Title	Demonstrate basic knowledge of the operation of pleasure craft by day		
Level	2	Credits	6

Purpose	This unit standard is intended for pleasure craft operators and covers knowledge required to operate a pleasure craft in familiar waters by day at an introductory level.	
	People credited with this unit standard are able to demonstrate knowledge of: the components of a boat, its equipment, function, and operation; basic boat handling techniques; use of navigational charts and Global Positioning Systems (GPS); the compass; basic terminology associated with tides and weather; navigational marks; Maritime Rules and Regulations; and maritime emergency situations. They are also able to demonstrate practical competence in knot tying.	

Classification	Maritime > Sea Survival and Sea Safety	
Available grade	Achieved	

Guidance Information

Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015.
Maritime Transport Act 1994 and subsequent amendments.
Local bylaws as applicable.

2 References

Maritime Rules and advisory circulars. Available at www.maritimenz.govt.nz. Radiocommunications Regulations (General User Radio Licence for Short Range Devices) Notice 2019.

Order of St John. *The New Zealand First Aid Handbook*. Penguin Group New Zealand, 2015. Available at www.stjohn.org.nz.

Maritime and Coastguard Agency, UK. *The Ship Captain's Medical Guide.* 23rd Edition, 2019. Available at http://www.gov.uk/government/publications/.

Maritime New Zealand. Radio Handbook. Your Guide to Maritime

Communications (Fourth Edition). ISBN 0-478-18816-1. Wellington: Maritime New Zealand, 2016. Available at www.maritimenz.govt.nz.

Maritime New Zealand. *New Zealand's Systems of Buoys and Beacons*. Wellington: Maritime New Zealand, 2008. ISBN 0-478-18815-3.

Available at www.maritimenz.govt.nz.

Standards New Zealand. *NZS 5823: 2005, Specification for buoyancy aids and marine safety harnesses and lines.* Wellington: Standards New Zealand, 2005. Available at http://www.standards.co.nz.

Coastguard Boating Education. New Zealand Day Skipper Handbook. Available at www.boatbooks.co.nz.

3 **Definitions**

Accepted industry practice refers to safe and sound practices generally accepted by competent persons within the maritime industry.

EPIRB refers to emergency position-indicating radio beacon.

Pleasure craft has the same meaning as in the Maritime Transport Act 1994 and includes any vessel that is used exclusively for the owner's pleasure or as the owner's residence, and is not offered or used for hire or reward.

Survival management procedures refer to procedures that are set by the company, or where these do not exist, are compatible with a reliable authority such as: The Ship Captain's Medical Guide, The New Zealand First Aid Handbook.

4 Assessment information

All activities and evidence must be in accordance with accepted industry practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the components of a boat, its equipment, function, and operation.

Performance criteria

1.1 Parts of a boat are identified.

> Range must include but is not limited to – stern, bow, transom, gunwale.

1.2 Common nautical terms are explained in accordance with reference texts.

> must include but is not limited to – port, starboard, fore, aft, centre Range

> > line, draught, freeboard, windward, leeward.

1.3 Essential boating safety equipment is identified.

> Range may include but is not limited to – personal floatation devices;

> > anchor, chain and warp; signalling equipment; secondary

propulsion; bailer or pump; fire extinguisher.

1.4 Common types of anchors used on vessels are identified.

> may include but not limited to - Fisherman or Grapnel, Plough, Range

> > Danforth, Claw, Multipurpose Rocna or Manson Super Supreme.

1.5 Fire extinguisher types are identified.

> water, dry powder, carbon dioxide. Range

1.6 Types and usage of marine life jackets and safety harnesses are identified in

accordance with NZ 5823.

1.7 The requirement to hold a radio operator's qualification to operate a VHF marine radio, other than in an emergency, is explained in accordance with the General User Radio Licence.

Outcome 2

Demonstrate knowledge of basic boat handling techniques.

Performance criteria

- 2.1 Boat launching and retrieving techniques are described.
- 2.2 Boat anchoring and beach landing techniques are described.
- 2.3 The means by which a vessel is steered is described.
- 2.4 The dangers of using nylon tow-ropes are described.
- 2.5 The dangers of overloading, placing and shifting weights in a boat, and free surface effect on the stability of a small craft are explained.
- 2.6 The effect of adverse sea conditions on small crafts is described.
 - Range head sea, following sea, beam sea, power, trim.
- 2.7 Boating handling techniques in adverse sea conditions are described.
- 2.8 Safety precautions, including the need for specific local knowledge when crossing harbour bars are described.

Outcome 3

Demonstrate knowledge of use of navigational charts and Global Positioning Systems (GPS).

Performance criteria

- 3.1 Chart symbols and abbreviations on navigation charts are identified.
 - Range symbols soundings, dangerous rocks, beaches, overhead cables, submarine cables, common abbreviations.
- 3.2 Use of the Compass Rose as a protractor on a chart indicating direction is demonstrated.
- 3.3 The process of measuring distances on a chart is demonstrated.
- 3.4 Plotting position by latitude and longitude onto charts is demonstrated.
- 3.5 The dangers of over reliance on the GPS are stated.

Outcome 4

Demonstrate knowledge of the compass.

Performance criteria

- 4.1 The heading of a boat is read from a compass and its reciprocal determined.
- 4.2 Considerations for installing a magnetic compass and the effect of on-board magnetic influences are explained in accordance with manufacturer's specification.

Outcome 5

Demonstrate knowledge of basic terminology associated with tides and weather.

Performance criteria

5.1 Tide terminology and the cause and likely effects on craft are identified and explained.

Range neap and spring tides, sources of tidal information, predictions and

the interpretation of tidal flow information.

5.2 Weather terminology, forecast information, and likely effects upon craft are explained.

Range sources of marine weather forecasts and the information

contained therein, strong wind warnings, the interaction of wind

and tide and the effect on sea conditions.

Outcome 6

Demonstrate knowledge of navigational marks.

Performance criteria

6.1 Navigational marks and their purpose are identified in accordance with New Zealand's System of Buoys and Beacons.

Range marks – lateral, cardinal, isolated danger, safe water, special,

cable markers, colours and their shapes, topmarks.

The colours of lights displayed are matched to different types of marks in accordance with New Zealand's System of Buoys and Beacons.

Range marks – lateral, cardinal, isolated danger, safe water, special.

Outcome 7

Demonstrate knowledge of Maritime Rules and Regulations.

Performance criteria

7.1 Collision Prevention Rules are explained in accordance with Pt 22 of the Maritime Rules.

Range Rules: 22.3, 22.5-9, 22.12-18, 22.21-23, 22.25, 22.30 and 22.34.

7.2 Navigation Safety Rules are explained in accordance with Pt 91 of the Maritime Rules.

Range Rules: 91.2-18.

Outcome 8

Demonstrate knowledge of maritime emergency situations.

Performance criteria

8.1 Distress signals are identified in accordance with Pt 23, Appendix 3 of the Maritime rules.

Range may include but is not limited to – raising and lowering outstretched arms, distress pyrotechnics, distress signal or alert, "SOS" signal by torch, continuous sounding of fog signalling apparatus, EPIRB.

- 8.2 The format of, and the correct VHF channel to use for, a distress call and message is identified.
- 8.3 The operation of distress pyrotechnics is stated.
- 8.4 The process for activating an EPIRB is stated.
- 8.5 Purpose of a "V sheet" is stated.
- 8.6 Preventative measures and actions to be taken in emergency situations are stated.

Range capsize, swamping, "Man Overboard", fire.

8.7 The hazards of cold water immersion and the causes, prevention, symptoms, and treatment of hypothermia are explained in accordance with survival management procedures.

Outcome 9

Demonstrate practical competence in knot tying.

Performance criteria

9.1 Common knots for marine use are tied and their applications stated.

Range may include but is not limited to – single sheet bend, round turn

and two half hitches, bowline, figure of eight; evidence of a minimum of two knots is required.

Planned review date	31 December 2025

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 June 2010	31 December 2016
Review	2	15 October 2015	31 December 2022
Review	3	24 September 2020	N/A

Consent and Moderation Requirements (CMR) reference	0054
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This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Competenz <u>qualifications@competenz.org.nz</u> if you wish to suggest changes to the content of this unit standard.