

## Maritime Definitions by Capt. Doswell

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To the novice mariner or landlubber, maritime terms seem to be illogical, capricious, ambiguous, confusing, whimsical, erratic or just plain weird. It is only after many years of experience on the water that the salted mariner comes to accept that maritime terms actually are illogical, capricious, ambiguous, confusing, whimsical, erratic or just plain weird.

The beginner may wonder why? Why is a window a portlight? What's wrong with the pointy end? Why is that thing floating in the water called a camel? The seasoned professional mariner knows why, of course. In two words: "job protection". It's the same with the vocabulary associated with any other profession. I've always believed that 50% of any discipline is simply learning the argot. (Argot, in case you don't know, is an underworld or secret language. For a really excellent discussion of argot, read Chapter II (Roots) of Book Seven (Argot) of SAINT-DENIS in Les Miserables by Victor Hugo.)

It would be great to believe that, having mastered the language of the sea, one could travel to any country and be understood on a boat. No, no, no. It doesn't work that way. Go to France and, with a few exceptions, you would have to start all over again. Same with Chile, Japan and the Netherlands.

In general, with this glossary, I have attempted to keep it to really useful (well mostly) terms that I judge people with an interest in the waterfront ought to know. Like bow, stern, pier, wharf, dry dock, longshoreman, pilot house and so forth. This is, by far, NOT a complete list of all the parts of a boat or ship. You wont (thankfully) find lazarette, fo'c'sle, garboard strake, charlie noble, hawse pipe, binnacle and any of hundreds of other similar esoteric terms that most boaters know by heart. Well, some boaters. And you wont find another few hundred or so sailing terms such as by the lee, lee helm, leeward, lee cloth, alee, hard alee, and of course, lee. But if you're planning to go



Mariner John Krevey relaxing on his runabout C-Drive. You can tell he's a mariner from his bare feet and jaunty expression. He is sitting on the bow. You can also see that he's tied his painter to a piece of flotsam. Note the clever use of a discarded chair as a sort of dock.

out on a boat, it's good to know what the gangway is. And a really handy phrase to remember is the translation for "where is the loo?" (Answer: "Where is the head?").

And you will learn, in a way that's hard to forget, how to tell port from starboard. These two words, it turns out, are among the least illogical, capricious, ambiguous, confusing, whimsical, erratic or just plain weird words in the mariner's lexicon, once you understand their origins. And you'll discover why a boat's speed is measured in knots instead of miles-per-hour. They will actually make sense. At least I hope so.

So read on and don't worry if they don't sink in the first time through. This is not a dictionary - it's meant to be an easy read, and to provide a handful of basics about boats, ships and the facilities that serve them. If it gets you hooked so that you really want to know what a marlin-spike is or how to use a holy stone, that's great. If not, I hope you enjoy the journey anyway.



**Aid to navigation** - Any fixed object used by a mariner to find his position on the water, such as a buoy, lighthouse, fixed structure or light. Also radio beacons, as well as satellite systems, such as GPS (Global Positioning System), as well as the stars, moon and sun. (See buoy, lighthouse, lightship, GPS, below)

**Ama(s)** - The outboard hulls of a trimaran (three-hulled vessel). Also the small hull of an outrigger canoe (ama)

**Anchorage** - A designated area where a boats or ships can anchor. A "special anchorage" is a defined area in which a small vessel may anchor without having to show an anchor light or signal.

**Barge** - A non-powered vessel with a flat bottom, typically used for transport or a work platform, moved by a tugboat.

**Bell boat** - A boat or ship in which the pilot does not operate the engine(s) directly, but instead, sends signals to an engineer located in the engine room via a mechanical telegraph, called an engine order telegraph, or by a system of bells.

**Berth** - The actual location in a harbor where a vessel will be moored. Also called slip (below). Also refers to a specific accommodation (cabin and bed) in a ship where a crew member or passenger will live on a voyage.

**Bitt** - A vertical post on a boat's deck used to secure a mooring line

**Blue water sailing** - Sailing on the open ocean, as opposed to sailing on a lake, river, harbor or along a coast



On the Atlantic on the schooner Anne from NYC to Bermuda, January 2001

**Boat** - General term for a small to medium-size watercraft (say under 100 feet). (See ship below. Also see "Boats VS Ships" at the end of the list of definitions, below.)

**Boat House** - A structure for housing or repairing small boats.

**Boat Ramp** - A ramp to allow trailered boats to be rolled into the water

**Boat Yard** - Area of land used for working on and storing boats that have been hauled out of the water

**Bollard** - Large metal fixture on a dock for securing a ship's mooring line (see Lines, below).



Bollard

**Bow** - The forward part (or "front") of a vessel.

**Break bulk cargo** - Cargo on pallets or in barrels that is loaded or unloaded manually by booms in conjunction with manual labor. In the US and most other parts of the world, break bulk cargo handling has largely been replaced by more efficient containerized cargo methods (below).

**Bridge** - A location on a ship, usually raised and that extends from side to side, from which a vessel is controlled. Usually consists of an enclosed pilot house at the center, surrounded by open platforms at either end or "wing" of the bridge. (See pilot house, below). Smaller boats have a helm or steering station instead of a bridge. Also a structure to connect two land masses over a waterway.

**Bridge-to-bridge** - A designated radio frequency (VHF Channel 13) for ships to use to contact each other for navigational purposes.

**Bulkhead** - Manufactured abutment of land and waterway. Also a "wall" inside a ship or boat.

**Bunkers** - Spaces (tanks) on a ship to store fuel. Also mariners will refer to the fuel itself as "bunkers". To "bunker" is to take on fuel.

**Buoy** - A floating aid to navigation. Type of buoys include:

**Bell** - A buoy with a motion-actuated bell installed

**Lighted** - A buoy with a light on the top

**Can** - A cylindrical shaped buoy, painted green and with an odd number

**Nun** - A conical shaped buoy, painted red and with an even number

**Spar** - A tall, narrow shaped buoy

**Colors:**

**Green** - Marks the left side of a channel when a ship is returning to port

**Red** - Marks the right side of a channel when a ship is returning to port

**Other** - Buoys may also be other colors for special purposes

**Numbers:**

**Even** - Red and/or nun buoys are numbered with even numbers

**Odd** - Green and/or can buoys are numbered with odd numbers

**Remember:** Red, Right, Returning (actually "Red/even/nun", Right, Returning)

**Buoy Tender** - A type of ship designed to maintain buoys.

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**Camel** - Wooden floating "fender" used to separate a large vessel from a pier or dock. Also (originally) hollow vessels that were sunk, tied along both sides of a ship, and then pumped out to raise the ship so that she could clear an area of shallow water.

**Canal** - A manufactured waterway.

**Captain** - The person in charge of a vessel. Sometimes called "skipper". The pilot of a boat or ship is the person actually "driving" or controlling the vessel at a given time, and may or may not be the same as the captain.

**Careen** - To deliberately ground a vessel at low tide so that she lies on one side or the other, so that the other side can be inspected, repaired and painted.

**Catamaran (Cat)** - Any twin hulled boat, whether power or sail. A cat-hulled boat is more efficient through the water than an equivalent size monohull. Cats are typically capable of exceeding hull speed. (See displacement hull speed, below) It has also been determined that cat-hulled boats tend to produce less disturbance in the form of wakes that do most monohulls.

**Channel** - An area of water that has been dredged to a

specified depth to allow passage of vessels. Also refers to a natural deepwater passageway. A channel is usually marked with buoys (see above) on either side.

**Cleat** - Fixed wood, metal or plastic device, shaped like an exaggerated "T", used to secure the end of a line on a dock or boat.

**Container ship** - Ship designed to transport freight in shipping containers (see below)

**Containerized cargo** - Cargo that is pre-packed in 20 or 40 foot long containers, and which can be loaded directly from ship to rail or trucks with minimal handling and, to a great degree, via automation.

**Cove** - A small protected harbor

**Current (or tidal stream)** - Movement of water due to tides, wind, etc. Currents (such as El Nino, The Gulf Stream, etc) tend to be constant over long periods of time. Tidal streams are temporary currents that change direction approximately every six hours as the tide changes from low to high to low again (see ebb, flood and tide, below).

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**Dinghy** - Small boat to service a larger boat

**Displacement** - The weight of the water displaced by a vessel, including stores and personnel.

**Displacement hull** - A type of hull that plows through the water, displacing the water in a bow wave. A displacement hull is generally not capable of rising above the water (planing) whereas a planing hull is designed to do just that. It has also been determined that displacement hulled boats tend to produce more disturbance in the form of wakes than do planing hulls. (See planing and planing hull, below)

**Displacement hull speed.** The theoretical top speed of a displacement hull boat, the point at which the bow wave becomes so large that the application of additional power achieves little or no increase in speed. The longer a hull is, the greater the hull speed. The formula for determining hull speed is

$$\text{Hull-Speed} = \text{Square-Root (Length-Water-Line)} \times 1.34$$

A typical 30' sailboat might have a waterline length of 25'. Thus it's maximum speed would be about 6.75 knots. A 50' sailboat with a 42' waterline length could make just under 9 knots. But, heeled over, her waterline length might increase to 45' or more, increasing her theoretical top speed to a shade over 9 knots.

**Dock** - Any type of land access for a boat or ship. Piers, slips, wharves and many other terms all encompass this function. Also a protected area of water area in which vessels are moored or docked. Some definitions specifically state that a pier itself is NOT a dock, but that the water alongside is. Thus it would be impossible for anyone to walk on a dock. But dockbuilders (workers who build docks) would disagree with this definition. Most mariners (right or wrong) will refer to a pier as a dock. Certain types of docks (drydock and graving dock, defined below) are designed to permit work on the bottom of a ship of boat. A floating dock is a platform that floats in the water, typically used for boats. In general, the word dock can refer to either: a physical item (pier, floating dock, etc), and the area within or alongside where a vessels "docks". As a verb, dock means to maneuver a vessel into or along side a dock. Enough...

**Dog** - Fastener to hold shut a port light (below).

**Dory** - Small, flat-bottomed row boat

**Draft** - The distance from the lowest part of a ship's underbody to the water line. Thus, also the minimum depth of water needed for the vessel to float.

**Dredge** - A barge with a crane, suction device or other mechanism to lift mud off the bottom for the purpose of increasing the water depth to allow passage of deeper draft vessels. Also, as a verb, the act of dredging.

**Dry dock** - A floating, but submersible, barge with tall high hollow sides and open ends, that can be partially sunk to allow a vessel to float over the deck of the barge, subsequently to be raised by pumping out the dry dock until the surface of the barge clears the water, and the vessel is high and dry. Other methods of getting a vessel out of the water include marine travel-lifts, marine rail-ways and graving docks. (See all three below)

**Ebb** - Outgoing tidal stream, or the current associated with a tide at, or just before and after low water. (See current, above, flood and tide, below)

**Estuary** - The tidal area or mouth of a river, where fresh and salt water mix.

**Fake** - To lay out a line on a deck in an ornamental manner. (See flake, below)

**Fathom** - Six feet.

**Fender** - A means of protecting the side of a boat from hitting a dock. Typically air-filled bumpers, but also accomplished by discarded automobile tires, especially on tug-boats.

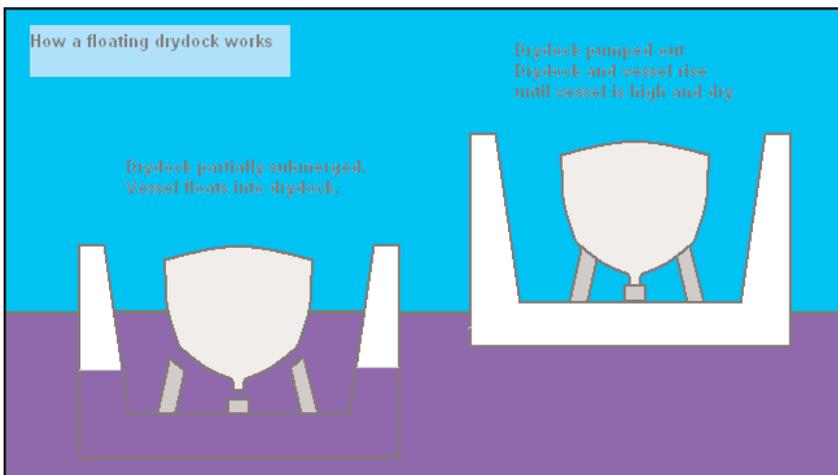
**Fender piles** - A series of sacrificial piles along side of a pier designed to both protect the pier from floating objects as well as vessels docked alongside.

**Ferry Boat** - Boat used to transport people and/or cars across a waterway. (See ro-ro ship below)

**Fireboat** - A floating fire truck.



Retired fireboat John J. Harvey spraying water



**Fixed Dock** - A dock supported by piles (IE: a pier)

**Flake** - To lay out a line on a deck in a manner so that it will run free when needed.(See fake, above).

**Float bridge** - Large ramp used to connect a car float (a barge with railroad cars) to landside rail-road tracks. The ramp is hinged on the land side, and floats with the tide on the water side, so that it always matches up with the car float.

**Floating Dock** - A dock that floats in the water (may be secured by piles or anchors).

**Flood** - Incoming tidal stream, or the current associated with a tide at, or just before and after high water. (See current and ebb, above, tide, below)

**Flotsam** - Floating debris, usually from a shipwreck. (See jetsam, below) (Also "Flotsam & Jetsam" at the end)

**Foremast** - The mast in the forepart of a vessel, nearest the bow.

**Founder** - Term used when a vessel takes on water and sinks.

**Freeboard** - The distance from the water to the upper edge of a boat's hull. A boat's freeboard is typically greatest toward the bow, less near the stern, and least about amidships.

**Galley** - The kitchen of a boat or ship.

**Gangway/Brow** - Walkway from a dock/pier to a boat/ship. Also from a pier or bulkhead to a floating dock.

**Get-down** - A means of getting close to the water.

**Gig** - A type of boat used for ship-to-shore transport.

**GPS (Global Positioning System)** - Satellite-based positioning system used by the military, mariners, automobile travelers, hikers and others. Accurate to within a few feet - as long as it works.

**Graving dock** - A type of dry dock that is a large pit in the ground, separated from a waterway by a floating or hinged gate. Once a ship enters a graving dock, the gate is shut, and all water pumped out, leaving the vessel dry so that its bottom can be worked on. To re-float the vessel, the pit is simply flooded until the water level matches that on the other side of the gate, and the gate is opened or removed. (See dry dock, above)

**Greenwich Mean Time (GMT)** - Also today known as Universal Time (UTC) and sometimes called Greenwich Meridian Time. It is the time at the prime meridian, an imaginary line running from the poles through the Royal Observatory in Greenwich, an area of London in the UK.

The prime meridian is also the reference point for lines of longitude used in modern navigation. All distances are referred to in terms of degrees east and west of the prime meridian. The Empire State Building is located 74 degrees 59 minutes and 11 seconds west of the prime meridian. (See also Universal Time and Zulu time below, also latitude and longitude, below.)

**Grey water** - Used water discharged from a boat other than sewage (IE: from a sink or shower).

**Harbor** - A natural or man-made area of water, protected from most storms.

**Hawser** - A heavy mooring or tow line.

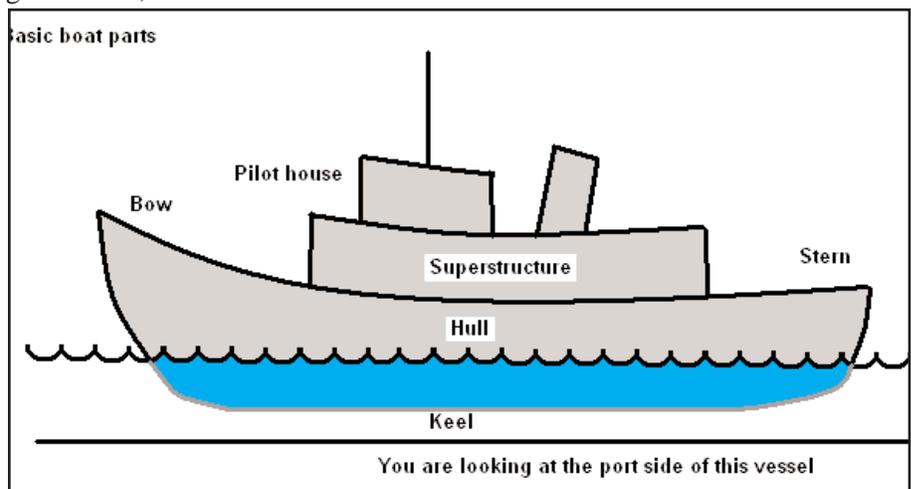
**Head** - Bathroom or toilet compartment on a boat, also refers to the toilet itself.

**Helm** - Device, either a tiller or wheel, connected to a ship's rudder, for steering.

**House Boat** - A boat primarily designed for living. A house boat basically looks like a small barge with a large deckhouse, but does have a bow, helm station and engines. By contrast, a floating home lacks a means of propulsion and has no particular bow or stern.

**Hudson River (North River)** - Major river on the west side of Manhattan, extending north well past Albany and Troy. In the area alongside Manhattan, also known as North River.

**Hull** - The basic structural part of a boat that lies in the water and supports all other parts of a boat. The other main parts of a boat include the superstructure and (sailboats only) the rig. (See both below)



**Hull forms** - These include:

**Number:**

**Monohull** - A single hull, the most common type of vessel.

**Catamaran (cat)** - twin hulls, generally identical

**Trimaran** - three hulls, center hull larger, two outboard hulls for stability, call amas.

**Outrigger** - two hulls, one larger and one smaller outboard hull for stability, call the ama.

**Shape:**

**Displacement** - Not designed to rise out of the water (plane)

**Planing** - Designed to rise partially out of the water (plane) at higher speeds.

**Hydrofoil** - Hull designed to rise fully out of the water on three or more "foils" supported by struts from the bottom of the hull at higher speeds. Extremely efficient and low wake design.

**Air Cushion** - Hull designed to rise out of the water by means of an air cushion powered by an internal blower. Another very efficient and low wake design

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**Jetsam** - Floating debris that was deliberately jettisoned over the side of a ship. (See "Flotsam and Jetsam" at the end of the definitions.)

**Jetty** (breakwater)- A manufactured structure that protects a harbor entrance, marina or dock. Can be made of land-fill, rocks or cement forms.

**Jib** - A triangular foresail in front of the foremast. A jib is hanked on to a stay and is, therefore, a specific form of staysail.

**Junk** - A style of Chinese boat or ship, generally with a high after deck and fully battened sails.

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**Kayak** - A type of canoe, usually designed for a single paddler, and generally quite seaworthy.

**Knot** - A unit for measuring speed on the water, it translates to "nautical mile per hour". Thus to say knots per hour is redundant ("nautical mile per hour per hour"), like saying ATM machine ("automatic teller machine machine"), or PIN number ("personal identification number number"). The unit derives from a method of estimating speed used before electronics. A device called a chip log consisted of a piece of wood shaped like a triangle and held with a bridle of three lines, attached to a long piece of cordage that had a knot tied about every 8 fathoms (or 48 feet). A sailor would throw the log over the stern and then

feel for the knots to pass by as another sailor marked 30 seconds using a sand glass. The number of knots counted in 30 seconds translated to the speed of the vessel. Thus, if ten knots were felt passing by in 30 seconds, one would say that the vessel was traveling at a rate of 10 knots (rather than 10 knots per hour). If you wanted to be literal, it's actually knots-per-half-minute which translates into nautical-miles-per-hour.

Note that a nautical mile is 6080 feet whereas a land mile is 5280. Thus a vessel speed of 10 knots equals about 11.5 miles per hour.

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**Latitude** - Distance, measured in degrees, north and south of the equator.

**Launch** - Same as gig. Also, the act of getting a boat into the water or a means of doing so (A boat-launch is place to launch a boat into the water)

**League** - Maritime measure of three nautical miles, or three minutes of latitude.

**Light house** - A structure with a tower to house a light used as an aid to navigation. Before electricity, and even for some time after, lighthouses required a crew to operate the light, and thus, a lighthouse included living quarters. Today all lighthouses are automated.



The once sunk restored lightship FRYING PAN

**Light ship** - A floating light house, used to mark a shoal or bar where it was impractical to build a conventional lighthouse. Light ships required large crews and were expensive to maintain. In New York, *Frying Pan*, at Pier 63 Maritime, and *Ambrose* at the South Street Seaport, are light ships. None are in service today and only about 15 former lightships remain afloat, having all been replaced with automated lights on towers.

**Lighter** - A small freight vessel designed to offload goods from a larger vessel to shore, when the larger vessel was too heavy, and thus low in the water, to approach a dock. In the process, the larger vessel was "lightened", hence the name.

**Line** - On a boat or ship, rope is used to create specific lines, which have names. It is improper to call a line "rope". Rope is a raw material used to make lines. Some typical lines on a vessel:

**Mooring line (dock line)** - Line use to tie up a boat to a dock or mooring. Next to a dock, several lines are used, including a bow line, a stern line, two or more spring lines and so forth. The bow line of a very small boat is called a painter.

**Anchor rode** - Chain, rope, wire or a combination used with an anchor

**Halyard** - Line designed to haul something up a mast, such as a sail or flag

**Sheet** - Line designed to control a sail, letting it farther out or hauling it closer in

**Stay** - Line (usually wire) designed to keep a mast upright. Located forward and aft of a mast.

**Shroud** - Line (usually wire) designed to keep a mast upright. Located on either side of a mast.

**Guy** - Line used to control the end of a boom.

**Block & tackle (block and fall)** - Line fixed up with blocks to produce a mechanical advantage.

**Lead line** - Line with a weight used to determine the depth of the water.

**Hawser** - Heavy mooring or tow line

**Heaving line** - Small diameter line with a weight at the end ("monkey's fist") intended to be thrown from a ship to a dock to haul in a heavier mooring line.

**Littoral** - Region along a coastline.

**Longitude** - Distance, east and west, of a line drawn between the poles through the Royal Observatory in Greenwich, UK, measured in degrees. Actually, due to a number of technical reasons having to do with satellite navigation, 0 degrees longitude no longer lies exactly on the line that passes through the observatory, but has been re-established in a field about 100 meters east.

**Longshoreman** - A person who makes a living along a shore line, a dockworker

**Main mast** - Tallest mast on a sail boat.



A typical recreational boat marina

**Marina** - A marine "parking lot" for medium to small vessels.

**Marine railway** - A set of rails with a flat car that leads into the water. A vessel can be floated over the car, and the car, with vessel, is then pulled out of the water so that the bottom of the vessel can be serviced.

**Marine travel-lift** - A large cradle-like conveyance used to lift a boat directly out of the water and move it to a place on land in a boat yard. Most boatyards today are equipped with travel-lifts and the largest can lift boats that are well over 100 feet.

**Mayday** - International radio call for ships in serious danger at sea. It derives from the French "m'aidez" which means "help me".

**Mean Low/High Water** - The mean average of both high and low water for a given area. Depths on a chart are indicated for mean low water. Bridge clearances are indicated at mean high water. Extreme tides can exceed mean low or high water. In particular, on the occasion of the new moon and full moon, alternating every 14 days, tides may exceed mean low or high water. (See spring/neap tides, below)

**Mizzen mast** - A shorter mast at or near the stern of a boat.

**Monohull** - A boat with one hull.

**Mooring buoy (mooring)** - A buoy attached to a permanent anchor to secure a boat or barge. Very large moorings can be used to secure ships.

**Mooring field** - An area of water set aside for moorings. Usually also designated as a special anchorage.



A very large National Ensign. Sail for America, 16 September 2002

**National Ensign** - Maritime term for the US flag.

**Nautical mile** - One minute of latitude, approximately 6080 feet.

**Navigable** - An area with sufficient depth of water to permit vessel passage.

**Navigation** - The act of getting vessel from one location to another, or of determining a vessel's speed, course and location, especially when offshore or out of sight of land.

**North River** - Another name for the Hudson River in the vicinity of Manhattan. Mariners who operate in New York Harbor refer to it as North River. In addition, the US Post Office, as well as other documents, refer to it as North River.

**Oil spill response vessel** - Work boat designed to respond to an oil spill.

**On the hip** - Term used when a tugboat tows a barge by tying up alongside. There are three ways for a tug to tow a barge or series of barges:

**Astern** - The tug pulls the barge via a tow line from the stern of the tug.

**Pushing** - The tug ties off behind the tow, and pushes it forward.

**Alongside (on the hip)** - Described above

**One short blast** (also "one whistle") see Whistle (Horn) below.

**Painter** - The bow line of a small boat or dingy.

**Passenger Ship (Cruise Ship)** - A vessel capable of providing ocean passages for large numbers of people..

**Pennant** - A triangular flag.

**PFD (life jacket)** - Personal flotation device. Usually like a vest. Designed to keep a person afloat in the water.

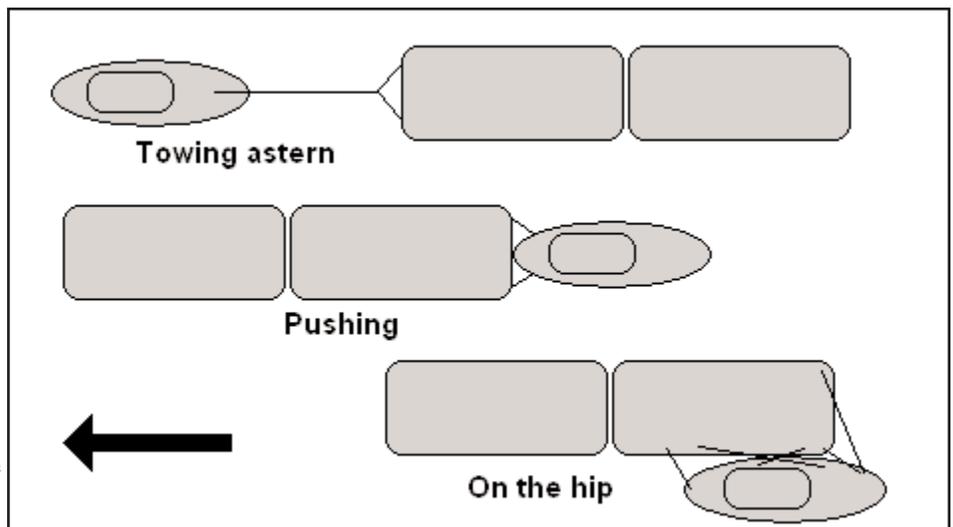
**Pier** - Structure that extends into a waterway to provide docking space for ships or boats. Piers are usually long and narrow, extending from the shore at an angle from the shore line, often perpendicular. But piers can also be short and stubby, or square, or other shaped, or even wider than they are long. Technically, any platform supported by piles is a pier.

**Pier head house** - Building on land at the "head" of a pier.

**Pier shed** - Building on a pier itself.

**Pile** - Wood, metal, concrete (or other material) "pole" used to support a pier or provide support for floating docks.

**Pilot** - A person actively engaged in controlling a vessel at any given time. Usually the captain, or a designated representative (a "mate"). Also a person who is familiar with a particular area of water, and who is hired to help control a vessel in waters that may not be familiar to the captain or crew. Most large harbors require that visiting vessels hire a local harbor pilot. Even though a pilot other than the captain may be at the controls, the captain is still in charge and ultimately responsible for every move the vessel makes.



**Pilot Boat** - Special boat (very strong and seaworthy) designed to deliver harbor pilots to incoming ships and remove them from outgoing ships.

**Pilot House** - Location of a ship or boat's steering control, engine control (or telegraph), communications and navigation equipment, charts and other items needed to control a vessel. Smaller vessels do not have a pilot house. The pilot house of a ship is usually located at the middle of a structure called the bridge (see bridge, above) which extends port & starboard over to the sides of the ship. Often the word "bridge" is used to refer to both the pilot house and bridge, or to the pilot house when there is no bridge.

**Planing** - The act of a hull skimming over the water.

**Planing hull** - A hull that is capable of rising out of the water at higher speeds.

**Port** - The left hand side of a vessel when facing forward. (See starboard, below, for an explanation of the origins of port and starboard.)

**Port (Seaport)** - A city, town or portion thereof with facilities (docks, etc) for shipping

**Post-panamax** - Refers to a ship too large to transit the Panama Canal.

**Portlight** - A circular port in the side of a boat for viewing and ventilation. In other words, a window. But it's NOT called a porthole (even though it is a hole) - it's a portlight.

**Posting** - Replacement of the uppermost portion of a pile that was damaged.

**Power boat** - A boat primarily propelled by an engine.

**Includes:**

**Runabout** - Small fast recreational boat

**Cruiser** - Mid size powerboat with cabin, overnight facilities

**Trawler** - Long range powerboat, capable of blue water crossings

**Racing boat** - Boat designed for speed. Often called "Cigarette" boat, which is a brand name.

**Tug boat** - Work boat designed to tow barges or assist large ships entering or leaving a dock.

**PWC (Personal Watercraft)** - A boating version of a motorcycle. Often called "Jet Ski", a brand name.

**Note:** Any boat, even a sail boat, when running under power (such as a sailboat with an outboard motor) is legally considered to be a power boat.

**Pump out station** - A place to pump out a boat's sewage holding tank.

**Punt** - A small craft that is propelled by a pole pushed against the bottom in shallow water.

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**Quarantine** - Yellow flag flown by a vessel that has entered a harbor but not yet been cleared by customs and immigration.

**Quay** (pronounced "key") - A dock, pier, bulkhead or other artificial structure for maritime cargo handling, including passengers or for repairing ships.

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**Raft** - A simple floating platform. Also, as a verb the act of tying a vessel alongside another.

**Rig** - Mast, booms and rigging used to support or control these items.

**Riparian** - Refers to the banks (especially the green or shaded areas) on either side of a stream or river.

**Ro-ro ship** - A ship designed to allow cars or trucks to drive directly on or off (i.e. "roll on - roll off")

**Rope** - Flexible cordage that is used to make lines used on boat or ship. (See line, above.)

**Row Boat** - A boat propelled by people with oars.

**Rules of the Road** - A set of rules, actually called the "International Regulations for Avoiding Collisions at Sea", or COLREGS for short, that prescribe the behavior of vessels that are approaching each other such that a risk of collision exists. In addition, they describes requirements for lights, day signals, horn signals and much more.

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**Sail Boat** - A boat primarily propelled by the wind.

**Includes:**

**Sloop** (most common) - Single mast forward of midships, usually carries a single staysail (jib) forward and a mainsail aft

**Cutter** - Single mast centered, usually carries two staysails forward (a jib and an inner staysail) and a mainsail aft

**Ketch** - Two masts, the taller mast forward, the after mast (mizzen) about two thirds the size of the main. Carries one or two staysails forward, a mainsail and a mizzensail.

**Yawl** - Like a ketch, but with a smaller mizzen mast than a ketch located further aft (technically, aft of the rudder post). If you were to remove the mizzen mast from a yawl, she would still look pretty balanced, whereas if you were to remove the mizzen mast from a ketch, you would definitely see the difference.

**Schooner** - Two or more masts of equal height, or where the forward mast is shorter than the others.

**Cat boat** - Single mast carried well forward, no foresail

**Gaff rigged** - Any four-sided fore & aft rigged sail which is supported by an upper boom (called the gaff boom, or, simply, the gaff) as well as a lower boom.

**Marconi (or Bermuda) rigged** - A sail which is triangular, looks like a half arrowhead pointing up.

sea-going vessel. (See boat, above. Also see Boats VS Ships at the end of the list of definitions, below.)



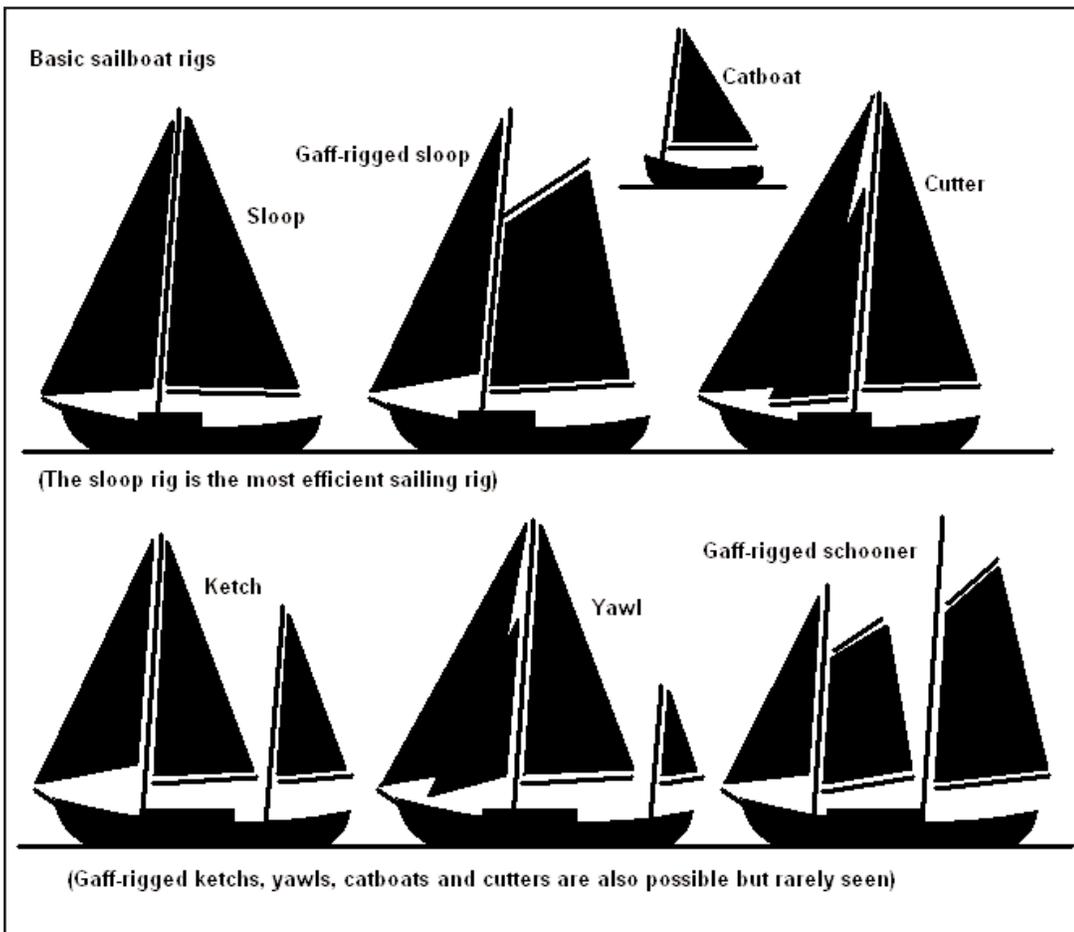
The folks in the foreground are on a boat. Behind them is a ship.

(For additional rig descriptions, see tall ship, below)

**Ship Yard** - like a boat yard (above) only larger.

**Scow** - A type of barge

**Skiff** - A flat-bottomed boat



**Skimmer** - Vessel designed to remove flotsam from the water.

**Slip** - A berth for a boat or ship. The word slip refers, actually, to the water adjacent to a dock or in-between two piers.

**Small Craft** - When the Coast Guard issues a small-craft advisory, they intend it for boats, not ships.

**Spring/neap tides** - Every 28 days, the moon and sun are opposed and we see a full moon. 14 days after a full moon, the moon and sun are on the same side, and the result is a "new" moon, which is nearly invisible. In between, the moon and sun are at angles to each other, and we will see

a quarter or three-quarters moon.

**Ship** - Let's just say any vessel over 100' feet could be called a ship. *QE2* is a ship. So is *Intrepid*. Water taxis are boats. However, no matter how large, submarines are traditionally called boats. Another definition of ship is a

Since tides are affected by both the moon and the sun, those periods where the moon and sun are aligned will produce the highest and lowest tides. These are called

"spring" tides. The opposite effect, occurring 7 days after each spring tide, is called a "neap" tide, having the least variation between high and low. Note: stronger tidal stream currents are associated with spring tides whereas weaker tidal stream currents are associated with neap tides. Tides and currents can also be affected by winds and barometric pressure.

**Spuds** - Temporary piles used to secure barges. Usually carried as part of the barge's permanent equipment.

**Stern** - after end of a vessel.

**Starboard** - The right hand side of a vessel when facing forward. Before the rudder was invented (by the Chinese), boats and ships were steered by means of a steering board. Since most people are right handed, it was customary to mount the steering board on the right hand side of the ship. This, the right hand side became know as the "steering board" side, which was eventually shortened to "starboard" side, and this term is still in use today.

To prevent damage to the steering board side, it became customary to tie up vessels with the side opposite the steering board to the pier or quay. This side was called the "loading board" side, eventually shortened to "larboard" side. But since "larboard" sounded too much like "starboard", sailors simply called it the "port" side, since it was usually the side nearest the port.

**Steerageway** - Vessels steered by a rudder require a certain minimum speed in order for the rudder to take effect. That speed is called "steerageway" and will vary from vessel to vessel.

**Stevedore** - Terminal operator who hires longshoremen for the purpose of loading and unloading ships.



Delaware's tall ship *Kalmar Nyckel*, replica of a Swedish-owned, Dutch-built three-masted armed pinnace. This is a full rigged ship.

**Superstructure** - The part of a boat or ship that sits atop the hull.

**Tall Ship** - A large boat or ship propelled by sails. Generally, but not always, tall ships will carry one or more traditional "square" sails. Types include:

**Schooner** - Two or more masts of equal height, or where the forwardmost mast is shorter than the others, all fore & aft rigged sails (no square sails)

**Top-sail schooner** - A schooner with a single square sail forward

**Bark (Barque)** - Three or more masts, square rigged on all but aft mast

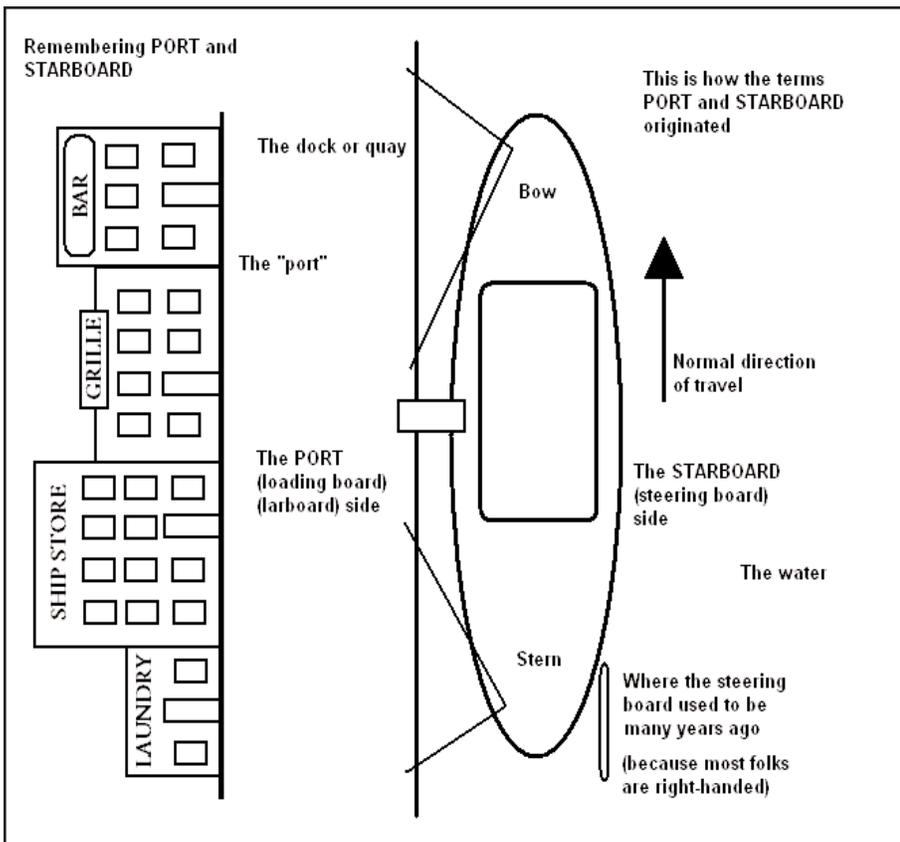
**Barkentine (Barquentine)**- Three masts, square rigged on forward mast only

**Brig** - Two masts, both square rigged

**Brigantine** - Two masts, square rigged on forward mast only

**Full Riggered Ship** - Square rigged on all of three or more masts

**Clipper** - Ship designed for speed, generally full-riggered ship, narrow, sharp hull, raked masts, most built in the USA between 1850 to 1855



**Tender** - a small boat used to transport crew and equipment from shore to a larger boat. A tender is usually carried aboard a ship and is part of a ship's equipment.

**Three whistles** -(See Whistle (Horn) below.)

**Tide** - The changes of water level (from "high" to "low") as a result of the gravitational pull of the moon, and, to a lesser extent, the sun.

**Town Dock** - Publicly owned/maintained dock.

**Trimaran** - Three hulled vessel, with a larger center hull and two smaller outer hulls, called amas.

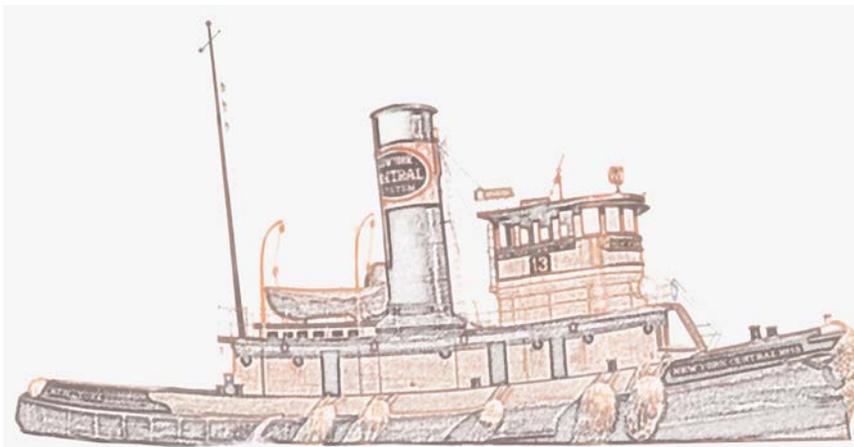
**Tug Boat** - Work boat used to move barges, assist ships in docking and other water work.

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**Underway** - Vessel in motion, when not moored, adrift, at anchor, or aground.

**Universal Time (UTC)** - Modern term for Greenwich Mean Time (above).

**Upland** - The area of land adjacent to the water.



1887 Tugboat New York Central No 13, currently being restored after over 100 years of service as a tug, and later, a work boat.

**Vessel** - A term used by the US Coast Guard and the Rules of the Road to refer to any type of boat or ship, whether large or small, sail, engine-powered or un-powered.

**Wake** - Wave action created by all boats and ships while underway.

**Wake Attenuator** - A device, such as a breakwater or series of barges or camels, designed to protect a marina or dock from the wakes of passing vessels.

**Water Taxi** - A small ferry for people only.

**Wharf** - Another word for quay - a dock or pier for loading and unloading cargo or passengers.

**Wharfage** - A fee to use a wharf.

**Whistle (Horn)** - Boats and ships are required to carry a sound producing device (a horn or whistle) used for signaling intentions, although such signals are often simply spoken on the radio. In usage on the ship's radio, the word "whistle" has come to mean "short blast" (about once second). Common signals are:

**One short blast** (aka "one whistle") - I intend to meet/pass you on my port side.

**Two short blasts** (aka "two whistles") - I intend to meet/pass you on my starboard side.

**Three short blasts** - My engine is in reverse

**Five short blasts** - Danger (or I don't understand or agree with your intentions)

**One long blast** (6+ seconds) - I am leaving my berth

**Whitehall** - Historic name for human powered workboats used to provide services to ships. So named because they originated and congregated at the end of Whitehall Street in Manhattan. Now used to define a class of rowboats based on that design.

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**Yacht** - Original Dutch term for a pleasure boat.

**Yard** - A spar usually fixed horizontally to a mast to support a sail.

**Yard Arm** - That portion of a yard that is between the lift and the outboard end of the yard.

**Zulu time** - Military term for Greenwich Mean Time (above).

## Boats VS Ships

There is no precise distinction between a boat and a ship. It's more a matter of custom and usage. Size also matters, but size alone can be confusing. Back in the middle of the last millennium, ships were generally quite small, often under 100 feet, and would today be smaller than many boats. One definition asserts that "a ship can carry a boat but a boat cannot carry a ship". But even that doesn't work: today's large freighters could easily carry several dozen Santa Marias or Mayflowers on their decks. Following are a few other many rules of thumb, which will serve to confuse the issue even more:

The retired USN aircraft carrier *Intrepid* is a ship. The retired USN submarine *Growler* is a boat (all submarines are called boats, regardless of size, except for Trident and Polaris class submarines, which are called ships). The retired USN destroyer *Edson* is a ship. When on active duty, these vessels were *USS Intrepid*, *USS Growler* and *USS Edson*. The prefix "USS" (United States Ship) was dropped when these ships were decommissioned.

The former lightship *Frying Pan* (130 feet long) is a ship. Same with the restored lightship *Ambrose Lightship #84*, at the bottom of the Gowanus Canal, is a sunken ship.

*John J. Harvey* (also 130 feet long) is a boat, specifically a fireboat. To be more specific, *John J. Harvey* is a retired fireboat. All fireboats are boats - have you ever heard of a fireship? Tugboats are also boats. Police boats and work boats are all boats. In fact, most boats are boats.

Sailboats (except tall ships) are boats. Most tall ships are ships, except for smaller ones, of course.

Therefore, tall ships are simply large sail boats, except when they are not larger.

Yachts can be boats or ships, sail or power. Forbe's megayacht "*The Highlander*" is a small ship.

Any boat or ship can be a yacht, be converted to a yacht, or simply be thought of as a yacht. At a minimum, one would expect that a yacht would be equipped with (a.) overnight accommodations (b.) at least one head (bathroom), and (c.) at least one galley (kitchen). A "proper" yacht would also have places to house a paid staff (crew) and a place to land the owner's helicopter.

Kayaks, gigs, canoes and skiffs are all boats, but not yachts, and certainly not ships.

Barges are neither boats nor ships: they are barges. Except, of course, for a captain's barge or an admiral's barge, which are both small motorboats.

All barges, boats, ships and other navigable floating things (such as seaplanes) are considered by the USCG to be vessels. Except that all Coast Guard vessels are considered by the USCG to be "assets".

The word "ship" also refers to a type of tall ship which carries 3 or more masts, all fitted with square sails. Other types of tall ship include bark, barkentine, brig, brigantine, and schooner, to name a few.

The rule of thumb is, basically, if she looks like a ship, she is a ship. And speaking of the use of the word "she"....

## Gender of Ships

In the United States and United Kingdom, all ships are (or should be or were) referred to in the feminine gender. You speak of a ship as "she" or "her", never "it". This is true even if the ship has a masculine name - we refer to *John J. Harvey* as "she". In France, however, the opposite is true - boats and ships are masculine. In today's politically correct climate, it may be considered by some as "sexist" to refer to a ship in the feminine gender, but most traditionally minded sea-people (formerly seamen) continue this tradition. However, recently, Lloyds of London, a very old, traditional and conservative maritime insurance company decided to abandon the use of "she, her" when referring to ships, in favor of "it".

## Ship's Name a Proper Noun

Whether "he", "she" or "it", a ship's name is a proper noun, no different that the name of a person. Thus the use of the article "the" in front of a ship's name is technically incorrect, even though many, if not most, people do it. James Cameron (not The James Cameron) got it right when he named his film "*Titanic*" (vs. "*The Titanic*"). Note that if you precede a proper noun with a common noun, then the use of "the" is fine. One could correctly refer to James as "the filmmaker James Cameron". Therefore, when attending a party on *Frying Pan*, you have two choices. You could say "I'm going to a great party on the lightship *Frying Pan*" or "I'm going to a great party on *Frying Pan*", but NOT "I'm going to a great party on the *Frying Pan*" (Note: Forbe's "*The Highlander*" is an exception in that the word "The" is part of this particular boat's name.)

PS: Note that ship names are generally italicized.

## Docks & Harbors

Many of the terms used to describe harbors and facilities are ambiguous. Following are several, collected from the definitions above:

**Anchorage** - A designated area where a boats or ships can anchor.

**Berth** - The actual location in a harbor where a vessel will be moored. Also called slip (below).

**Boat House** - A structure for housing small boats

**Boat Ramp** - A ramp to allow trailered boats to be rolled into the water

**Boat Yard** - Area of land used for working on or storing boats that are hauled out of the water

**Dock** - Any type of land access for a boat or ship. Piers, slips, wharves and many other terms all encompass this function. Also a protected area of water area in which vessels are moored or docked. In other words, the space alongside a pier is considered to be a dock.

**Fixed Dock** - A dock supported by piles (ie: a pier)

**Floating Dock** - A dock that floats in the water (may be secured by piles).

**Harbor** -A natural or man-made area of water, protected from most storms.

**Marina** - A marine "parking lot" for medium to small vessels.

**Pier** - Structure supported by piles that extends into a waterway to provide docking space for ships or boats.

**Port (Seaport)** - A city, town or portion thereof with facilities (docks, etc) for shipping

**Quay** - (pronounced "key") A dock, pier, bulkhead or other artificial structure for maritime cargo handling, including passengers or for repairing ships.

**Ship Yard** - like a boat yard (above) only larger.

**Slip** - A berth for a boat or ship.

**Town Dock** - Publicly owned/maintained dock.

**Wharf** - Another word for quay - a dock or pier for loading and unloading cargo or passengers.

## Flotsam and Jetsam

Both terms refer to floating debris, and might, therefore, be considered synonyms. However, technically "flotsam" (also known as "floatsam" or "flotson") refers to the floating remains after a ship has foundered (or sunk), or cargo that was washed overboard by a storm, like wood items, furniture, life rings and so forth. Items that have been deliberately jettisoned (thrown overboard) from a ship, usually a ship in distress, are called "jetsam". A ship in danger of sinking might jettison some cargo or other items to lighten the ship. In other words, "jetsam" is deliberate whereas "flotsam" is accidental.

Of course, if a boater happens to find some floating debris in the water, it would be hard to distinguish the difference. One new hazard to navigation has become common with the advent of containerized shipping: containers that have been washed overboard in a storm. While they eventually sink, for a awhile they may float just at the surface, largely submerged and thus hard to spot by eye, radar or sonar.

## Littoral and Riparian

Again, two similar terms, but with technical differences. Both refer to the waters adjacent to a shoreline. But "littoral" generally refers to a coastal area of the ocean or a sea, and may more specifically refer to the water areas between the limits of high and low tides. "Riparian" refers to the banks of a river, stream or small lake. The term "riparian rights" refers to the access rights by water allotted to the owner of waterfront property. It is presumed in law that if you own waterfront property, you have the right to access that property via water.

## Supplemental Terms

In the introduction, I said I'd spare you a host of esoteric terms that you probably really don't want to know. But then, I thought, having mentioned the terms in the first place, perhaps, for the sake of completeness (if not obsession), I'd better provide the definitions. I promise, this is it. If you really want more, I'll refer you to several excellent websites at the end.

### Alee

Refers to a direction away from the wind.

### Binnacle

A pedestal upon which a ship's compass is mounted.

### By the lee

When sailing downwind, a condition in which the wind is coming from the same side of the ship as the ship's main boom. This is an unstable condition which can lead to an accidental "jibe" - in which the main boom suddenly catches the wind on the wrong side and whips across the deck toward the opposite side uncontrolled.

### Charlie noble

A smoke stack.

### Fo'c'sle

Short for "forecastle" (pronounced "folk-sil") a cabin or structure located on the bow of a ship, or a raised portion of the bow, generally used to house the crew on older ships. Probably the most uncomfortable place to sleep on any ship.

### Garboard strake

On a wooden vessel made from long planks, called strakes, the garboard strake is the one closest to the keel, at the very bottom of the boat or ship.

### Hard alee

Well, first we have to define "helm" - the wheel or tiller used by the "helmsman" to a steer a vessel. A wheel works very much like a steering wheel on a car (turn the wheel right and the cars turns right), but a tiller is the reverse - to turn left, once would push the tiller toward the right, or starboard, side of the boat. When a sailboat "comes

about", it is steered through the wind, coming first to windward and continuing past till the wind now comes from the opposite side. To come about with a wheel type helm, one would simply turn the boat toward the wind. With a tiller, to come about, one would push the tiller away from the wind in order to steer into the wind. Thus the tiller will be pushed "alee" (See alee above). When the tiller is pushed all the way toward the lee side of the boat, it is said to be "hard alee". And even though a wheel works the opposite way, when the wheel is turned toward the wind, one still speaks of the helm as being "hard alee".

In either case, at that point, according to most sailing books, the helmsperson is suppose to sing out "hard alee!" to alert others that the boat's bow is about to cross the wind. But since "hard alee" sounds a bit like "hardly", I've never actually heard anyone actually say that. I have heard "My helm's alee", or, more frequently, "Watch out, we're coming about", but hardly "hard alee".

### Hawse pipe

An opening in the ships bow (usually one on each side) to pass through a "hawser" or dock line.

### Holy stone

A stone used to scrape down the wood deck of a ship in the days of tall ships. So called because deck hands had to work on their knees to accomplish this chore.

### Lazarette

A storage compartment in the stern of a boat.

### Lee

Opposite of "windward". Unless coming from dead ahead or astern, the wind will be coming from one side or another of a boat or ship. The side that the wind is coming from is the "windward" or "weather" side. The other side is the "lee" or "leeward" side. Also, if a boat comes along side another boat's lee side, it is said to be "in the lee" of the other vessel.

### Lee cloth/board

A sailboat is typically blown over to one side or another by the wind while sailing. This condition is called "heeling" and is normal. However, this makes sleeping difficult since one will tend to fall out of the lee (see lee above) side of his or her berth. Once solution used in older sailing vessels was to have everyone sleep in hammocks, which

always hung level. Another solution is to affix to each berth a board or canvas with a pole on the lee side of the berth (which, of course, could be either side of the berth depending on the wind and course of the vessel). Such a device is called a lee cloth or lee board.

### **Lee helm**

And the lees keep coming. Only one more after this one.

A sailboat is said to be perfectly balanced if, when the person steering takes his or her hand off the wheel or tiller, the boat continues to sail in the same direction for some distance. However, usually this will not be the case, and a boat will have a tendency, if left un-steered, to either sail more toward the wind or away from it. In the former case (a tendency to sail into the wind, or weather), the vessel is said to have “weather” helm. If a vessel tends to fall off (sail away from the wind), it is said to have “lee helm”.

The term refers to the direction one has to push or pull the tiller to keep the boat sailing straight. On a boat with “lee helm” (where the boat wants to turn to “leeward”) the steering person would have to constantly push the helm to leeward to correct this tendency. On a boat with weather helm, there would be a need to continually pull the rudder toward the wind (or weather). However, even if a boat has a wheel instead of a tiller, the terms lee and weather helm are still used.

### **Leeward**

Finally.

Leeward is the opposite of windward, although sailors will usually just say “lee” instead. If they do say “leeward”, they should pronounce it “loo-ward”, not “lee-ward”. All other instances of lee are pronounced “lee”, but leeward is pronounced “loo-ward”, often contracted to “lurd”.

Finally, to end this lee business, the shore line on the side of a boat that the wind is blowing toward, and is, thus, on the boat’s lee side, is called the lee shore.

### **Marlinspike**

A “spike” of wood or metal used to separate the strands of rope, usually in preparation for making a splice. What is a splice? It’s a - wait a minute, that’s enough. You’re hooked, you want more, even more “lee” definitions. Following are some web sites that contain hundreds of more maritime and nautical definitions. Enjoy....

### **Websites**

#### **Glossary of Shipping Terms**

<http://www.marad.dot.gov/publications/glossary/glossary.html>

#### **Glossary of Tall Ship Terms**

<http://ladywashington.linsect.com/glossary.html>

#### **Boating Dictionary**

<http://www.marisafe.com/resources/boatdictionary.asp>

#### **Online Nautical Dictionaries**

<http://www.termisti.refer.org/nauterm/dicten.htm>

#### **Maritime Terms and Definitions**

<http://www.usmm.net/terms.html>

#### **Peter D. Green's Nautical Terminology**

<http://home.cfl.rr.com/capscabin/Documents/nauterm.htm>

#### **Definitions and Mnemonics for Sailors and Power boaters**

<http://lever.cs.ucla.edu/geoff/mnemonics.html>