

VINEYARD HAVEN
TIDES and CURRENTS

There is no such thing as an expert on the tides. When one tacks into East Chop, expecting something, Silverheels then crosses your bow as they stayed out in the middle of the harbor. Playing Vineyard Haven tides is a function of your batting average. It is with considerable humility that we place these thoughts on paper.

This memorandum will be divided into three parts. First, the generality of southern Massachusetts tides; second, some guesses as to what the effects of the new jetty are; and, third, Jack Ware's June 1967 excellent promulgation of Vineyard Haven tides used in our Interclub Circular. This, to me, is the Bible.

Southern Massachusetts Tides

If one thinks of the moon coming across the Atlantic Ocean to Newport, the tide coming into the coast branches to the left into Long Island Sound and branches to the right towards Cape Cod. One must think of the tide flowing from Newport into Boston. It comes from Newport into Buzzards Bay, cannot really go through the Cape Cod Canal, it then has to pour out through the Holes in the Elizabeth Islands - Woods Hole, Quick's Hole, Robinson's Hole, and Canapitsit - into Vineyard Sound. The current branched at Cuttyhunk into Buzzards Bay and into Vineyard Sound on its way to Boston. The effect of the tide pouring through the Holes reinforces the current's strength in Vineyard Sound.

The result of the current streaming East on its way into Boston has the following effect on Vineyard Haven:

It comes rushing past West Chop and is going too fast to turn the corner; therefore, it streams to East Chop and comes in the East Chop shore from North of buoy "F" about 200 yards, past buoy "C" and down the East Chop shore.

It tries to get into the lagoon under the bridge, but just like the Cape Cod Canal, the gap is too narrow so most of the tide keeps on going in a clockwise direction and goes out the West Chop shore. You have to think of it just like a clock, constantly going in a clockwise direction in Vineyard Haven harbor.

One cannot add to the accuracy of Jack Ware's Practical pointers in the Vineyard Haven circular as to times and the effects.

Now, when the tide changes in Boston and starts to go out, which to us in Vineyard Haven means the current running West, it streams back to Newport. The tide comes out of the lagoon, it runs under the bridge, it runs out the East Chop shore, it runs out the West Chop shore. Therefore, for all intents and purposes, it runs out the West Chop shore all the time. It is a very rare occasion to ever see the tide coming in at buoy "B". Sometimes there are back-eddies along the East Chop shore with the tide flowing out. We do not try to guess the back-eddies.

Once in awhile it is worth tacking onto the bricks on the East Chop shore. It is certainly imperative to tack onto the bricks when going against the tide out to buoy "J". However, that is the subject of an entirely different memorandum that apparently Chris Hale can write.

What is the Effect of the New Breakwater?

The new breakwater was put in on the East Chop shore by the bridge in 1974. The following is my conjectures only. We literally do not have enough experience to cite conventional wisdom.

I think the generic description under the first subject heading is reinforced. The tide runs clockwise coming in, but is guided away from the lagoon and down the West Chop shore. This has an effect at buoy "A" of sending the tide out the middle of the harbor as well as out the West Chop shore. In fact, less current is able to get into the lagoon.

On an outgoing tide, that is West, probably much the same thing happens as before the breakwater was put in.

I imagine that there is even less occasion for the current to come in at buoy "B", because on the flooding tide, clockwise circular motion is reinforced and the outgoing tide is simply going out.

Vineyard Haven Tides - Jack Ware, June 1967

"The following descriptions of the tidal currents in the racing area conform to the best available information, but are imperfect, and are to be used at the skipper's own risk.

The Club provides a schedule of times of slack water when the flood tide starts to run East or the ebb tide starts to run West. These times and directions refer to the Sound off Vineyard Haven in the vicinity of mark "K" on the racing chart.

The current reaches a velocity of about 3 knots at "K" about 3 hours after slack. It is slightly stronger off West Chop; slightly weaker off East Chop.

Inshore of "K" the current changes earlier, especially off West Chop where it changes an hour earlier. Off East Chop, the current changes a little later than at "K".

The current in the Sound is only strong outside of the line between marks "B" and "C". Inside this line, the currents described below are more important.

The flood current starts to run into the harbor at "C" approximately $1\frac{1}{2}$ hours after it starts to run East in the Sound. Likewise, the ebb starts to run out at "C" about $1\frac{1}{2}$ hours after it starts to run West in the Sound. The strength of this current varies from hour to hour, at times reaching 2 knots. It extends with diminishing strength about halfway to the head of the harbor. Inside the harbor, this current is sometimes separated on one or both sides from still water or weaker counter currents by a sharp and visible line.

The current at mark "B" runs out of the harbor between 23 and 24 hours a day. On an ebb tide, it runs out strongest (about $1\frac{1}{2}$ knots) and curves around to the west to join the current in the Sound off West Chop. On a flood tide, the current generally flows straight out of the harbor at mark "B" except that at the start of the flood it may flow in and to the east briefly. The current at "B" extends with diminishing strength approximately a third of the way to the head of the harbor.

Elsewhere in the harbor, currents are weak. Rise and fall of the tide is only $1\frac{1}{2}$ feet.

High water at Vineyard Haven is 25 minutes later than at Boston. The tide begins to ebb in the Sound 45 minutes after high water at Boston.

Information concerning high tides at Boston may be found daily in the Boston newspapers and in the ELDRIDGE TIDE AND PILOT BOOK.

It should be kept in mind at all times that the times and strengths of tidal currents in Vineyard Sound and Vineyard Haven can and do vary according to the influences of many factors, such as the wind direction and force, and the phase of the moon.

But nevertheless, certain crucial, common-sense factors of tide and wind in Vineyard Haven Harbor can be overlooked only at peril of "going against the odds." Although there are many variables, especially in light and shifty air, it is, as a general rule:

1. Wise, after rounding "B" and beating into the harbor, to tack toward the middle of the harbor and get away as soon as possible from the outflowing current (outflowing 23 hours in each 24).
2. Important, when beating against the current in Vineyard Sound, say from "K" to "G" or "B", to get in toward the slacker water between the Chops. Exception: If the current on your lee bow is pushing you to windward.
3. When beating toward East Chop from "S" to "C" or "F", important to consider that the wind pulls off the East Chop shore and that getting in close to the beach (which is safe to do) is often advantageous, even on a flood current running in along the East Chop shore. The current runs less on the shore, and there may be favorable back eddies close inshore.
4. In getting from "C" to "F" on a beat against the current, it is generally necessary to stay in near the bluffs (but watch the rocks on the north and northwesterly parts of the bluffs) before striking out for the buoy rounding.
5. When beating from "C" into the harbor, with the current ebbing (running out along East Chop), desirable to tack toward the center of the harbor to avoid the adverse current. (Some believe that the current actually runs into the harbor about one-third of the way from East Chop to West Chop, while running out along both shores.)
6. To consider that as one nears the head of the harbor, from "S" southerly, in southerly winds, air will be more easterly to the east and more westerly to the west. Skippers need to watch alertly to see how this factor may influence their strategy and tactics.

Skippers are also cautioned that, in recent years, there has been a considerable increase in the shallows on the eastern side of the head of the harbor. These shallows lie in an area bounded as follows: east of a line between mark "E" and the most northerly of the harbor's oil tanks and south of the channel leading into the Lagoon. The channel is occasionally buoyed by privately maintained stakes, but the buoyage is not to be considered reliable. In some spots these shallows and flats are nearly uncovered at high water, and on a flood tide there may be some easterly set to the current near the channel into the Lagoon.

The Race Committee believes that these are basically accurate comments. However, a protest that the current during a race was not as described above, or that a "general rule" proved mistaken, cannot be honored. Our best people do (and have done) the wrong thing themselves on occasion.

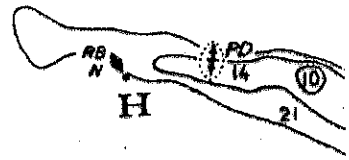
Good luck and good racing."

H. B. Duane
June 30, 1975

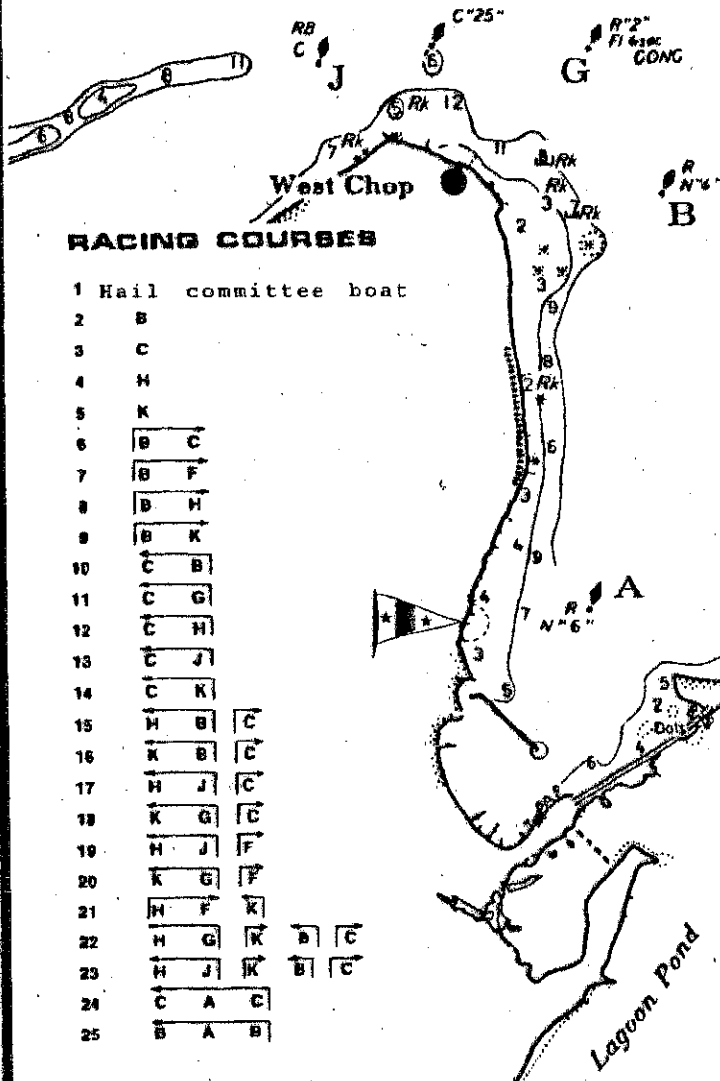
Vineyard Haven Yacht Club Racing Chart - 1997



Caution: Not to be used for navigation



BW
Mo (A) BELL K



RACING COURSES

- 1 Hail committee boat
- 2 B
- 3 C
- 4 H
- 5 K
- 6 B C
- 7 B F
- 8 B H
- 9 B K
- 10 C B
- 11 C G
- 12 E H
- 13 E J
- 14 C K
- 15 H B C
- 16 K B C
- 17 H J C
- 18 K G E
- 19 H J F
- 20 K G F
- 21 H F K
- 22 H G K B C
- 23 H J K B C
- 24 C A C
- 25 B A B

COURSE AND DISTANCE TABLE

Marks	Mag. Course	Nautil. Miles		
A-B	027	1.05	C-F	104 0.50
A-C	080	1.20	C-G	322 1.30
A-K	047	1.95	C-H	619 1.70
A-H	043	2.50	C-J	308 1.90
B-C	130	1.00	C-K	014 1.05
B-F	121	1.45	J-H	080 2.10
B-G	350	0.40	J-K	096 1.70
B-H	054	1.65	G-H	069 1.50
B-J	305	0.90	G-K	094 1.10
B-K	070	1.05	F-H	004 1.70
			F-K	348 1.20
			F-J	303 2.25

