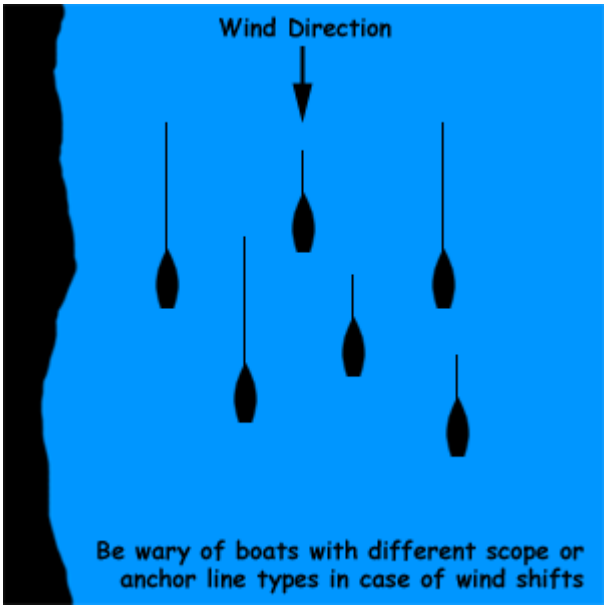
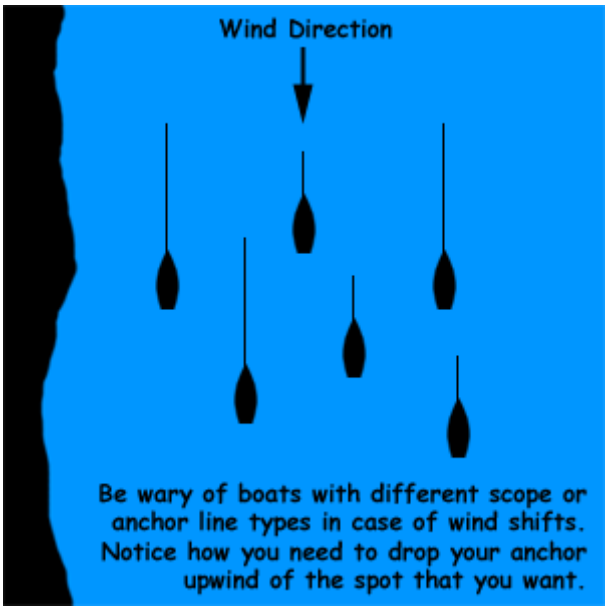
Anchoring Techniques (Advanced)

Anchoring securely isn't easy - it's tough to get things just right so that you can relax and worry less about your anchor won't dragging or you or others swinging into each other as the wind or current changes direction.

As you enter the anchoring area, you first need to consider the bottom type so that you can select a proper anchor. A rock anchor won't hold for beans in mud, yet I wouldn't trust a good mud anchor in rocks. On Long Island Sound, most of the bottom is the same: muddy with some weeds. Most anchors available on the market are designed to hold reasonably well in this type of environment (Bruce anchor, Danforth, Plow, CQR, etc.). You should also consider the type of anchor rode that you'll use. Most cruisers use chain because it reduces swinging, is strong, doesn't chafe (but does wear), and helps keep the anchor set because of its weight. However, most small boats don't have an anchor windlass to bring up several hundred pounds of chain, and so rely on 3-strand nylon anchor line, which stretches and has great shock load reduction characteristics.

Once you're anchor is selected, you need to find a good spot that's protected and will stay clear of other boats if the wind changes direction. The main problem in staying away from other boats when the wind changes direction depends on the way that other boats are anchored. If someone has anchored with a bow and stern anchor, they won't swing at all with the wind and the current. If you swing and they don't, you might swing into them. Another issue is the scope (essentially the angle of the anchor line to the water and bottom) of anchor line. Boats with less or more scope won't rotate the same way that you do. The scope problem is usually associated with boats with chain rodes (most of the chain rests on the ground unless it's really windy) or boats on moorings (moorings have a lot of chain and little scope on their mooring lines), because those boats don't swing the same way that a boat with a long nylon rode does.





Once you've found a good spot, you have to determine where to drop your anchor. This is perhaps the trickiest aspect of anchoring. Look at the depth of the water to help determine how much anchor line you will let out - most anchoring guides agree that a scope of 7:1 (7 feet of anchor line for every foot of water depth) is optimum for keeping anchors from dragging. When you look at the water depth, add a few more feet to compensate for the height of the anchor roller from the water to get the scope right. If anchoring with a 7:1 scope, you should drop the anchor about the length of the anchor line upwind or up-current (you can determine this from looking at the direction that the other anchored boats are pointing in) from where you want to end up. This way, when the boat drops back from the anchor, you'll end up in the spot that you want to be in. If you drop the anchor at the spot that you want to be in, you'll drift back away from that spot, and end up much further back.

Once the anchor has grabbed, don't think that things are done yet. Next, you should back down on the anchor so that it digs deeper into the ground. On boats with engines, you put the engine in reverse and give it some throttle. On sailboats with no anchor, the only thing you can do is backwind the main to help the anchor dig in. As you do this, take bearings with other boats and points on land to see if you drift back. If your anchor drags, you'll see the land on shore disappearing behind the bow of the boat that you've taken a bearing on, and more land appearing behind its stern. After you're satisfied that you've dug the anchor in and it's holding, place appropriate chaffing gear on the anchor line to keep it from chafing.

It is good practice to check bearings on other boats frequently to be sure that you or other boats aren't dragging. If you take a bearing on another boat and see more land in front of their bow and less from their transom, they're probably dragging. If you see less land in front of their bow and more from their transom, you're probably dragging.

Removing the anchor can be a difficult maneuver, especially if it's set deep in the ground. You can slowly motor the boat towards the anchor using signals from the person pulling the anchor up to the helmsman to make things easier on the person up front. If the anchor's really stuck, pull in as much anchor line as you can and wrap it around a cleat a few times (essentially a scope of 1:1 when the line's straight up). Often the waves will pull the anchor out, or you can put the boat in reverse and let it pull the anchor out.

If you're unlucky enough to hook something, you have several options - cut the line and leave your anchor down, or dive down and see what the problem is. If you've hooked a line or cable, you can winch it up a bit by leading the anchor line to a winch. Once it's off the ground, dive down with another line that's tied to the bow, lead it under the cable, and tie the other end off at the bow. Then, you can drop the anchor and line down enough so that the new line takes up the strain, pull the anchor up once it's clear, and then release one of the ends of the new line to free your self.