



Australian Government

MARF039 Manage safety and security of vessel, crew and passengers

Release: 1

MARF039 Manage safety and security of vessel, crew and passengers

Modification History

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 develop emergency and damage control plans, and to respond and manage navigational and emergency situations to maintain the safety and security of vessel crew and passengers.

This unit applies to people working in the maritime industry in the capacity of:

- Engineer Class 1 (STCW Chief Engineer Unlimited)
- Engineer Class 2 (STCW Second Engineer Unlimited)
- Master of a commercial vessel Unlimited.

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 an Engineer Class 1 (STCW Chief Engineer Unlimited), Engineer Class 2 (STCW Second Engineer Unlimited) or Master Unlimited and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable.

Competency Field

F – Operational Quality and Safety

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Develop emergency and damage control plans

- 1.1** Potential emergencies and damage scenarios are identified
- 1.2** Plans of action are developed for responding to potential emergencies and damage scenarios according to regulatory and organisational requirements
- 1.3** Procedures, checklists and instructions for dealing with emergencies and damage scenarios are documented according to regulatory and organisational requirements
- 1.4** Resources are organised in readiness for potential implementation of emergency and damage control plans
- 1.5** Information on emergency and damage control plans is distributed and made available to crew
- 1.6** Appropriate instruction is organised for crew about their roles and responsibilities during various emergencies and damage control scenarios

2 Develop security risk management plans

- 2.1** Security risk management plans are prepared according to regulatory and organisational requirements
- 2.2** Explanatory information on the importance of security and the organisation's security objectives is contained in plans
- 2.3** Threat assessments undertaken, current exposure and current protective security arrangements are summarised in plans
- 2.4** Security strategies for implementing, monitoring and evaluating countermeasures are outlined in plans
- 2.5** Appropriate instruction is organised for crew about their roles and responsibilities in a security threat

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| 3 Maintain the operational condition of firefighting, lifesaving and safety systems | 3.1 Safety management system (SMS) processes and outcomes for maintaining the operational condition of firefighting, lifesaving and safety systems are identified |
| | 3.2 Procedures and supporting documentation for the routine maintenance of firefighting, lifesaving and safety systems are developed |
| | 3.3 Personnel roles and responsibilities are allocated and communicated |
| | 3.4 Checks are conducted according to SMS requirements |
| | 3.5 Non-compliances are identified and analysed |
| | 3.6 Appropriate responses to non-compliances are initiated according to SMS requirements |
| | 3.7 Outcomes are recorded and reported according to regulatory and organisational requirements |
| 4 Organise fire and abandon vessel drills | 4.1 Fire and abandon vessel drills are planned and conducted according to regulatory requirements and organisational procedures |
| | 4.2 Instruction is provided to others on organisational procedures and the correct use of firefighting and lifesaving equipment |
| | 4.3 Musters and drills are reviewed against objectives |
| | 4.4 Records are completed according to regulatory requirements and organisational procedures |
| 5 Manage navigational and other emergencies | 5.1 Initial actions for an emergency are undertaken according to contingency plans, urgency of the situation and nature of the emergency |
| | 5.2 Onboard personnel are given information and instructions clearly and accurately |
| | 5.3 Procedures are implemented to combat navigational and other emergencies to protect persons onboard vessel |
| | 5.4 Communications are established with others to facilitate the emergency response process |
| | 5.5 Assistance is coordinated and provided by appropriate |

		personnel
	5.6	Contact is maintained with others at all times to keep them briefed on the emergency response process
	5.7	Preparation for abandoning vessel is undertaken, as required
	5.8	Cessation of emergency is communicated to appropriate personnel
6	Maintain operational safety	
	6.1	Environmental factors are continually monitored, assessed and reviewed to identify distinctive features and any change in characteristics that might indicate unusual or suspicious behaviour
	6.2	Personal safety checks are made on a systematic and routine basis according to organisational procedures
	6.3	Resources and equipment are organised in readiness for potential security risk situations
7	Respond to security risks	
	7.1	Security risk situations are accurately identified and assessed for degree of risk to self, others and vessel
	7.2	Response to security risk is formulated and carried out according to security risk management plan
	7.3	Safety and security of self, others and vessel is maximised through response initiative
	7.4	Changing circumstances are monitored and responses are adjusted, as required, to maintain security
	7.5	Relevant documentation is completed and securely maintained according to confidentiality requirements and organisational procedures

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 MARF021 Manage safety and security of vessel crew and passengers.

Links

Companion Volume implementation guide can be found in VetNet -

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

Assessment Requirements for MARF039 Manage safety and security of vessel, crew and passengers

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package.

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 procedures for monitoring fire detection and safety systems to ensure all alarms are detected promptly and acted upon according to established emergency procedures
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- communicating using appropriate channels and communication codes and signals
- completing documentation and reporting requirements on matters related to the development of emergency and damage control plans
- determining response appropriate to security risk situations
- developing effective planning documents
- developing emergency procedures according to established plans for emergency situations to maximise of safety of persons onboard
- identifying and complying with security incident response procedures
- identifying security risk factors and conducting risk assessments
- instructing personnel on procedures to be taken during emergency situations onboard a vessel
- interpreting and applying security and safety practices and regulations
- maintaining the operational condition of lifesaving, firefighting and other safety systems
- managing the handling of emergency situations onboard a vessel
- minimising hazards and risks to the safety of self and others
- preparing contingency plans for response to emergencies
- providing the required amount of detail in reports
- reporting emergency situations onboard a vessel.

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:

- actions to be taken when:
 - collision is imminent and after collision
 - emergencies arise in port

- grounding is imminent and after grounding
- impairment of the watertight integrity of the hull by any cause
- bomb threat and counter-terrorism procedures
- concept of reserve buoyancy and its relevance to damage control in vessels
- cybersecurity
- damage control assessment
- emergency steering, including auxiliary steering gear
- emergency towing arrangements and procedures
- environmental and exposure factors
- faults that can occur with fire detection, firefighting, lifesaving and safety equipment, and systems and appropriate remedial action and solutions
- fire and abandon vessel drills, including planning, scheduling and conducting drills according to regulatory requirements and organisational procedures
- functions and use of lifesaving appliances
- general principles of damage control and the manner in which the watertight integrity of the hull is maintained on a vessel
- importance of maintaining fire detection, firefighting, lifesaving and safety equipment and systems, and potential consequences if the equipment or systems are not operational during an emergency
- lifesaving appliance regulations (International Convention for the Safety of Life at Sea (SOLAS))
- methods and aids for fire prevention, detection and extinction
- methods for checking and replacing consumable materials in fire detection, firefighting, lifesaving and safety equipment and systems
- minimisation effects of malfunction of the ship's systems
- precautions when breaching a ship
- procedure for person overboard
- procedures to be followed and actions to be taken to protect and safeguard all persons onboard in emergencies and to limit further damage to the vessel
- procedures to be followed and actions to be taken when re-floating a grounded ship with or without assistance
- regulations related to security risk management
- regulatory requirements for emergency response plans
- regulatory requirements related to maintaining fire detection, firefighting, lifesaving and safety equipment and systems
- relevant Australian Maritime Safety Authority (AMSA) Marine Orders and Notices, International Ship and Port Facility Security Code (ISPS Code), and other relevant International Maritime Organization (IMO) conventions and codes
- procedures for rescue of persons from a vessel in distress or from a wreck
- routine maintenance of firefighting, lifesaving and safety systems are developed
- safety management system (SMS) plans, procedures, checklists and instructions
- ship construction, including damage control measures
- statutory requirements pertaining to damage control in vessels
- types of fire detection, firefighting, lifesaving and safety equipment and systems onboard

- vessels and the procedures for their use
- ways of controlling damage during a flooding emergency
- WHS/OHS requirements and work practices.

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 Organisations 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 realistic simulated workplace, under the normal range of workplace conditions.

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 include access to:

- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) currently used in industry.

Links

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