



# BANANA WIND

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*When you take up a pastime, you need to know the words.*

*- Denny Desoutter*

## Nautical Reference

*If you ever hope to survive in your environment, you need to speak the language. The sea and the men who sail her have their own language, and it would benefit you to learn it or at least become familiar with it.*

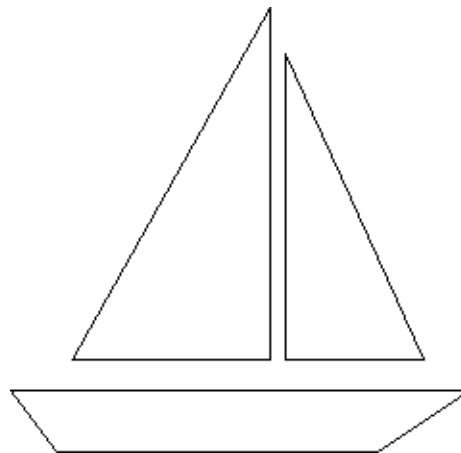
[ [Rig Types](#) ] [ [Knots](#) ] [ [Glossary of Terms](#) ]

### Rig Types

#### Marconi-rigged Sloop

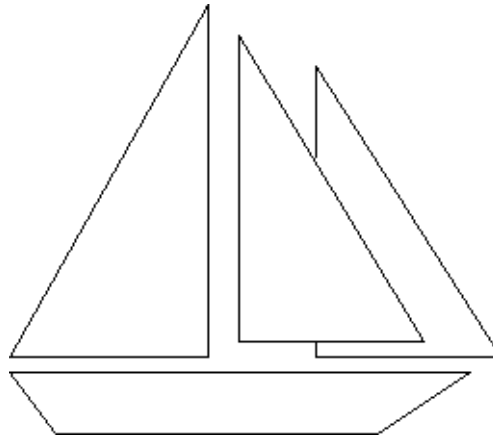
Most common modern  
rig.

Excellent for sailing  
upwind.



### Cutter

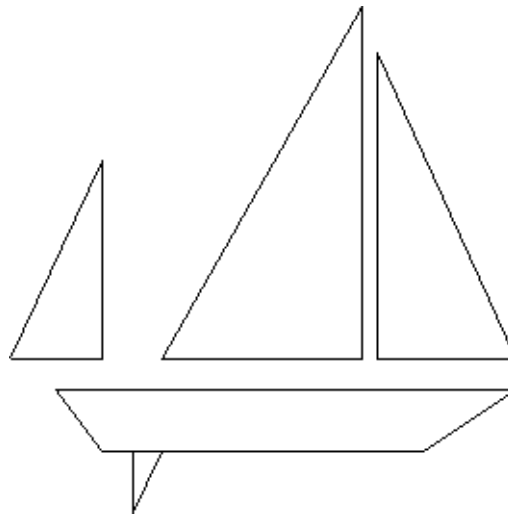
Sloop with the mast nearer the middle of the boat, allowing room to fly an extra jib.



### Yawl

A vessel with two masts.

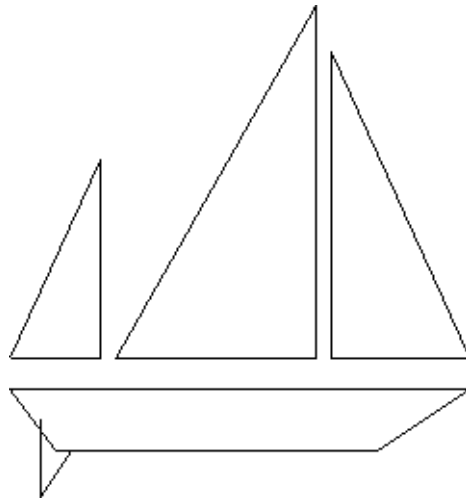
The smaller mast, called a mizzen mast, is located behind the rudder post.



### Ketch

A vessel with two masts.

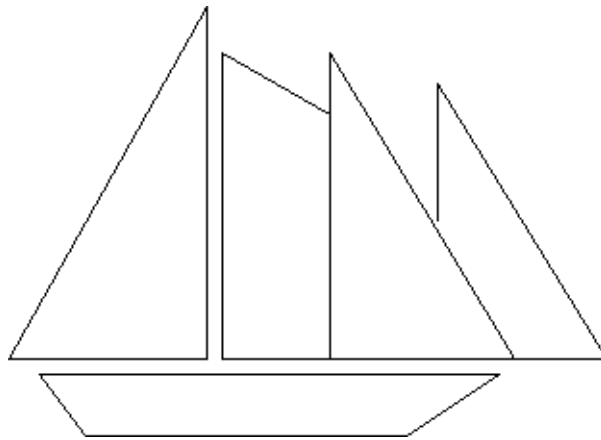
The smaller mast, called a mizzen mast, is located in front of the rudder post.



**Schooner**

A vessel with two or more masts.

The larger mast is located in the back.



**Knots**



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## Six Knots to Know

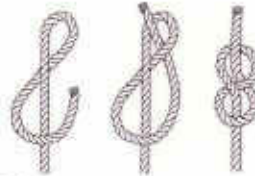
Side 1: Figure Eight, Two Half Hitches, Bowline

### Knowing how to tie a few basic knots is essential to a sailor's security.

On this card you'll find simplified instructions for tying a few of those most commonly used. But remember: how well you tie the knot depends on you. So choose the right kind and tie it properly.

Something else that's essential to a sailor's security: the right kind of insurance coverage. INAMAR has the ideal policy for every kind of pleasure boat.

Knowledgeable boatowners tie up with INAMAR.



### Figure Eight

Best knot to keep the end of a rope from running out of a tackle or pulley.

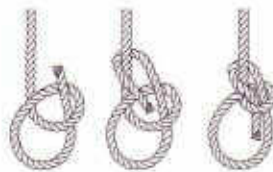
1. Make underhand loop, bringing end around and over the standing part.
2. Pass end under, then up through the loop.
3. Draw up tight.



### Two Half Hitches

Reliable...quickly tied...the hitch most often used in mooring.

1. Pass end of rope around post or other object.
2. Wrap short end of rope under and over long part of rope, pushing the end down through the loop. This is a half hitch.
3. Repeat on long rope below first half hitch and draw up tight.



### Bowline

The "King of Knots"...never jams or slips when tied properly.

1. Make overhand loop with the end held toward you, then pass end through loop.
2. Now pass end up behind the standing part, then down through loop again.
3. Draw up tight.

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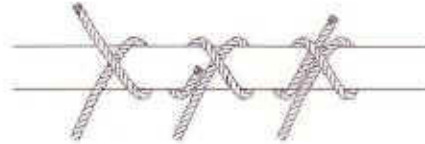
an ACE USA company



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## Six Knots to Know

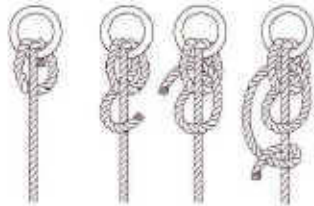
Side 2: Clove Hitch, Anchor Bend, Square Knot



### Clove Hitch

The general utility hitch ashore... whenever you want a quick, simple method of fastening a rope around a post, spar or stake.

1. Make a turn with the rope around the object and over itself.
2. Take a second turn around the object.
3. Pull the end up under the second turn so it is between the rope and the object. Tighten by pulling on both ends.



### Anchor Bend

Used to secure a rope to a buoy or a line to an anchor.

1. Pass two loops through ring.
2. Pass free end around standing line.
3. Pass free end through loops.
4. Complete by making half hitch.



### Square Knot

Used at sea in reefing and furling sails.

1. Pass left end over and under right end. Curve what is now the left end toward the right. Cross what is now the right end over and under the left.
2. Draw up tight.

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## Glossary of Terms

1 fathom	6 feet
1 horsepower	15 pounds of thrust
1 meter	3.1 feet
1 nautical mile	1.15 statute mile
1 nautical mile	1 minute latitude (1/60 of a degree)
1 nautical mile	6,072 feet
1 nautical mile	2,024 yards
1 nautical mile	1,850.7 meters
1 statute mile	5,280 feet
1 statute mile	1,760 yards
1/6th nautical mile	1 second of latitude
60 nautical miles	1° (degree) latitude
Abeam	Off the side of (at right angle to) the boat.
Aft	At or toward the stern of behind the boat.
Alternator	A device which generates electricity from an engine.
Amidships	Toward the center of the boat.
Apparent wind	The wind aboard a moving boat.
ARA	Armada of the Republic of Argentina (Argentina)
Astern	Behind the stern of the boat.
Athwartships	Across the boat from side to side.
Average speed	5 – 6 knots for most large keel boats
Back	To hold the clew of a sail out to windward. A counterclockwise change in wind direction.
Back & fill	Using forward and reverse gears, as well as prop walk and rudder angles, to turn a boat in close quarters.
Backing wind	Wind shift to the left
Backstay	The standing rigging running from the stern to the top of the mast.
Ballast	Weight in the keel that provides stability.
Ballast ratio (should be at least 40%)	Weight of ballast divided by gross weight of the boat
Barometer	A weather forecasting instrument that measures air pressure.
Batten	A thin slat that slides into a pocket in the leech of a sail, helping it hold its shape.
Battery starting power	100% at 80°, 65% at 32°, 40% at 0°
Battery switch	The main electrical cutoff switch.
Beam	The width of a boat at its widest point.
Beam reach	Sailing in a direction at approximately 90 degrees to the wind.
Bear away	To fall off, head away from the wind
Bearing	A course sailed upwind.
Below	The area of a boat beneath the deck.
Bend	To attach a sail to a spar or a headstay, or to attach a line to a sail.
Berth	The area in which you park your boat. The area in which you sleep on a boat.
Bight	A loop in a line.
Bilge	The lowest part of the boat's interior where water on board will collect.
Bimini	A sun awning used to cover the cockpit area.
Bitter end	The end of a line.
Black Squall	Dark and threatening. Usually accompanied by rain.
Blanket	To use a sail or object to block the wind from filling a sail.
Block	A pulley on a boat.
Boat hook	A pole with a hook used for grabbing hold of a mooring or an object in the water.
Bolt rope	The rope sewn into the foot and luff of some mainsails and jibs by which they are attached to the boat.
Boom vang	A block and tackle system which pulls the boom down to assist sail control.
Bottom Paint Components	Toxicant, Vehicle or binder, Thinners, & Pigment
Bow	The forward part of the boat.
Bow line	A line running from the bow of the boat to the dock or mooring.
Bowline	A knot designed to make a loop that will not slip and can be easily untied.
Breast line	A short dock line leading off the beam of the boat directly to a dock.
Broach	An uncontrolled rounding, usually from a downwind point of sail.
Broad reach	Sailing in a direction with the wind at the rear corner of the boat (approximately 135 degrees from the bow).
Bulkhead	A wall that runs athwartships on a boat.
By the lee	Sailing on a run with the wind coming over the same side of the boat as the boom.
Cabin	The interior of a boat.
Can	An odd-numbered, green buoy.
Capacity	(Boat length x boat width) divided by 15
Careening	Running a boat onto a sloping shore at high tide to expose the bottom for maintenance at low tide.
Cast-off	To release a line.
Chainplate	Strong metal plate which connect the shrouds to the boat.
Channel	A path in the water marked by buoys in which the water is deep enough to sail.
Chart	A nautical map.
Charter	To rent a boat.
Chock	A guide mounted on the deck through which docklines and anchor rodes run.
Chop	Rough, short, steep waves.
Clew	The lower, aft corner of a sail.
Close reach	Sailing in a direction with the wind forward of the beam but aft of the closed-hauled position.
Close-hauled	The point of sail closest to the wind.

Cockpit	The lower area in which the steering controls and sail controls are located.
Coil	To neatly loop a line for storage.
Come about	See "tack."
Companionway	The steps leading from the cockpit to the cabin below.
Compass protractor	A plotting instrument oriented to latitude-longitude lines.
Compass rose	The circle on a chart which indicates the direction of true north and magnetic north.
Converter	A device to change AC current to DC.
Cringle	A ring sewn into the sail through which a line can be passed.
Current	The horizontal movement of water caused by tides, wind, and other forces.
Dinghy	A small sailboat, rowboat, or small boat with an outboard.
Displacement	Weight of a boat (i.e. the amount of water it displaces).
Distance to a storm (nautical miles)	(# of seconds between lightning & thunder) / 5.5
Distance to a storm (statue miles)	(# of seconds between lightning & thunder) / 5
Divider	Instrument used for measuring distances or coordinates on a chart.
Dock	Wooden structure where a boat can be tied up. The act of bringing a boat along side a structure.
Docking	Floating a vessel into dry-dock and pumping out the water to expose the bottom for maintenance.
Dockline	A line used to secure the boat to the dock.
Downwind	A direction away from the direction of the wind.
Draft	The depth of a boat below the water's surface
Ebb	An outgoing tide
EPIRB	An emergency position indicating radio beacon.
Fathom	A measurement of depth of the water. One fathom equals six feet.
Fender	A rubber bumper used to protect a boat.
FGS	Federal German Ship (Germany)
Fitting	A piece of natural hardware.
Float plan	An itinerary of your intended sailing trip left with a responsible party onshore.
Float switch	A device that turns on a bilge pump when water inside reaches a certain level.
Flood	Incoming tide.
Flotilla	A group of boats on an organized cruise.
Foot	Bottom edge of a sail.
Fore	Foreword
Foresail	A jib or a genoa.
Forestay	The standing rigging running from the bow to the mast to which the jib is attached.
Forward	Toward the bow.
Fouled	Tangled.
Furl	To fold or roll up a sail.
FV	Fishing Vessel (non-military merchant ship)
Genoa	A large jib whose clew extends aft of the mast.
Gimbal	A system that keeps items horizontal as the boat heels.
Grommet	A reinforcing metal ring in a sail.
Ground tackle	The anchor and rode (chain and line).
Gunwale	The edge of the deck where it meets the topsides.
Halyard	A line used to hoist or lower a sail.
Hank	A snap hook that attaches the luff of a jib to the forestay.
Hard over	To turn the tiller or wheel as far as possible in one direction.
Hard-a-lee	Command given to the crew to begin a tack.
Hatch	A large covered opening on a boat.
Haul in	To tighten a line.
Hauling	Maneuvering a boat into a wheeled cradle running on an underwater railway and winching her ashore for maintenance.
Head	The top corner of a sail. The bathroom on a boat. The toilet on a boat.
Heading	The direction of the boat expressed in compass degrees.
Heave-to	To hold a position in the water in which the force of the wind and the rudder counter one another.
Heaving Down	Attaching tackles to the masthead and heaving a boat onto its side to expose the bottom for maintenance.
HMAS	Her Majesty's Australian Ship (Australia)
HMCS	Her Majesty's Canadian Ship (Canada)
HMNZS	Her Majesty's New Zealand Ship (New Zealand)
HMS	Her Majesty's Ship (UK & Saudi Arabia)
Holding ground	The bottom ground in an anchorage used to hold the anchor.
Holding tank	A tank that holds and stores human waste rather than pumping it overboard.
Hove-to	A boat that has successfully completed the process of heaving-to and is holding its position.
Hull speed	Theoretical maximum speed of a sailboat determined by the length of its waterline.
In irons	A boat that is head-to-wind, making no forward headway.
INS	Indian Naval Ship (India) & Israeli Naval Ship (Israel)
Inverter	A device to change DC current to AC.
Isobar	A line joining places of equal air pressure as depicted on a weather map.
Jacklines	Study lines affixed to the sides of the boat to which the crew and attach their safety harnesses.
Jib	The small forward sail attached to the forestay.
Jibe	To change direction of a boat by steering the stern through the wind.
Jury rig	An improvised, temporary repair.
Land breeze	A wind blowing over land and out to sea.
Lash	To tie down.
Lay	To sail a course that will clear an obstacle without tacking.
Lazarette	A storage compartment built into the deck.
Lead	To pass a line through a fitting or block.
Lee helm	The boat's tendency to turn away from the wind.
Lee shore	Land which is on the leeward side of the boat.

Leech	The after edge of a sail.
Leeward	The direction away from the wind (where the wind is blowing to).
Leeward side	Side of the boat or said that is away from the wind.
Leeway	5° – 10° for most large keel boats
Leeway	Sideways slippage of a boat in a direction away from the wind.
Line	A nautical rope.
Luff	The forward edge of a sail. The fluttering of a sail caused by aiming too close to the wind.
Magnetic	In reference to magnetic north rather than true north.
Mast step	The structure at the bottom of the mast.
Masthead	Top of the mast.
Masthead fly	A wind direction indicator at the top of the mast.
Maximum speed	1.34 x square root of the length of the waterline
Mayday	The internationally recognized distress signal for a life-threatening emergency.
Moonrise	40 minutes later than the previous night
Mooring	A permanently anchored ball or buoy to which a boat can be tied.
MS	Motor Ship (non-military merchant ship)
MSD	Marine sanitation device - includes toilet, holding tank and connecting lines and valves.
Nautical mile	A distance of 6076 feet, equaling one minute of the earth's latitude.
Navigation rules	Laws established to prevent collisions on the water.
Net tonnage	Gross tonnage--the total internal volume--minus all spaces not available for carrying passengers and cargo
No-go zone	Area in the wind where a boat cannot produce power to sail.
Nun	A red, even numbered buoy. Nuns are usually paired with cans.
Offshore	Away from or out of sight of land.
Offshore wind	Wind blowing away from the land.
Outboard	A portable motor mounted on the transom.
Outhaul	The controlling line attached to the clew of a mainsail used to tension the foot of the sail.
Overpowered	A boat that is heeling too far because it has too much sail for wind conditions.
Overtaking	A boat that is catching up to another boat and about to pass it.
Painter	The line attached to the bow of a dinghy.
Pan-pan	The internationally recognized distress signal for an urgent but not life threatening situation.
Parallel rulers	Two rulers linked and held parallel by hinges used to plot a course.
Pay out	To ease out a line.
PFD	Abbreviation for personal floatation device (i.e. a life jacket).
Piling	A vertical timber or log driven into the sea bottom to support docks or form a breakwater.
Plot	Apply calculations to chart a position or course.
Point	To steer close to the wind.
Points of sail	Boat directions in relation to the wind.
Port	Left side of a vessel facing forward. (Adopted by general order in 1846 by US Navy rather than "larboard" which could be confused with "starboard.")
Port	The left side of a boat when facing forward. A harbor. A window in a cabin on a boat.
Port tack	Sailing on any point of sail with the main boom on the starboard side of the boat.
Prevailing wind	Typical or consistent wind conditions.
Propane	A cooking fuel.
Pulpit	The stainless steel guardrail at the bow and stern of some boats.
Quarter	Sides of the boat near the stern.
Quarter berth	A bunk located under the cockpit.
Radar reflector	An object with lots of faces at sharp angles that can be spotted by other vessels radar scopes.
Rake	The angle of the mast.
Range	The alignment of two objects that indicates the middle of a channel.
Raw water	The fresh or salt water entering the boat.
Reach	One of several point of sail across the wind.
Reef	To reduce the size of a sail.
Reefing line	A line used to reduce sail by pulling the lower portion of the sail to the boom.
Rhumb line	A straight course between two points.
Rig	The design of a boat's mast, standing rigging, and sail plan. To prepare a boat for sailing.
Rigging	The wires and lines used to support and control the sails.
Right-of-way	The right of the stand-on vessel to hold its course.
Rode	Line and chain attached from the boat to the anchor.
Roller furling	A mechanical system to roll up a headsail (jib) around the headstay.
Round up	When a boat turns toward the wind, sometimes abruptly and with a great deal of heel.
Rudder	The underwater fin controlled by the wheel or tiller that deflects water and steers the boat.
Run	Sailing with the wind coming from behind the boat.
Running rigging	Line and hardware used to control the sails.
Sail ties	Pieces of line or webbing used to tie the mainsail to the boom when reefing or storing the sail.
Scope	The ratio of the amount of anchor rode deployed to the distance from the bow of the boat to the bottom.
Scull	To propel the boat by swinging the rudder back and forth like a fish tail.
Scupper	Cockpit or deck drain.
Sea breeze	A wind that blows over the sea and onto the land.
Seacock	A valve which opens and closes a hole through the hull of a boat.