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Small Vessel Operator Course

The course provides basic training in the requirements of the operator of a small vessel, including collision avoidance, voyage planning, primary navigation, workplace safety, emergency procedures, pollution prevention, and maintaining the vessel. The graduate can then build on the skills and knowledge gained by observing, studying, and practical operation of a small vessel and the equipment provided on the ship they serve.

Section 1 The Boat

1.0 Introduction to course*

1.1 Boat familiarization

1.11 Types of Boats

1.12 Parts of a Boat

1.13 Terminology

1.14 Safety Equipment

1.15 What is a boat?

1.16 Legal definition of vessel

1.17 History of vessels

1.18 Practical definition

1.19 Types of vessels

1.20 Simple stability

1.21 Displacement hulls

1.22 Wave drag and theoretical hull speed.

1.23 Semi-planing hulls, what is planing?

1.24 Heeling and stability

1.3 Fueling

1.31 Rules for fueling.

Section 2 Basic Navigation

2.1 Introduction to Navigation

2.2 Shape of the Earth

2.3 Charts, Tides, Hydrography

2.4 Nautical Measurement

2.5 Plane Sailing

2.6 Course Speed Distance

2.7 Calculation of ETA

2.8 Wind, Tide, Current Effect

2.9 Latitude and Longitude

2.10 Visual Navigation

2.11 Electronic Navigation

2.12 GPS (Video)

2.13 Waypoints (exercise)

2.14 New developments

2.15 Uses in Vietnam

Section 3 Operating Safety

3.1 Collision regulations

3.10 General (Video)

3.11 Responsibility Lookout

3.12 Safe speed

3.13 Conduct of vessels in sight of one another

3.14 Meeting, crossing, and overtaking.

3.15 Sailboats and special situations

3.17 Conduct of vessels in restricted visibility

3.2 Lookout procedures

3.20 Assignment and station

3.21 Guidelines

3.22 Lookout positioning

3.23 Object identification

3.24 Relative bearings

3.25 Position angle

3.26 Distance

3.27 Making reports.

3.28 Scanning procedure

3.29 Night scanning

3.30 Fog scanning

3.31 Night lookout watch

3.32 Helm watch

3.34 Guidelines

3.4 Towing watch

3.41 General

3.42 Guidelines

3.43 Observed danger

3.44 Maintaining watch.

3.5 Anchor watch

3.51 Guidelines

3.52 Check for chafing

3.53 Check for dragging.

3.54 Check your position.

3.6 Aids to Navigation

3.61 General IALA System “A”

3.62 Buoys

3.63 Special purpose buoys

3.64 Lights, leading lights, sector lights, and direction lights

3.65 Local Aids to Navigation*

3.7 Distress signals

3.71 Responsibilities

3.72 Response

3.73 Types of Signals

3.74 Flares (Video)

3.75 Disposal of flares

3.76 (Exercises)

Section 4 Emergencies

4.1 Person overboard

4.11 Recovery procedure

4.12 Anderson (one-turn) maneuver

4.13 Williamson maneuver

4.2 Accidental grounding

4.21 General

4.22 Accidental-grounding checklist

4.3 Emergency procedure in the event of capsizing

4.31 General

4.32 Prevention

4.33 Precautions

4.34 Escape procedures

4.35 Alongside a capsized boat

4.36 Remaining inside a capsized boat.

4.4 Injury to a crewmember

4.41 Becoming disoriented.

4.5 Fire on board

4.6 Opening a hatch.

4.7 Collision

4.71 Lessen damage.

4.72 Responsibilities

4.73 Procedures after accident

4.8 Sinking (video)

4.81 Evaluation

4.82 Communication

4.83 Abandon vessel

4.84 Survivors

Section 5 Boat Handling

5.1 The art of boat handling

5.2 Propulsion and steering

5.3 Boat Handling Characteristics

5.4 Basic Handling Techniques (Video)

5.5 Advanced Boat Handling Techniques

5.6 Heavy weather boat handling

5.7 Towing

5.8 Towing equipment

5.9 Approaching a vessel in need of towing.

5.10 Passing the towline.

5.11 Weighing anchor of a disabled craft

5.12 Selection of towline connecting point

5.13 Use of bridles

5.14 Towing speed

5.15 Towing alongside.

5.16 Entering a marina with a vessel in tow.

5.17 Docking the alongside tow.

5.18 Heavy weather towing

5.19 Towing in current

5.18 Person overboard with a tow

5.19 Tandem towing

5.20 Sinking tow and tow on fire.

5.21 Towing precautions checklist

Section 6 Search and Rescue

6.1 Awareness and Initial Actions

6.2 SAR stages

6.3 Emergency phases

6.4 Awareness stage: Methods for communicating.

6.5 Initial action stage

6.6 Timing of a SAR mission

6.7 Search patterns

6.8 Grounded vessels and damage control

6.9 Situations

6.10 Classroom Exercises

6.11 Conclusion

Section 7 Maintenance

7.1 Engine Types

7.11` Outboard engines

7.12 2 stroke – 4 strokes

7.13 Inboard engines

7.14 Diesel Engines

7.2 Fuel, Ignition, and Electrical Systems

7.21 Types of fuels

7.22 Handling fuels

7.23 Manual and electric ignition

7.24 Batteries

7.25 Troubleshooting electrical systems.

7.3 Engine Maintenance (Video)

7.31 Troubleshooting gasoline engines

7.32 Troubleshooting diesel engines

7.4 Hull Inspection (Video)

7.5 Hull maintenance

7.51 Aluminum boats

7.52 Wooden boats

7.53 Steel boats

7.54 Fiberglass boats

Section 8 Vessel Inspection

8.1 General vessel inspection

8.2 Boat terminology

8.3 Types of boats

8.4 Boat motions

8.5 Vessel Construction (Video)

* Electrical/Mechanical

8.6 Vessel equipment

8.7 Ropes – Types and Characteristics

8.9 Wire

8.10 Working safely with rope and wire.

8.11 Inspection Safety

8.12 Inspection Checklist

8.13 Failure of Inspection

8.14 Detaining Vessels

8.15 Vietnam Regulations*

8.16 MIS entries*

8.17 Measuring Vessel Inspection Results*

8.18 Management of Vessel Inspections*

8.19 Making Recommendations

Section 9 Testing, debriefing, conclusion

10.1 A multiple choice test on the course contents is administered and marked with a plastic overlay.

10.2 Candidates may or may not choose to have the results kept.

10.3 Students will participate in a course debriefing dialogue.

10.4 The course will be turned in to a representative.

10.5 A certificate of attendance will be issued to each student by a senior official.

****Local guest speaker presentation.***