$12.95

BASIC
COASTAL CRUISING

A Guide for ASA
Coastal Cruising Made Easy
Text Book

www.spinnakersailing.com
Ph: 650-363-1390

Syllabus

Lesson 1 - Guide p. 2

Classroom Objectives

- Introduction
- Skipper and crew responsibilities
- Trip planning to the San Mateo Bridge
- Tides and current
- Navigational charts
- Anchoring
- Crew overboard under motor and under sail
- Chartering at Spinnaker Sailing
- Boat equipment, parts & terminology
- Youtube.com: SSRWC
- Review knots

On-the-Water Activities

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  - Boat setup with check-out forms
  - Bilge pump
  - PFD types & how to put on in water
  - Winch operations
  - Docking review
  - Crew positions & functions
  - Reefing, tacking, jibing review
  - Docking, dock lines, spring lines
- Anchoring
- Motor & sail towards S. Bay Area
- Store equipment properly
- Sail trim & all points of sail
- Tacking, jibing and reefing
- Crew overboard under motor & sail
- Boat put-away with check-in form

Lesson 2 - Guide p. 9

Classroom Objectives

- Sailing to San Mateo Bridge
- Jibe preventer
- Whisker pole
- Heave-to
- Navigation aids & rules
- Local weather
- Emergency & Safety
- Navigation lights
- Review knots

On-the-Water Activities

- Motor & sail N. of San Mateo Bridge
- Steering by compass
- Charts and Aids to Navigation
- Jibe Preventer
- Whisker pole, wing-on-wing
- Heave-to
- Reefing under sail
- Crew overboard under sail

Lesson 3 - Guide p. 16

Classroom Objectives

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- Review Knots

On-the-Water Activities

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- Skills Practice
- Docking without motor
- Knots Practice
- Activities not done from days 1 & 2
- Boat put-away with check-in form

Lesson 4 - Guide p. 16

Classroom Objectives

- Written exam and knot testing

On-the-Water Activities

- At the dock on a boat w/ inboard motor
  - Explanation of: Battery, Instruments, Engine, Prop walk, Radio, Flares, Navigation lights
- On the water evaluation checklist – Guide p. 26.
- At the Office:
  - Instructor evaluation of students
  - Student evaluation of class

Lesson 1

Introduction: Sailing experience of instructor and students.

Basic Coastal Cruising Class Overview

Objectives

1. Learn the **skills and knowledge** needed to meet the standards set by the American Sailing Association for Basic Coastal Cruising.
2. Learn theory in the classroom and practice on-the-water each day.
3. Become **competent skippers** on Spinnaker Sailing boats.

American Sailing Association Standards

Recognized within the USA and in many foreign countries. It is up to each charter company to make its own requirements for charter, but the American Sailing Association's logbook of courses completed will be helpful in determining qualifications to charter.

ASA Requirements

Completion of written test and an on-the-water skills for Basic Coastal Cruising. ASA Basic Keelboat Certification is required before Basic Coastal Cruising Certification.

Certification

American Sailing Association Basic Coastal Cruising Standard Certification is given upon successful completion of a written exam, knots tying demonstration and verification of on-the-water sailing/motoring skills.

Classroom

Objectives

1. **Plan a trip** to the San Mateo Bridge.
2. **Introducing skippering and chartering** at Spinnaker Sailing.

Skipper and Crew Responsibility (p 48-49)

1. The **skipper** will be responsible for the **safety of the vessel and all aboard**.
2. **The skipper** will also be responsible for assigning duties and making sure the crewmembers understand the tasks.
3. The **crew** will be responsible for **assisting the skipper** in the safe operations of the boat and obeying the skipper's instructions.

Trip Planning (p 98, 152)

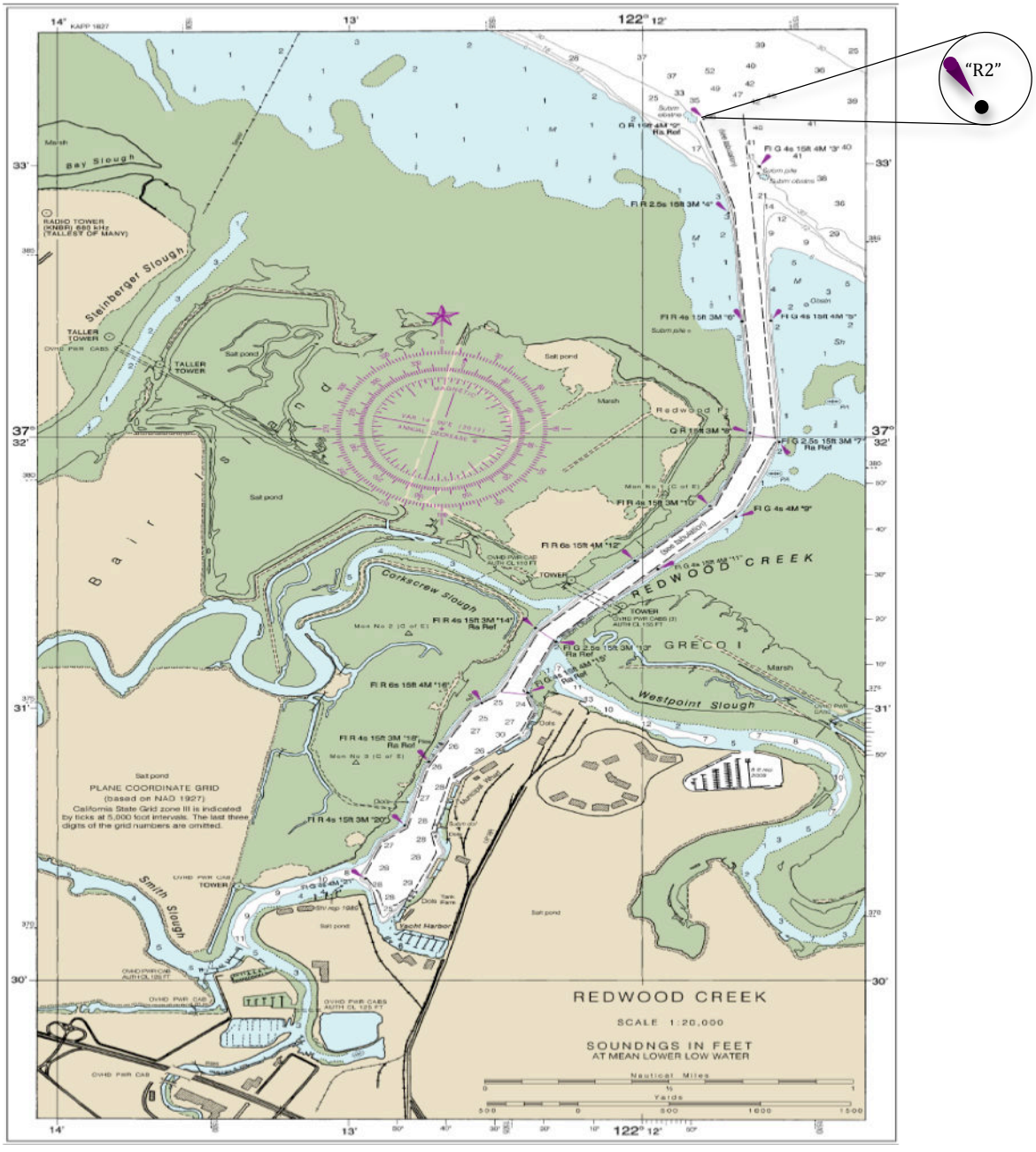
- A **sailing trip** begins with a **destination, date, crew, charts and planning**.
- **Navigational charts** provide the "road" maps for trip planning.
- If the boat will be chartered, it requires a process similar to renting a car.

Navigational Charts: (p 94-97)

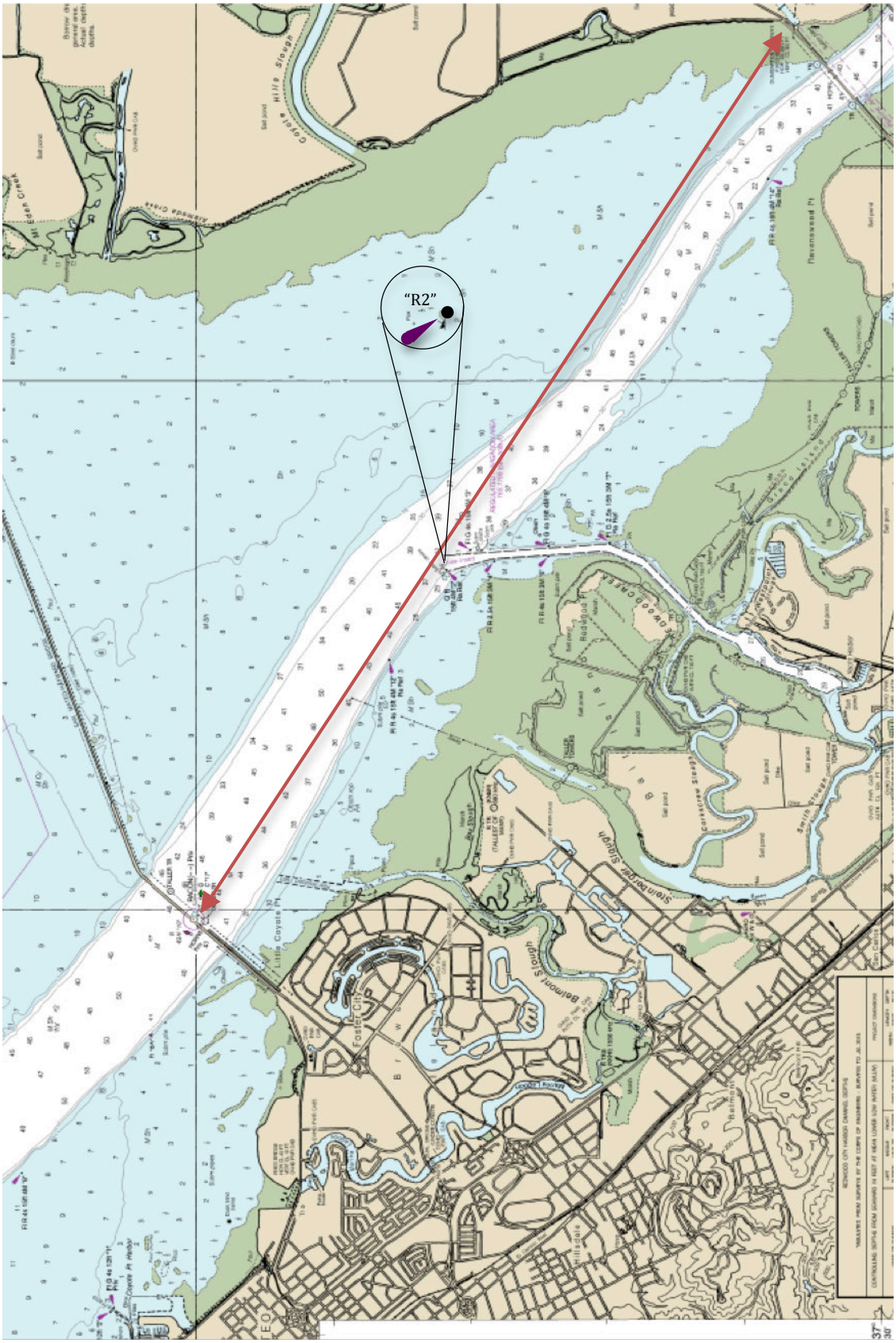
- Longitude lines are north-south; Latitude lines are east-west
- Each minute of latitude is 1 nautical mile.
- A nautical mile is about 6086 feet or 1.15 times the length of a statue (land) mile
- Tools: Navigation charts, compass, clock, knot meter.

Chart Symbols & Aids to Navigation - Guide p. 20 and (p 92-95)

Redwood Creek Chart



South Bay Chart



Tides and Currents Definitions (p 133, 152)
Low tide will **restrict sailing locations**
Current will **increase or decrease travel time**.

- **Tide:** Vertical movement of water.
- **Current:** Horizontal movement of water.
- **Flood:** Current flowing inland from the sea.
- **Ebb:** Current flowing outward to the sea.
- **Slack:** No current.

Example of Current and its Effect
Given a distance of 12 **nautical miles** and boat speed of 6 **knots:**
Without a current, speed over ground = 6 knots.
With a current of 2 knots, speed over ground = 6 + 2 = 8 knots
Against a current of 2 knots, speed over ground = 6 – 2 = 4 knots

Examples of Travel Time:
D = distance of 12 nautical miles, S = speed over ground of 6 knots
Travel time (in minutes) = 60D/S (multiply 60 by 12 and divide by 6) = 120 minutes.
Travel time (in hours) = D/S (divide 12 by 6) = 2 hours.

Travel Time: Practical Application in South Bay

- **One way**, Spinnaker to/from channel marker #2**: 30 minutes to 1 hour.**
- **One way**, channel marker #2 to/from San Mateo Bridge: **1 to 2 hours.**
- **Round trip,** Spinnaker to/from San Mateo Bridge: **4 to 6 hours**

Wind direction and speed can have a significant effect on travel time. A head wind and opposing current can double travel time compared to sailing on a beam reach with the current.

Water Depths
Water depths on a chart may be indicated in **feet, meters, or fathoms (6 feet).**

- **Depth of the water** is the average of the lowest low of each day.
- **Determining depth of water** at a particular place, date and time:
  - When the tide in the Tide Table is positive, increase the water depth shown on chart.
  - When the tide in the Tide Table is negative, decrease the water depth shown on the chart.

Tides and Currents Tables Booklet for San Francisco Bay Area (p 133)

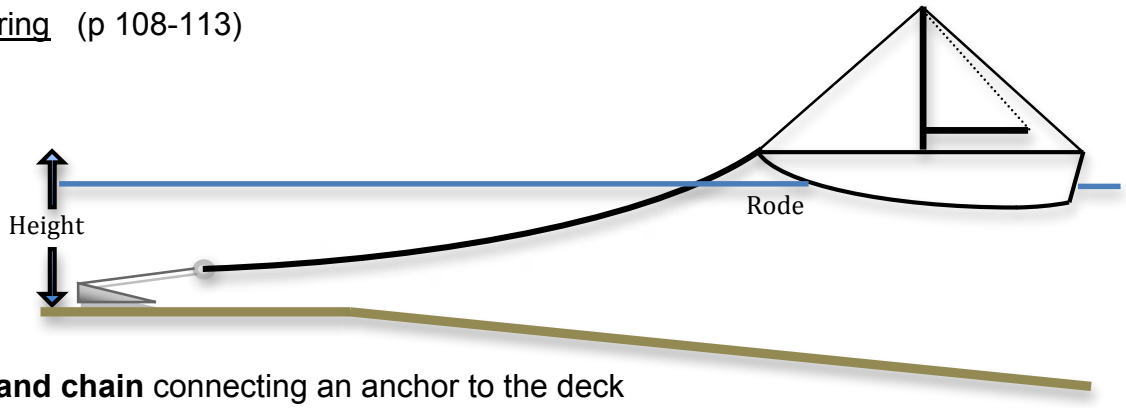
- Data of the **predicted tides and currents** at the Golden Gate.
- **Tide** is the **expected height** of the water above or below the depth shown on a chart.
- **Current** is the expected current at a geographic reference.

Actual tidal and current differences for **locations other than the Golden Gate** can be found in **TIDAL DIFFERENCES and CURRENTS DIFFERENCES** of Tides and Currents Tables.

Tides and Currents: Practical Application

- Redwood Creek **high tide** occurs about 1 hour later and 2 feet higher than at the Golden Gate.
- **Low tide** occurs about 1.5 hours later and at the same height as at the Golden Gate.
- **Current at San Mateo Bridge** is about ½ the current at the Golden Gate and about the same time.

Anchoring (p 108-113)



- **Rope and chain** connecting an anchor to the deck of the bow is **called rode**.
- The **scope** is the ratio of rode to height of bow above anchor.
- **Scope of 7 is normal**. Anchoring in 9 feet of water with the deck 3 feet above the water, the rode would be 7x (9+3) = 84ft.
- **Length of chain** near the anchor increases the holding power and reduces chafe.
- **Holding power is increased by**:
  - The chain weighs down the rode so that it pulls the anchor at a lower angle.
  - The chain absorbs shock loads between the boat and the anchor.

Good Anchorage, Four Characteristics

1. **Sheltered** from wind, current, traffic and especially **waves.**
2. **Composition of bottom** for proper holding**.** Check charts
3. **Water depth** for changing tide, wind and current. Check charts
4. **Swing room** to stay clear of obstacles and shallow water.

All-night anchor watch may be needed in extreme weather or questionable anchorage.

Anchoring Procedure (p 111-113)

1. **Head the boat** into the wind or the current to stop forward motion.
2. **Lower anchor** as the boat backs up due to the wind, current or motor. Let out rode to avoid pulling on the anchor but not so quickly that it piles on the anchor.
3. **Back down** by drifting with the wind/current or using the engine in slow reverse.
4. **Set the anchor:** Once the boat is held by the anchor, slowly increase the engine power to 25% while checking for backward movement. Verify that the boat is not drifting and that there is sufficient swing room.

Anchors

- Anchors come in many **types and sizes**, each with different holding power.
- **Boat owners will select anchors** to suit the boat and sailing locations.
- Charterer will use the anchor provide with the boat.

Dragging anchor

Let out more rode. The anchor will probably re-set itself. If not, retrieve the anchor and start over, possibly in another location where the holding may be better.

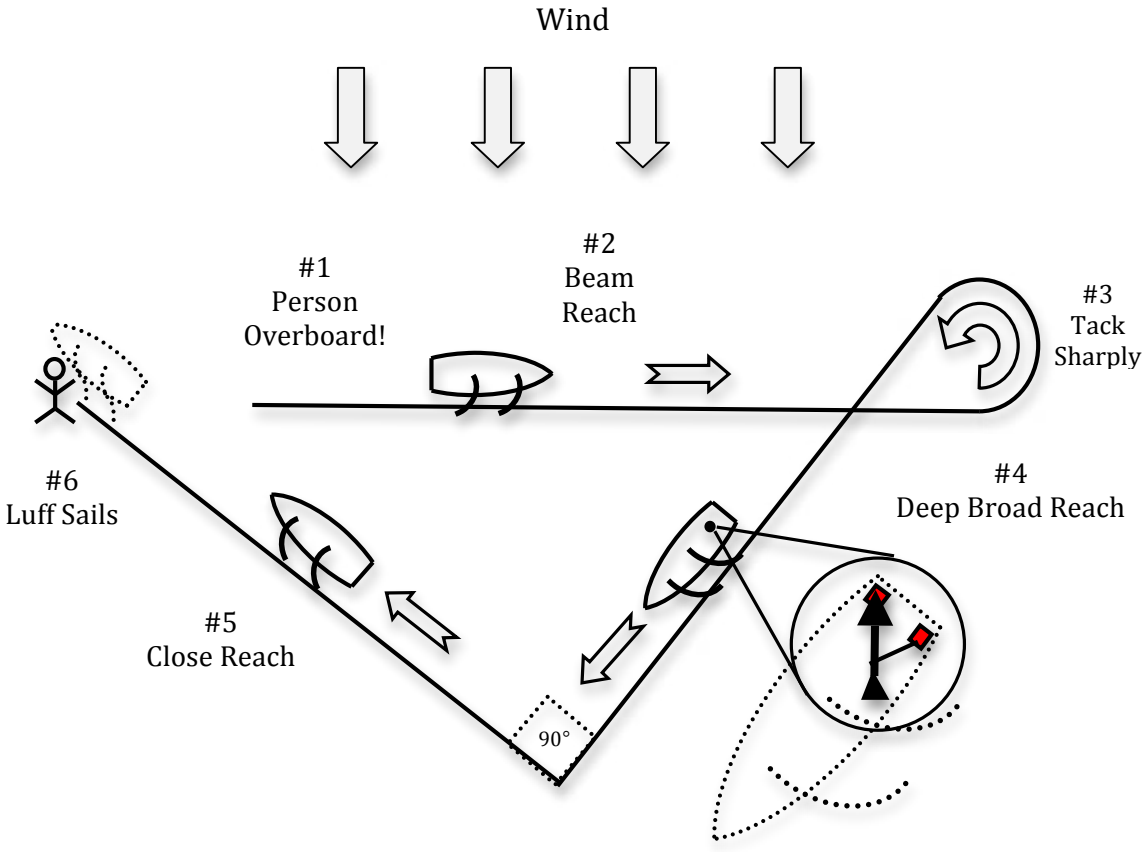
Grounding at anchor:

If the boat could be damaged by the bottom, shore it up with cushioning material until higher tide occurs. Try to have the boat heel away from waves.

Crew Overboard Under Sail "Figure 8" Approach (p 142-147)

1. **Upon COB, give alert**, throw flotation, appoint spotter.
2. **Change course rapidly to a beam reach.**
3. **Sail 5+ boat lengths** and **adjust sail trim**.
4. **Tack** and keep the boat turning to a deep broad reach.
5. **Sail on a deep broad reach** and remain on a deep broad reach
6. H**ead up sharply** when **COB** is almost **90 degrees** from the bow.
7. **Steer a course to the COB,** heading just slightly windward.
8. **Adjust sails for moderate speed**.
9. **Ease sails to stop the boat** when COB is abeam and to leeward of the boat.
10. With **COB abeam of the boat, luff sails** completely and slowly turn the boat into a high close reach. The sails will luff and fill while the boat oscillates between a beam and high close reach. The boat should not be making significant forward way.
11. **Maintain position** until the COB is aboard. (p 146)

The Figure Eight Deep-Broad Reach Approach



Other Approaches will be taught in Bareboat Charter Class.

Crew Overboard under Motor Power (p 142-145)

1. Upon COB, **give alert, throw flotation, appoint spotter**.
2. **Reduce boat speed** rapidly and begin **turning to COB**.
3. Return to COB on a **close haul**.
4. **Turn the motor off** before the COB is at mid ship.
5. **Secure COB** to the boat and **steer to above a close haul** position if possible.
6. **Maintain this position** until the COB is aboard.
7. Retrieving Person from the Water: (P 142-147)

Reefing: (p 63, 76-77)

Reefing is a way to reduce the effect of the wind on the boat by reducing the amount of sail area exposed to the wind.

1. **Set a course** with enough time to complete the reefing.
2. **Maintain power/control** under motor, jib or hove-to.
3. **Ease the mainsheet** completely.
4. **Lower the main halyard** enough to engage the luff reefing point.
5. **Uncleat the boomvang**.
6. **Raise the halyard** to proper tension.
7. **Haul in the outhaul reefing** line until the reefing cringle is near the boom.
8. **Trim the mainsail**.
9. **Tighten the boomvang**.
10. **Add reefing sail ties** as desired.

Chartering Requirements at Spinnaker Sailing, Contract, and Check-out/ in Forms

- **Basic Coastal Cruising Certification & Group Sail**
- **Club Membership**
- The **charter contract** is a **legal document** for "renting" a boat.
- The **Check-out and Check-in Forms** contains a float plan and guides the charterer in preparing the boat for use and releasing it back to Spinnaker Sailing.

A **float plan** list the charterer's information, names of all others on the boat, destination, duration of the trip and wind forecast. A separate float plan should be given to a family member or friend who would be concerned if there was a delay during the trip.

Boat Equipment, Parts & Terminology - Guide p 19 and (p 14-25)

Review **On-the-Water Activities** in Syllabus

Classroom Review of Knots (p 160) and http://a07013.uscgaux.info/Knots.html

- Sheet bend
- Rolling hitch
- Knots of Basic Keelboat Sailing
    - Stopper, Figure 8
    - Bowline
    - Clove hitch
    - Sail tie, reef, square
    - Round turn and two half hitches
    - Cleat hitch

End of Lesson 1

Lesson 2

Sailing North from Redwood City

Classroom

Objectives:

1. **Sailing area** from Spinnaker Sailing to San Mateo Bridge.
2. **Jibe preventer, whisker pole and heave-to**.
3. **Navigation rules**
4. **Local weather conditions**
5. **Emergencies & Safety**
6. **Navigation lights**
7. **Review knots**

Planning a Trip to the San Mateo Bridge: (p 152-155)

- Determine **round-trip travel time** based on expected wind, current.
- Establish **turn-around time.**
- Determine **tides and low-water danger** areas.

Redwood Creek Channel:

- The **depth** of the water at the **channel edges is shallow** until markers "2" & "3."
- Channel **markers are not within the channel**. Stay at least 1 boat length away.

South Bay Area:

Refer to charts and local racing buoys.

- Sailing is normally towards the San Mateo Bridge, 6.5 nautical miles from Spinnaker Sailing.
- A Marker "12" is between the San Mateo Bridge and channel Marker "2" and approximately 1 nautical mile from Marker "2."
- A course from "2" to "12" extending to the west side of San Mateo Bridge's center span is the edge of safe sailing. Do not sail between this course and San Mateo land.

Returning from the mid span of San Mateo Bridge on a course heading to **the East side of the Dumbarton Bridge** will pass Marker "12" on starboard, then be close to Marker "2" also on starboard. (**Compass heading: 104° Magnetic**)

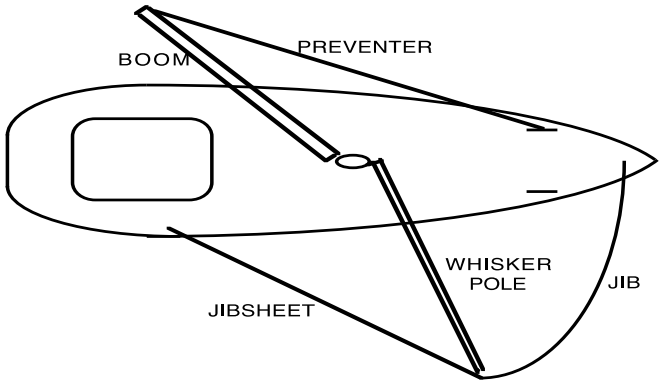
The **Dumbarton Bridge** is 4 miles east of Redwood Creek channel marker "3" and the channel is narrow. Avoid sailing more than 1 mile from channel Marker "3" toward the bridge.

The **East side of the bay gets shallow more gradually**. Safe water extends from channel Marker "2" for a mile towards the East shore.

WHISKER POLE

- The whisker pole is used to **stabilize the jib sailing downwind**.
- The pole is attached to the jib bowline and a ring on the mast.
- The pole's jaws should face upward
- The jib can be on the same side or opposite side of the mainsail

Gybe Preventer and/or Whisker Pole:

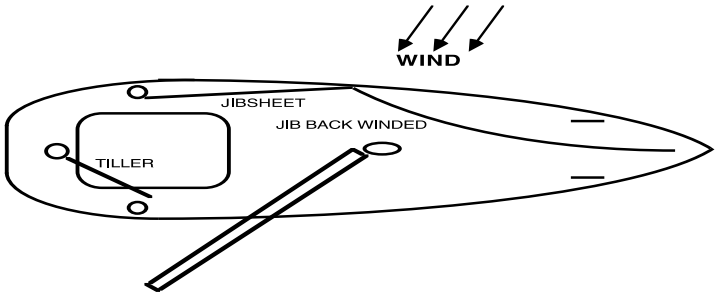


- The **gybe preventer stops the boom** from moving in case of an accidental jibe.
- The **preventer is a line** secured to the aft end of the boom and a bow cleat.
- A gybe preventer and a whisker pole can be used together or separately.

Jibe Preventer Procedure:

1. Secure preventer line to end of boom.
2. Ease main fully.
3. Secure the forward end of preventer line to bow cleat.
4. Trim main to take up slack in preventer line.

Heaving-To: (P 78)



- **Heaving-to will control** the boat in a position at zero or slow speed so that it does not need to be managed. Once "hove to" the boat will remain controlled by the sails and will drift slowly to leeward or at a slow pre-determine forward speed.
- **Heaving-to** is used for reefing, fixing equipment, weathering a storm or taking a break.

Heaving-to Procedure:

1. **Back wind the jib** by sailing on a high close reach and tacking without releasing the jib sheet.
2. **Ease the mainsail** completely.
3. **Turn the wheel to windward** (tiller to leeward) slowly avoiding an unintentional tack.
4. **Trim the mainsail** for the boat to stay between a beam reach and high close reach.
5. Adjust and **secure the wheel** (tiller) in a fixed position.

Navigation Rules, Right-of-Way (p 84-89)

- Restricted maneuverability is stand-on vessel to unrestricted vessel
- Being overtaken is stand-on vessel to overtaking vessel
- Sailing is stand-on vessel to motoring or motor/sailing vessel
- Sailing on starboard tack is stand-on vessel to sailing on port tack vessel
- Leeward sailing is stand-on vessel to windward vessel on same tack
- Head-on vs Head -on, both under motor power, each turns to starboard
- Motoring approaching each other crosswise, boat on right is stand-on vessel
- Sailboat is stand-on vessel to personal water craft
- Racers have same rules as those not racing, but non-racers should not interfere

Sound Signals-Good Visibility when Vessels are in Sight (p 89)

- **One Short**: Turning to starboard
- **Two Short**: Turning to port
- **Three Short**: Reverse propulsion
- **Five Short**: Danger

One Prolonged: Entering a channel or blind corner

Reduced Visibility, Sailing or Motoring (p 90, 132)

- Slow to a **safe speed**
- Wear **lifejackets**
- Post a **lookout**
- Use **sound signals**
- Use **navigation lights**
- Hoist a **radar reflector** or metal object to reflect radar signals.
- **Set a course to a safe destination** using chart, compass and timepiece.

A Coastal Navigation and Piloting class would be useful. (p 107)

Sound Signals-Low-Visibility (p 90)

A **prolonged blast lasts for 4 to 6 seconds** and a short blast is about one second.

(a) A power-driven vessel (**or sail boat under auxiliary power**) making way through the water shall sound at intervals of not more than 2 minutes **one prolonged blast.**

(b) A sailing vessel shall sound at intervals of not more than 2 minutes, three blasts in succession; namely, **one prolonged followed by two short blasts.**

(c) Efficient sound: A vessel of less than 12 meters in length [about 39 feet] **shall not be** obliged to give the above-mentioned signals but, if she does not, **shall make some other efficient sound signal** at intervals of not more than 2 minutes.

Local Weather (p 130)

- **Obtain forecast** via links through the Internet sites for Spinnaker Sailing web site or NOAA or weather.com or local TV, radio and newspapers.
- Be prepared to **reef the mail, furl the jib** and head to shelter.
- **Small craft warning** is issued for dangerous condition with wind below 34 knots.
- **Gale warning** is issued for wind above 34 knots.
- **A Dust Devil** appears as a vertical column of dust and can generate high winds. The only course of action is to avoid its path.

Emergencies

Contacts

- Redwood City Fire & Rescue: **911**
- USCG: VHF channel 16 or 415-556-2103 or **911**
- Spinnaker Sailing: VHF channel 16 or 650-363-1390
- Visual Distress Signals: flares and/or slowly waving hands)

Distress Signals-Handheld Flares

- **Grasp bottom of flare** firmly while keeping the hand from below the flare.
- **Ignite flare holding it outside the boat**, aimed downwind horizontally.
- The flare burns for about 3 minutes. Make sure someone is nearby before using one.
- Souse the flare in water after it is used.

Fire Safety: 3 Common Classes of Fires and Common Types of Extinguishers

- **Type A** extinguisher for Class A fire: Burning wood, paper.
- **Type B** extinguisher for Class B fire**:** Oil, gasoline, or other non-water-soluble fuels.
- **Type C** extinguishers for Class C fires: Electrical material and equipment.
- **Type AB or ABC** for multipurpose extinguishers
- **Coast Guard requires a sailboat 26–40 feet to have two type B-I or one type B-II**.

Once used, even if only briefly, it is useless for future applications

Hypothermia (p 149)

- Hypothermia is the cooling of the body due to exposure to a cold environment and can be deadly.
- Conserve heat by keeping still, keeping clothes and floating in the fetal "H.E.L.P" position. Heat Escape Lessening Posture.

Symptoms of hypothermia vary, depending on the victim's exposure.

- **Mild**: In the mild stage, the victim's speech will become slurred and he or she will undergo violent shivering as the body tries to generate more heat to warm itself.
- **Moderate:** As the condition progresses into the medium stage, there will be a serious loss of muscular control and incoherence, drowsiness and exhaustion.
- **Severe:** In the most serious stage, the victim will fall into unconsciousness. Respiratory distress and cardiac arrest may follow if the victim isn't treated immediately.

Warm a Victim.

- Remove the victim from outside elements and wrap in a blanket.
- Use heat from inboard engine, stove or space heater.
- Administer warm (not hot) fluid if the victim is able to drink without choking.
- Avoid using caffeine, alcohol and massage.

Rig Failure (p 140)

Position the boat to relieve tension on the failed area.

If a starboard shroud breaks, sail immediately to a port tack.

If the mast comes down, clear all rigging from the underside of the boat to avoid damage to the hull, fouling of the rudder or fouling of the prop.

Steering Failure (p 139)
If the primary steering system fails, try to steer with emergency tiller, sails or outboard motor. Anchor if necessary to remain safe.

Fouled Propeller (p 139)
- **Shift engine gear** into neutral immediately and stop engine.
- **Deploy jib** for sail power.
- Try to clear the propeller. If not possible, prepare to sail to the destination.

Broken Halyard (p 140)
Luff the sail and take it down. Repair or use a spare halyard.

Running Aground (p 137)
- Immediately **try to sail** into deeper water. If not possible, **luff all sails** and determine what to do.
- If the wind is driving the boat further aground take all sails down.
- On windward shore, backwind the jib with mainsail luffed or down, add crew weight to leeward side and sail off or use motor cautiously.
- If the boat cannot be freed, anchor and wait for higher tide or assistance.
- **Don't rock** the boat from side to side as this might damage the keel or rudder.
- **Don't run** engine with prop in mud because this might damage the prop and engine.
- With an outboard motor, OK to tilt the motor into the water enough to get some propulsion without picking up mud.

Docking under Sail without Motor Power:
- Use jib only when sailing downwind to dock and furl before docking.
- Use mainsail only when sailing windward to dock and luff before docking.
- Use outside (side-tie) docking spot when possible.

Flooding:
Turn on electrical bilge pump or use manual bilge pump. Locate leak and plug it. (p 138)

<u>Refueling</u> (p 40, 55)
- Offload unessential personnel.
- Shut off all engines and electrical circuits.
- Make sure there are no sources of ignition, such as smoking, nearby.
- Know where the nearest fire extinguisher is.
- Close up the boat and turn off the blower if fueling aboard.
- Remove outboard motor tanks to fill on the dock.
- Ground the nozzle against the filler pipe.
- Wipe up any spilled gas.
- Ventilate after filling and run blower on inboards for at least 5 minutes.
- Check for fumes before starting or operating any electrical equipment.

Gases and Fumes:

- **Gasoline** – Most outboard engines
- **Diesel Fuel** – Most inboard engines
- **Methane Gas** – The boat's waste holding tank
- **Hydrogen** – Storage batteries (while being charged)
- **Alcohol** – Many small boat cooking stoves
- **Propane (LPG)** – Many large boat cooking stoves
- **Kerosene** - Heating and Lighting fixtures

Magnetic compass (p 96)

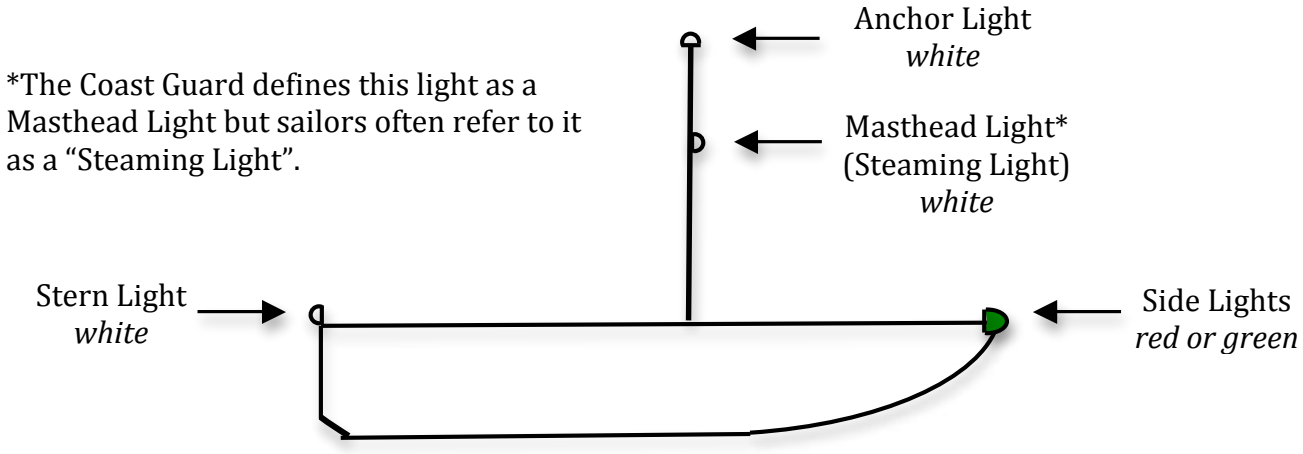
- **Compass can be** affected by **ferrous metals such as iron and steel and electrical fields (**radios, even hand-held marine types).
- **Stainless steel may or may not be ferrous** and should not be kept near the compass.
- **Bronze and aluminum will not affect the compass**.

Navigation Lights (p 91)

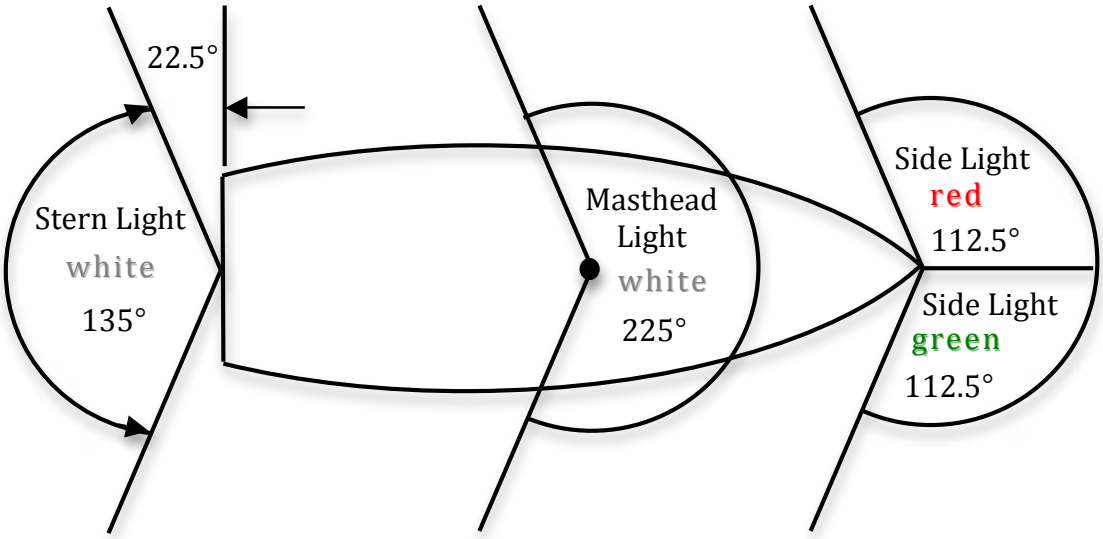
Boats are **required to show lights** from sunset to sunrise or in low visibility when sailing, motoring or anchoring.

- **Running lights** are the red and green bow sidelights and the white stern light. They are normally at deck height but can be at the top of the mast under certain conditions. The red, green and white running lights each have an **arc of 112.5 degrees** with a combined arc of 225 degrees**.** The white stern light has an arc of 135 degrees.
- A **steaming (motoring) light** is required in addition to the running light when the motor is on, even if the sails are up. The steaming light is on the mast near the spreaders and shines forward with **arc of 225 degrees**.
- An **anchor light** is normally at the top of the mast and shines 360 degrees. Navigation light must not be used at the same time as an anchor light. Cabin lights may be more visible than the anchor light but do not have any navigational significance.

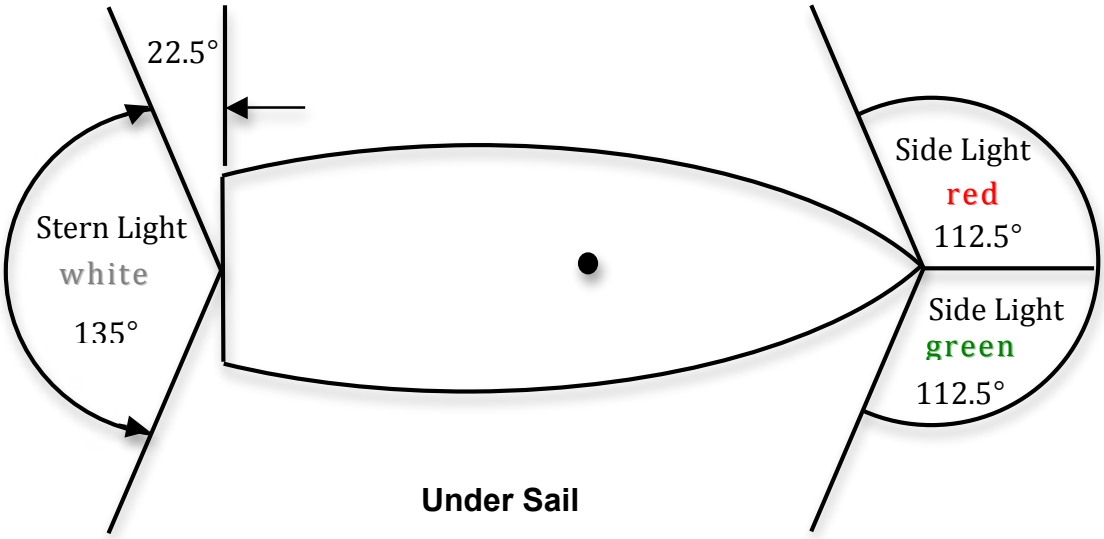
Typical Light Configuration



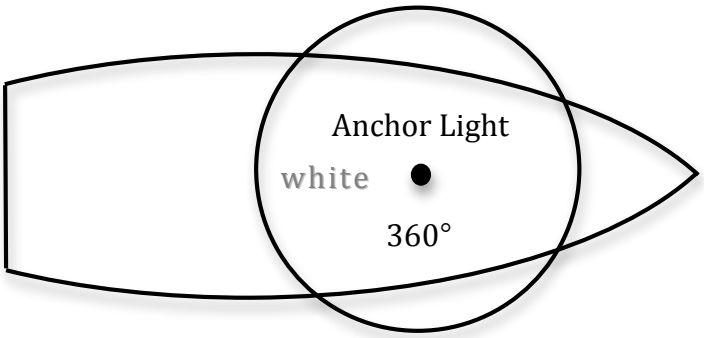
Position and color of lights



Under Power or Motor Sailing



Under Sail



At Anchor

Review **On-the-Water Activities** in Syllabus

Classroom Review of Knots (p 160) and http://a07013.uscgaux.info/Knots.html

End of Lesson 2

Lesson 3

Classroom
Objectives
- Test Preparation & Review Question - Guide p. 20
- Knots (p 160) and http://a07013.uscgaux.info/Knots.html

Review **On-the-Water Activities** in Syllabus

End of Lesson 3

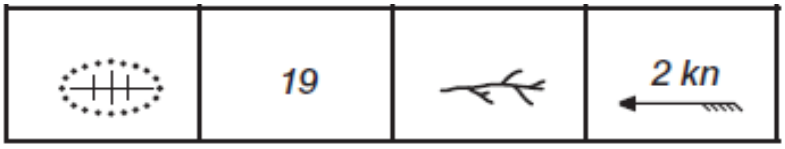
Lesson 4

Classroom
Objectives
Written Exam and knot testing

Review **On-the-Water Activities** in Syllabus

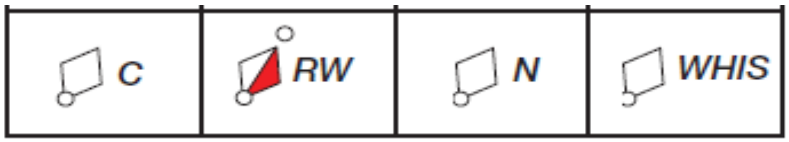
End of Lesson 4

Chart Symbols and Aids to Navigation (p 92-95)



sunken ship, depth unknown | Water depth | seaweed | current

Buoys



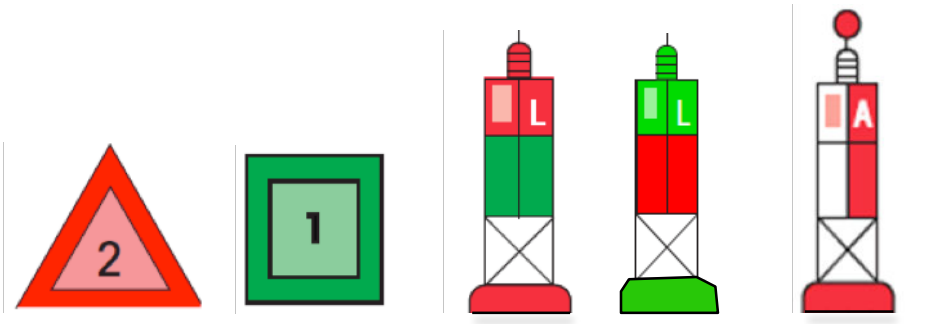
can | Safe water or mid channel | nun | whistle

Buoys

green | red preferred | red | Any landmark (radio tower "R TR")

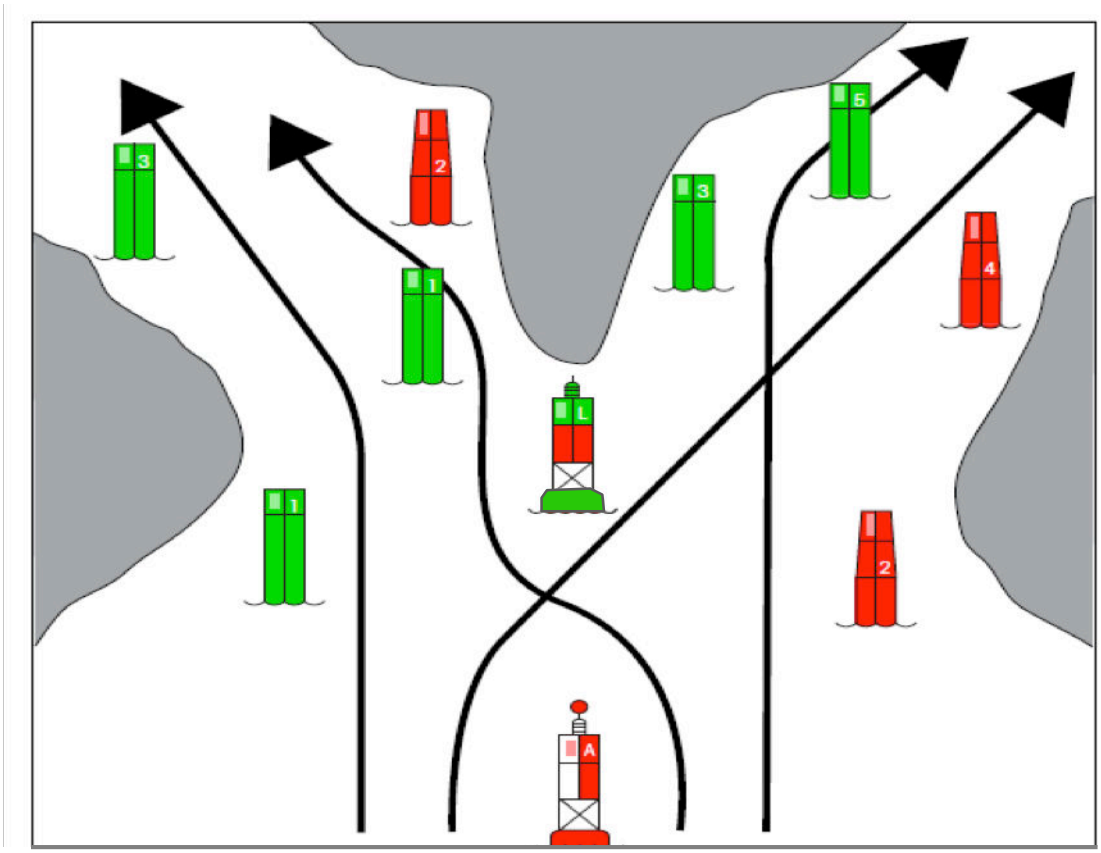
Aids to Navigation: (p 92-95)

any control | speed | danger | nun | can

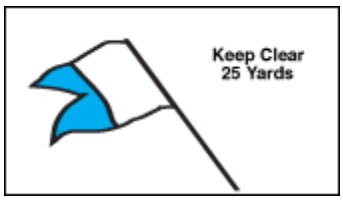


red day beacon | green day beacon | red preferred channel | green preferred channel | safe water or mid channel

Preferred Channel Markers (p 93)



Alpha Flag



International flag indicating vessel restricted maneuverability due to diving operation (p 39)

Diver Down

Divers present in the surrounding waters (p 39)

Glossary of Important Terms

Boat Equipment, Parts & Terminology **(**p 14-25)

- **Auxiliary** engine: Inboard or outboard engine.
- **Bilge:** The lowest part of the boat where water will collect.
- **Bilge pump**: A pump used to remove water from the bilge.
- **Binnacle:** The stand or pedestal that holds the compass and normally the steering wheel.
- **Chainplate:** A sturdy metal strips that are bolted either to a bulkhead (wall) inside the boat or to the hull itself for the purpose of anchoring the shrouds.
- **Compani**
- **onway:** Passages way between cockpit and area below deck.
- **Compass:** A device that displays direction relative to the earth's magnetic field.
- **Emergency tiller:** A steering device to use in place of wire and cable steering system.
- **Galley:** Place on a boat where food is cooked.
- **Ground tackle:** Anchoring equipment.
- **Hatch:** Opening in the deck or side of a boat.
- **Lazarette:** A cockpit locker.
- **Saloon:** Place on a boat below deck were people gather, often for food and rest.
- **Self-bailing cockpit:** A cockpit that allows water to flow out without assistance.
- **Stemhead fitting:** Chainplate at the bow of a boat, and it may include open storage for an anchor.
- **Seacock:** A valve that controls the flow of liquid into or out of a boat.
- **Through-hull fitting:** A device that is installed where there is an opening in the hull of the boat for letting water in or out
- **Transom:** A transom is the surface that forms the stern of a vessel.
- **Turnbuckle:** A double ended metal shaft that is threaded in opposite directions on the end and used to adjust the tension in stays.
- **Windlass:** Electric winch used for lowering and raising an anchor.
- **V-berth:** The sleeping area in the bow of a boat.

ASA & Spinnaker Sailing Recommended Equipment

- Bailing bucket
- Anchor
- First aid kit
- Any other useful equipment
- Charts
- Flashlight
- VHF Radio/ Cell phone
- Tide tables
- Rigging knife

Test Preparation & Review Questions

Page numbers in Coastal Cruising Made Easy Textbook

1. Identify the **transom**. (p 14)

2. Identify the **binnacle**. (p 21)

3. Identify the **cockpit locker**. (p 14)

4. Identify the **companionway**. (p 14)

5. Identify the **starter cord** for an outboard engine. (p 40)

6. Identify the **gearshift lever** on an outboard engine. (p 40)

7. Identify the **throttle control** for an outboard engine. (p 40)

8. Identify the **propeller** on and outboard engine. (p 40)

9. What is the **bilge**? (p 21)

10. What is a **through-hull fitting**? (p 23, 173)

11. Describe the purpose of the **safety harness**. (p 50)

12. Which is the safer side of the boat to walk forward and aft? (p 50)

13. What is the **international distress, safety and calling channel** on the VHF Radio? (p134)

14. What word(s) are used on the VHF Radio announcing the need for assistance but not imminent danger? (p 135)

15. Name six **equipment** items required by USCG on a 26-40' sailboat at night. (p 167)

16. List precautions taken to avoid problems when refilling a Diesel Engine tank. (p 55)

17. Explain the use of the shut off valve for a sailboat auxiliary engine. (p 55)

18. Name three important equipment &/or publications items for needed for coastal navigation. (p 96 – 98)

See Aids to Navigation in Guide p 20 and textbook p 92-93 for Questions #19-26

19. Describe or draw a **danger (Regulatory Marker) buoy**. (p 92)

20. Describe or draw a **safe water buoy**. (p 93)

21. Describe or draw a **can buoy**. (p 93)

22. Describe or draw a **nun buoy**. (p 93)

23. Describe or draw a **preferred channel (junction) buoy**. (p 93)

24. Describe or draw a **controlled area (restricted operations) buoy**. (p 92)

25. Describe or draw a **green day beacon**. (p 93)

26. Describe or draw a **red day beacon**. (p 93)

See Chart Symbols in Guide p 20 and in textbook p 94-95 for Questions #27-38

27. Describe or draw the chart symbol for (sounding) **water depth**. (p 95)

28. Describe or draw the chart symbol for **current**.

29. Describe or draw the chart symbol for a **wreck** of which only the masts are visible. (p 94)

30. Describe or draw the chart symbol for **kelp, seaweed**.

31. Describe or draw the chart symbol for a **mid-channel (safe water) buoy**.

32. Describe or draw the chart symbol for a **can buoy**. (p 94)

33. Describe or draw the chart symbol for a **nun buoy**.

34. Describe or draw the chart symbol for a **whistle buoy**.

35. Describe or draw the chart symbol for a **red buoy**.

36. Describe or draw the chart symbol for a **green buoy**.

37. Describe or draw the chart symbol for a **radio tower**.

38. Describe or draw the chart symbol for a **preferred channel buoy**.

39. Explain how to choose the **primary channel** around a preferred channel buoy. (p 93)

40. What is the basis for a **nautical mile**? (p 98)

41. What kind of **cloud** is most likely to cause a **serious problem** for sailors? (p 131)

42. What characteristic of **isobars** (lines of equal pressure) on a weather map indicate the presence of strong winds. (p 129)

43. What wind conditions can be expected in the presence of **small craft warnings**? (p 128)

44. In the U.S. where can continuous **weather information** for sailors be found? (p 128)

45. An approaching storm will have what effect on the **barometric pressure**? (p 132)

46. What **sail** combination would be suitable for heavy **(20-33 knots)** wind? (p 63)

47. What **sail** combination would be suitable for **very light wind**? (p 63)

48. Describe three **considerations** for proper **reefing** of the mainsail. (p 76)

49. What is the quickest way to **depower** sails in order to reduce excessive heeling? (p 62)

50. Describe activity that can be accomplished as a result of **heaving-to**. (p 78)

51. Describe steps to be taken in anticipation of **heavy weather**. (p 131)

52. What does **three short** whistles or horn **blasts** mean? (p 89)

53. Describe the primary responsibilities of the skipper. (p 48)

54. Generally, where is the **safest part** of a boat for **stepping off** when alongside a dock?

55. Describe the **color** and the **visibility** sector of a **starboard side light**. (p 91)

56. Describe the **color** and the **visibility** sector of a **stern** light. (p 91)

57. Describe the **color** and the **visibility** sector of a **steaming** light. (p 91)

58. Describe the **color** and the **visibility** sector of a **port** side light. (p 91)

59. Of all the **lights** mentioned above, which ones should be displayed when **sailing**? (p 91)

60. What kind of **light** (color and visibility sector) should be displayed when **anchored**? (p 91)

61. Of all the **lights** mentioned above, which ones should be displayed when **motoring** or **motor-sailing**? (p 91)

62. Name two **conditions** when **navigation lights** must be displayed? (p 91)

63. Describe two kinds of **flags** used to indicate **diving** operations. (p 39)

64. When do the **navigation rules** require the maintenance of a **lookout**? (p 84)

65. Which sailboat is required to **give way** to the other when both are on the **same tack**? (p85)

66. What action should be taken when **two powerboats approach head-on**? (p 86)

67. Explain the right-of-way action to be taken when **two powerboats approach** each other **crosswise**? (p 86)

68. Explain the right-of-way action to be taken when **two sailboats approach** each other when they are sailing on **opposite tack**. (p 85)

69. Describe two kinds of **actions** to be taken when it becomes obvious that a **collision is imminent**. (Although not necessarily inevitable) (p 84, 89)

70. What should be done with **oily wastes** in the bilge? (p 54)

71. What is the minimum **distance from the coast** for the dumping of **garbage** such as food scraps? (p 58)

72. Name four **characteristics** of a good **overnight anchorage**. (p 110)

73. Name three **benefits** obtained by using **chain** as part of the anchor **rode**. (p 108)

74. What is generally good **scope for anchoring** overnight? (p 109)

75. How is scope calculated? (p 109)

76. What should you do if you **miss** the first attempt to pick up a **mooring ball**? (p 123)

77. What is the effect of **reverse gear** on a sailboat with a right-handed prop? (p 35)

78. **Spring lines** control the motion of a boat docked at a slip in which directions? (p 114)

79. What is the prescribed **sound signal** for sailboats under sail in reduced visibility? (p 90)

80. In addition to proper sound signals, what else should be done in **reduced visibility**? (p 90)

81. In the event of a **dragging anchor**, what is the first remedy to try, assuming sufficient room is available? (p 112)

82. What is the best way to **rig for towing** another boat behind? (p 136)

83. Describe actions to be taken to help free a **boat that is aground**. (p 137)

84. What is the best first action to be taken in the event of a **backstay failure**? (p 140)

85. What kind of fire is a **B-II** extinguisher rated to extinguish? (p 166)

86. Describe correct actions to be taken in the event of an **onboard fire**. (p 141)

87. What actions should be taken in response to a **cabin filling** with water? (p 138)

88. What is the quickest action to **stop a prop** that is becoming fouled with a line? (p 139)

89. Where should you hold a **smoke flare** when using it as an emergency signal? (p 136)

90. Describe how to retrieve a **man overboard** while under power. (p 145)

91. Describe three ways to get a MOB back on board. (p 146)

92. How can a daily engine check **prevent** unexpected **engine failure**? (p 54)

93. What is the first thing to check in the event of a "**high temperature**" alarm on an inboard engine? (p 33)

94. Describe symptoms for moderate **hypothermia**. (p 149)

95. Discuss appropriate/inappropriate treatments for **hypothermia**. (p 149)

96. How can you **delay** the effects of **hypothermia** when floating in the water wearing a PFD? (p 148)

97. What is a typical use for a **sheet bend**? (p 160)

98. What is a typical use for a **rolling hitch**? (p 160)

99. What is a typical use for a **clove hitch**? (p 159)

100. What is a typical use for a **round turn and 2 half hitches**? (p 159)

On-the-Water Check List

Student Self Evaluation	Completed
1. *Inboard engine:* Battery, Instruments, engine	
2. *Inboard engine*: Prop walk explanation or operation	
3. *Inboard engine*: Navigation lights, VHF radio	
4. *Outboard engine*: Setup, starting, operating	
*Following items for **outboard or inboard engine** boats*	
5. Federal & ASA flare requirements and how to use	
6. PFD types & put on in water	
7. Compare chart symbols to actual Navigation Aids	
8. Compass steering - boat or GPS; use of VHF	
9. Docking	
10. Mooring	
11. Anchoring	
12. Crew overboard, motoring	
13. Sailing: taking & jibing	
· Sheets	
· Trim	
· Cunningham	
· Outhaul	
· Boomvang	
· Traveler, heeling	
· Jib sheet fairlead	
14. Winches	
15. Irons	
16. Points of sail	
17. Heave-to	
18. Reefing	
19. Skipper & Crew	
· Commands	
· Responses	
20. Crew overboard, sailing	
21. Lower, furl sails	
22. Docking boat put away	
23. Knots	
Instructor name/ dates:	
Instructor name/ dates:	