

THE POINTS OF SAIL

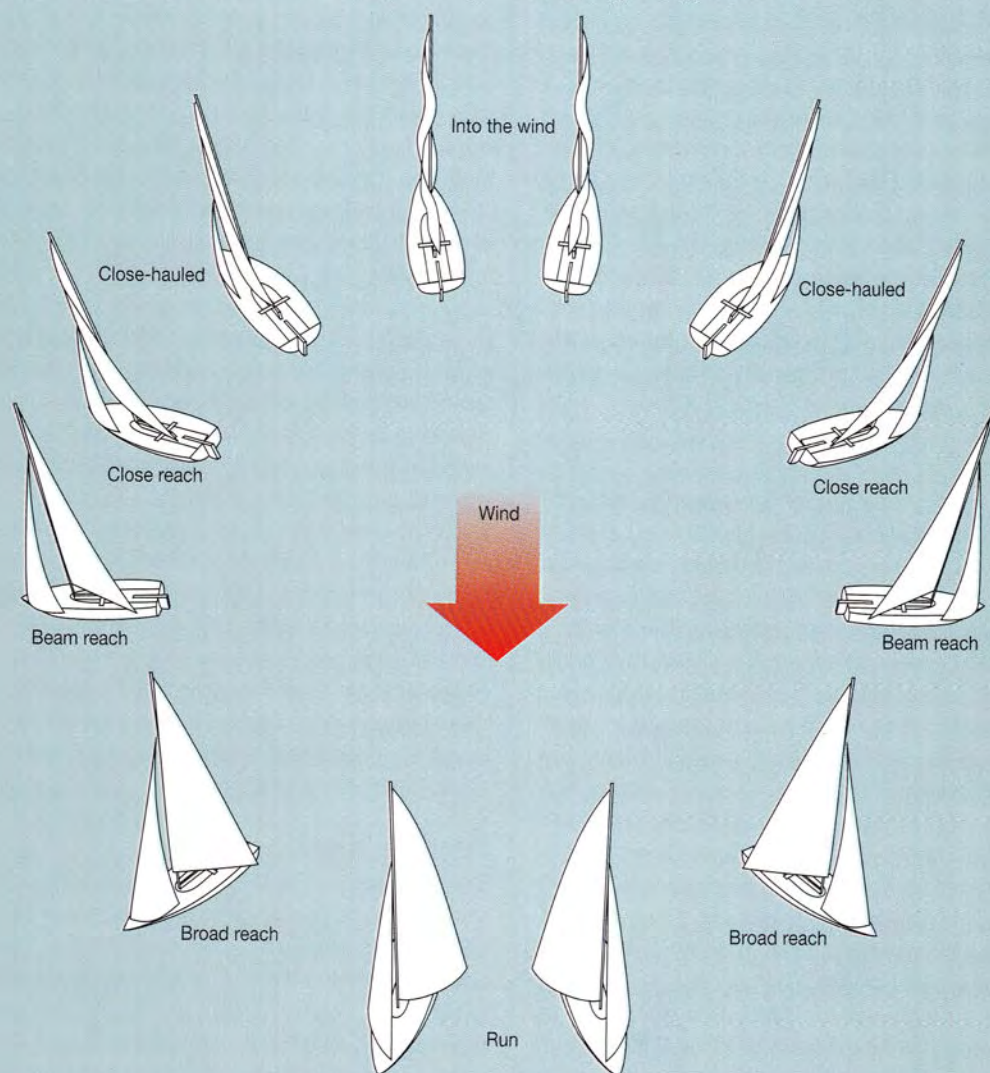
The relationship between the boat's heading and the direction of the wind has a traditional set of names. When there is the smallest practical angle between wind direction and heading, the boat is said to be "close-hauled," meaning that its sails (or "yards" on traditional vessels) are hauled in close to the hull. Another name for this is "beating."

When the angle between heading and wind direction is increased, the boat begins to "close reach," and when the angle is about 90 degrees, the wind is on the beam, so the boat is "beam reaching."

Further increases in angle bring the boat to a "broad reach"; with the wind almost directly aft, the boat is "running."

The term "running" sounds fast, and in traditional vessels, it may well have been. But the fastest point of sail for most modern boats is a close reach, and running today is actually very slow.

Remember that this pie-shaped diagram shows the relation between the boat and the true wind, while the more important factor, especially for today's faster boats, is the relationship between the boat and its apparent wind—the wind that the sails feel. Very fast boats, like catamarans and racing dinghies, might seem to be swinging from a close reach right through to a broad reach in terms of the true wind, when they are in fact close reaching the apparent wind.



A sailboat cannot sail directly into the eye of the wind, but modern sailboats usually can sail to within 45° of the wind, or closer, when close-hauled. A reach is the fastest point of sail, with the sails eased about halfway out. A run is aerodynamically simpler, but can be the most dangerous point of sail. The sails are extended as far out over the sides of the boat as possible, and can swing across with tremendous force.