

## Introduction

Since sailboats are powered by the wind, a sailor must be aware of several of its aspects. Wind speed, wind direction, and wind shifts all dictate what a sailboat can and can not do. This tutorial will explain how the wind affects sailing, and what properties a sailor needs to watch for. This is often termed "wind awareness."

The most important property of wind is its direction. As you progress through the classes and this tutorial, you will learn techniques, maneuvers, and hazards that all relate to wind direction.

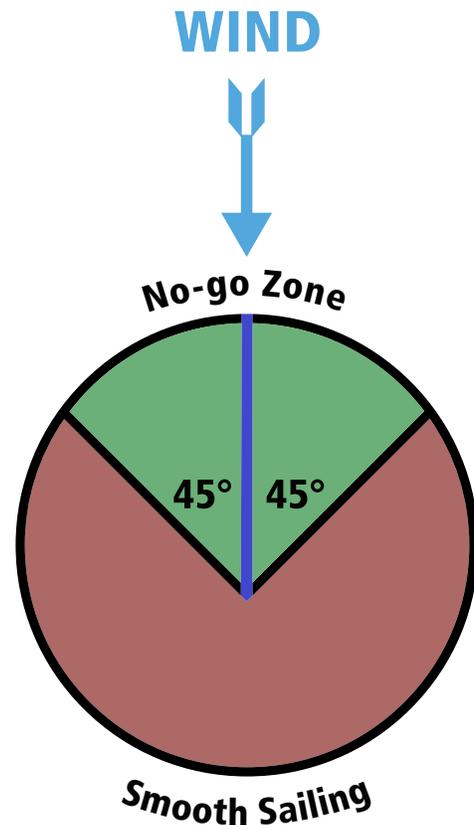
However, before we determine wind direction, we need to know how to describe it. In sailing, the wind is always labeled by the direction it comes from. For example, we call a wind blowing from west to east a west wind. A wind blowing from south to north is called a south wind. Southwest to northeast is a southwest wind, and so on.

Now that the naming conventions of the wind have been covered, it is time to learn how to find wind direction. There are many things that can help with that task. Here are a few of the most commonly used ones:

- Flags
- Windexes or Mast-head flies (the arrows on the top of the mast on some sailboats)
- Ripples on the Water
- Feeling the Wind on Your Face
- Etc...

Flags fly with the wind, windexes (or mast-head flies) point into the wind, and ripples move with the wind. After some practice, you will be able to tell

what direction the wind is blowing anywhere, and you will figure it out without thinking about it. Until then, practice determining wind direction as often as possible.



## The No-go Zone & Irons

Sailboats have one major limitation. They can't sail directly into the wind. This is one reason why knowing wind direction at all times is important.

The area directly into the wind that a sailboat cannot sail is called the no-go zone. The 14.2<sup>ft</sup> Catalina Capris that you will sail in this class have a no-go zone about 45° on either side of the wind. Some boats have a wider no-go zone, and some have a slightly smaller



no-go zone. It depends on the boat.

When a sailboat points into the no-go zone, it loses all of its propulsion, and as such, if it stays there for long, it will stop moving. That is a problem since water needs to be flowing past the boat's rudder in order for it to function. If a boat stops, the helmsman can't steer, and the boat becomes stuck in the no-go zone. This is called getting into irons. This will probably happen to you many times in your sailing career. Fortunately, getting out is not too difficult. One of the many methods you can use, skulling, involves moving the rudder hard over in one direction and bringing it slowly back to the center several times. This action pushes the boat out of the no-go zone. This technique will be demonstrated in class.

## True and Apparent Wind

What happens when you stick your hand out a car window when driving? You feel a strong wind on your hand, right? That wind that you feel isn't the actual wind. It is wind created by the movement of your hand through the air. Well, that created wind has a name. It is called apparent wind. The actual wind that you feel when standing perfectly still is called the true wind. Again, apparent wind is the wind created by movement through the air, and true wind is the actual wind that you feel when standing perfectly still. This is important because in sailing unless otherwise noted, whenever sailors check wind direction, speed, or discuss wind conditions, they always use the true wind, not the apparent wind.

However, apparent wind is an important consideration. When one of the aforementioned wind indicators moves, it indicates the direction of the apparent wind and thus isn't particularly useful. So, for example, a mast-head fly is only useful on a stationary boat.

## Recap/Conclusion

In this tutorial, you learned about wind direction, the no-go zone, irons, and lastly, you learned the difference between true and apparent wind. Future concepts heavily rely upon these fundamental building blocks.