



Australian Government

**MARC059 Transmit and receive
information by marine VHF radio within
Australian Territorial Waters**

Release: 2

MARC059 Transmit and receive information by marine VHF radio within Australian Territorial Waters

Modification History

Release 2. This is the second release of this unit of competency in the MAR Maritime Training Package.

- Minor statement changes in unit Application
- Minor changes in Performance Evidence
- Minor statement changes in Assessment Conditions.

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 transmit and receive information by marine very high frequency (VHF) radio on a vessel according to regulations and includes operating an emergency position indicating radio beacon (EPIRB).

Licensing/Regulatory Information

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 specified in Marine Order 505.
- This unit applies to all boaters using marine VHF radio equipment to transmit and receive information to and from shore and vessel-based operators within Australian Territorial Waters – defined as all waters within 12 nautical miles from the coastal baseline.
- This unit is consistent with the requirements of the Radiocommunications (Maritime Ship Station – 27 MHz and VHF) Class Licence 2001.

Training providers seeking to offer this unit of competency must gain AMSA approval before the unit is offered.

Seafarers seeking certification should check with AMSA.

Pre-requisite Unit

Not applicable.

Competency Field

C – Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Operate VHF radio equipment to transmit and receive messages

- 1.1** VHF radio equipment is selected for operation within limits of specifications
- 1.2** VHF radio equipment is operated to transmit and receive various types of signal according to manufacturer instructions, established radio operation procedures and regulatory requirements
- 1.3** Regulations and procedures applicable to vessel stations equipped with radio and digital selective calling (DSC) facilities are applied during radio communication
- 1.4** Work health and safety (WHS)/occupational health and safety (OHS) procedures and hazard control strategies are applied when operating radio equipment

2 Access search and rescue (SAR) VHF radio facilities

- 2.1** Information that may be required is identified and documented
- 2.2** Request is made to the appropriate organisation for the provision of the information in the required format and on the correct channel
- 2.3** Information is provided and received in the required format and on the correct channel

3 Operate an EPIRB in a distress situation

- 3.1** Routine checks and maintenance are carried out on EPIRBs, including float free EPIRBs, to confirm their operational capability according to manufacturer instructions and specifications
- 3.2** EPIRB is 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.

Unit Mapping Information

This unit replaces and is equivalent to MARC019 Transmit and receive information by marine VHF radio within Australian Territorial Waters

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 MARC059 Transmit and receive information by marine VHF radio within Australian Territorial Waters

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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:

- applying the principles of marine radio and digital selective calling (DSC) to accurately transmit and receive messages, including distress calls
- cancelling an inadvertent distress alert or call
- carrying out radio communications in compliance with the relevant sections of the maritime provisions of the Radio Regulations adopted by the World Radiocommunication Conference (as amended), including Chapters VII and IX
- communicating effectively with other stations by using standard voice procedures, the phonetic alphabet, push to talk (PTT) switch and common radio terminology
- deploying an emergency position indicating radio beacon (EPIRB)
- documenting communication problems
- ensuring proper housing, securing and automatic release of float-free EPIRB
- reading and interpreting regulations and procedures
- sending and receiving distress alerts, and urgency and safety announcements by DSC
- sending, acknowledging and relaying distress, urgency and safety communications by voice using recognised format
- setting up VHF equipment for use, including selecting the channel, adjusting transmitter power level, adjusting squelch and using dual watch facility
- using correct procedures for transmitting and receiving signals using VHF equipment
- using very high frequency (VHF) equipment, accurately and consistently, to send and receive messages and signals under normal and emergency situations according to international and national VHF radio regulations/standards.

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 search and rescue (SAR) system, including satellite distress beacons
- available radio services including:
 - automated weather stations
 - DSC
 - public communications
 - scheduled broadcasts (skeds)
 - SAR
- EPIRB frequencies:
 - 406 MHz
 - 121.5/MHz (homing)
- marine VHF repeater stations
- methods of communicating vessel position
- organisations with which radio communication may be conducted including:
 - coast stations
 - fishing organisations and co-operatives
 - limited coast stations
 - private shore stations, including boating clubs
 - state/territory police forces
- principles of, and procedures for, marine VHF radio communications
- procedures for transmitting and decoding the phonetic alphabet
- purpose of monitoring the VHF Channel 70 used for DSC, including an awareness of the procedures used in making a DSC distress alert, urgency and safety announcement
- radio communication including:
 - distress, urgency and safety communications
 - normal vessel-to-shore service (ship-to-shore)
 - normal vessel-to-vessel service (ship-to-ship)
- sections of relevant regulations related to marine VHF radio communications
- VHF radio calling, replying and relaying procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training current at the time of assessment.

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.

Practical assessment must occur in a workplace, or assessment must occur via an online radio simulator or simulated VHF radio communications activities and exercises covering a range of normal and emergency communication situations that are typically experienced on a vessel.

Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals, including:
 - Marine Radio Operators VHF Handbook
 - Radiocommunications (Maritime Ship Station – 27 MHz and VHF) Class Licence 2001
 - Radiocommunications Act 1992
 - relevant state/territory legislation – for carriage requirements
- VHF transceiver equipment – either fixed or handheld, or approved personal computer (PC)-based simulator, which includes a DSC facility.

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