



Australian Government

MARF6003A Manage safety and security of vessel crew and passengers

Release 1

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Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to develop emergency and damage control plans, and to handle emergency situations to maintain the safety and security of vessel crew and passengers.

Application of the Unit

This unit applies to maritime workers working in the maritime industry as a Master Unlimited.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 Develop emergency and damage control plans | 1.1 <i>Potential emergencies</i> and <i>damage scenarios</i> 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 scenarios |
| 2 Develop security risk management plans | 2.1 Security plan is prepared according to regulatory and organisational requirements
2.2 Plan contains explanatory information on the importance of security and the organisation's security objectives
2.3 Plan summarises threat assessments undertaken, current exposure and current protective security arrangements
2.4 Plan outlines security strategies for implementation of countermeasures, monitoring and evaluation
2.5 Appropriate instruction is organised for crew about their roles and responsibilities in the event of a security threat |
| 3 Maintain the operational condition of firefighting, lifesaving and safety systems | 3.1 Safety management system 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 in accordance with safety management system requirements
3.5 Non-compliances are identified and analysed |

- 3.6 Appropriate responses to non-compliances are initiated according to safety management system 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 emergencies**
 - 5.1 **Initial actions** on becoming aware of emergency are undertaken according to contingency plans and are appropriate to the urgency of the situation and the nature of the emergency
 - 5.2 On-board personnel are given information and instructions clearly and accurately
 - 5.3 Procedures are implemented to combat emergency and to protect persons on board
 - 5.4 Communications are established with **others** to facilitate the emergency response process
 - 5.5 Injured persons are provided with assistance
 - 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, if 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** 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 with due regard to confidentiality according to organisational procedures

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Apply procedures for monitoring fire detection and safety systems to ensure all alarms are detected promptly and acted upon according to established emergency procedures
- Communicate using appropriate channels and communication codes and signals
- Complete documentation and reporting requirements on matters related to the development of emergency and damage control plans
- Determine response appropriate to security risk situation
- Develop emergency procedures according to established plans for emergency situations
- Identify and comply with security incident response procedures
- Identify security risk factors and conduct risk assessment
- Instruct personnel on procedures to be taken during emergency situations on board a vessel
- Interpret and apply security and safety practices and regulations
- Manage the handling of emergency situations on board a vessel
- Maintain the operational condition of lifesaving, firefighting and other safety systems
- Minimise hazards and risks to the safety of self and others
- Organise fire drills and abandon ship drills
- Prepare contingency plans for response to emergencies
- Report emergency situations on board a vessel

Required Knowledge:

- Actions to be taken to protect and safeguard all persons on board in emergencies
- Actions to limit damage and save the vessel following fire, collision or grounding
- Bomb threat and counter-terrorism procedures
- Concept of reserve buoyancy and its relevance to damage control in vessels
- Faults that can occur with fire detection, firefighting, lifesaving and safety equipment and systems and appropriate remedial action and solutions
- 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 maintenance of fire detection, firefighting, lifesaving and safety equipment and systems and the 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)
- 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
- Regulations related to security risk management
- Regulatory requirements for emergency response plans
- Regulatory requirements related to the maintenance of fire detection, firefighting, lifesaving and safety equipment and systems
- Relevant AMSA Marine Orders and Notices, ISPS Code, and other relevant IMO Conventions and Codes
- Safety management system 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 on board vessels and the procedures for their use
- Ways of controlling damage during a flooding emergency
- Work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- providing the required amount of detail in reports
- developing effective planning documents.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where managing the safety and security of vessel crew and passengers can be conducted
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate managing the safety and security of vessel crew and passengers
- direct observation of candidate applying all relevant WHS/OHS and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

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| Potential emergencies may include: | <ul style="list-style-type: none">• Accidents• Bomb threat• Collision• Fire or explosion• Flooding• Grounding• Loss of main engine or power• Loss of steering• Person overboard• Rescue and evacuation of injured persons• Scenes of crime |
| Damage scenarios may include: | <ul style="list-style-type: none">• Collision damage• Damage caused by cargo shift• Integrity of vessel hull |
| Information may include: | <ul style="list-style-type: none">• Documented instructions• Drills• Meetings• Notice boards• Pamphlets• Training sessions |
| Threat assessments may include: | <ul style="list-style-type: none">• Determining the potential of a threat to actually cause harm• Evaluating and discussing the likelihood of a threat being realised• Providing information about people and events that may pose a threat to the vessel |
| Exposure may include: | <ul style="list-style-type: none">• Measure of how open the vessel is to harm• Potential of the vessel to attract harm |
| Firefighting, lifesaving and safety systems may include: | <ul style="list-style-type: none">• Fire and smoke detectors and alarms• Fire and watertight doors• Fire hoses and extinguishers• Fire smothering systems• Flares and smoke floats• Lifeboats and life rafts• Life jackets and other flotation devices |
| Non-compliances may include: | <ul style="list-style-type: none">• Damaged components• Damaged equipment |

- Failure to conduct drills
 - Faulty components
 - Faulty equipment
 - Lapsed expiry dates
 - Levels of consumable materials
 - Quality of consumable materials
- Initial actions may include:
- Broadcasting appropriate distress or warning signals
 - Investigating the source of fire or smoke alarms
 - Calling crew and passengers to muster stations
 - Mustering appropriate resources
- Others may include:
- Organisational personnel
 - Search and rescue authorities
 - Vessels in the vicinity
- Environmental factors may include:
- Access to assistance and resources
 - Availability of opportunities for escape
 - Degrees of illumination in affected areas
 - Presence of sources of threat
 - Time of day
 - Weather
- Resources and equipment may include:
- Access to emergency services and specialist personnel
 - Back-up personnel
 - Communication equipment
 - Firefighting equipment
 - First aid kit
 - Personal protection equipment
 - Security equipment including electronic screening equipment, video cameras and monitors, alarms and signals
- Security risk situations may include:
- Breaches of law including criminal damage, offences against people, public order, misuse of drugs and alcohol
 - Emergencies
 - Hazards including physical, chemical, electrical, psychological, biological
 - Threats including bombs, sabotage, assassination
- Responses may include:
- Abandoning the vessel
 - Checking identification
 - Defusing the situation
 - Isolating area of potential risk
 - Isolating risk
 - Issuing verbal warnings
 - Notifying relevant emergency services organisations

- Documentation may include:
- Offering assistance
 - Providing first aid
 - Requesting support and assistance
 - Restraint of person
 - Tactical withdrawal
 - Using basic defensive techniques
 - Using negotiation techniques
 - Activity logs
 - Incident reports
 - Records of conversation
 - Request for assistance forms
 - Reports

Unit Sector(s)

Not applicable.

Competency Field

Operational Quality and Safety