

GLOSSARY Of SAILING TERMS

Aback - With the wind on the wrong side of the sails.

Abaft - Behind an object in relation to the bow.

Abeam - At approximately right angles to the fore-and-aft line of the boat.

Advantageous Side - The side of the rhumb line that provides a faster course to the mark.

Advantageous Tack (or Gybe) - That tack or gybe which provides a faster course to the mark.

Aft - Toward the stern.

Alee - Downwind, toward the leeward side.

Amidships - The center of the boat.

Angle of Incidence - The angle of the horizontal chord of a sail to the airflow (or an underwater fin to the water flow).

Apparent Wind - The wind that impinges upon the sail, a combination of the true wind and the boat wind.

Appendages - The fin and rudder and any wings attached thereto as well as any other attachments.

Approach Tack - The tack that is headed toward and will terminate at the starting line, the mark, the lay line, or the like.

Aspect Ratio - The ratio between the height and width of a rig, or depth and width of a hull appendage.

Astern - Aft of the boat.

Attached Flow - That portion of the airflow, which bends to follow the contour of the leeward surface of a sail.

Baby Stays - The shortest of the side stays used to control mast bend in the lower half of the mast.

Back - A counterclockwise shift in wind direction.

Backstay - An adjustable line that supports the mast. It runs from the transom of the hull to the mast crane.

Backwind - The turbulent airflow in the wake of a sail.

Balance - A stable state, resulting from the production of aerodynamic and hydrodynamic forces of equal strength and opposite alignment, which permits a boat to sail course at the optimal rudder angle.

Balanced Rudder - One that carries 10% or so of its area forward of its pivot point.

Base Leg - The course taken by a boat prior to, and in preparation for, the assumption of the approach to the starting line.

Batten - Thin strips of wood, plastic, or other material attached to the leech of the sail. They impart needed stiffness and flatten the latter portion of the sail.

Beam - The maximum width of the boat.

Beam Reach - A point of sailing at which the wind is directly abeam.

Bear Away, to - To turn a boat away from the wind.

Beat - The course to the windward mark at a close-hauled sailing angle.

Beneath - To leeward of.

Blanket - The reduction and disturbance in the airflow to leeward of the sail.

Boat Speed - The ability of a boat to sail rapidly.

Boat Wind - The wind created by the forward movement of a boat.

Boom - A long pole used to extend the bottom of a sail.

Buoy - See Mark

Bow - The front of the boat. (Also, Stem)

Bowsie - A fitting used to control the length of a line.

Broach - An abrupt yaw associated with marked heeling consequent to a sudden disequilibria between aerodynamic and hydrodynamic forces.

Broad Reach - A point of sailing at which the wind is slightly aft of abeam.

Bulb - The ballast attached to the bottom of the fin.

Camber - The curve of a boats sail, both vertical and horizontal.

Center of Buoyancy (CB) – The point through which the upward force produced by the water can be presumed to act.

Center of Effort (CE) – Usually, the geometric center of the sail plan.

Center of Gravity (CG) – The point at which all of the weight of an object can be considered to be concentrated.

Chain Plates - Deck fittings to which the side shrouds are attached.

Chord - A straight line joining the ends of an arc of a circle or curve.

Clear Air - Airflow undisturbed by the presence of other boats.

Clear Ahead - A boat is clear ahead when her hull and equipment are ahead of a line abeam from the aftermost point of that boat's hull and equipment.

Clear Astern - A boat is clear astern when her hull and equipment are behind a line abeam from the aftermost point of the other boat's hull and equipment.

Cleat - A fitting used to secure a line under strain.

Clew - The bottom corner of a sail at its trailing edge.

Clew Outhaul - An adjustable line running from the clew to the end of the boom. It is used to slacken or tighten the foot of the sail.

Close-hauled - A boat sailing as close to the wind as possible is said to be close-hauled.

Close-hauled Course - Course sailed by a boat attempting to make maximum progress to windward.

Close Reach - A point of sailing at which the wind is slightly forward of abeam.

Come About - To change tacks.

Course - See Heading

Cover, to - To maintain a position of advantage with respect to a competitor.

Cross - To pass in front of another boat.

Cross or Tack? - A hail from a right-of-way boat giving an approaching give-way boat the option of crossing or tacking away.

Cunningham - See Downhaul

Dead Ahead - The position of a boat directly ahead of another and on the same course.

Dead Air - See Hole

Dead Downwind - Directly to leeward.

Dead to Windward - Directly to windward.

Dip - See Duck

Dirty or Disturbed Air - The deviated, eddying, airflow astern and to leeward of a competitor.

Disadvantageous Tack (or Gybe) - That tack (or gybe) which provides a longer, or slower, course to the mark.

Displacement – The amount of water a boat displaces; the weight of the boat.

Down - See Low (2).

Downhaul - A line at the tack of a sail, used to control luff tension.

Downwind - To leeward; in the direction toward which the wind is flowing; opposite to the wind direction.

Downwind End - The end of the starting or finish line farther to leeward.

DNF - An acronym for Did Not Finish.

DNS - An acronym for Did Not Start.

Draft - (1) The depth (degree of concavity) of the cross section of a sail.
(2) The depth of water required to float a boat.

Drag - Resistance caused by a body moving through water or air.

Duck - To alter course to pass behind another boat.

Ease - To adjust running rigging by loosening.

Entry Angle – The angle between the chord line and a line tangent to the luff of a sail.

Fair - A smooth curve with no bumps or depressions. A hull is said to be fair.

False Tack - A tack that is begun only to be abandoned, in an attempt to trick a competitor.

Fairlead - (1) The exit point through the hull for the main or jib sheet.
(2) A fitting used to control the direction of a line.

Favored End - The upwind end of the starting line.

Fin - A narrow vertical appendage that extends below the waterline. Acts as a vertical stabilizer, minimizing side-wise motion or leeway when the boat is underway.

Fittings - Equipment used to control lines.

Fluke - An unpredictable change in wind direction.

Flyer - Course opposite to that taken by the vast majority of the fleet.

Foot - The bottom edge of a sail.

Foot, to - To sail rapidly by bearing away slightly below the close-hauled course.

Fore and Aft - Along the line of the keel.

Forestay - An adjustable line running from the bow or bowsprit to the top of the mast (masthead). Seldom used on non-scale model racing yachts.

Fractional Rig - A rig where the jib stay is connected to the mast at approximately 80 percent of the mast height.

Freeboard - The distance from the water to the deck edge.

Freedom to Tack - The ability of a boat to tack without interfering with a competitor.

Full Rig - The modern term describes a rig where the jib stay is connected to the masthead.

Gate – A pair of marks, which the sailing instructions require to be passed between or on a specified side.

Give Way Boat - A boat not having the right-of-way, which must not interfere with a right-of-way boat sailing her desired course.

Gooseneck - A flexible hinged fitting which securely retains the main boom to the mast.

Gust - A sudden, brief increase in wind velocity, usually the consequences of a downdraft from the upper airflow.

Gybe - To change direction while sailing downwind so as to cause the main boom to shift to the other side. (Also, Jibe)

Gybe Mark - The mark that terminates the first reach and requires a gybe to round.

Halyard - A line used to raise and lower a sail.

Hard Over - To put the helm over in either direction as far as possible.

Harden Up - To trim sails in order to sail closer to the wind.

Head - The top corner of a sail.

Heading - The direction in which a boat is sailing.

Headboard - A reinforcing fitting attached to the head of a sail.

Headed Gybe - The gybe that is affected by a header, which may permit a boat to assume a direction more in line with the median wind while keeping the same sailing angle.

Headed Tack - The tack that is affected by a header, which forces a boat to point away from the median wind.

Header or Heading Shift - A shift in wind direction toward the direction in which the boat is sailing.

Heave to - To bring the boat's bow into the wind so as she will stay there.

Heavy Air - Airflow with a velocity exceeding (for small models) 9 knots.

Heel - The inclination of the boat while underway.

Helm - (1) The area of the stern where the boat is steered.
(2) The combination of forces on the rudder that causes the boat to round into the wind or away from the wind. Windward helm rounds the boat into the wind, leeward helm away from the wind.

High - To windward or farther to windward. (Also, UP)

Higher, to sail - To sail closer to the wind.

Hole - A brief, localized reduction in wind velocity.

Hounds – The point on the mast where the jib stay is attached.

Hydrodynamic Force - The force, produced by the movement through the water of a hull and its fin, which opposes the aerodynamic force.

Inside - Between a competitor and the mark, or the rhumb line.

Interference - The consequences of the intervention of a competitor between a boat and the wind.

Jack Line - A line, usually wire, attached to the mast and used to bend the mainsail to the mast via hooks or slides.

Jib - A triangular sail whose luff is attached to the jib stay.

Jib Club - A shorter jib boom, which is attached to the deck at a point slightly aft of the deck fitting for attachment of the jib stay. In this case the jib tack is not attached to the boom.

Jib Rack - A model yacht deck fitting to which the jib boom is attached.

Jib Stay - An adjustable line running from the deck or the fore end of the jib boom to another high up on the mast or to the masthead.

Jibe - To change direction while sailing downwind so as to cause the main boom to shift to the other side. (Also, Gybe)

Jumper Stays - Short stays used to control mast bend above the spreaders.

Jumper Strut - A spreader whose arms form an approximate 90 degree angle and face forward. Used with the jumper stays.

Keel - The backbone of a boat.

Kicking Strap - An adjustable line or fitting used to control the vertical angle of a boom. (Also, Vang)

Lay, to - To assume a course that permits passing the mark on the proper side.

Lay Line - The course that permits a close-hauled boat or a boat at an optimal sailing angle on the run to just clear the mark in the existing wind. The "new lay line" is the lay line after a wind shift.

Leech - The aft edge of a sail.

Leech Line - See Topping Lift

Lee-Bow Effect - The adverse effect of the backwind of a leeward boat upon the performance of a windward boat; a boat in the lee bow position creates such an effect.

Leeward - On the side away from the wind. (Opposite of Windward)

Leeward End - See Port End

Leeward Helm - See Helm

Leeward Mark - The mark that terminates the second reach and/or the run and that initiates the second or third beat.

Leeway - The draft (or angle of drift) of a boat to leeward as it proceeds forward.

Lift or Lifting Shift - A shift in wind direction away from the direction in which the boat is sailing.

Lifted Gybe - The gybe that is affected by a lift, which requires a boat, in order to retain the same sailing angle, to deviate away from the median downwind course.

Lifted Tack - The tack that is affected by a lift, which permits a boat to point closer to the median wind.

Light Air - Airflow with a velocity (for models) of less than 3 knots.

Loose-Footed - A fore-and-aft sail not attached to a boom except at the ends.

Lower, to Sail - To sail further away from the wind.

Lower Airflow - The airflow at the surface; backed and slowed compared with the airflow above it.

Lower Stays - See Baby Stays

Luff - The leading edge of a sail, fastens to the mast or jib stay.

Luff Allowance – The material in excess of a straight line added to the luff of a sail.

Luff, to - To deviate toward the wind.

Luff Rope - A line sewed onto the luff of a mainsail so that the luff can be fitted into a groove in the mast.

Luffing - (1) Altering course toward the wind.
(2) The technique by which a leeward boat forces a windward boat to windward.

Lull - A brief reduction in wind velocity.

Mainsail - The largest sail on a yacht. The luff is attached to the after portion of the mast.

Mark - An object the sailing instructions require to pass on a specified side.

Mast - A vertical spar used to hoist the sails.

Mast Crane - A masthead fitting.

Mast Step - A deck fitting which locates the mast in one or more locations.

Match Race – A race in which two boats compete only with each other.

Median Wind - The wind that flows at the median direction, midway between the extremes in the range of its oscillating shifts.

Middle - A position near the rhumb line.

Moderate Air - Airflow with a velocity (for models) between 3 and 9 knots.

Moment of Inertia – The resistance to change in the rotation of an object about its axis.

New Wind - A wind from a new source that appears during or following the presence of another wind.

Obstruction - A mark, a right-of-way boat that must be avoided, a disabled boat, or water too shallow for sailing.

Off the wind - To sail downwind.

On Port (or Starboard) - Sailing on the tack specified.

Optimal Sailing Angle (Running) - The sailing angle that permits the greater progress downwind.

Oscillation or Oscillating Shift - A wind shift that will be followed by a shift back to the original direction prior to the completion of the leg.

Out of Phase - A boat sailing downwind is said to be out of phase if her main boom is deployed on the windward side of the boat.

Outhaul – A line used to tension the foot of a sail.

Outside - Beyond a competitor that is nearer to the mark or the rhumb line.

Over-bend Wrinkles – Diagonal wrinkles in a sail extending from the mid-luff.

Overlap - Boats are overlapped when neither is clear astern, or when a boat between them overlaps both.

Over stand - To sail past the lay line to a mark.

Override, to - To pass rapidly to windward of another boat. (Also, Roll Over)

Pinching - Heading closer to the wind despite a loss in speed made good to windward.

Pitch - The falling and rising of a boat in a fore-and-aft direction.

Points of Sailing - The different angles a boat can make with the wind while beating, reaching, and running.

Pointing - (1) Heading a boat at a specific angle to the apparent wind.
(2) Heading a close-hauled boat close to the apparent wind.

Port End - The end of the starting line that is to port (and to leeward of a starboard-tack boat) as the line is crossed. (Also, Leeward End)

Port Side - The left side of a boat when facing forward. (Opposite of Starboard)

Port Tack - A boat sailing a course so that the wind comes from the port (left) side of the boat. Thus, the main boom is to the starboard (right) side of the boat's centerline.

Port Tacker - A boat on port tack

Port-Tack Lay Line - The line along which a port tack boat can just lay the weather mark.

Proper Course - The course that a boat would sail in the absence of another boat so as to complete the race as quickly as possible.

Protest - An alleged violation of the sailing rules.

Quarter - The side of the boat abaft the beam and forward of the stern.

Racing - A boat is racing from the preparatory signal until she has finished and cleared the finishing line and marks, or has withdrawn.

Reach - The course between the windward mark and the gybe mark, or between the gybe mark and the leeward mark, at a sailing angle lower than that of a beat and higher than that of a run.

Roach - The curved area of a sail between the edge and the chord of the sail.

Rhumb Line - The straight line course between one mark and the next.

Rig - A boat's arrangement of masts and sails.

Rigging - Consists of standing rigging and running rigging. Rigging may be of wire or line and includes adjusters, tensioning devices, etc.

Right-of-Way - The right of one boat to continue her desired course in the presence of another.

Righting Moment - The natural movement of a boat to an upright position.

Roll Over, to - To pass to windward of another boat. (Also, Override, to)

Room - The space a boat needs in existing conditions while maneuvering in a seamanlike manner. The space needed to clear an obstruction.

Rounding Tack - The tack (following an approach tack) that takes a boat around a mark.

Rudder - The vertical stabilizer by which a boat is steered.

Run - The course between the windward mark and the leeward mark at a near dead-downwind sailing angle.

Running Rigging - Adjustable lines used to control the sails.

Sail Through, to - To pass beneath another sailboat.

Sail Trim - The position of the sails.

Sailing Angle - The angle between the heading of a boat and the wind; progressively larger in beating, reaching, and running.

Separation - The eddying and deviation of the air aft of a segment of flow attached to a sail surface.

Shackle - A horseshoe-shaped fitting with a bolt or pin across the open end.

Sheets - Adjustable lines used to control the sheeting angle.

Sheeting Angle - The angle made by the chord of a sail with the centerline of a boat; usually the angle of the boom to the centerline.

Shift - A change in wind direction.

Shoot - To luff a sailboat and move to windward by the boat's momentum.

Shrouds - Side stays.

Skeg - The extension of the hull forward of and supporting the rudder.

Spade Rudder - A rudder supported only by the strength of its rudder stock.

Spars - The mast(s) and boom(s) of a sailboat.

Spreaders - Struts used to spread the shrouds to a better staying angle.

Starboard Side - The right side of a boat when facing forward. (Opposite of Port)

Starboard End - The end of the starting line that is to starboard (and to windward of a starboard-tack boat) as the line is crossed. (Also, Weather End, Windward End)

Starboard Tack - A boat sailing a course so that the wind comes from the starboard (right) side of the boat. Thus, the main boom is to the port (left) side of the boat's centerline.

Starboard Tacker - A boat on starboard Tack.

Starboard-Tack Lay Line - The line along which a starboard tack boat can just lay the weather mark.

Starting - A yacht has started once she, having fulfilled any penalty obligations, crosses the starting line in the direction of the first mark.

Starting Tack - The tack utilized to cross the starting line.

Stays - Stays are standing rigging used to support the mast. In addition to the jib stay and back stay, shrouds are more often referred to as stays.

Swages - Used on standing rigging to connect the ends of a braided wire loop.

Tack - (1) The bottom corner of a sail at its leading edge.
(2) To change direction of the boat so as to put the wind on the opposite side.

Tacking (To Tack) – The act of changing tacks when headed to windward so as to cause the boom to switch to the other side of the boat.

Tack Away - The tack that takes a boat away from her nearest competitors.

Tactical Advantage - A position or course that provides benefit in relation to nearby competitors.

Tangs - Metal fittings used to attach the standing rigging to the mast.

Telltails - Small streamers attached to the rigging and/or sails so as to indicate the direction of the apparent wind, or airflow over the sails.

Throw Out - The poorest position in a series of heats or races, which a competitor may discard in determining his/her placement.

Tiller - A steering instrument that controls the rudder.

Topping Lift - A line used to support the weight of the boom and to control sail twist.
(Also, Leech Line)

Transom - The stern portion of a boat. It may be flat or curved, and vertical or angled so as to face either up or down.

Trim - (1) The fore and aft flotation of a boat.
(2) To adjust running rigging by tightening.

True Wind - The wind that would be present in the absence of a boat.

Twist - The variation with height in the angle of a chord of the sail to the apparent wind.

Two-Length Zone - The area around a mark or obstruction within a distance of two hull lengths of the boat nearest to it.

Up - See High.

Upper Airflow - The airflow above that at the surface; stronger and veered to the airflow at the surface.

Upper Stays - The shrouds that extend to the top, or nearly to the top, of the mast.

Upwind - To windward.

Upwind End - The end of the starting or finish line farther to windward.

Vang - An adjustable line or fitting used to control the vertical angle of a boom. (Also, Kicking Strap)

Veer - A clockwise shift in wind direction.

VMG - Speed made good, determined by the combined effects of pointing, speed and leeway.

Wake - The disturbed water behind a boat.

Weather End - See Starboard End

Weather-Quarter Position - The position of a boat parallel to, to windward of, and astern of, another boat.

Windage – The parts of the boat exposed to the wind.

Wheel - A steering instrument that controls the rudder.

Wide - At a greater distance than usual from a mark or other object being passed.

Wing and Wing - Sail position with the main boom to one side and the jib boom on the other.

Windward - On the side toward the wind. (Opposite of Leeward)

Windward End - See Starboard End

Windward Helm - See Helm

Windward Mark (or Weather Mark) - The mark that terminates a windward leg.

Yaw, to - To turn, in the horizontal plane, about a vertical axis.