



# YRA of San Francisco Bay Race Committee Guidelines

Revision 1.0 / 2024-02-21

## Welcome

Thank you for helping manage YRA races!

This document is intended to help the Principal Race Officer (PRO) with how to run races for the Yacht Racing Association of San Francisco Bay (YRA). It includes some “good practices,” tips, and techniques that the YRA has found helpful.

At the same time, we are convinced that while 95% of Race Committee (RC) work is the same everywhere, innovation happens around the edges and some innovation should be encouraged.

Consider this document a “guideline” and not a pair of handcuffs!

If there is one takeaway, it is that you can be a better PRO on the day of the event by doing preparation work before the event. By reading these guidelines, and doing the recommended preparation work, you’ll improve your chances of having a less stressful day and effectively running a race for the sailors.

## Intended Audience

This document is intended for people who will be a PRO for YRA races.

This document assumes you have taken and passed a US Sailing Basic Race Management Seminar in the last five years AND you have been on the Race Committee signal boat in a variety of roles, for at least a dozen events in the last two years, or equivalent experience.

If you have done much more than this, you may just read the section headings and only read sections of the material you find interesting.

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## How Events Get on the Race Calendar

In San Francisco Bay, races go onto the calendar annually, in a September-November series of coordination meetings run by the YRA with most of the Organizing Authorities (OAs) that run races on the bay. This process gets all (or almost all) events scheduled and radio channels assigned in a way to minimize interference. Then YRA applies to the US Coast Guard for a permit for all the events on the calendar (permits are required for all events with more than 10 boats in San Francisco Bay).

As PRO, you won't have to deal with scheduling races, but you should know how the process works.

## Ensure You Have Insurance

If something goes very badly in a race and lawyers get involved, they'll look for someone to sue. Bluntly, you're likely to have more assets than YRA, which makes you a bigger target. US Sailing dropped its insurance for US Sailing Certified Race Officials in early 2022. Homeowner's insurance, and umbrella policies, often exclude running sporting events.

YRA provides insurance only if you are **both** a YRA member **and** serving as a volunteer.

So be sure to log into Jibeset ([www.jibeset.net](http://www.jibeset.net)) to pay the \$50 annual YRA membership dues before you volunteer to run a YRA race!

If you'd like to know details about the insurance --- the coverage maximum or deductible, for example --- reach out to the YRA.

## Get Volunteers and Other Resources

At least a month out, start thinking about the people and equipment you will need for your Race Committee:

- Volunteers
  - A two (minimal) or three (preferred) person team for a race run by radio,
  - More for a race run with flags.
- Do you need a RC signal boat? Do you need a mark set boat?
- Equipment, like a radio or iStart or air horns.

Either work through YRA to get volunteers or arrange your own. Ditto for signal or markset boats, if you need them.

YRA has a pretty comprehensive set of race-running equipment in “the YRA race kit” including:

- 25 watt battery powered radio, complete with antenna and ground plane
- iStart automated starting device
- 12” x 18” flag set
- Binoculars
- Orange flag for end of the start/finish line
- Clipboards
- Miscellaneous other gear

The YRA box is a set of stackable toolboxes:



Coordinate with YRA (email [info@yra.org](mailto:info@yra.org)) on how to get it and return it.

The radio and iStart are battery-powered and should both be plugged in overnight before use.

There is a sticker on the back of the iStart describing the modes and how to set them:

iStart Pro									
Automatic Sailboat Race Starter by BalboaRacing.com (949)760-6050									
Mode	TIME	STYLE	TYPE	ALERT	Mode	TIME	STYLE	TYPE	ALERT
10	1:00	Dinghy	Once	None	41	3:00	Dinghy	Rolling 3+1	15 sec
11	1:00	Dinghy	Rolling	None	42	3:00	ICSA-C	Once	None
20	2:00	Dinghy	Once	None	43	3:00	ICSA-C	Rolling	None
21	2:00	Dinghy	Rolling	None	44	3:00	ICSA-C	Once	15 sec
22	2:00	Dinghy	Once	15 sec	45	3:00	ICSA-C	Rolling	15 sec
23	2:00	Dinghy	Rolling	15 sec	50	5:00	Rule 26	Once	None
24	2:00	Dinghy	Once	60 sec	51	5:00	Rule 26	Rolling	None
25	2:00	Dinghy	Rolling	60 sec	52	5:00	Rule 26	Once	60 sec
30	3:00	Dinghy	Once	None	53	5:00	Rule 26	Rolling	60 sec
31	3:00	Dinghy	Rolling	None	54	5:00	Rule 26 RCL	Once	None
32	3:00	Dinghy	Once	15 sec	55	5:00	Rule 26 RCL	Rolling	None
33	3:00	Dinghy	Rolling	15 sec	70	7:00	Match	Once	None
34	3:00	Dinghy	Once	60 sec	71	7:00	Match	Rolling	None
35	3:00	Dinghy	Rolling	60 sec	80	10:00	Match	Once	None
36	3:00	Rule 26	Once	None	81	10:00	Match	Rolling	None
37	3:00	Rule 26	Rolling	None	90	10:00	Rule 26	Once	None
38	3:00	Rule 26	Once	60 sec	91	10:00	Rule 26	Rolling	None
39	3:00	Rule 26	Rolling	60 sec	92	10:00	Rule 26	Rolling 5+5	None
40	3:00	Dinghy	Rolling 3+1	None	93	10:00	Rule 26	Rolling 5+5	60 sec

(1) Hold MODE button for 3 seconds, (2) Select desired mode with MODE button, (3) Wait 3 seconds to SAVE automatically. Version 1.3

Make sure the iStart is on mode **51**: 5 minute rolling starts per RRS 26, no extra alert, as that is most likely what will be used for the YRA race.

For more details on using the iStart, see:

[https://www.eastportyc.org/files/iStart%20Owners\\_Manual.pdf](https://www.eastportyc.org/files/iStart%20Owners_Manual.pdf).

## Review Race Documents

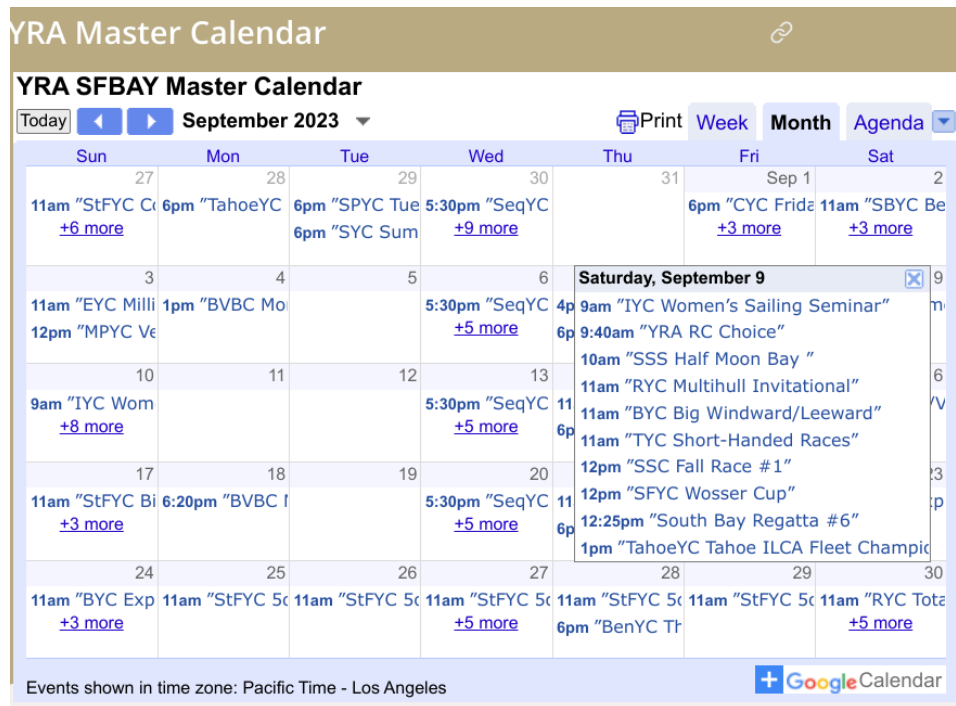
YRA will create the race documents — *Notice of Race*, *Sailing Instructions*, and any addenda to them — for your event. You may get to review them before they are published. If so, seize that opportunity to look for compatibility with the current **Racing Rules of Sailing** (RRS), and for logical consistency. If you don't take (or get) the opportunity, you'll have to live with the documents as provided.

Many YRA races have a series SI and an SI addendum for the specific race in the series. For example, the YRA Offshore series has an SI and each specific offshore race will have an addendum specific to that race. Often the most important details of the race are in the addendum.

## Check for Conflicting Events

Among San Francisco Bay, the coast, and Lake Tahoe we have more than 800 event-days scheduled every year. The bulk of them are on the bay. So more often than you might like, someone else, somewhere else on San Francisco Bay, will also be running an event that could interact with your event.

At least a week, preferably two, before your event, go to the YRA calendar at the bottom of the home page at <http://yra.org> and look for the date of your event. As an example, here is a screenshot after clicking on September 9, 2023:



Notice that in addition to YRA RC Choice (in the Offshore series), an ocean race out the gate from the cityfront, there's also the SSS Half Moon Bay race, which goes out the gate from the cityfront, and the Berkeley YC Big Windward / Leeward race, which goes out the gate from near BYC. It might be wise to at least check in on how those races could interact.

Click on all the entries for the date you are using, and you'll find important information for each. Some examples:

✕

**"YRA RC Choice"**

**When** Sat, September 9, 9:40am – 10:00pm

**Where** "Ocean" ([map](#))

**Description** "YRA ID: YRA-0802, USCG Permit #: SF-22-0025, Assigned Radio Channel: 72, Sponsoring YC: YRA of SF Bay, Contact: Laura Munoz, 415-771-9500, info@yra.org, "

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[more details»](#) [copy to my calendar»](#)

### "BYC Big Windward/Leeward"

**When** Sat, September 9, 11am – 5pm  
**Where** "Central Bay" ([map](#))  
**Description** "YRA ID: YRA-0794, USCG Permit #: SF-23-1095, Assigned Radio Channel: 72, Sponsoring YC: Berkeley Yacht Club, Contact: Mark Bird, 214-801-7387, Markwbird@yahoo.com, "

[more details»](#) [copy to my calendar»](#)

### "IYC Women's Sailing Seminar"

**When** Sat, September 9, 9:00am – 6:30pm  
**Where** "Alameda Estuary" ([map](#))  
**Description** "YRA ID: YRA-0795, USCG Permit #: NA, Assigned Radio Channel: 72, Sponsoring YC: Island Yacht Club , Contact: Ed Hanley , 775-336-7398, ezeftyer@gmail.com, "

[more details»](#) [copy to my calendar»](#)

Note that multiple events are assigned VHF 72! Perhaps you might want to check with those PROs and make sure your start times do not overlap, or that you'll all be broadcasting on low power, or some other mitigation.

Here's a different day, where a Singlehanded Sailing Society "Round the Rocks" race would traditionally have started at Berkeley Circle and used Alcatraz, XOC, YRA-17, and YRA-12 as marks before sending boats to Red Rock.

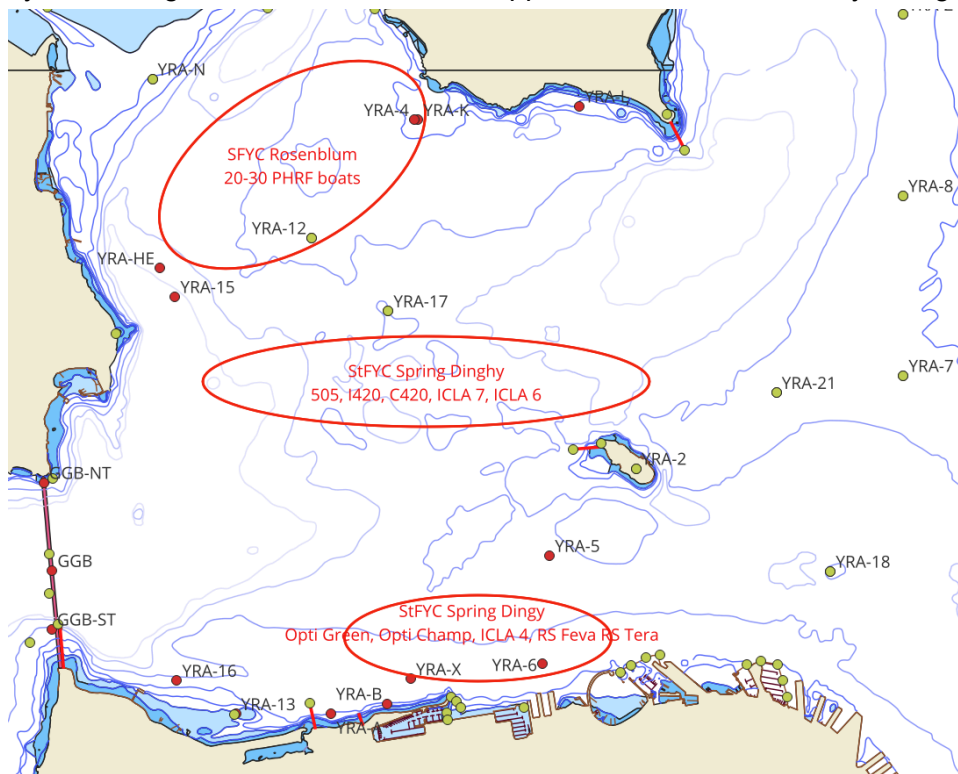
**YRA SFBAY Master Calendar**

Today ◀ ▶ **March 2023** ▼ Print Week Month Agenda ▼

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26 11am "BYC Cho <a href="#">+3 more</a>	27	28	Mar 1	2	3	4 9am "StFYC Ca <a href="#">+9 more</a>
5 9am "StFYC Ca <a href="#">+6 more</a>	6	7	8	9	10	11 10am "SYC J10 <a href="#">+5 more</a>
12 10am "SYC J10 <a href="#">+7 more</a>	13	14	15 6pm "MPYC Sui	16 9:30am "SSS Round the Rocks"	17 10am "SFYC Dave Perry Youth RS21 Clini	18 11am "HMBYC Londerville Regatta" 11am "StFYC Spring Dinghy" 12pm "SFYC Rosenblum Regatta" 1pm "SSC Spring Series #1" 1pm "SeqYC Redwood Cup #5 / St Patric
19 10am "SFYC Da <a href="#">+3 more</a>	20	21	22 6pm "MPYC Sui	23	24	25 11am "RYC Big <a href="#">+7 more</a>
26 9am "StFYC SF <a href="#">+4 more</a>	27	28	29 6pm "MPYC Sui	30	31	

Events shown in time zone: Pacific Time - Los Angeles + **GoogleCalendar**

By contacting other PROs, it became apparent that the central bay was going to look like this:



The best way you'll be able to know about conflicts, so you can make your own chart like this, is to check the YRA calendar. Then you can potentially alter your courses, tell all your boats to be aware of the other events, and have the other events' PROs aware of your event.

The point is that it is important to know about potential conflicts like this **before** the race, so you can reach out to the other PROs to minimize interaction between races.

Your race is important to you and YRA, but other people's races are just as important to them and their OA. In general, defer to:

- a) Longer-established races (for example, St Francis Opti Heavy Weather that has been run for decades off the cityfront and Ft Mason, vs a YRA race that decided to move there recently),
- b) Races with more entries, or
- c) Races with juniors.

## Check the Predictions for Wind and Current

In the last two days leading up the event, check the predicted currents and start looking at the weather forecasts every morning. It is especially important to check the weather forecast the morning of the race. Some good options are <http://windy.com> and <http://sailflow.com>.



It is best to check multiple models. The author currently likes the US HRRR model and the European ECMWF model. When those agree they are usually pretty close to what will happen. When they disagree, pay attention to both.

Do not just check multiple weather sites and assume they're independent! You could be looking at multiple visualizations of the same underlying model, which is no better than looking at just one site.



When you get to the event, check the actual wind. That's what the racers will be sailing in.

If the actual wind before the start agrees with both models, the models will likely be pretty accurate for the rest of the day as well. If the models disagree, which one agrees better with the actual conditions you see before the start of the race? That's the model you should trust more for the rest of the day.

## Canceling a Race

It is YRA's practice to cancel a race if the NOAA forecast shows a **gale warning** for the race time and area on the morning of the race. The PRO should consult with the YRA coordinator of that series or event, if possible, before canceling racing. Cancellations should be announced by 0730 the day of the race (if possible), certainly no later than 0900. The announcement should go out via Jibeset email & text to the skippers and crew.

The timing of the announcement is a trade off. Decide and announce too early, and perhaps a later forecast could show improved weather in which people could have raced. Decide and announce too late, and crew and skippers will go set up their boats for a race that is not happening --- or worse, they might be on the water coming to the event in the bad weather.

Probably some racers will miss the message, so the PRO should still go to the start line for a canceled race that would have been started from shore, to put up AP () over A () flags with two sounds and broadcast on the radio that the race is canceled. Then the racers who do come will know quickly they should not wait around. If the canceled race would have been started from a signal boat, consider the risk of going out in the signal boat in weather the racers should not be out in.

At the starting line, the wind speed and conditions should be observed and measured by the PRO. If the observed wind speed is sustained at 28 knots or higher for at least five minutes before the start of any race, that race should be abandoned. The type of boats that are entered to race should be heavily factored into the decision of the PRO to abandon a race. This criterion is a guideline, and ultimately it is the decision of the PRO to cancel a race or not.

If the conditions are marginal and the PRO does not cancel the race, an announcement of the decision and the fact that ultimately the decision to race is the responsibility of the skipper should be made to the racers.

## Prepare to Pick Courses

Ideally, each race should hit a time target. Time targets are set based on considerations like:

- We want our racers to spend more time racing than getting their boat ready and to/from the race course,
- We want everyone to be done with the race, have their boat put away, and be at the yacht club party by \_\_\_\_\_, or
- We want everyone to be safely in their home slip well before sunset.

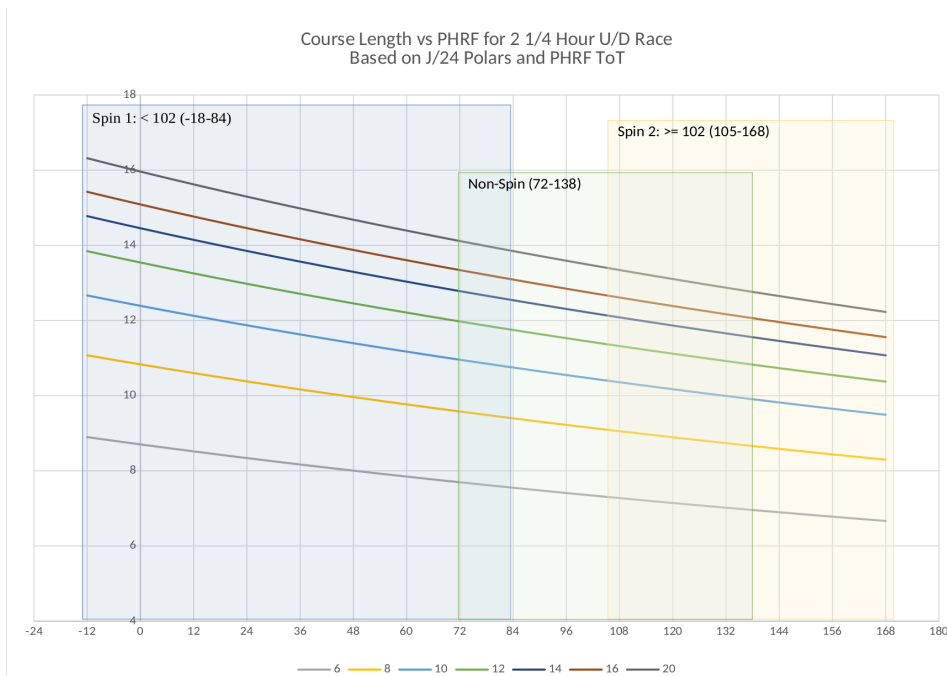
So step one is figuring out what the time target is. For YRA races, ask! You'll get an answer or a range of answers.

For example, for YRA Doublehanded Midwinters the time target is "We usually say we want courses that give races 2 to 3 hours of racing" or "2 to 2.5 hour races seem to be ideal."

So plan ahead by doing the math. What do you need to pick a course length to give a well-sailed boat a race of X minutes?

Note that the handicap ranges vary widely, and most boats in YRA races are not sailed to their handicap. We have to assume the PHRF handicaps are fair, and so if every boat is sailed to its handicap, every race would have all the boats finish with the same corrected time --- but a quick check of the corrected times for prior races will show some boats can be pretty far back. That means you'd be best erring on the side of caution.

Here's what the author made ahead of time for a race with a 2¼ hour time target that had three classes of entries spanning the PHRF ranges shown:



If you have a chart like this, for your time target, and understand the chart's limitations (upwind-downwind, steady wind speed, ignoring current), you can at least have a good guess for an appropriate course length.






There's no need to make a chart. Just do whatever prep work you think would best help you come close to hitting the time target.

## Prepare to Do Timing

YRA races traditionally use 5-minute rolling starts, and the racers expect that approach. Rolling starts can be a challenge --- many PROs dislike them because there can be a lot going on --- so make the process easier on you and your RC team.

Many YRA races are run with radio only (no flags), so if you get lost on which class you are starting, there's no flag to look at as a reminder. All this makes having a "cheatsheet" more valuable.

Here is the timing section of one of the author's races:

Flag	Class	Course	Warning Class flag ↑ (short horn)	Prep  (short horn)	1 Minute  (long horn)	Start Class flag↓ (short horn)
Alpha: 	Spinnaker 1 PHRF < 102		<b>1155</b>	<b>1156</b>	<b>1159</b>	<b>1200</b>
Charlie: 	Spinnaker 2 PHRF >= 102		<b>1200</b>	<b>1201</b>	<b>1204</b>	<b>1205</b>
Delta: 	Non-Spinnaker		<b>1205</b>	<b>1206</b>	<b>1209</b>	<b>1210</b>

The author will write down the course choices before the race, and cross off the times shortly after they occur. (If there is a delay that invalidates these times, he will scratch out the time and write the new time in the space underneath.) Then it's fairly easy to tell where you are in the sequence and what is supposed to happen next, freeing up mental capacity for other tasks.

If flags will be used, consider printing out copies for the flag team too, so they also know the timing and flags they will be using.

Other people use different formats, which is fine -- what matters is having something that will work for you and your timer.

## Prepare a Radio Script

These days most YRA races are run without flags over VHF radio. Even at races with flags, many racers have come to expect the Race Committee to tell them via radio what is happening.

The first rule of radio is to:

- 1) think about what you're going to say (which should be under 30 seconds),
- 2) take a breath,
- 3) press the microphone key,
- 4) wait a second, and
- 5) say what you're going to say, slowly and distinctly.

If you have to say more, pause a few seconds with your finger off the microphone key so someone else can talk if they need the channel, then repeat the steps above.

The "think about what you're going to say" part can be harder than it sounds. In ordinary conversation we tolerate more "ahs" and "ums" than are appropriate for radio. In conversation we vary our speech to be interesting, but in radio we should be completely consistent to make the message as easy as possible to understand.

The author's current script is:

- 10 minutes before the race:
  - Welcome the racers - "This is your Race Committee on VHF channel \_\_\_\_"
  - Announce the starting sequence will be on time (or not)
  - Report ship traffic expected to cross the course area during the event
  - Assuming starts will be on time, announce the intended courses for all classes
  - Repeat the intended courses for all classes, for benefit of those who did not have a pencil ready the first time
  - **State the following (or something close to this): "Please adhere to SI \_\_\_\_ that says you must notify the PRO if you are retiring or will not finish by the time limit, either by VHF radio or cell phone. Make sure the PRO acknowledges your message. This is a Coast Guard requirement, and if we do not correctly account for all racers we might lose our permit to race. DO NOT ignore this instruction."**
  - "This is your Race Committee standing by on VHF channel \_\_\_\_ - over."
- In the starting sequence
  - 10 seconds before the first warning: "We are coming up on the warning for class \_\_\_\_\_ in 5, 4, 3, 2, 1 <horn>, you will be sailing course \_\_\_\_\_."
  - 10 seconds before the prep: "Coming up on the prep for class \_\_\_\_ in 5, 4, 3, 2, 1 <horn>, you will be sailing course \_\_\_\_\_."
  - 10 seconds before the 1-minute: "Coming up on one minute to the start of class \_\_\_\_\_ in 5, 4, 3, 2, 1 <long horn>."
  - 12 seconds before the start of a class / warning of the next: "Coming up on the start for class \_\_\_\_ and the warning for class \_\_\_\_ in 5, 4, 3, 2, 1 <horn>. Class <that-just-had-warning> that was your warning and you will be sailing course \_\_\_\_\_."
- After all starts are done, conclude with "This is your Race Committee standing by on VHF channel \_\_\_\_\_."

**You should practice your script.** When you practice you may find you need to start earlier or later to hit your time target with the horn. The key is to practice enough to know that and adjust your script so it works for you and the horn goes off at exactly the right time.

If you don't have a script and you haven't practiced, you are more likely to struggle to get it out clearly and still hit the exact moment of the horn. And if that happens, you've just screwed up the starting sequence.

## Print and Reread the Race Documents

Print out at least two copies of the race documents so you have one for yourself and at least one to share with your RC team.

Before your race, and then again on the morning of your race, **read the race documents!** Be sure you are the expert on what is in all of them. That said, always be ready to look something back up, in case your memory is not 100%.

## Log into Jibeset

YRA races are entered and scored through Jibeset. The PRO should log into Jibeset before the race to make sure they can look up boat contact information during the race, and/or score the race.

YRA will send the PRO a Jibeset Access document with a pair of URLs and a “secret word” giving temporary access to Jibeset. Use the first of the two URLs to get access to most of Jibeset’s features. Cut and paste can be hit-or-miss, so be ready to type in the long URL by hand. The URL begins with “www.” and the www. is required.

If for some reason Jibeset gets stuck, close the browser and start over.

## Print Recording Sheets

YRA will send you recording sheets before the race day. Print a few copies of those and be sure to bring them to the event. It is a **lot** easier to identify which boats are in your race with a recording sheet than without.

## Bring Food for Volunteers

YRA races take several hours and you and your team may get hungry. Make sure everyone volunteering their time has a good day on Race Committee by bringing food.

YRA will reimburse for sandwiches and such if you submit a receipt.

Do not buy or bring any alcohol. If you (or the team) want to buy an alcoholic beverage, wait until after the finish sheets are turned in, and pay out of your own pocket(s).

## Get to the Starting Early

It’s important to be on station well in advance of the start so you can get settled, start watching the conditions, and start recording boats. We recommend getting to the starting line 75 minutes before the first warning.

If the race requires check ins, it’s especially important to be on station, and settled, so you can take check ins when the check in time window opens.

# Set a Good Start Line

Some YRA races start or finish from shore with fixed marks. Other YRA races start from a signal boat anchored in the bay, with a fixed mark for the other end of the line.

If you are on a signal boat, it is hard to get a good start line, because you will want to anchor early and as the current and winds evolve you will have to live with where you anchored. If you need to reset the line, the easiest way to do so is to let out or take in anchor scope to move the signal boat relative to the fixed mark. If the wind shifts too much, this will not work and you must weigh anchor and move the signal boat to a new location.

The ideal start line is downwind of the first mark, after accounting for current, such that boats have to tack and spend about 50% of their time on each tack.

The rule of thumb for the length of the starting line should be 1.5 times the sum of the lengths of the boats in the start. (With multiple classes, use the maximum of those line lengths.)

The signal boat should always be on the right side of the starting line when looking upwind, so the usual mass of starboard tack boats running down the line only have to avoid a buoy and not a boat at the start.

There are two descriptions of the ideal starting line's angle:

- 1) Perpendicular to the apparent wind as seen by a boat drifting with the current, or
- 2) Angled so that boats spread out over the whole line.

The second definition is the one you should try to achieve. If racers all want to start at the signal boat end of the line, that is a sign the boat is favored in their mind. And if they all try to start at the same end that becomes less fair, and less safe.

Sometimes racers want to start on starboard tack at the signal boat end of the line. To encourage racers to spread out along the line, deliberately favor the pin end of the line by 5 or 10 degrees. That should help spread the racers out a bit, and reduce risk of a pile up at, and risk to, the signal boat.

Put the starting line flag somewhere you can sight along it, but prefer a place as close as comfortable near the stern of the signal boat. Racers should not need to immediately make a sharp turn up after clearing the stern to get to the line.

Put an extra fender or mark on a bit of line and trail it 4' to 6' from the stern of the signal boat as a "keep-away mark," to protect the signal boat. You do not need a special rule in the race documents to use this; see the definition of **mark** in the RRS.

# Call Vessel Traffic Service to Open the Event

The Vessel Traffic Service (VTS) was created in response to a January 1971 collision of two oil tankers just outside of the Golden Gate Bridge. We are required to inform them about our events (if we have more than ten boats).

Before the first warning, call VTS at 415/399-7410 with the following information:

- The name of the event
- The location of the Race Committee
- The number of boats entered for the event
- The start time (first warning) of the event
- The finish time (DNF-after time) of the event
- The VHF channel you will be using, and listening to, all day
- Your name
- Your cell phone number

VTS will also ask for where you will be sending the boats. Tell them a general area and that you will get back to them with a better description, and an accurate count of the boat actually racing, shortly after the starts are done.

VTS will tell you you have to monitor VHF 14 as well as your race channel. If you have a radio with dual-watch, that's one way to do that. A better way is to have two radios.

Sometimes VTS will ask about your marine permit number. If you do not have that handy, don't panic! Use your phone to go to the YRA calendar, find your event, and your permit number should be listed there:



## "YRA Doublehanded Midwinter #1"

**When** Sun, November 19, 11am – 5pm  
**Where** "City Front/Central Bay" ([map](#))  
**Description** "YRA ID: YRA-0961, USCG Permit #: SF-23-1178, Assigned Radio Channel: 72, Sponsoring YC: YRA of SF Bay, Contact: Laura Munoz, 415-771-9500, info@yra.org, "

[more details»](#) [copy to my calendar»](#)

Do not hang up after you have given VTS all the answers they seek! Ask them to tell you about ship traffic they expect to pass through your course area between your start and end time, and write that down so you can tell your racers about it. The author has a table on his cheat sheet like this:

Coming	Vessel	Time	Coming From	Going To
In / Out				

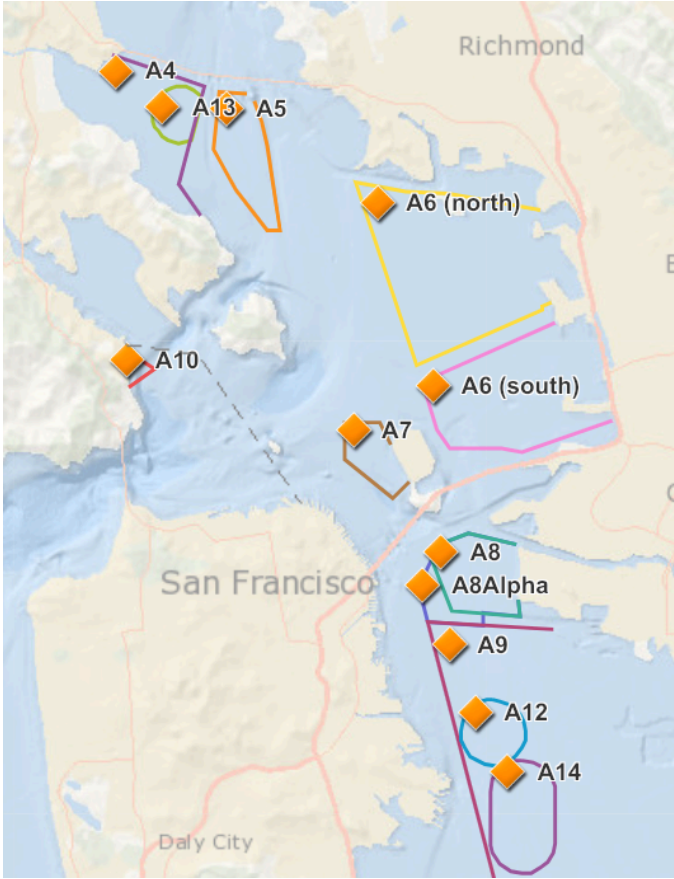


In / Out				
In / Out				
In / Out				
In / Out				
In / Out				
In / Out				

Most commonly you'll hear a "coming from" or "going to" of that is one of the following:

- Sea = out the gate
- Anchorage 9 = South of the Bay Bridge
- Long Wharf = The Richmond Long Wharf near the Richmond San Rafael Bridge

Anchorage 9 is by far the most common, but see below for a chartlet of where the other anchorages are:



## Handle Check ins (if required)

Some races require check ins. This requirement will be in your race's Sailing Instructions. Whether or not check-ins are required, it is important to know who is racing, for both scoring and safety.

Before the race, the RC should take notes of which boats are in the starting area. The PRO can do this, but it's best to delegate.

Tracking boats can be most effectively done by thinking about how the person doing the work will recognize the boats. If they know them by name, a sheet organized by name is good. If they know boats by sail number, a sheet sorted by number is good.

### Ocean Race Check ins

Ocean races have stringent check in requirements for safety. It is important to confirm the boat has a working VHF radio that can talk to the Race Committee, because that means they can talk to the Coast Guard in an emergency. And it's important the boat can hear the Race Committee, to be sure they could hear the Coast Guard's instructions.

The protocol is described in the race documents, but in outline form:

- The boat is supposed to get close to the RC, wait for the channel to be clear, and say the boat name, sail number, and number of people on board,
- The RC asks if the people on board match Jibeset,
- If the boat says the people match Jibeset, the RC puts a check mark by the boat's entry on the competitors list,
- If the people on board are different, the boat's skipper or designee must log into Jibeset from a cell phone and update the persons-on-board records and get the waiver signed for everyone on board
  - The Race Committee will not update Jibeset for a boat in any circumstance, since the RC cannot sign a waiver
- The RC responds with "Thank you <name>, <sail number> we have you checked in."

Check ins are important, and we do not accept merely sailing by the RC on an ocean race.

Because we enforce the check in window, it's a really good practice to announce how much time boats have left to check in at:

- 30 minutes,
- 20 minutes,
- 10 minutes, and
- 5 minutes.

left in the check in window.

Then, at exactly the time<sup>1</sup> stated in the race documents, make a final announcement “The check in window is closed, no more check ins will be accepted.”

We do not accept late check ins. Boats need to be done with check in by the time specified in the race documents, and if they have not, you should:

- 1) Write down they attempted to check in at <time> ,
- 2) Announce “Boat calling in, the check in window closed at <time> per SI <sailing instruction line number>.” Do **not** use the boat’s name.
- 3) Score them DNS, with a comment “SI <check in requirement line number>”

## Pick Courses

Keep watching the actual wind and current around the course until about 15 minutes before the first warning. At that point you’ll need to decide on the course.

Do not let the perfect be the enemy of the good. Our racers will be happier sailing a “good” course at the scheduled time than a “better” course after a postponement.

If you did the prep work above you should have a pretty good idea of an appropriate length.

Pick the course direction. The ideal course these days sends people directly “upwind” from the start with 50% of the time on each tack, and “downwind” with 50% of the time on each gybe, to create more passing lanes. (The “reaching” style courses from the 1990s, like “triangle-windward-leeward,” are now frowned on because the reaches create a hard-to-pass “parade.”) Note that with current, the goal of 50% of the time on each tack is rarely directly upwind. See the US Sailing (or World Sailing) [Race Management Handbook](#) for more details.

YRA races typically have no markset boat or temporary marks, so we have to do the best we can by picking from a prepared list of courses that go around fixed marks.

Try to find a course where:

- The boats start upwind, and up current, or at least not downwind and down current,
- As many legs of the courses as possible require the boats to tack or jibe on the leg, not just at the ending mark, and
- The course length fits the time target.

Next, do a safety check:

- Do all the classes start in the same direction?
- Do all the marks for all the courses get rounded the same way?
- Do all the classes finish in the same direction?

---

<sup>1</sup> All times should be GPS time.

It is best not to send boats on a course where some boats round a mark to starboard and some to port. You may also wish to avoid courses where a mark is rounded one way early on and the other way later, since in theory if boats spread out far enough the leaders and laggards could be rounding at the same time.

## Make Sure All Volunteers Know Their Roles

Do a final check that all the roles are covered:

- Calling out the time,
- Making the sound signals,
- Broadcasting to the competitors,
- If flags are used:
  - Handling the course flags,
  - Handling the class flags,
  - Handling the P flag,
- Sighting the line:
  - If flags are used, someone must be able to raise a X or first substitute flag quickly for individual or general recalls,
- Recording the boats that crossed the line successfully.

Usually everyone takes several of the roles. When the author is PRO on a no-flags race, he'll typically take timer, sounds, and radio and delegate recording and line sight to a second person. If there are three people, he'll ask the line sight person to keep a second record of which boats started.

## Run the Starts

As PRO your job is to make sure the starts happen smoothly. If you have taken a role like timer and sounds and radio, do them --- but make sure the other roles, like line sight and recording the boats that started, are getting done.

If something looks pretty wrong --- for example you set a start line and everyone is at the boat or the pin --- you may want to postpone (put up the AP flag) and adjust the line if you think you can fix the problem. That is your call to make.

## Call VTS Back

After the starts, call VTS back on the phone or VHF 14 to tell them the actual number of boats racing and the course(s) the boats are on.

## Watch the Fleet and Record Boats that Retire

Pay attention to the racers.

You should see how well your course pick is working out. Where are they going? Are they tacking or jibing as you expected? If you had to do it again next month or next year, would you send them on the same course?

On an ocean race, use <http://marinetraffic.com> to watch the boats with AIS to get a sense of what is happening when the fleet is out of sight.

If boats retire, a good practice is to record sail number, boat name, that the boat is retired, and the time they retired at the bottom of a finish recording sheet, working backward up the page.

Remember to monitor VHF, both your assigned race channel and VHF 14. The Coast Guard, or a ship, might call you on one of those at any time to ask about your race, and you need to answer promptly. A container ship moving through the bay at 20 kts is traveling at over 2000 feet per minute, so when they want to talk to you, they want to do so right then.

## Record the Finishes

Have one, or better two, recorders write down all the finishes on a single list organized by finish time. Sometimes new recorders want to write down times next to a list of boat names, or write down finishes in per-class lists. Make sure they are not doing that as it only creates risk --- a computer will take care of all the organizing later.

If possible, have the recorders write down the sail number, time, and the boat name as boats finish. YRA races sometimes have duplicate sail numbers. It is also possible to mis-read a number. If you have contemporaneous boat names, you'll still be able to figure out what happened.

The person calling line sight will need to identify boats. It is really handy to have them wear a bluetooth headset and use a voice recorder. Or use a camera's video abilities. Phone video is fine. Don't assume you will be able to see sail numbers on the video (they're much too small), but video can provide context to the voice in a close finish. It's good practice to occasionally call out time-ticks into the recording too, like "we are coming up on 14:25 ten, eleven, twelve..." That way you can get a time you might have missed by looking at the time difference in the recording from your time tick to when the recording has the boat cross, and adding that to the time of the time tick.

Many racers like to get a horn or sound signal when they cross the finish line. Alternatively, broadcast over the radio shortly after the finish to say something like “<name>, <sail number> we have you finished.” This is not required, but up to the PRO.

## Confirm All Boats Safely Finished (or Retired)

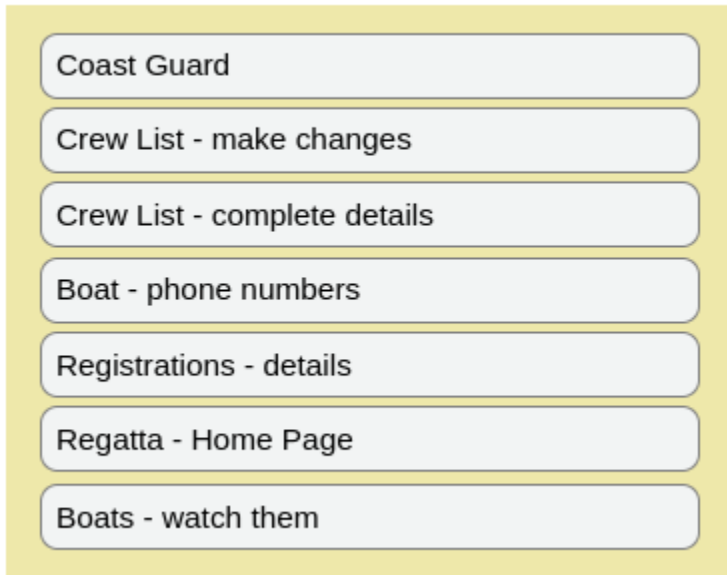
Cross check that all the boats have finished or safely retired. You should not leave the venue until all boats are accounted for.

On ocean races, the Coast Guard has requested the RC to confirm boats are safely back in the bay, too.

If needed, hail on VHF radio or call the cell phone number of skippers of missing boats to find out where they are. Probably they went home without telling anyone. But perhaps something more serious happened. You have the responsibility to find out.

To contact boats, log into Jibset per instructions above. Within Jibset, scroll to the bottom section on the Race Day Services Home page:

### Service Commands



Click on “Boat - phone numbers” to get a summary of all the phone numbers. For more details click the “details” button in that list for a specific boat, or use “Registration - details” in this list.

## Close Out the Race with VTS

When everyone is safely accounted for, call VTS back and tell them you are closing the event.

## Send Finish Sheets to YRA

If you have multiple finish sheets, cross-check them for consistency.

Take a photo of the finish sheet with the best handwriting and send to YRA ([info@yra.org](mailto:info@yra.org) if email, 415/771-9500 if text).

If the PRO knows Jibeset and is willing to score the race in Jibeset, that will provide the two benefits of getting results to racers sooner, and offloading YRA staff. A full Jibeset scoring tutorial is out of scope for this document. Please generate and post “preliminary” results when done.

## Thank the Volunteers

When you get home, send a thank you email to all the volunteers in the next 24 hours. Be as specific as you can about what people did: “Ted, thank you for catching that boat we almost missed. Tom, thank you for handling those over early boats.” A personal, detailed message is a much better message than a plain “Thanks all.”

## Make Notes for Next Time

Shortly after the race, jot down some thoughts about it. What went well? What did not? What would you do differently next time?

That’s a great way to learn from experience, and become a stronger PRO in the future. Communicate these notes with all volunteers so all can improve next time.

## Create the Event in US Sailing SOARS

Some of the volunteers may be working toward US Sailing Certification. If you’re a US Sailing member, you should create the race in SOARS within a week or two of the event. If you are not a US Sailing member, ask the YRA to create the event in SOARS.

## Appendix: Understanding the Limitations of Weather Models

Do not expect too much from a model.

Big weather models are serious supercomputer stuff because they’re solving extremely complicated equations many time steps per hour for roughly a hundred different quantities at

myriad elevations for many grid points. Here are the publicly-available hourly quantities and elevations for the US HRRR model:

**HRRR Hourly 2D Forecasts**

Directory: /hrrr.20230510/conus

**Available Data Dates:** [hrrr.20230510](#)  
[hrrr.20230509](#)

**Area:** **conus**

**Available Files (file size):**

**Parameters**  Check Highlighted  Check All Parameters  Uncheck All Parameters

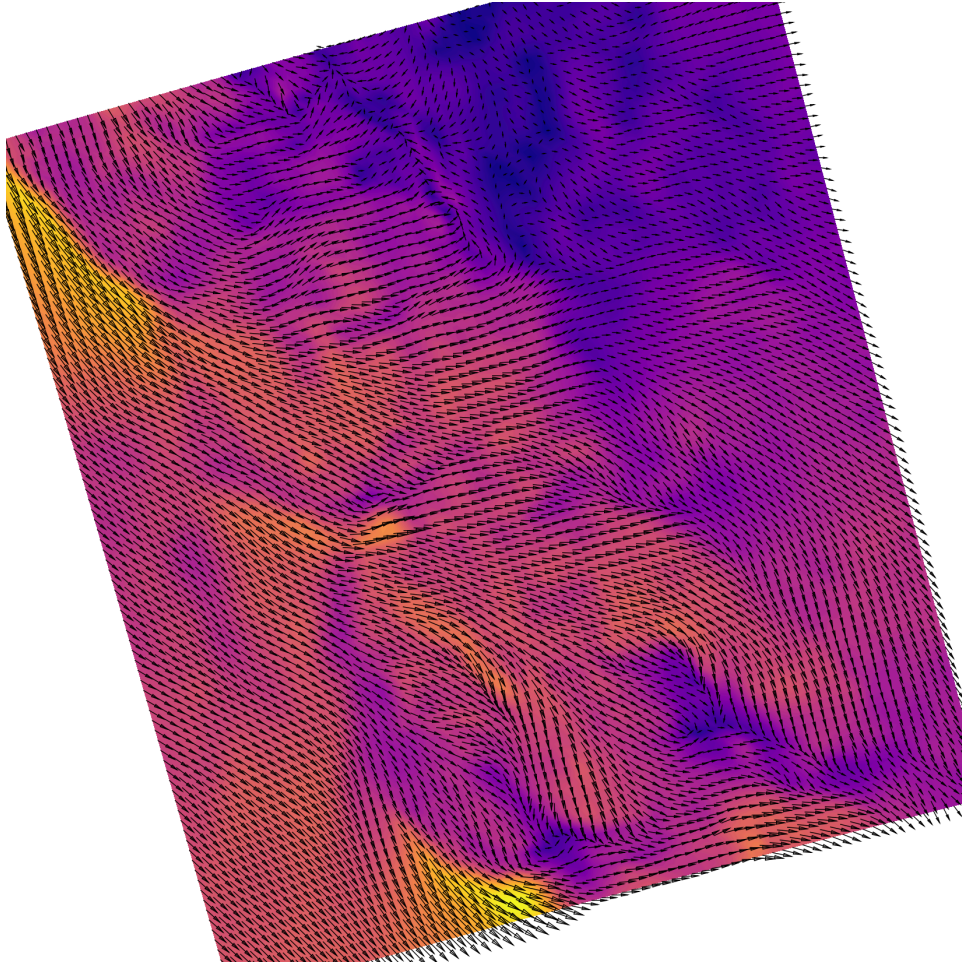
all  4LFTX  AOTK  APCP  ASNOW  BGRUN  CAPE  CFNSF  CFRZR  CICEP  CIN  CNWAT  COLMD  CPOFP  CRAIN  CSNOW  DLWRF  DPT  DSWRF  DZDT  FRICV  FROZR  FRZR  GFLUX  GUST  HAIL  HCDC  HGT  HLCY  HPBL  ICEC  LAI  LAND  LAYTH  LCDC  LFTX  LHTFL  LTNG  MASSDEN  MAXDVV  MAXREF  MAXUVV  MAXUW  MAXVW  MCDC  MSLMA  MSTAV  MXUPHL  PLPL  POT  PRATE  PRES  PWAT  REFC  REFD  RELV  RETOP  RH  RHPW  SBT113  SBT114  SBT123  SBT124  SFCR  SHFTL  SNOD  SNOWC  SPFH  SSRUN  TCDC  TCOLG  TCOLI  TCOLW  TMP  UGRD  ULWRF  USTM  USWRF  VBDSF  VDDSF  VEG  VGRD  VGTYP  VIL  VIS  VSTM  VUCSH  VVCSH  WEASD  WIND

**Levels**  Check Highlighted  Check All Levels  Uncheck All Levels

all  0 m underground  0.1 sigma level  0.5-0.8 sigma layer  1 m above ground  2 m above ground  8 m above ground  10 m above ground  80 m above ground  1000 m above ground  4000 m above ground  1000-0 m above ground  2000-0 m above ground  3000-0 m above ground  5000-2000 m above ground  0-500 m above ground  0-1000 m above ground  0-3000 m above ground  0-6000 m above ground  90-0 mb above ground  180-0 mb above ground  255-0 mb above ground  100-1000 mb above ground  0C isotherm  253 K level  263 K level  500-1000 mb  1000 mb  925 mb  850 mb  700 mb  500 mb  300 mb  250 mb  surface  mean sea level  entire atmosphere  entire atmosphere (considered as a single layer)  top of atmosphere  cloud base  cloud ceiling  low cloud layer  middle cloud layer  high cloud layer  cloud top  boundary layer cloud layer  equilibrium level  highest tropospheric freezing level  level of adiabatic condensation from sfc  261 K level - 256 K level  no level

The grid points are placed every 3 km or 5 km or 9 km or 22 km, depending on the model. Wind on a 3 km grid looks like this:





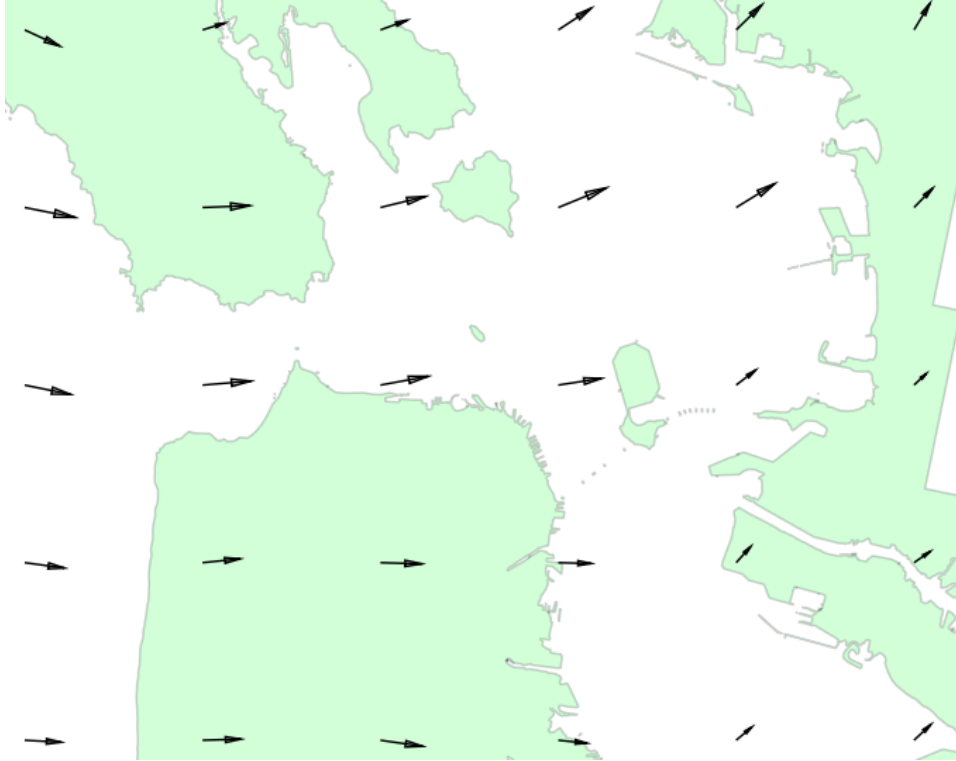
Each point is an approximation to the area average, if you can think in terms of a grid of squares centered on each arrow. You can see some of the geography --- the bay and the coastline and some of the hills --- just in the wind data.

And you can see there's a lot of grid cells --- and this is just a small fraction of the continental US, so the supercomputers have to work very hard to do this level of detail.

That's really great for weather forecasting weather across the county, or even weather for TV news for the bay area, to talk about how conditions will vary between the north bay and the south bay, for example.

Above was a 3 km model. Most others are 9 km, or even more coarse.

Here's a raw 5 km model, with an underlay from the NOAA charts for the bay, showing everything from outside the Golden Gate Bridge to Jack London Square, north to Richmond and south to roughly Hunter's Point:



A 5 km model counts as very high resolution, but notice how very few points there are in a typical race area like the central bay. And if you use a 9 km model like ECMWF, that only has about a quarter of these points. And note the “points” themselves are not points, but area averages --- that arrow east of Angel Island does not mean there is strong wind expected right off of Quarry Point, it means that the area average across the 25 square km box around that point has strong wind.

When you zoom in on something like Windy, you’re not seeing more data than this, you’re only seeing interpolations of this data. And at least the free version of Windy deliberately lowers the resolution of this further to encourage people to pay for their paid service.

So if you hope to see how the wind will flow around Angel Island or Alcatraz, a weather model’s not going to do that. You have to know things like “in a west wind, there’s going to be a hole east of Angel Island.”