Pre-departure	Notes
Verify required items present	
PFDs for each person aboard	
Sound producing device	Whistle and horn
Navigation light checks	
Fire extinguisher	Mounted on wall w/ life vests
Visual Distress Signals	Flares
First aid kit	
Tool kit	
Rope ladder	
Sun hats	
Hand crank light	
Fuel system sniff	
Fuel levels	2 stroke mix : 3 oz. Oil to 1 GAL Fuel
Anchor and rode	
Food and water	
Binoculars	
2 knives with dull points	
Sunglasses	
Engine start spray	E.g; ether spray from Kragen's or PepBoys
Oar	Bow storage, port side shelf
Push pole	Starboard side lazerette
Dispose of trash items	
No black shoe soles	
VHF radio weather check	
Jackets	
VHF radio "on" to channel 16	
GPS and charts for trip	
Disconnect battery charger	
File float plan	
Clear cabin aisle	
Wallets, keys, personal items stowed below	
PFDs on bunks within reach (adults)	
PFDs on all children	
Sun screen applied	
Gloves on	
Mount flags/pendants	

Leaving the dock	
Power off 110VAC devices	
1) Lamps	
2) Battery charger	
•	
Hoist mainsail	
1) Lamps	
2) Chargers	
Remove Shore Power	
1) Coil cord and set on dock box	
Crew	
Start engine	
1) Open tank vent	
2) Pump bulb	
3) Lower engine	
4) Verify neutral gear	
5) ½ Choke	
6) 1/3 Throttle	
7) Pull start	
8) Adjust choke and throttle as engine warms	
9) Check Fwd/Reverse gears	
10) Verify rudder clear and working	
Crown	
Crew	
1) Hold spanner line	
Skipper	
1) Remove dock lines	
Begin departure	
Crew	
1) Verify clearances	
2) Assist if necessary	
3) Board when clear	
Fasten and check fence rail	
5) Pull fenders aboard	
,	
Entering Open Water	
Unfurl jib	
Stop and raise engine	
Close fuel vents	

Pre-arrival	
Skipper	
1) Enter irons	
1) Litter none	
Crew	
1) Start engine	
2) Lower fenders	
3) Open fence rail	
4) Insure all lines free	
5) Insure spanner line over rail	
c) modific oparino mio ovor ran	
Docking	
Skipper	
1) Enter dock at low speed	
2) Release all sails	
3) Engine to neutral	
, ,	
Crew	
1) Hold spanner line	
2) Jump to dock	
3) Use spanner to hold boat in position	
Skipper	
1) Attach lines to dock	
Crew	
1) Stop and raise engine	
2) Close fuel vents	
3) Attach shore power	
Final cleanup	
Furl jib	
Lower and pack mainsail	
Throw out trash	
Wash boat and engine	
Pack personal items	
Lock cabin	
Lock fence rail	

## VHF Channel 16 emergency example

Mayday-Mayday-Mayday

This is Cherry Migration-Cherry Migration-Cherry Migration

Point Loma bears 185 Degrees Magnetic, distance two miles.

Struck floating object

Need pumps medical assistance and tow

Two adults on board

One person compound fracture of arm

Estimate can remain afloat two hours

Cherry Migration is a 26 foot sailing sloop with a white hull and gray decking

Over

(Repeat at intervals until answer is received)

Note: use PANPAN-PANPAN-PANPAN for urgent (non-emergency) assistance.

Note: use SAYCURITAY-SAYCURITAY-SAYCURITAY to report dangerous conditions.

## VHF Channel 9 communication example

Any vessel, any vessel, this is Cherry Migration over

(Repeat twice max. at 2 minute interval max. each 10 minutes)

Aboat : Cherry Migration, this is Aboat over Cherry Migration : switch to 78 alpha over

Aboat: 78 alpha

(Continued on working channel 78A if clear or return

To 9 and try last two steps again on another channel)

Cherry Migration: Aboat this is Cherry Migration, over

Aboat: Cherry Migration, this is Aboat, over

Cherry Migration: Could I have a radio check, over?

Aboat: your signal is 5x5 over.

Cherry Migration: roger 5x5. Cherry Migration out.

Aboat : Aboat out.

Note: working channels are: 68, 69, 71, 72, and 78A

## Sound Devices

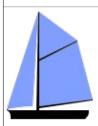
Short blast : approx. 1 second Long blast : approx. 4-6 seconds.

- 1 S: head-on boats alter to starboard, showing port side.
- 1 S: overtaking boat passes showing starboard.
- 2 L, 1 S: overtaking boat passes showing starboard.
- 2 S: head-on boats alter to port, showing starboard side.
- 2 S: overtaking boat passes showing port.
- 2 L, 2 S: overtaking boat passes showing port.
- 3 S: powering astern (backing up)
- 5 S: In doubt or danger ahead.
- 1 L: leaving dock or entering blind area.

## Fog:

- 1 L : under power and making way in fog. Two minute intervals.
- 2 L : stopped in fog. Two minute intervals.
- 1 L, 2 S: sailing and making way in fog. Two minute intervals.
- 1 L, 3 S: towed vessel in fog. Two minute intervals.
- 2 S: I am altering course to port.

### **Boat Rigs**



## Sloop

a Bermuda or gaff mainsail lifted by a single mast with a single jib bent onto the forestay, held taut with a backstay. The mainsail is usually managed with a spar on the underside called a "boom." One of the best-performing rigs per square foot of sail area and is fast for up-wind passages. In modern times by far the most popular for recreational boating because of its potential for high performance. On small boats, it can be a simple rig. On larger sloops, the large sails have high loads, and one must manage them with winches or multiple purchase block-and-tackles.



### Cutter

like a sloop with two jibs (a staysail and a yankee) in the foretriangle. Better than a sloop for light winds, it's also easier to manage. It has slightly less up-wind ability than a sloop because it has more windage



#### Ketch

like a yawl, but the mizzenmast is often much larger, and is located forward of the rudder post. The purpose of the mizzen sail in a ketch rig, unlike the yawl rig, is to provide drive to the hull. A ketch rig allows for shorter sails than a sloop with the same sail area, resulting in a lower center of sail and less overturning moment. The shorter masts therefore reduce the amount of ballast and stress on the rigging needed to keep the boat upright. Generally the rig is safer and less prone to broaching or capsize than a comparable sloop, and has more flexibility in sailplan when reducing sail under strong crosswind conditions – the mainsail can be brought down entirely (not requiring reefing) and the remaining rig will be both balanced on the helm and capable of driving the boat. The ketch is a classic small cargo boat.



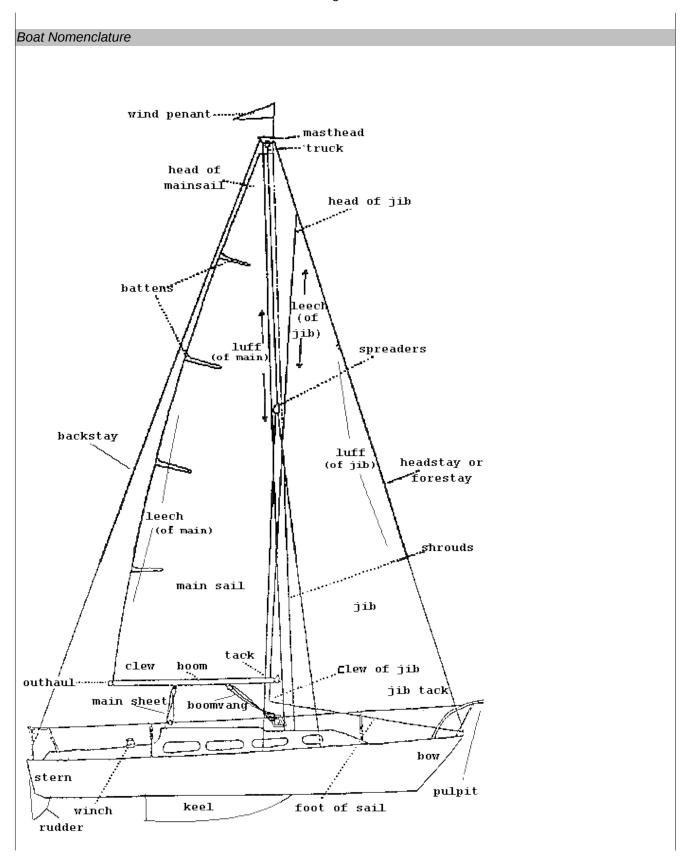
### Yawl

like a sloop or catboat with a mizzen mast located aft (closer to the stern of the vessel) of the rudder post. The mizzen is relatively small, and is intended to help provide helm balance.



#### Schooner

a fore-and-aft rig having at least two masts, with a foremast that is usually smaller than the other masts. Schooners have traditionally been gaff-rigged and in small craft are generally two-masted, however many have been built with Marconi rigs (and even junk rigs) rather than gaffs and in the golden age of sail vessels were built with as many as seven masts. One of the easiest types to sail, but performs poorly to windward without gaff topsails. The extra sails and ease of the gaff sails make the rig easier to operate, though not necessarily faster, than a sloop on all points of sail other than up-wind. Schooners were more popular than sloops prior to the upsurge in recreational boating. The better performance of the sloop upwind was outweighed for most sailors by the better performance of the schooner at all other, more comfortable, points of sail. Advances in design and equipment over the last hundred years have diminished the advantages of the schooner rig. Many schooners sailing today are either reproductions or replicas of famous schooners of old.



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Abeam - At right angles to , or beside, the boat

Aboard - On or in the boat

Aft - Toward the stern

Aground - When the hull or keel is against the ground

Aloft - overhead, above

Amidships - the middle of the boat

Anchor - An object designed to grip the ground, under a body of water, to hold the boat in a selected area

Apparent Wind - the direction of the wind as is relative to the speed and direction of the boat

Astern - behind the boat

Backstay - a support wire that runs from the top of the mast to the stern

Bail - to remove water from the boat

Ballast - weight in the lower portion of a boat, used to add stability

Battens - thin, stiff strips of plastic or wood, placed in pockets in the leech of a sail, to assist in keeping its form

Beam - the width of the boat at its widest

Beam reach - a point of sail where the boat is sailing at a right angle to the wind

Bearing - a compass direction from one point to another

Belay - to make secure

Bight - a loop of line or rope

Bilge - the lowest part of a boat, designed to collect water that enters the boat

Block - a pulley

Boat Hook - a device designed to catch a line when coming alongside a pier or mooring

Bolt Rope - a rope sewn into the luff of a sail for use in attaching to the standing rigging

Boom - the horizontal spar which the foot of a sail is attached to

Boom Vang - a line that adjusts downward tension on the boom

Bow - the front of the boat

Bowspirt - a spar extending forward from the bow

Breast line - a docking line going at approximately a right angle from the boat to the dock

Broach - to spin out of control, either causing or nearly causing a capsize.

Broad reach - a point of sail where the boat is sailing away from the wind, but not directly downwind

Buoy - an anchored float marking a position or for use as a mooring

By the Lee - sailing with the wind coming from behind, and slightly to the side, that the sails are on

Can - a kind of navigation buoy

Capsize - to turn a boat over

Cast Off - to release lines holding boat to shore or mooring, to release sheets

Catboat - a one sail sailboat

Centerboard - a fin shaped, often removable, board that extends from the bottom of the boat as a keel

Chafe - damage to a line caused by rubbing against another object

Chainplates - metal plates bolted to the boat which standing rigging is attached to

Chock - a guide for an anchor, mooring or docking line, attached to the deck

Cleat - a fitting used to secure a line to

Clew - the lower aft corner of a sail

Close hauled - a point of sail where the boat is sailing as close to the wind as possible

Close reach - a point of sail where the boat is sailing towards the wind but is not close hauled

Cockpit - the area, below deck level, that is somewhat more protected than the open deck, from which the tiller or wheel is handled

Displacement - the weight of the water displaced by the boat

Dock - the area a boat rests in when attached to a pier, also the act of taking the boat to the pier to secure it

Downhaul - a line, attached to the tack, that adjusts tension in the sail

Draft - the depth of the boat at its lowest point, also the depth or fullness of the sail

Drift - the leeway, or movement of the boat, when not under power, or when being pushed sideways while under power

Ease - to loosen or let out

Fairlead - a fitting used to change the direction of a line without chafing

Fathom - a measurement relating to the depth of water, one fathom is 6 feet

Foot - the bottom part of a sail

Forward - toward the bow to the boat

Foremast - the forward mast of a boat with more that one mast

Foresail - the jib

Fouled - entangled or clogged

Freeboard - the distance from the highest point of the hull to the water

Furl - to fold or roll a sail and secure it to its main support

Genoa - a large foresail that overlaps the mainsail

Gimball - a device that suspends a compass so that it remains level

Gooseneck - a device that connects the boom to the mast

Ground Tackle - the anchor, chain and rode

Gunwale - the railing of the boat at deck level

Halyard - the line used to raise and lower the sail

Hard Alee - the command given to inform the crew that the helm is being turned quickly to leeward, turning the boat windward

Head - top of the sail

Head to Wind - the bow turned into the wind, sails luffing

Headsail - a sail forward of the mast, a foresail

Headstay - a wire support line from the mast to the bow

Headway - forward motion

Heave To - to stop a boat and maintain position (with some leeway) by balancing rudder and sail to prevent forward movement, a boat stopped this way is "hove to"

Helm - the tiller or wheel, and surrounding area

Helmsman - the member of the crew responsible for steering

Heel - the leeward lean of the boat caused by the winds action on the sails

Hike - leaning out over the side of the boat to balance it

Hoist - to raise aloft

In Irons - having turned onto the wind or lost the wind, stuck and unable to make headway

Jib - a foresail, a triangle shaped sail forward of the mast

Jibe - a change of tack while going downwind

Keel - a fin down the centerline of the bottom of the hull

Ketch - a two-masted ship with a small mast mounted forward of the rudder post

Knot - a unit of speed, one knot=6,076 feet per hour

Lanyard - a line attached to any small object for the purpose of securing the object

Lazarette - spaces below the deck that are designed for storage

Leech - the back edge of a sail

Leeward - downwind

Lifeline - a cable fence that surrounds the deck to assist in the prevention of crew falling overboard

Line - rope or cordage

List - the leaning of a boat to the side because of excess weight on that side

Luff - the front edge of a sail, and the flapping in the wind of the front of the sail (luffing)

Mainsheet - the line that controls the boom

Mizzen - the shorter mast behind the main mast on a ketch or yawl

Mooring - an anchor or weight, permanently attached to the sea floor, with a buoy going to the surface, used to hold the boat in a certain area

Nun - a kind of navigational buoy

Outhaul - the line that adjust tension along the foot of the sail along the boom

Painter - a line tied to the bow of a small boat for the purpose of securing it to a dock or to the shore

Pennant - a triangular flag

Pinch - to sail as close as possible towards the wind

Point - to turn closer towards the wind (point up)

Port - the left side of the boat

Port tack - sailing with the wind coming from the port side, with the boom on the starboard side

Privileged vessel - the ship with the right of way

Reach - sailing with a beam wind

Ready about - prepare to come about

Reef - to reduce the size of a sail

Rhumb line - a straight line compass course between two points

Rigging - the standing rigging is the mast and support lines, running rigging is the lines with which you adjust the sails

Rode - the line and chain that connect the anchor to the boat

Rudder - a fin under the stern of the boat used in steering

Running - a point of sail, going directly downwind

Scull - moving the rudder back and forth in an attempt to move the boat forward

Shake out - to release a reefed sail and hoist the sail aloft

Sheave - the wheel of a block pulley

Sheet - a line used to control the sail

Shrouds - support wires for the mast

Spinnaker - a large, light sail used in downwind sailing

Spreaders - struts used to hold the shrouds away from the mast

Spring line - docking lines that keep the boat from drifting forward and back

Starboard - the right side of the boat

Starboard tack - a course with the wind coming from starboard and the boom on the port side

Step - the frame that the bottom of the mast ends into

Stern - the back of the boat

Stow - to put away

Tack - the front, lower corner of the sail, also course with the wind coming from the side of the boat, also to change course by turning into the wind so that the wind comes from the other side of the boat

Tender - a small boat used to transport crew and equipment from shore to a larger boat

Tiller - controls the rudder and is used for steering

Topping lift - a line that holds up the boom when it is not being used, also the line that controls the height of a spinnaker pole

Transom - the back, outer part of the stern

Traveler - a device that the mainsheet may be attached to which allows its position to be adjusted

Trim - to adjust the sails, also the position of the sails

Tuning - the adjustment of the standing rigging, the sails and the hull to balance the boat for optimum performance

Wake - the swell caused by a boat passing through water

Whisker pole - a light spar which holds the jib out when sailing downwind

Winch - a metal drum shaped device used to assist in trimming sails

Windward - upwind