard (MOB) device as a locating device in an emergency**
- 5.1 Routine checks are carried out on AIS-MOB and DSC-MOB devices to confirm their operational capability according to manufacturer instructions and specifications
- 5.2 AIS-MOB and DSC-MOB devices are operated according to manufacturer instructions and regulatory requirements

## 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.

Radio voice communications (radiotelephony) is carried out accurately and consistently in both normal and emergency situations using shipboard VHF and HF radio equipment, EPIRBs and SARTs in compliance with the relevant sections of the Radio Regulations adopted by the World Radiocommunication Conference (as amended), including Chapters VII and IX.

- Organisations include one or more of the following:
- coast stations
  - company bases
  - fishing organisations and cooperatives
  - limited coast stations
  - Maritime Communication Stations
  - private shore stations, including boating clubs
  - state/territory police forces
- Radio services include one or more of the following:
- MASTREP
  - medical advice services
  - public correspondence
  - scheduled broadcasts (skeds)
  - search and rescue

## Unit Mapping Information

This unit replaces and is equivalent to TDMME507B Transmit and receive information by marine radio or telephone.

## Links

MAR Maritime Training Package Companion Volume Implementation Guide at: - -  
[http://companion\\_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=22](http://companion_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=22)