



Australian Government

MARF016 Carry out fast rescue craft operations

Release: 1

MARF016 Carry out fast rescue craft operations

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 carry out fast rescue craft operations and includes maintaining fast rescue craft; preparing fast rescue craft and crew for operations; taking charge of a fast rescue craft during and after launch; responding to craft, equipment and crew emergencies or malfunctions; locating and retrieving casualties; recovering and securing fast rescue craft after operations.

Work is performed relatively independently under broad operational requirements and requires the ability to take charge of the rescue boat and its crew, and to take responsibility for self and others in achieving the required outcomes.

Work involves applying established maritime survival principles and practices for launching and operating fast rescue craft and using related survival equipment. Implementing established survival strategies and procedures is also involved.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

F – Operational Quality and Safety

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 Maintain fast rescue craft for operations	1.1 Fast rescue craft design characteristics and fittings are identified
	1.2 Fast rescue craft capabilities are outlined
	1.3 Fast rescue craft and items of equipment are maintained in accordance with manufacturer specifications and operational

		requirements
2 Prepare fast rescue craft and crew for operations	2.1	Fast rescue craft launching equipment design and operation are outlined
	2.2	Motion compensation system operation and associated fail safe devices are outlined
	2.3	Motion compensation system operation and associated fail safe devices are maintained in accordance with manufacturer instructions
	2.4	Pre-launch checks are conducted in accordance with manufacturer specifications and operational requirements
	2.5	Appropriate specialised emergency equipment is stowed on board fast rescue craft
	2.6	Operational responsibilities and lines of communication are confirmed with relevant personnel
	2.7	Appropriate personal protective and foul weather equipment is worn as required
	2.8	Readiness of fast rescue craft, crew and equipment for launch is confirmed with relevant personnel
3 Take charge of fast rescue craft during and after launch	3.1	Fast rescue craft is launched in a controlled and safe manner according to craft and launch system manufacturer specifications and instructions
	3.2	Hook release system is operated according to manufacturer specifications, and launch vessel and launch equipment are cleared safely
	3.3	Engine power is managed within manufacturer torque range in a way that ensures smooth and efficient movement
	3.4	Damage to engine and accessories is minimised
	3.5	Fast rescue craft is operated within safe operational limits of craft for the prevailing conditions
	3.6	Manoeuvres are performed with due regard to drive system manoeuvring characteristics
	3.7	Manoeuvres are performed in a way that ensures the safety of personnel on board and in the water
	3.8	Navigational equipment is used according to manufacturer

- specifications
- 3.9 Communication and signalling equipment is used according to manufacturer specifications and operational requirements
 - 3.10 Communications are established and maintained between craft, other vessels, rig and helicopters as required
 - 3.11 Emergency equipment is used according to manufacturer specifications, supervisor instructions and emergency conditions
- 4 Respond to emergencies or malfunctions involving craft, equipment and crew**
- 4.1 Capsized fast rescue craft is righted using craft righting system, with due concern for crew safety and possible damage to craft and equipment
 - 4.2 Swimming is performed as required in standard personal protective equipment, foul weather clothing or other specialised protective equipment
 - 4.3 Appropriate procedures for reboarding fast rescue craft and for wearing operational clothing and equipment are implemented
 - 4.4 Emergency repairs and maintenance to fast rescue craft and equipment are performed according to manufacturer specifications and emergency conditions
- 5 Locate and retrieve casualties**
- 5.1 Appropriate search patterns are followed according to search coordinator instructions
 - 5.2 Search patterns and rescue procedures are coordinated with other fast rescue craft where appropriate
 - 5.3 Casualties are approached in a way that ensures casualty and crew safety
 - 5.4 Fast rescue craft is positioned to ensure safe and quick retrieval of casualties
 - 5.5 Casualty condition is determined and appropriate recovery procedures are implemented
 - 5.6 Appropriate lifting procedures are adopted to ensure safe retrieval of casualty
 - 5.7 Emergency first aid procedures are applied as appropriate
 - 5.8 Master or medical officer is notified of casualty condition and medical instructions are followed as appropriate

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| | 5.9 | Casualty is transferred to vessel, rig, helicopter or other place of safety with concern for types of injuries sustained |
| 6 Recover fast rescue craft | 6.1 | Stand-down procedures are followed |
| | 6.2 | Fast rescue craft is recovered in a controlled and safe manner according to craft, hook release systems and recovery system manufacturer specifications and instructions |
| | 6.3 | Fast rescue craft and equipment are secured on board and prepared for future operations |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Numeracy – required to calculate items of equipment and to conduct pre-launch checks

Literacy – required to read and accurately interpret pre-launch checks and stand down procedures

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

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| Drive systems and manoeuvres include one or more of the following: | <ul style="list-style-type: none"> • inboard/outboard • jet • jet drives • outboard • rudder • single propeller • twin propeller |
| Craft righting systems include one of the following: | <ul style="list-style-type: none"> • inflatable bag supported by stern mounted roll bar that is accessible from outside the craft • rope mounted on the outside of the craft |
| Launch systems and recovery systems include one or more of the | <ul style="list-style-type: none"> • deck crane or davit • four point sling with fixed eye • rig crane |

following:

- solid mounted frame using fixed hook assembly

Manoeuvres include one or more of the following:

- approaching a casualty in the water
- coming alongside and leaving a moving vessel
- coming alongside or leaving a pontoon, jetty or other fixed object
- following search patterns
- high speed approaches
- pacing a vessel or helicopter
- positioning craft for casualty pick-up
- towing or being towed by other craft
- transferring personnel or equipment to or from stationary or moving point
- turning through 180 degrees in a narrow channel requiring forward and reverse movement

Emergencies include one or more of the following:

- capsize
- collision
- crew or equipment overboard
- electrical or mechanical failure
- injury to crew
- leaks or flooding

Unit Mapping Information

This unit replaces and is equivalent to TDMMF4307B Carry out fast rescue craft (FRC) operations.

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 MARF016 Carry out fast rescue craft operations

Modification History

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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, performance criteria and range of conditions on at least one occasion and include:

- completing vessel logbooks
- conducting pre-launch and ongoing craft and equipment checks in relation to:
 - ancillary equipment required on board
 - battery
 - bowsing line operability
 - communications equipment
 - compass
 - crane operability
 - drive units including oil levels, clearance from obstruction, tilt levels, nozzle operation where applicable
 - electrical equipment
 - engine levels including oil, water and v-belts
 - engine operability
 - fuel lines and pumps
 - hull integrity
 - launch capability
 - lifting sling or hook
 - lines of communication
 - operational procedures and requirements
 - personal protective equipment availability and operability
 - search light
 - specialised emergency equipment
 - steering
 - switches
 - tow rope
- effectively using personal protective equipment and foul weather gear including:
 - eye protection, sunscreen protective footwear, safety helmet and gloves
 - immersion suits, inflatable life jacket, overalls, wet weather gear

- implementing appropriate casualty recovery procedures
- implementing emergency first aid procedures including:
 - cardiopulmonary resuscitation
 - care following fuel ingestion
 - care of burns, breaks and fractures
 - control of hypothermia, control of internal or external bleeding, shock
 - determining the extent of head and spine injury and appropriate care
 - expired air resuscitation
 - monitoring of vital signs
- implementing personal survival techniques required of seafarers as referenced in Section A VI/1 of the International Maritime Organization (IMO) Standards of Training and Certification & Watchkeeping (STCW) 95 Code
- launching and operating fast rescue craft and equipment by day or night in both normal and emergency situations under normal and adverse conditions of sea and weather while:
 - anchored or moored
 - hove to
 - under way
- maintaining and undertaking emergency repair of craft and auxiliary equipment
- operating fast rescue craft in prevailing sea and weather conditions including:
 - broken or rough water
 - cross-winds, swell and/or tide
 - wind, swell and/or tide running with the craft
 - wind, swell and/or tide running against the craft
- reading and interpreting IMO safety symbols by night and day
- swimming in personal protective equipment, foul weather gear or specialised protective equipment
- undertaking appropriate search patterns including:
 - creeping line
 - expanding square
 - parallel track search using one, two or three craft
 - sector search
 - ship/aircraft coordinated pattern
- using launch and recovery equipment including:
 - buoyant bailer, ladles, rescue buoyant quoits with 30 metre line, 15 metre painter, 50 metre buoyant towing line
 - compass, whistle, waterproof electric torch and waterproof search light
 - first aid kit
 - sea anchor
 - tool kit
- using signals and communications equipment including:
 - flair pack containing handheld orange smoke flairs, handheld red flairs and handheld

- rocket flairs
- radar reflector
- using specialised emergency equipment including:
 - buoyant safety line
 - safety buoyant clasp knife
 - thermal protective aids
 - fire extinguisher
 - foot pump
 - safety boat hook.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- effects of sea and weather conditions on fast rescue craft operations
- equipment maintenance and emergency repair procedures
- fast rescue craft:
 - hull construction (such as inflatable hulls, rigid hulls, semi-rigid hulls)
 - hull flotation systems (such as foam filled collar, inflatable collar, inflatable pontoons, sealed floor)
- International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) safety management system plans, procedures, checklists and instructions
- launch and recovery equipment, procedures and safety precautions
- manoeuvring and engine characteristics for fast rescue craft including handling strategies to overcome hazards caused by a head sea, a following sea and a beam sea
- operational features and correct use of the motion compensation system in use
- outfitting of fast rescue craft such as auxiliary equipment, specialised emergency equipment and communications equipment
- personal survival techniques required of all seafarers
- procedures and sequences of action for correctly operating and using fast rescue craft
- relevant sections of:
 - International Aeronautical and Maritime Search and Rescue (IAMSAR) manual
 - relevant Australian Maritime Safety Authority (AMSA) publications such as Survival at Sea : a Training and Instruction Manual
 - IMO STCW 95 Code and AMSA Marine Orders
 - relevant international, Australian and state/territory work health and safety/occupational health and safety (WHS/OHS) legislation, regulations, codes of practice, policies and procedures such as Safety of Life at Sea (SOLAS)
 - relevant international and Australian Standards

- search patterns and environmental factors affecting their execution
- signals and communications protocols
- symptoms of hypothermia, its prevention and treatment and the related use of protective covers and garments such as immersion suits and thermal protective aids
- types of fast rescue craft and relevant ancillary equipment, including construction, features and starting and operating characteristics.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must satisfy the National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) standards.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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.

Resources for assessment must include access to:

- all tools, equipment, materials and personal protective equipment specified in the Performance Evidence in this unit of competency
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals including:
 - section A VI/1 of the International Maritime Organization (IMO) Standards of Training and Certification & Watchkeeping (STCW) 95 Code
- range of relevant exercises, case studies and/or simulations.

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