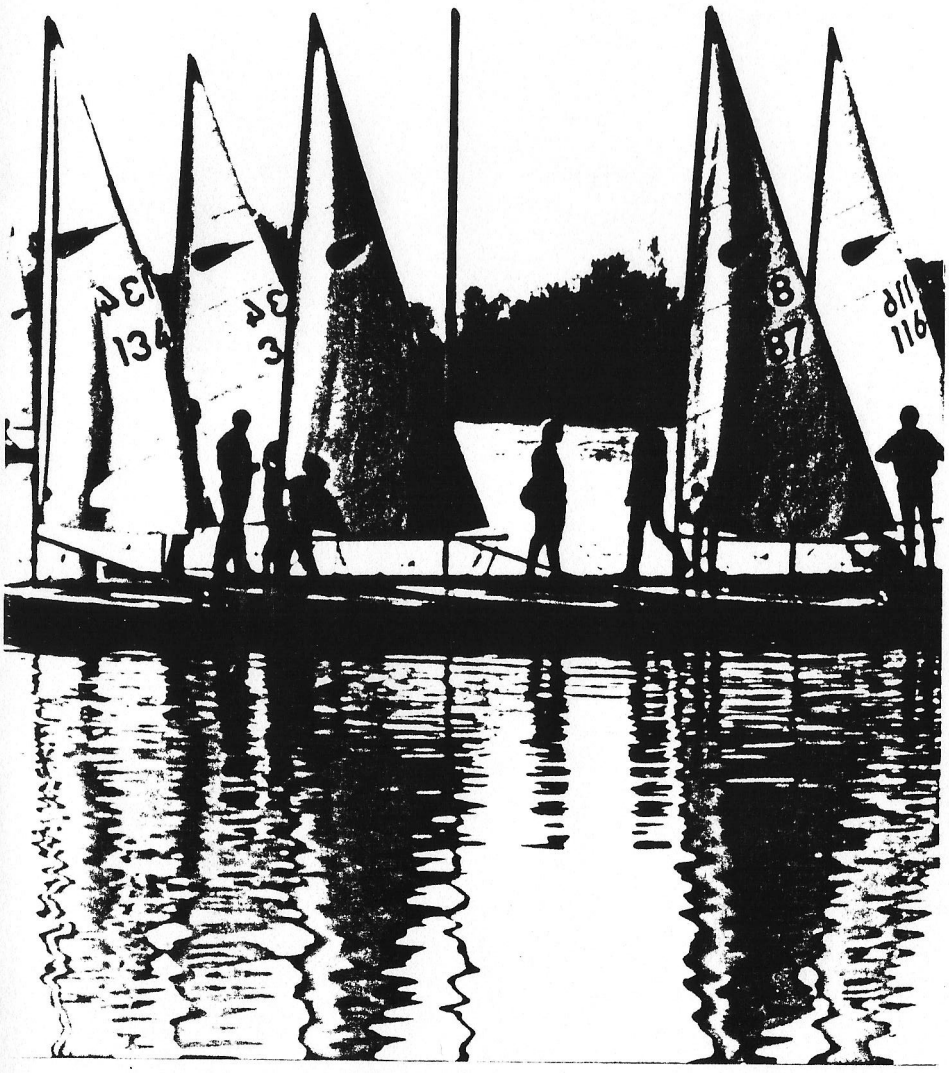
FILE

PERIHELION

Newsletter 15



Comet Class Association

COMMITTEE MEMBERS

KEITH LAMDIN	CHAIRMAN	13 Beacon Avenue, Dunstable, Beds LU6 2AD (0582 665194)
STEVE KIBBLE	SECRETARY	"Ivybank", Broad Street, Cuckfield, West Sussex R17 5DY (0444 454730)
NEIL BEATON	TREASURER	24 Priors Road, Windsor, Berks SL4 4PD (0753 863339)
JACKIE HUDSON		33 Warland Road, Plumstead, London SE18 2EX (01 854 2861)
CARR WITHALL		"A Happy Landing", Chesham Road, Berkhamsted, Herts HP4 2SZ (0442 862577)
HENRY JAGGERS		43 Haymill Road, Slough, Bucks SL1 6NE (06286 64237)
STUART LINES	NEWSLETTER EDITOR	1 Portobello Close, Chesham, Bucks HP5 2PL (0494 771430)
ANDREW PEARCE		8 Wellingtonia House, Church Road, Addlestone, Surrey KT15 1SH (0932 859273)

NEWSLETTER NUMBER 15

SUMMER 1990

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FROM THE CHAIRMAN

Well, I was wrong in the last issue - the sailing season is open and the weather did not change for our first excursion to Cam.

Looking back at the Secretary's notes I see the description of Cam as:

very friendly	Yes
easy launching	Yes
simple courses	Yes
simple sailing?	No!!!

The weather was absolutely perfect to sit on the green lawns of Cam, sunbathe and watch the world go by or, at least, a very little quiet part of it because as the Windibanks said, there was no noise, no cars, just peaceful leisurely pleasure.

OK, so there was no wind and the sailing was frustrating in the extreme but, so what, we all enjoyed the day.

I say all but where were you? An entry of 9 was disappointing in the extreme and if Bryan Hardy can travel with his family from Cheshire, can't we have:

1 from the 25 boats at Kingsmead
1 from the 15 boats at Chipstead
1 from the 12 boats at Crawley?

You really do not deserve to have the programme that the Association has arranged for you; eventually clubs such as Cam will decline to give us the benefit of their facilities if we do not support them and make their efforts worthwhile.

Unfortunately, a similar situation occurred yesterday at ICI Slough with only 7 visitors and a total of 9 boats sailing. If you won't go to an Open with the sun shining, temperatures in the 70's and light to moderate winds, when will you go?

Just think about it and say "I will make the effort"!

Having got that off my chest, I live in hope of seeing you at Ardleigh for the Nationals and Annual General Meeting (in order of importance!) and even more to the welcome prospect of retiring (quietly?) from the Committee and getting on with some sailing and cricket and gliding and .....! Still, if the Spring Chicken and Derek Chidell can still find their way round at the front of the fleet, there must be hope for us youngsters yet!

Geoff Kempton's new boat, number 401 and in my colour (!), was sailing yesterday - it is a far cry from when I first saw Comet 7 sailing at Gunfleet and thought what a nice little boat. We have come a long way in the past few years - please do not let our efforts fall into disrepute for lack of your support.

SUPPORT YOUR ASSOCIATION

Keith Lamdin

SILVER SALVERS PURSUIT RACE

The misty morning cleared into the most glorious sunny spring day for Andrew Pearce and I to represent the Comet class in the 15th annual Draycote Water Pursuit Race. The 15 knots of wind gave perfect sailing weather, but was hopeless for Comets in a handicap race, with many of the lower handicapped classes able to plane easily in the conditions.

At 12 o'clock the race officer announced a course like a tangled ball of string, taking in 11 buoys but skilfully avoiding the shallow areas on the lake. At 12.05 I last saw my pen disappearing amongst an anxiously scribbling flotilla of top helms who had also given up trying to memorise the course.

12.40 saw the starting flags down and the two Cadet dinghies on their way. We followed 37 minutes later along with the Streakers, Graduates and Miracles who share the same handicap.

Andrew and I made good starts and working our way towards the front of the group, we rounded 2nd and 3rd close behind the Streaker of Peter Northen. The next leg was a very broad reach and Andrew, as usual off the wind, bounded past me and I found the longer hulls of the other classes soon had them climbing all over us. Protecting our wind we slowed them up for a while until the other Streaker pushed me upwind until he achieved mast abeam. This also let a Miracle and a Graduate through to leeward and that effectively was our race over.

We were still in touch at the end of the first lap, but we progressively slipped back on the reaches and runs. About two thirds of the way through the race, the eventual winner, Roger Angell sailing an International Moth with canvas and tubular outriggers and looking like a runaway pram, weaved his way past our group, permanently on a plane it appeared.

All that now remained of the race was which Comet would be first home and after 3 hours and 20 minutes Andrew beat me by 20 seconds. I'll get him next time, but then I always say that.

The race was well organised with good facilities, but please someone do something about our PY.

John Windibank

QUESTIONS AND ANSWERS

As a result of the erudite articles our Chairman has written in Perihelion, he is often asked for technical advice on sailing the Comet. As the replies are probably of interest to many members, here are Keith's comments on two points raised recently.

The first is a reply to Alan Mitchell, who raised a question in Perihelion 14 about beating in choppy seas.

"Dear Alan,

I noticed your question about beating in a chop in the last newsletter. I enclose a copy of a previous article from Perihelion on sailing on the sea, which might help. (see Sailing Your Comet Part 4 which appeared in Perihelion 11 - Ed.)

I sail in coastal water at Clacton on the East coast where a short and sometimes confused chop, often at an angle to the wind, is a regular feature. I think the key words are "boat upright, nose up slightly and point high".

It is essential to keep the mast vertical or the lightweight hull can easily be pushed out of balance by the force of a wave. I like to keep the bow slightly up out of the water in order to prevent the hull digging into a wave and so I sit about midway back in the cockpit rather than the normal beating position towards the front. Most important are precise and quite firm helm movements to help jockey the boat up, over and through the wave troughs. Point high up the wave front to cut the crest with the fine bow and then immediately bear quite sharply away down the back of the wave to regain boat speed before repeating for the next working wave. It is quite hard work but worth it to avoid the slamming effects of hitting the chop hard, which will stop the boat completely because of the lack of momentum due to weight."

The second reply is in response to an enquiry from Mr. C. Hawksworth of Derby, who posed the following question:

"Could you provide some information on tiller extension and mainsheet handling on a gybe.

I have a telescopic tiller extension and even with it fully closed to give me the shortest length, it still seems possible to tie very neat, secure knots, quite unintentionally, with the mainsheet. It looks as though possibly the tiller extension needs to be pointing towards the boom prior to the gybe but maybe you know better."

Here is an extract from Keith's reply:

"You are right that handling the extension and sheet during a gybe is tricky (on all dinghies with stern sheeting) and you have already found most of the solution.

I personally use a fixed length extension to avoid any possible complications or failures with the telescopic mechanism, although I should say that the current version seems secure.

In light to medium winds when you are sitting in the boat or inboard on the side deck, then the gybe procedure is as follows:

bear slowly away and gently bring the mainsheet in to remove any slack from the sheet

as the boat passes through the dead downwind position, lift the fall of the sheet up with the hand furthest away from the stern and swing the extension under the sheet to point towards the boom

steer the boat through to the new gybe course with the tiller whilst moving across the boat, facing aft, and changing hands to retain hold of the sheet

pick up the extension from the new windward deck, always with the hand nearest the deck, and ease out the sheet to the required setting for the new course.

It is rather more difficult to gybe smoothly in either strong winds where you need to sit outboard right up to the downwind point or in very light winds where you need to roll the boat slightly in order to maintain momentum. In these case it is necessary to retain hold of the extension throughout the gybe and use the universal joint to rotate it almost vertically across the tiller and below the boom as it swings across the boat.

This is a matter of timing in order to switch hands between the extension and sheet just before you duck under the boom and move over to the new windward side. In all cases, make sure that all undue slack is out of the sheet and that your two hands stay well apart up to the switch point - in this way you have the greatest chance of avoiding knots, although we all do that occasionally.

Keith Lamdin"

Comet

Aylesbury Sailing Club
Open Meeting

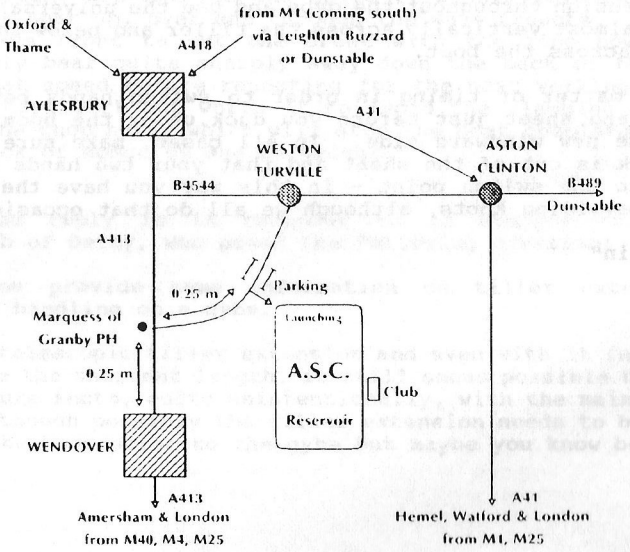
Sunday 29th July

First race 11.30 am

3 races, 2 to count

Entry Fee £3.50 (includes lunch and tea)

Practice session on Saturday 28th July midday onwards



Details from Keith Lamdin (0582) 665194

BUILDER'S REPORT

As usual at this time of year we are pretty busy. Comet production is back on 3 boats a week after a couple of months of 2 a week while we built a new hull mould to replace one of 1983 vintage.

So far this year about 50 Comets have been built, bringing the sail numbers into the 410's.

The year started with the London Boat Show which was as good as ever, although I am looking forward to 1992 when the extension Earls Court 2 is open which should allow a move downstairs and a better selection of dinghies on display. Barry and Margaret showed the Comet at Birmingham in February, closely followed by the Dinghy Show at Crystal Palace, where much interest was shown in the video capsize highlights which we would not dare show at the commercial boat shows.

Each weekend AMS Marine or Dinghy Leisure are out demonstrating Comets, converting the unconverted!

I have recently returned from Sutton Bingham Sailing Club at Yeovil, a very friendly and pleasant club. There was a Demonstration Day on the Saturday and the first Comet Open Meeting there on the Sunday. Thanks to the visiting Comets who made the effort and well done Errol Edwards. I think there will be a few more additions to the Sutton Bingham fleet soon.

Although I was at Northampton "Try a Dinghy" event at the time, I hear there were some new Comet faces at Weston Sailing Club.

See as many of you as possible at the Nationals at Ardleigh Sailing Club. Don't forget, fun sailors are also welcome.

Please find enclosed (as they say) a Comet sticker, instigated by Ralph Rowe. I hope you all remove those "Baby on Board" and "Running In - Please Pass" stickers and proudly display your allegiance to the Comet Class!

Andrew Simmons

COMET NATIONAL CHAMPIONSHIPS

Ardleigh S.C. 29th June - 1st July

As noted in the last Perihelion, entries for the Nationals are limited. A small number of places may still be available; if you wish to enter, please contact Steve Kibble as quickly as possible.

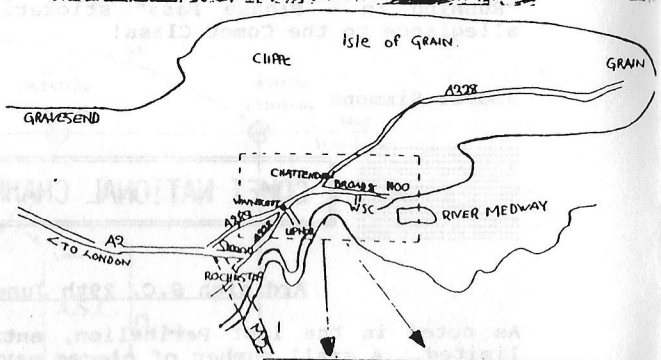
Please note that entries will only be accepted on the day if there are places still available.

WILSONIAN SAILING CLUB
HOO ~ KENT

Comet

Open Meeting

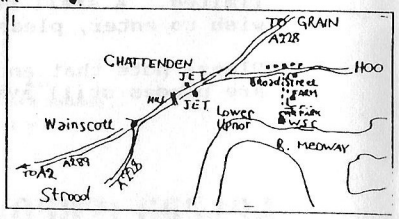
23rd Sept



for further details contact

JACKIE HUDSON

33 Warland Road
Plumstead,
London. SE18 2EX.
(01 854 2861)



Bar and canteen facilities

COMET TIDAL CHAMPIONSHIPS

This two day event was held at Weston Sailing Club which is situated at Netley on the eastern shore of Southampton Water.

The first points race started on Saturday afternoon in a gentle breeze, with Guy Wilkins from Chipstead S.C. slowly pulling away from the fleet, closely followed by John Windibanks from Gravesend S.C. Errol Edwards, Chew Valley, held off David Hudson from Wilsonian S.C. to take third place, with the rest of the fleet having trouble with the Southampton Water double tide, some coming in to Weston Shelf with a few staying in deep water.

The second race was held on Sunday afternoon and started with a light breeze. It followed the same pattern as the first, with Guy Wilkins and Errol Edwards taking first and second places, while John Windibanks overtook David Hudson on the line to take third place.

Guy, having already secured first place overall, watched the third race from the shore. This time, Keith Lamdin of Aylesbury S.C. built up a good lead on the first lap, going on to win from Mark Wilkins, Chipstead S.C., who held off David Hudson in a tacking duel on the final leg. John Windibanks, meanwhile, managed a dramatic capsize in light wind while in fourth place, thus losing second place overall to Errol Edwards.

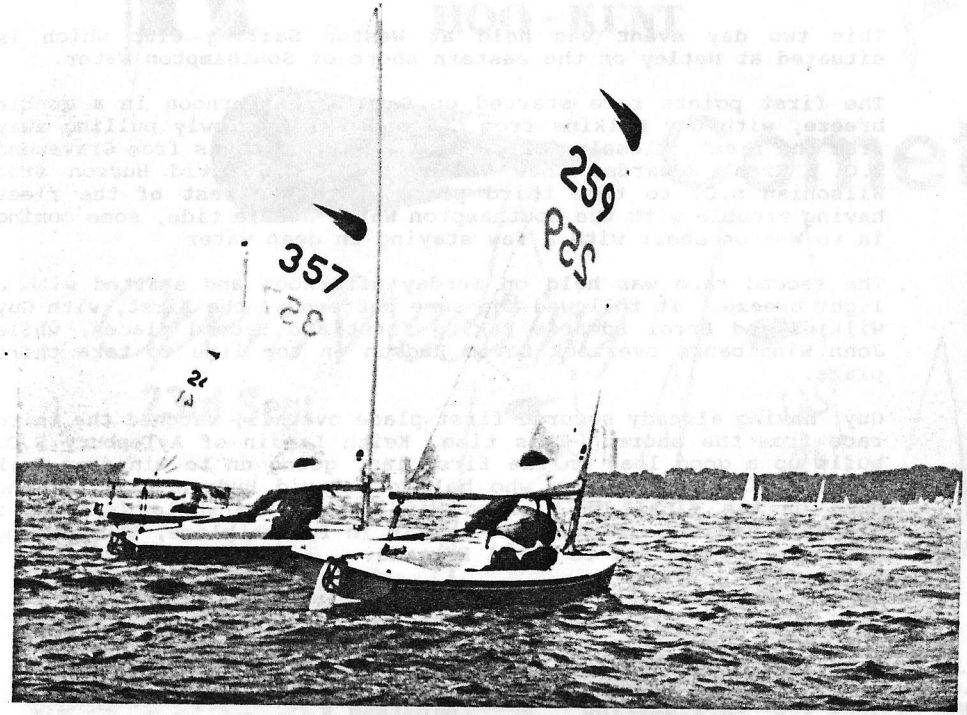
Overall Results

1st	Guy Wilkins	Chipstead S.C.
2nd	Errol Edwards	Chew Valley S.C.
3rd	John Windibanks	Gravesend S.C.
4th	Mark Wilkins	Chipstead S.C.
5th	David Hudson	Wilsonian S.C.
6th	Keith Lamdin	Aylesbury S.C.
1st Lady Helm	Jackie Hudson	Wilsonian S.C.
1st Veteran	Robin Bellan	Crawley Mariners Y.C

PERIHELION

The next issue of Perihelion will be published in September. I would be grateful if articles and event reports could reach me by the end of August.

Stuart Lines



Comet Tidal Championships

Prizewinners (left to right)

Keith Lamdin Guy Wilkins Robin Bellan
Jackie Hudson Errol Edwards John Windibanks David Hudson

RACING YOUR COMET - PART 2

When you start racing, one of the more obvious facts is the apparently large variation in boat speed potential realised between the front and back of the fleet. It is always surprising to look up at the end of the first beat and find the leaders already well down the next leg, having sailed a specific distance at 10% or more faster than the bulk of the fleet.

Yet this is a one design boat where pure boat speed is relatively constant from boat to boat, assuming they are being sailed in a competent way.

So what is the answer? - probably WIND EFFECTS.

A boat can only realise its full potential when it is sailed not only competently but also in the best available winds. Any effect of the wind, such as wind shadow, disturbance, bend or shifts, can affect the distance sailed in a specific time greatly and quickly lead to the wide gaps seen in racing fleets.

WIND SHADOW: This is a natural phenomenon which affects the strength of the wind available on the water, due to the geography of the natural location.

The most obvious example is of a downwind shadow due to a windward obstruction of trees, islands or buildings. This can extend for up to 6 times the height of the obstruction in light winds and up to 3 times even in strong winds. This effect is caused by the wind lifting up and over the obstruction before returning to its normal path in the absence of a barrier, (fig 1).

Somewhat less obvious is the upwind shadow of up to 2 times its height caused by the wind lifting up from its water-level path in preparation for clearing any leeward obstruction, (fig 2).

This creates an anomalous situation on a river with high banks on either side where the strongest winds will be found on the side of the bank furthest from the wind direction but not right on the leeward bank!

An obstruction causing wind shadow does not of itself alter the wind direction but a combination of obstructions can cause significant directional changes to occur, particularly in light winds. An unusual example occurs at Aylesbury S.C. where, in north to northeast winds, a barrier of trees on the club bank feeds the wind to either end of the reservoir, where it bends back towards its mean direction and meets in the middle on the other side of the lake. This creates the amusing (to the spectators!) sight of boats running towards or beating away from each other, (fig 3).

In all cases the objective is to reduce the effects of wind shadow by sailing an appropriate course, almost irrespective of the race course, in order to remain in the strongest wind. In the case of the Aylesbury northeaster, the proper course from A to B is clearly not the rhumb line!

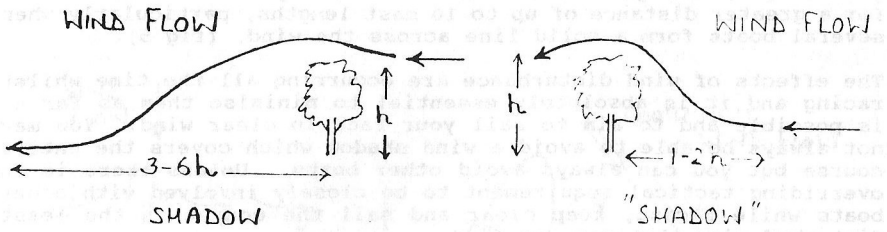


FIG 1

FIG 2

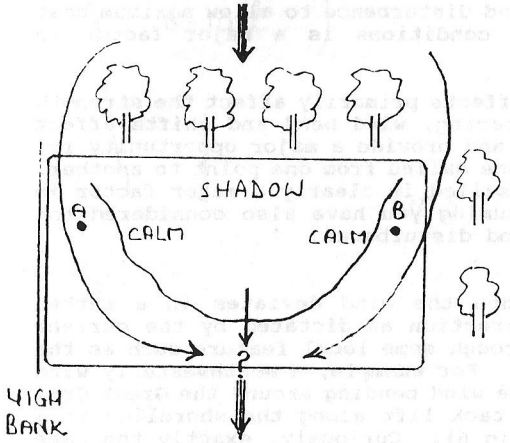


FIG 3

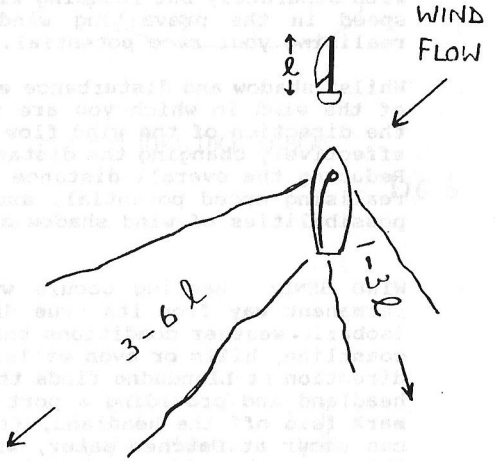


FIG 4

WIND DISTURBANCE: This is an artificial phenomenon which affects the strength and, to a lesser degree, direction of the wind available on the water due to the physical presence of other boats in the same sailing area. Such effects are always greater when sailing close to other boats and decrease in importance with distance, although it is probably true to say that on enclosed waters we are always being affected adversely by other boats.

When sailing to windward, the wind will be disturbed for up to 6 mast lengths to leeward in the direction of the apparent wind and even up to 3 mast lengths to windward in a deflected wind direction. Of these effects, the leeward disturbance reduces the wind strength available while the windward disturbance changes the wind direction giving the impression of a permanent header in what is know as the lee-bow position, (fig 4).

Downwind, the effect of the total blanketing of the mainsail and jib or spinnaker gives a reduced wind strength to a leeward boat for a greater distance of up to 10 mast lengths, particularly when several boats form a solid line across the wind, (fig 5).

The effects of wind disturbance are occurring all the time whilst racing and it is absolutely essential to minimise them as far as is possible and to aim to sail your race in clear wind. You may not always be able to avoid a wind shadow which covers the entire course but you can always avoid other boats. Unless there is an overriding tactical requirement to be closely involved with other boats while racing, keep clear and sail the course in the least disturbed wind that you can find.

However, clearly there is no point in sailing extra distance to find clear wind if the gain in boat speed through such clear wind does not compensate for the extra distance sailed.

The tactical aspects of the clear wind requirement will be dealt with separately but reducing wind disturbance to allow maximum boat speed in the prevailing wind conditions is a major factor in realising your race potential.

Whilst shadow and disturbance effects primarily affect the strength of the wind in which you are racing, wind bend and shifts affect the direction of the wind flow and provide a major opportunity for effectively changing the distance sailed from one point to another. Reducing the overall distance sailed is clearly a major factor in realising speed potential, assuming you have also considered the possibilities of wind shadow and disturbance.

WIND BEND: Bending occurs when the wind deviates in a rather permanent way from its true direction as dictated by the current isobaric weather conditions through some local feature such as the coastline, hills or even walls. For example, a northwesterly wind direction at Llandudno finds the wind bending around the Great Orme headland and providing a port tack lift along the shoreline to a mark laid off the headland, (fig 6). Curiously, exactly the same can occur at Datchet Water, where a distinct lift is found along the reservoir wall when beating towards the clubhouse. In general, any water with local hills or valleys may be subject to wind bend as the wind flow takes diversions before returning to its prime direction. Any opportunity to be on a continuing lift inside the wind bend will markedly reduce the distance sailed between two points, (fig 7).

WIND SHIFTS: More important in general sailing terms are wind shifts which show up as a periodic change in wind direction around the true mean wind flow direction. In stable weather conditions such shifts may be only a few degrees and occur over a lengthy period, becoming unnoticeable except in the very steady wind conditions of the sea or large reservoirs. In unstable weather conditions the wind shifts may become excessive with a short period between each shift and easily obvious on all waters. Such shifts may be greater than 45 degrees in direction from the mean wind and even useable in the confined space of narrow rivers such as Cam. It is important to remember that the wind will always shift back to the mean direction or the opposite side of the mean and that the shift period may be quite regular and almost capable of prediction.

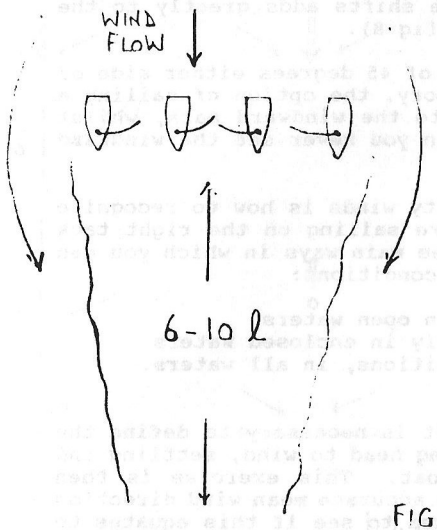
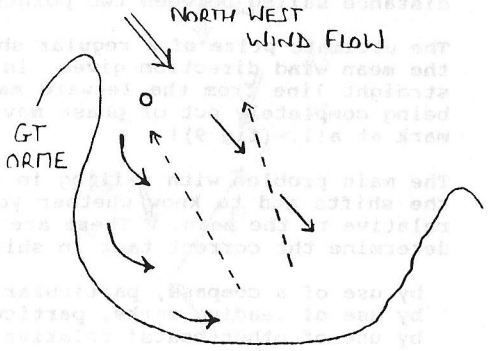


FIG 5



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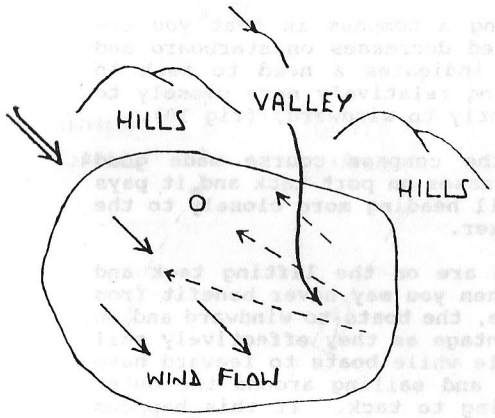


FIG 7

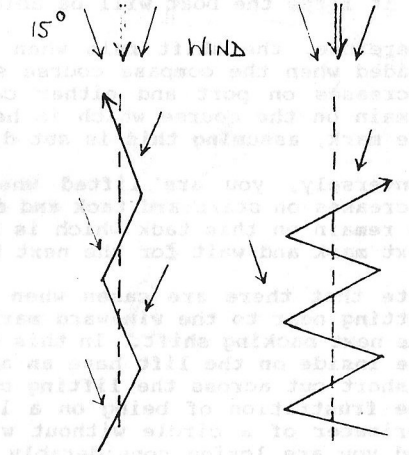


FIG 8

The importance of wind shifts, of all the wind effects, cannot be over-emphasised and, whilst being in phase with the shifts is the easiest way of reducing the effective distance sailed, it is also true that being out of phase with the shifts adds greatly to the distance sailed between two points, (fig 8).

The ultimate prize of a regular shift of 45 degrees either side of the mean wind direction gives, in theory, the option of sailing a straight line from the leeward mark to the windward mark, whilst being completely out of phase may mean you never see the windward mark at all, (fig 9)!

The main problem with sailing in shifty winds is how to recognise the shifts and to know whether you are sailing on the right tack relative to the mean. There are three main ways in which you can determine the correct tack in shifty conditions:

by use of a compass, particularly in open waters
by use of leading marks, particularly in enclosed waters
by use of other boats' relative positions, in all waters.

COMPASS USE: Before the race start it is necessary to define the standard true wind direction by luffing head to wind, settling and noting the compass heading of the boat. This exercise is then repeated several times to establish an accurate mean wind direction over a short period of time and checked to see if this equates to the direction given at a briefing or on a committee boat. If, for example, the true wind is 235 degrees then on setting off on starboard the boat will be heading around 200 degrees. If the wind backs then the boat will bear away to head, say 190 while if it lifts the boat will luff to head, say 210.

Setting off on port tack the boat will head around 270 degrees and if the wind backs the boat will bear away to head, say 280, while if it lifts the boat will be able to luff to, say, 260 degrees.

Therefore, the shift rule when using a compass is that you are headed when the compass course sailed decreases on starboard and increases on port and either case indicates a need to tack to remain on the course which is heading relatively more closely to the mark, assuming this is set directly to windward, (fig 10).

Conversely, you are lifted when the compass course made good increases on starboard tack and decreases on port tack and it pays to remain on this tack which is still heading more closely to the next mark and wait for the next backer.

Note that there are cases when you are on the lifting tack and getting near to the windward mark when you may never benefit from the next backing shift. In this case, the boats to windward and on the inside on the lift have an advantage as they effectively sail a short cut across the lifting circle while boats to leeward have the frustration of being on a lift and sailing around the outer perimeter of a circle without wishing to tack. If this happens and you are losing considerably to the inner boats then cut your losses and tack back against the lift to the inside of the circle before rejoining the lift - tricky (fig 11)!

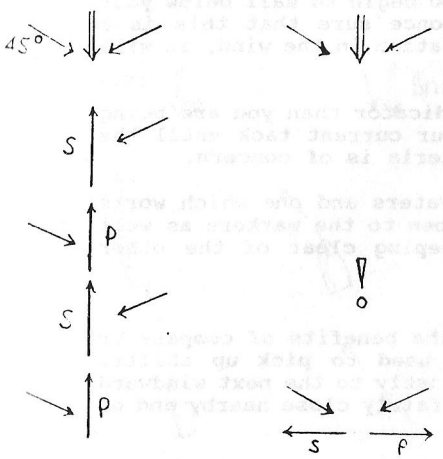


FIG 9

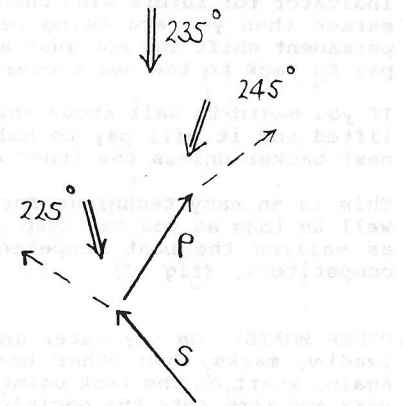


FIG 10

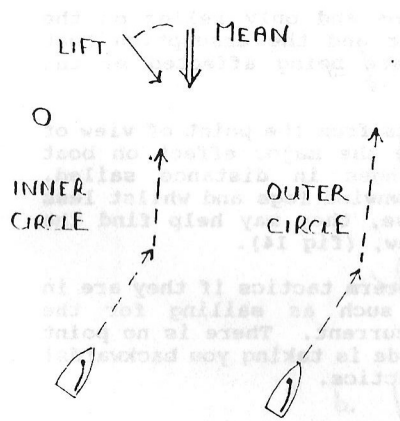


FIG 11

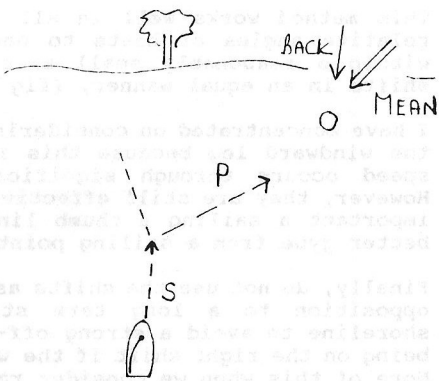


FIG 12

LEADING MARKS: Particularly on inland waters, once you are established on the beat and sailing the tack currently pointing most closely to the next windward mark, if there is an obvious landmark such as a specific tree, spire or house, then use it as an indicator for future wind changes. If you begin to sail below your marker then you are being headed and, once sure that this is a permanent shift and not just a minor variation in the wind, it will pay to tack to the new closer heading.

If you begin to sail above the marker indicator then you are being lifted and it will pay to hold on to your current tack until the next backer unless the inner circle criteria is of concern.

This is an easy technique for enclosed waters and one which works well as long as you can keep your eyes open to the markers as well as sailing the boat competently and keeping clear of the other competitors, (fig 12).

OTHER BOATS: On any water and without the benefits of compass or leading marks then other boats can be used to pick up shifts. Again, start on the tack pointing most closely to the next windward mark and then note the position of boats fairly close nearby and on the same tack as yourself.

If a boat or boats ahead begin to move relatively to leeward of your bowline course then you are all being lifted while if they move relatively to windward of your bowline course then you are all being headed and a tack should be considered.

If a boat or boats behind you begin to move relatively above your course then you are being lifted and if they move relatively below you and your course then you are being headed and a tack may be required.

This method works well in all locations and only relies on the relative angles of boats to each other and the assumption that within a reasonably small area they are being affected by the shifts in an equal manner, (fig 13).

I have concentrated on considering shifts from the point of view of the windward leg because this is where the major effect on boat speed occurs through significant changes in distance sailed. However, they are still effective on downwind legs and whilst less important a sailing a rhumb line course, they may help find the better gybe from a sailing point of view, (fig 14).

Finally, do not use the shifts as short term tactics if they are in opposition to a long term strategy such as sailing for the shoreline to avoid a strong off-shore current. There is no point being on the right shift if the wrong tide is taking you backwards! More of this when we consider racing tactics.

Keith Lamdin

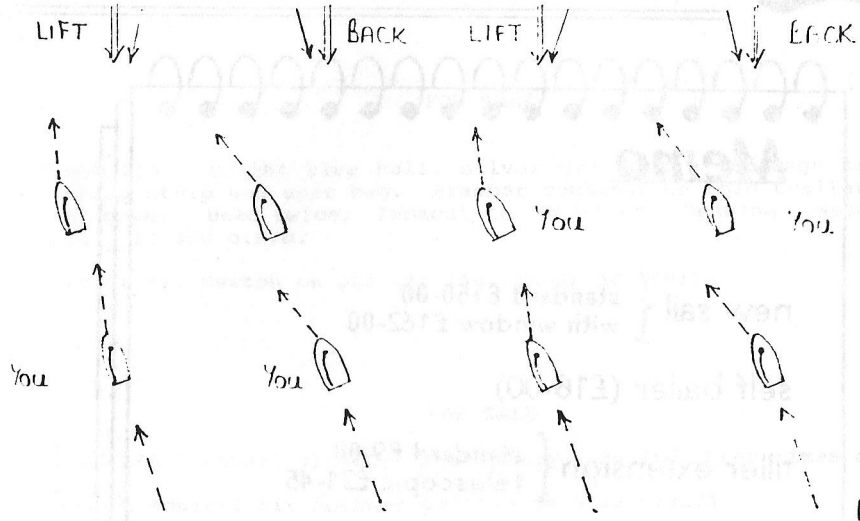


FIG 13

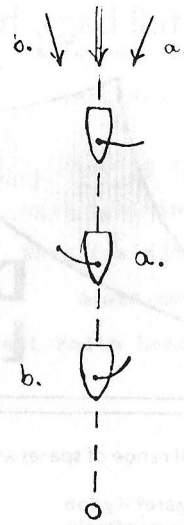


FIG 14

NOTICE BOARD

FOR SALE

Comet 218. Bright blue hull, silver grey deck. Stowage hatch, rubbing strip and spar bag. Bramber combination road trailer and boat cover. Used twice. Immaculate condition. Genuine reason for sale. £1,350 o.n.o.

Contact Mr. Newton on 093 484 3464 (Near Bristol)

FOR SALE

Comet 260. Cover, trolley, all extras. Sailed three times only.

Contact Admiral Sir Anthony Griffin on 0243 573373

COMET TRAINING

Aylesbury Sailing Club

Saturday 28th July

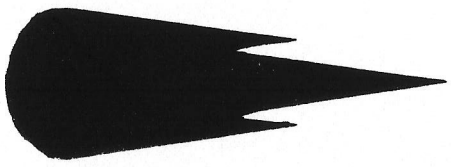
Rigging from 12.00

Sail training from 14.00

Race training from 16.00

Boats available.

Contact Keith Lamdin on 0592 665194



Comet Class Association

Affiliated to the Royal Yachting Association