

Downwind Sailing

Two articles on how to sail downwind in windy weather.

Difficult Downwind?

Keith Lamdin. *Perihelion* 33

So, it is difficult to sail the Comet downwind?

No, not particularly and certainly no more difficult than other lightweight single-handed boat!

However, there are some techniques involved and certainly, strong winds, lack of technique can make life interesting to say the least. As always, once you have the necessary technique, then things fall into place and downwind sailing becomes as enjoyable as any other point of sailing.

Comet sailing downwind in strong winds demands CBC!

Control, Balance and Confidence!

CONTROL: - to control the excess sail forces produced in strong winds it is necessary to flatten the sail right off by use of the outhaul, kicker and downhaul. Do not be afraid of really taking the controls tight as the sail will be generating more power than you can use in strong conditions (figure 1).

BALANCE: - to balance the boat in strong winds it is necessary to keep the centre of effort of the sail roughly above the centre of resistance of the boat or, simply, keep the hull under the rig! If the rig is heeling to leeward, bear away and push the boat under the sail. If the rig is heeling to windward, luff up and pull the boat under the hull (figure 2).

CONFIDENCE - just as it is difficult to cycle really slowly in control so it is to sail slowly in strong Winds. The faster the boat is moving the more responsive it is to small movements of the helm and easier to control. With the added advantage of a reduced apparent wind strength through greater boat speed it is essential to take charge of the boat and sail positively (figure 3).

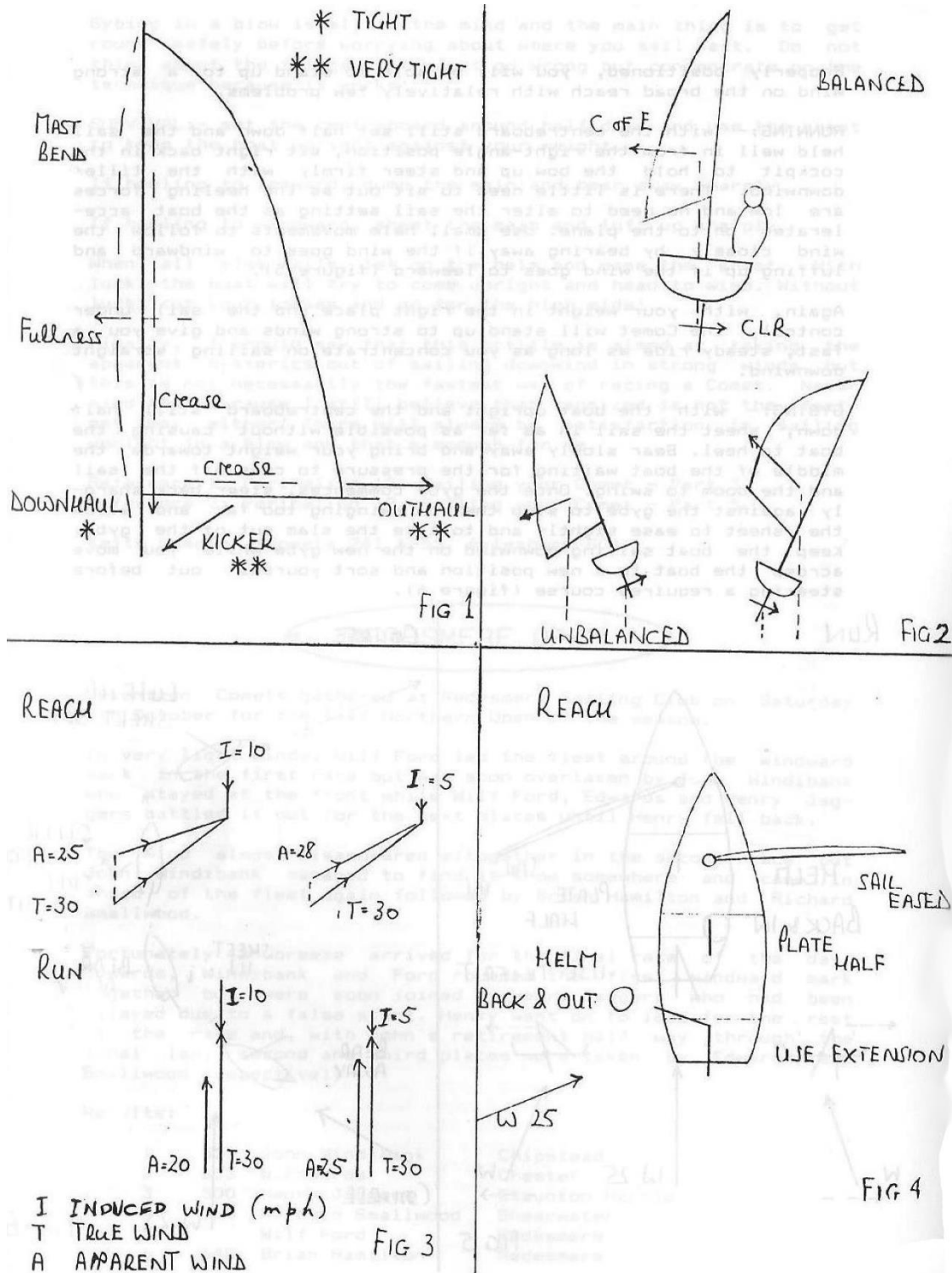
REACHING: - with the centreboard set half down to give some extra stability to the hull form and the sail well eased, sit back in the cockpit to keep the bow from dropping and out to balance any heeling force. As the boat accelerates,

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sheet the sail in to a point where your weight remains balancing the heeling forces and hang on! Keep the boat planing fast, by bearing away slightly in the puffs and luffing up in the lulls, and concentrate on keeping the boat upright by easing the sail if necessary (figure 4).





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Properly positioned, you will be able to stand up to a strong wind on the broad reach with relatively few problems.

RUNNING: - with the centreboard still set half down and the sail held well in from the right-angle position, sit right back in the cockpit to hold the bow up and steer firmly with the tiller downwind. There is little need to sit out as the heeling forces are low and no need to alter the sail setting as the boat accelerates on to the plane. Use small helm movements to follow the wind closely by bearing away if the wind goes to windward and luffing up if the wind goes to leeward (figure 5).

Again, with your weight in the right place and the sail under control, the Comet will stand up to strong winds and give you a fast, steady ride as long as you concentrate on sailing straight downwind.

GYBING: - with the boat upright and the centreboard still half down, sheet the sail in as far as possible without causing the boat to heel. Bear slowly away and bring your weight towards the middle of the boat waiting for the pressure to come off the sail and the boom to swing. Once the gybe commences, steer back sharply against the gybe to stop the bow swinging too far and allow the sheet to ease slightly and to take the slam out of the gybe. Keep the boat sailing downwind on the new gybe while you move across the boat to a new position and sort yourself out before steering a required course (figure 6).

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Run

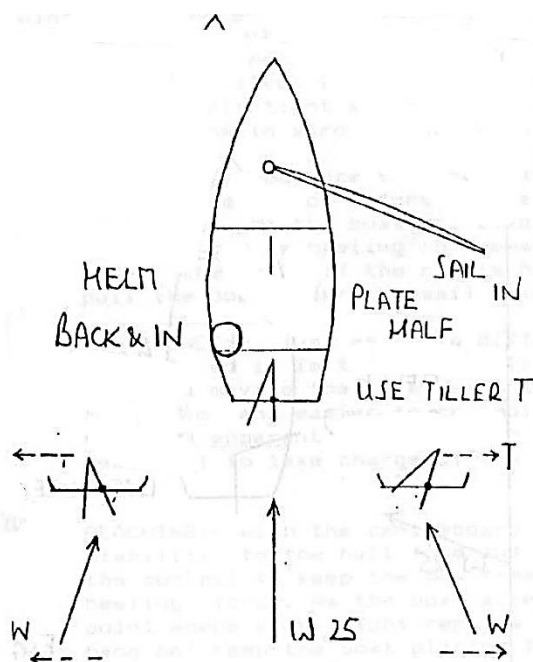


Figure 5

Course

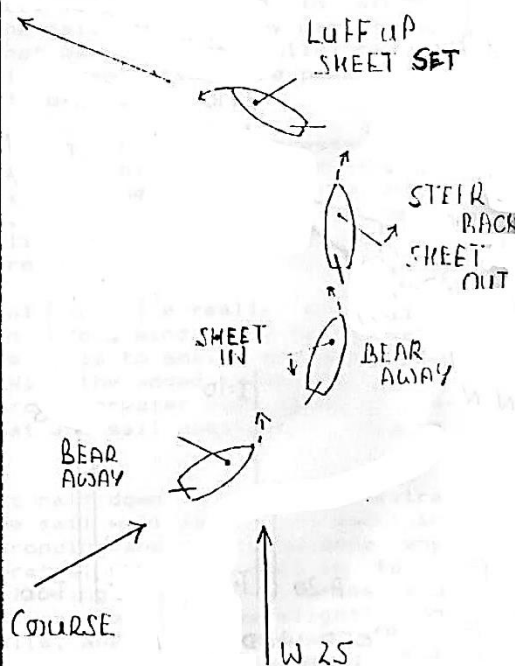


Figure 6

Gybing in a blow is all in the mind and the main thing is to get round safely before worrying about where you sail next. Do not think about the things that might go wrong but concentrate on the technique because it works!

SURVIVAL: - set the centreboard around half down and use the sheet to keep the boat upright against your weight.

If heeling to leeward, dump the main and bear away sharply.

If heeling to windward, sheet the main and luff up sharply.

When all else fails, let go the helm and ease the sheet. With luck, the boat will try to come upright and head to wind. Without luck, cut your losses and go for the high side!

Finally, I should say that this article is aimed at taking the apparent hysterics out of sailing downwind in strong winds but this is not necessarily the fastest way of racing a Comet. Never mind that because I still believe that capsized is not the fastest way either! There will always be satisfaction in sailing upright in a blow and that's enough for me.

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Down Wind Sailing in a Comet

Brian Welham. Perihelion 109

Twenty years ago, in the early 90's when I first started to sail Comets it was not unusual for even the best sailors to have trouble controlling the boat in stronger conditions when running before the wind. I remember at a Taplow Open meeting, the first half a dozen boats all capsized at the same time when a moderate gust came through. (I was on the bank at the time helping).

The problem was that the conventional running set-up for dinghies at that time was to ease off the kicking strap and to allow the boom to go forward to square with the mast (or even further). This technique works well with Toppers and Lasers even today. However, the Comet has a mast that is well forward of the centreboard and very close to the bow. This feature works very well for beating (thank you Andy for this design benefit) but the downside is that there is less buoyancy in the bow and any excess pressure on the sail from wind astern causes the bow to drop and the boom to lift into the air and the boat to capsize to windward without warning. This is a very unpleasant occurrence and I am sure we have all experienced it at some time. I hate this as it is impossible to do a dry capsize when this happens.

Today, although the boat and rig (on the standard Comet) have not changed we rarely see the front of the fleet capsize on a run although I did see our current National, Association and Junior Champion capsize on a run at the last open meeting of the year! (I don't know why but he was fighting for the lead at the time and may have tried too hard).

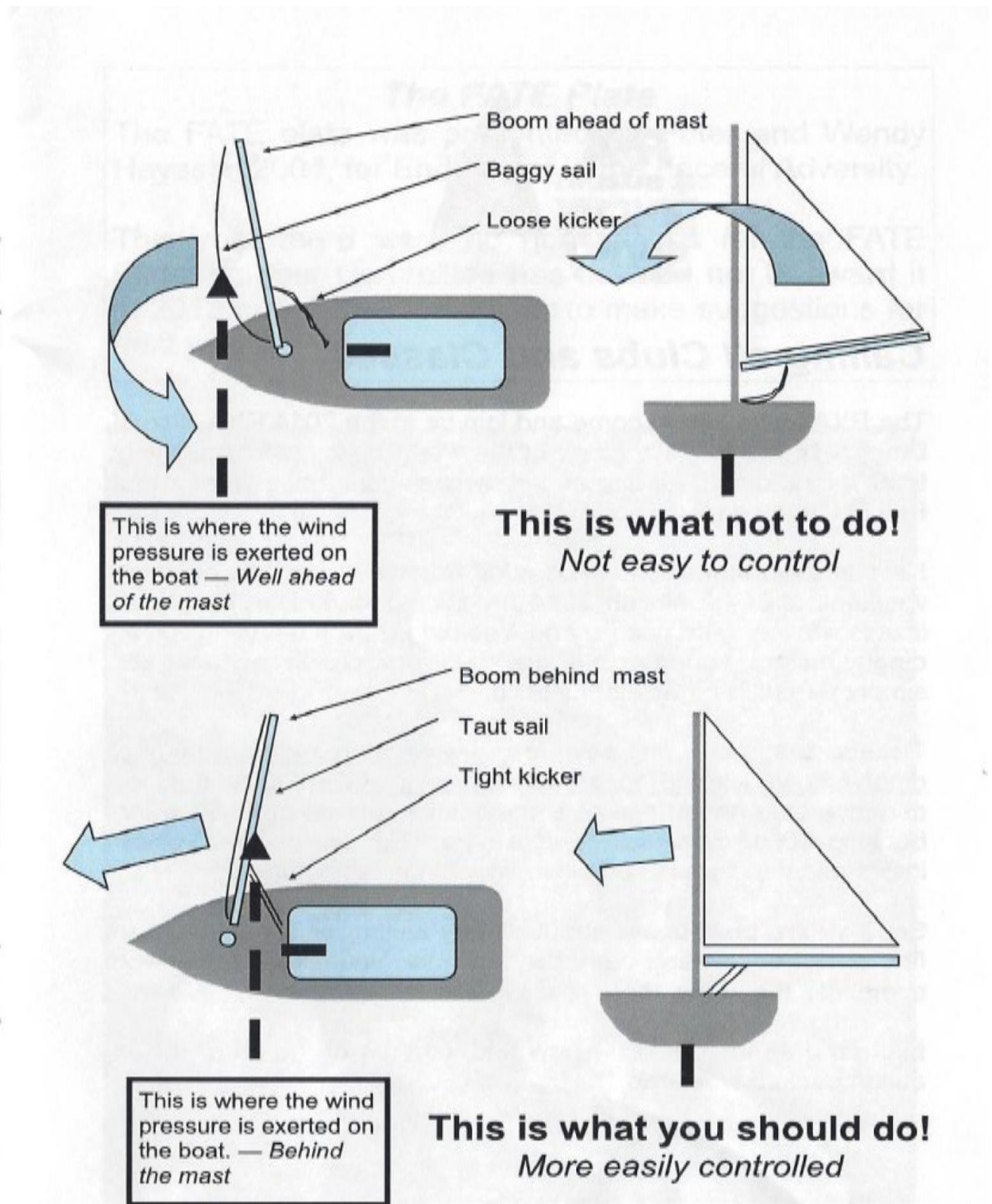
So, "Why don't the best helms capsize these days?" The secret is to not let the sail pressure go too far towards the bow when the wind is strong. This is achieved by flattening the sail with the outhaul, applying kicker and not allowing the boom to go too far forward when you are on a run. The secret is - Kicker on and sheet in and outhaul on. All these actions keep the pressure away from the bow and closer to the centreboard which is where the boat turns. The boat then tends to broach rather than suddenly capsize which means that you have time to steer the boat back onto the direction that you intended.

Our best and more experienced Comet sailors know this but I hope it helps those who are concerned about how to handle this super little boat on a windy day.

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