# Performance Based Handicapping Coming to KHYC Thursday Night Twilights

Starting on June 21, KHYC will be adding a new handicap class modeled after the Santa Barbara Yacht Club's popular "H" fleet.

The "H" Fleet uses the popular CHRF rating system which is based solely on the actual performance of the boat as equipped and as crewed. Handicaps change after every race and are based on the average adjusted seconds per mile of the best 4 of 5 races.

The "H" Fleet will normally sail triangle courses. The start time will be 18:10 hours, and the early start is intended to minimize interaction with the PHRF boats and to be out there in the best wind.

Competitors may fly chutes or not, there is no deduct or adder either way. The handicap will quickly adjust itself to whichever the preference.

## The following are our objectives:

- To accommodate participation in Thursday Night Racing for boats desiring to compete under a performance based handicap rating system rather than the PHRF rating system.
- Provide a less aggressive venue for boats that are new to racing, or teaching new crew members
- To accommodate competitors who prefer a triangle racing course.
- To insure that the H Fleet be compatible with the existing Thursday night program and that to the fullest extent possible remain clear of other fleets to minimize conflict.
- To improve the prospects that H fleet participants can finish before the wind dies.

## Fleet Membership Eligibility

- Fleet Members must meet eligibility requirements for Thursday Twilight Racing.
- Fleet Members must have a signed entry form on file for each regatta.
- Fleet Members must certify that adequate liability insurance for the boat is in effect at all times, and that they are the named insured on the policy.
- Boats new to the fleet must complete 3 qualifying races before becoming eligible for trophies or for credit toward series scoring. The first 3 races will be based on handicaps assigned by the race committee.
- Boats that participated in the H Fleet the previous year will continue with the handicap calculated based on the races from the prior year.

## Contacts

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## Courses

1:  C, G, W, Finish

2:  C, K, G, W, Finish

3: C, H, G, W, Finish

4: A, G, W, Finish

5: A, K, G, W, Finish

6: A, H, G, W, Finish

7: H, K, G, W, Finish

8: M, G, W, Finish

## About the Handicap Formula

The perfect method for handicapping vastly dissimilar boats has been an elusive challenge for club racing programs. Most (PHRF) are based solely on the design characteristics and potential of the boat. Such rating systems assume the highest level of crew performance and that the boat is fully rigged for racing. The SBYC Handicap Racing formula attempts to rate boats based on the totality of their performance taking into consideration how they are sailed and how they are equipped. This creates a level playing field that can accommodate dedicated racing boats and island cruisers in the same race with neither at an advantage. In addition, the formula tracks and adjusts for changes such as improved crew work and added racing equipment such as spinnakers. The formula is very simple, and all competitors have access to the data on which the calculations are made, so there are no secrets. After each race, the performance history of each boat is published on the web, so competitors can follow their own track records. They can verify the handicap calculations for any boat in the fleet. The key to the formula is the 'Wind Factor', and that's what makes it work. To synchronize the performances of all boats, the conditions of the day must be part of the equation. This component of the formula insures the continuity of valid ratings for all boats whether they raced in a given race or not. Each boat that races in a given race has its elapsed time calculated and converted to seconds per mile. The distance is based on the projected actual distance traveled. The distance to weather marks are generally based on 1.4 times the point to point distance.

The mid boat finisher in the fleet (i.e. boat 6 in an 11 boat race) is used to calculate the Wind Factor. The wind factor equals the mid boat handicap divided by the mid boat seconds per mile. All boats participating in the race then have their seconds per mile multiplied by the wind factor to arrive at 'Adjusted Seconds per Mile'. The wind factor is an important component in the handicapping calculations because it insures that boats participating in high wind races don't unfairly have their handicaps lowered by the fast conditions while the ratings of the non participating boats remain unchanged. The same applies to participants in low wind races. It would not be fair for a boat to gain a higher handicap just because there was little wind. So the wind factor insures that ratings cannot be substantially affected by the speed of the wind or other conditions of the day. For each boat, the last five adjusted seconds per mile are used in handicap calculations; values for the race just run, and the last four races run by that boat. The largest value is discarded and the remaining four are averaged; the resulting value is the boat's handicap for the next race. That handicap will not change until the boat races again.

New boats entering the fleet will be assigned a preliminary rating for their first race. This rating will adjust quickly based on its initial performance.