



**Australian Government**

# **MARO003 Transmit and receive information by the global maritime distress and safety system**

**Release: 2**

# MARO003 Transmit and receive information by the global maritime distress and safety system

## Modification History

Release 2. Change to RoC to include current terminology Mapping information has been corrected.

Release 1. New unit of competency.

## Application

This unit involves the skills and knowledge required to transmit and receive information by global maritime distress and safety system (GMDSS) subsystems and equipment.

This unit applies to those in charge of or performing radio duties on a ship required to participate in the GMDSS.

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 Operate GMDSS subsystems and equipment to send and receive messages**

- |     |                                                                                                                                                                                         |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | GMDSS communication equipment is operated to send and receive various types of signals according to manufacturer instructions, established GMDSS procedures and regulatory requirements |
| 1.2 | GMDSS procedures appropriate for the sea area concerned are correctly applied according to regulatory requirements                                                                      |
| 1.3 | Regulations and procedures applicable to vessel stations equipped with GMDSS communication equipment and digital selective calling facilities are applied during radio                  |

|                                                    |     |                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    |     | communication                                                                                                                                                                                                                                                                                          |
|                                                    | 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 International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM) Code safety management system |
| <b>2 Maintain radio equipment</b>                  | 2.1 | Routine maintenance checks are conducted on GMDSS equipment according to manufacturer specifications and organisational procedures                                                                                                                                                                     |
|                                                    | 2.2 | Out-of-specification performance and faults are investigated using fault finding techniques                                                                                                                                                                                                            |
|                                                    | 2.3 | Identified faults and defective equipment and component parts are rectified or replaced according to manufacturer specifications and organisational procedures                                                                                                                                         |
| <b>3 Provide radio services during emergencies</b> | 3.1 | Emergencies are correctly identified according to organisational procedures                                                                                                                                                                                                                            |
|                                                    | 3.2 | Organisational procedures are conformed with when taking initial action on becoming aware of an emergency or abnormal situation                                                                                                                                                                        |
|                                                    | 3.3 | Communications are established with others using GMDSS communication equipment to facilitate the emergency response process                                                                                                                                                                            |
|                                                    | 3.4 | Contact is maintained at all times with others to keep them briefed on the emergency response process                                                                                                                                                                                                  |
|                                                    | 3.5 | Radio procedures as defined in the international and national radio regulations and safety of life at sea (SOLAS) convention and the IAMSAR Manual are applied during the emergency                                                                                                                    |
| <b>4 Maintain records</b>                          | 4.1 | Records are completed and maintained as required according to regulatory and organisational requirements                                                                                                                                                                                               |
|                                                    | 4.2 | Relevant records are sent to appropriate bodies and copies are filed according to regulatory and organisational requirements                                                                                                                                                                           |
|                                                    | 4.3 | Documents are stored according to regulatory and organisational 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.

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GMDSS communication equipment must include:       | <ul style="list-style-type: none"> <li>• antennas</li> <li>• batteries</li> <li>• digital selective calling (DSC) equipment</li> <li>• electrical and radio cable connections</li> <li>• electrical fuses</li> <li>• emergency position indicating radio beacon (EPIRB)</li> <li>• enhanced group calling (EGC) receiver</li> <li>• medium frequency/high frequency (MF/HF) equipment</li> <li>• Narrow Band Direct Printing (NBDP)</li> <li>• navigational telex (NAVTEX) receiver</li> <li>• search and rescue radar transponder r (RADAR-SART)</li> <li>• very high frequency (VHF) equipment</li> <li>• AIS search and rescue transmitter (AIS-SART)</li> </ul> |
| Regulations must include:                         | <ul style="list-style-type: none"> <li>• IMO STCW 95 Code concerning radio communication</li> <li>• Australian Maritime Safety Authority (AMSA) Marine Orders</li> <li>• SOLAS Convention Chapter IV</li> <li>• ITU Radio</li> <li>• Regulations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                         |
| Routine maintenance checks must include:          | <ul style="list-style-type: none"> <li>• battery checks including specific gravity</li> <li>• equipment testing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Emergencies include one or more of the following: | <ul style="list-style-type: none"> <li>• abandon ship</li> <li>• assisting vessels in distress</li> <li>• fire on board ship</li> <li>• partial or full breakdown of radio installations</li> <li>• rescuing persons from the water</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Records include one of the following:             | <ul style="list-style-type: none"> <li>• radio communication log</li> <li>• records of radio communication</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Unit Mapping Information

This unit replaces and is equivalent to MARO5002A Transmit and receive information by the Global Maritime Distress and Safety System.

## Links

Companion Volume implementation guides are found in VETNet -

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