

▲ - Sailing Upwind

▲ - Sailing Downwind



A sailboat cannot sail directly into the wind, but it *can* sail *upwind* (in the direction from which the wind is blowing) by *tacking*.

Tacking means moving the bow (front) of the boat through the wind. By repeatedly tacking, a boat can sail a zig-zag course upwind, keeping the bow of the boat pointed out of the “no sail zone.”

The no-sail zone is not a physical location, but an imaginary portion of the compass closest to the wind in which the sail will not function.

The green boats above are sailing upward toward mark “A” in a zig zag pattern, avoiding the no-sail zone.

If a boat ends up pointed into the “no sail zone” for too long, the sail will flap and the boat will end up *in irons*, stopped, and unable to easily maneuver.

A boat can sail *downwind* – away from the wind – without worrying about a “no sail zone.” A boat sailing downwind does not need to sail a zig-zag course, but can steer directly toward its destination.

The blue boats above are sailing downwind. They have passed mark “B” on their port side and are making for “C.” After rounding “C,” these boats will sail upwind to the finish line. The boats will *jibe* before or when making the turn around the mark. A jibe happens when the stern (back) of the boat passes through the wind.

As we will learn, a boat may still want to sail a course other than *dead downwind* in order to make the best speed over the course.