

# OUTBOUND ASA 101 - Basic Keelboat Sailing **Lesson Plan**

#### **BOOK REVIEW** [xx] Page numbers in text book Purple: ASA Standard

#### 1. From "A Sailing Primer"

- □ How a sailboat moves: Forces on the sail
  - □ How the sails work: Component forces under different points of sail
  - □ Apparent wind: changes in forces
- □ Controlling the sails

# 2. Orientation - Below Decks

- Salon/Staterooms
   Bilge pumps
   First ,
   Galley
   Seacocks
   Flares
   Head
   PFD's
   Flash
   Electrical Panel
   Fire Extinguishers
   Horn

# 3. Describe and identify the following sailboat parts and their functions (P20, 24) Std 1 cribe and identify the following sailboat parts and their functions (P20, 24) Std 1 Hull Rudder Winch Deck Standing Rigging Cleat Transom Shroud Fender Keel Spreader Docklines Mast Chainplate Block Gooseneck Forestay Cockpit Bow Backstay Cabin Stern Stanchion Pulpit (bow, stern) Helm / Tiller /Wheel Lifeline

- □ Stern □ Stanchion □ Helm / Tiller /Wheel □ Lifeline

# 4. Define the following terms (P22) Std 3

Beam

🗆 Aft

Heel

- - Weather helm
- 5. Identify and describe the functions of the following sail parts and sail controls (P23-25) Std 2
- 6. Preparing the sails (P30-35, 38-39) Boarding
  Attaching main halyard
  Check topping lift
  Check outhaul
  Check reefing lines
  Check mainsheet
  Hoisting the main
  Jib sheets
  Jib furling line
  Raising the jib
  Danger areas on board

- 7. Winches (P36-37) □ Definition
  - Standard and self tailing winches
  - □ Loading a winch. Drum friction/number of turns
  - □ Operating the winch. Single and dual speed winches
  - □ Winch safety

- Mainsail
   Batten Pocket
   Cunningham

   Jib / Genoa
   Bolt Rope
   Traveler

   Tack
   Running Rigging
   Hank

   Head
   Halyard
   Boom Topping

   Clew
   Jibsheets
   Roller Furler

   Foot
   Boom Vang
   Shackle

   Leech
   Outhaul
   Downhaul

   Bolt Rope
  Running Rigging
  Halyard
  Jibsheets
  Boom Vang
  Outhaul
  Cunningham
  Traveler
  Hank
  Hank
  Boom Topping Lift
  Roller Furler
  Shackle

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First Aid Kit Flares Flashlights

- Port
   Starboard
   Forward
   Aft
   Draft
   Draft
   Skippe

- Draft
  Freeboard
  Skipper
  Helmsman
  Crew
  Weather helm
  Ahead
  Ahead
  Abeam
  Windward
  Leeward



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# 8. Points of Sail & Maneuvers (P48-55) Std 4,5

Explain using diagrams the following maneuvers, points of sail, and other terms No-Sail Zone
Irons-getting in and out
Close Reach
Luffing
Head-to-Wind
Broad Reach
Port Tack
Starboard Tack
Tacking

- Jibing
- Wing on wing
- Sailing-by-the-Lee
   Heading up
   Bearing away

  - Commands & responses for tacking and jibing

Coiling and stowing lines

Coiling and stowing jib furling line

Sails fully luffing
Luffing at the mainsail luff
Trimming the mainsail
Over-trimmed main
Sheet cars
Trimming the mainsail
Sheet cars
Telltales
Telltales
Heeling: trim & power
Reefing

#### 10. Knots and line management (P64-69) Std 21-27

□ Bowline

9. Sail Trim (60-63)

- □ Figure 8 Knot
- □ Cleat Hitch
- □ Clove Hitch
- □ Round Turn and 2 Half Hitches
- □ Square (Reef) Knot

#### 11. Taking responsibility afloat (P70-71)

- Captain and Skipper
  - □ Responsibility of Skipper

#### 12. Slowing, stopping, and heaving to (P76-78)

- □ Slowing on a reach □ Backwinding the jib □ Heaving to
- □ Slowing by steering

# 13. Navigation Rules (Pages 92-95) Std 6-13

- □ Hierarchy of privilege
- □ Apply Rule 5 (Look-out) from the publication Navigation Rules, International Inland.
- □ Sailing vessels with the wind on different sides (starboard / port), Rule 12(a)(i)
- □ Sailing vessels with the wind on same side (leeward / windward), Rule 12(a)(ii)
- Sailing vessel on port tack cannot determine windward sailing vessel's tack, Rule 12(a)(iii)
- □ Overtaking (Rule 13)
- □ Power-driven vessels approaching each other head-on (Rule 14)
- □ Power-driven vessel with another power-driven vessel on starboard side (Rule 15)
- $\Box$  Action by give way vessel (Rule 16)
- □ Action by stand on vessel (Rule 17)
- □ Describe appropriate actions to be taken when sailing in the vicinity of commercial traffic, including responding to a danger signal.

# 14. State and Federal BAC (Page 96) Std 20

- □ BUI treated as DUI
- □ Maximum BAC is .08 (Fed and TX)

# 15. Federally Required Safety Equipment (Pages 96-99) Std 14,15

- □ See Federal Requirements for Recreational Boaters
- □ PFD's Types
- Visual Signals Flares
- □ Sound Signals Horn
- □ Fire Extinguishers
- Navigation Lights- describe color and location

# 16. Aids to Navigation (Pages 100 - 101) Std 17,18

- □ Regulatory markers
- □ Lateral buoyage: color, shape, numbering
- □ Safe water marks, Junction marks, Daymarks, and buoys
- Navigating through marked channels

Rolling hitch

□ Faking a line

□ Halvards

- Responsibility of crew



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#### 17. Securing the boat, anchoring (P104-105)

- □ Bow line, stern line □ Guarding against chafe
- □ Forward and aft spring lines □ Ground tackle parts
- Tide considerations
- Scope

## 18. Crew Overboard (P106-109)

- □ First response □ Figure 8 method
- Broad reach/close reach method
- □ Heaving to method
- □ Up wind/Down wind

Recovery methods

#### 19. Boating Accidents (P108) Std 19

A formal written accident report is required to be filed when the following situations occur:

- $\Box$  Life is lost due to the accident 24 hours
- □ Any person on board a vessel disappears (under circumstances indicating death or injury) 24 hours
- Someone is injured and requires medical treatment beyond first aid 48 hours
- □ There is a complete loss of the vessel or damage to the vessel and property exceeding \$2000 10 days

# 20. Hypothermia (P109)

□ Three stages of hypothermia □ Treatment for each stage

#### 21. Float Plan (P111) Std 16

What it is

When and where to file



# SAILING SKILLS

#### 1. Crew Briefing (P38) Std 27

- As skipper, instruct crew on:
  - □ Responsibility of Skipper and Crew
  - Assigned duties
  - □ Correct method of connecting/disconnecting shore power
  - □ PFD location and demonstrate usage
  - □ Fire extinguishers, horn, flares, and flashlights, COB procedures
  - □ Head usage
  - □ Closing hatches and portlights
  - □ Stow everything securely
  - Battery switching
  - □ Instruments

# 2. Slip Departure

- Remove and stow sail cover, or prepare main furling lines, or prepare stack pack, as appropriate.
- □ Prepare main halyard
- □ Use proper procedures, see that boat and crew are ready for departure
- □ As Skipper communicate departure plan taking into account wind direction and speed
- □ As Skipper assign appropriate crew stations
- Disconnect dock power using safe procedures
- Give proper commands to cast off dock lines in appropriate order
- □ Use spring lines appropriately to power away from dock
- □ Leave dock completely in control

#### 3. Boat Handling Under Power Std 37,49,50

- □ Start the inboard auxiliary engine, observing safety procedures
- □ Maneuver the boat in a figure 8 pattern around two marks
- □ From slow speed, stop the boat using reverse and noting prop walk
- With the engine in reverse, maneuver the boat in a straight line for 50 feet stopping within 3 feet of a mark.
- □ Stop the engine observing safety procedures
- □ As Skipper, leave a slip under full control giving appropriate commands
- □ As Skipper, return to a slip under full control; secure with docklines and fenders

#### 4. Proper Winch Techniques (P36-37) Std 34

- Demonstrate correct and safe use of winches
- □ Safety aware of high tension on halyards and sheets
- No hands between line and winch
- Proper wrapping techniques
- Removal and stowage of winch handle after use

# 5. Hoisting the mainsail (P32-33) Std 28

- Demonstrate how to hoist the main correctly, set tension, and stow lines
- □ Attach the halyard and keep sail secure
- Bring the boat into the wind
- □ Hoist the main being careful of battens catching in lazy jacks or spreaders
- □ Adjust topping lift as necessary
- □ Furling main: unfurl while applying back tension to furling line.

#### 6. Lowering the mainsail Std 36

- Demonstrate how to lower the main correctly and stow sail and Lines
- Bring the boat head to wind at minimum speed
- Center the boom with light tension on the main sheet
- □ Release the vang and adjust topping lift as necessary
- □ Lower the main and secure using proper procedures for the type of mainsail
- □ Furling main: Furl while applying back tension to the outhaul

# 7. Unfurling the headsail (P34-35) Std 28, 33

- Demonstrate how to unfurl the headsail and stow furling line
- □ Check stopper knots in sheets and furling line
- Uncoil and carefully flake the furling line



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- $\hfill\square$  Put the boat on a broad reach
- □ Unfurl the headsail using both sheets until clew is clear of foredeck, and keep back tension on furling line
- □ Lines neatly coiled, flaked, or stacked appropriately
- □ Genoa furling line cleated, coiled and properly stowed

#### 8. Furling the headsail Std 36

- Demonstrate how to furl the headsail and stow sheets and lines
- □ Bring the boat onto a broad reach
- Uncleat and prepare the furling line
- □ Haul the furling line while putting slight tension on sheets
- Ensure the sheets are wrapped at least 3 times around the furled headsail
- □ Cleat off the furling line and secure sheets
- □ Coil and stow furling line

#### 9. Sail Trim (P44, 60-63) Std 28-35

#### Describe and demonstrate the following:

- □ Angle of attack; Draft (depth, position); Twist
- How and when to trim
- Over trimming and under trimming
- □ Use of halyards
- □ Use of winches
- □ Main and jib sheets
- Use of boom vang
- □ Use of traveler
- □ Use of outhaul

#### 10. Heading Up / Bearing Away Std 40, 41

- □ As helmsperson use proper command ("Heading up"), sail closer to wind
- □ As crew trim sails correctly
- □ As helmsperson use proper command ("Bearing away"), sail further from wind
- □ As crew ease sheets and trim sails correctly

# 11. Points of Sail (P44-48, 53) Std 38, 42-46

As skipper, for each of the following, bring the boat onto the intended point of sail and trim sails appropriately. As crew, give proper responses and actions for each maneuver. Maintain course.

- □ Close Hauled
- □ Close Reach
- Beam Reach
- Broad Reach
- □ Run

# 12. Tacking (P50-51) Std 47

- □ As helmsperson use proper commands: "Ready about; Helm's over"
- □ As helmsperson select then sail a new heading (steady course)
- □ As helmsperson execute maneuver without overshooting new desired heading
- □ As crew give proper responses ("Ready"), release sheets at proper time
- □ As crew re-trim sheets correctly

#### 13. Jibing (P52-53) Std 48

- □ As helmsperson use proper commands: "Prepare to jibe [center main]; Jibe-ho"
- □ As helmsperson select then sail a new heading with out over shooting new desired heading and maintain a steady course
- □ As crew mainsheet control (center main; "Ready")
- □ As crew release sheets with proper timing
- □ As crew re-trim sheets correctly
- □ As crew cleat lazy jib sheet to ensure head sail does not wrap around head stay

#### 14. Luffing Up, Stopping, and getting out of Irons (P44) Std 39

- □ As helmsperson, bring boat to a close reach
- □ As crew ease the sheets to stop the boat (complete luff)
- □ As helmsperson and crew Place the boat in irons (head to wind) and, using proper rudder control and backing of the sails, sail off in a predetermined direction
- □ As crew release sheets at proper time
- $\Box$  Sail and stop the boat head to wind within  $\frac{1}{2}$  a boat length of a mark abeam



# 15. Sailing drills (P74-75) Std 51

- □ Figure 8 tacking
- Figure 8 jibing
- □ As crew, give appropriate responses and correct actions for all maneuvers

#### 16. Navigation Rules (P92-95) Std 7-12

Demonstrate knowledge of navigation rules (item 8)

#### 17. Crew Overboard Recovery (P106-109) Std 52

- Describe Figure 8 method and Broad Reach/Close Reach methods of COB
- Demonstrate the correct actions from the time a crew goes overboard to time of recovery
- □ Heave to, then use Broad Reach/Close reach method
- □ Call COB, Appointed a Spotter, Deployed Flotation (Type IV PFD), organized appropriate throw lines
- □ Control the event and crew with confidence
- □ Used proper approach (close reach engine off, head to wind engine on) with reduced speed and control
- □ Stopped the boat next to the victim
- Discussed bringing an exhausted person aboard

# 18. Tying knots & Line Management (P64-69) Std 21-26

Describe and demonstrate each of the following knots and line management techniques

- Bowline
- □ Figure 8 Knot
- Cleat Hitch
- □ Clove Hitch
- Round Turn and 2 Half Hitches
- □ Square (Reef) Knot

- Rolling hitch
- □ Coiling and stowing lines
- Coiling and stowing jib furling line
- □ Halyards
- □ Flaking a line