# SailRacer GPS Tracking App

The app has three key functions

- 1. View races live and in replay, with detailed leg by leg analytics
- 2. Track your boat in a race
- 3. Race management and scoring for event organisers

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06:30 . dl 🕤 **sai** Racer Q Search Events ADVANCED SEARC Racer C19 Informal Races CLASS Bowmoor 📑 12/05/2020 💼 Various Silver Liller 07 March 2020 Enter Online www.BURGHFIELDSAILING.COM Merlin Rocket Silver Tiller **CLASS** Burghfield 🛅 07/03/2020 💼 Burghfield Sailing Club Events Favourites Settings Manage



Support

info@sailracer.co.uk

#### SailRacer GPS tracking

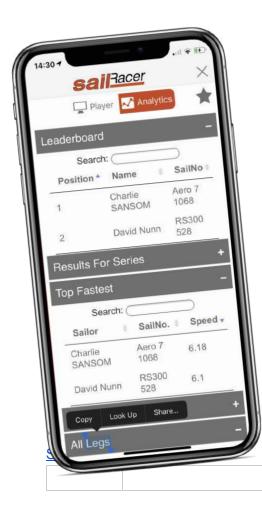
#### Features

#### Individuals

- View live and historic races
- Detailed leg by leg analytics
- Track your races

#### **Clubs and Classes**

- Set-up races
- Record library of fixed buoys locations to club account
- Ping laid marks
- Use one of the predefined library of buoys eg Solent Marks
- NFC electronic tally system (Android)
- Finish times and lap counts recorded from SailRacer GPS tracking data
- Scoring interface to allow manual corrections and addition of scoring codes eg RTD







# **Dedicated GPS tracker**

Although the SailRacer app can be used as a live tracker on the sailor's mobile phone the preference is to use a dedicated tracker :

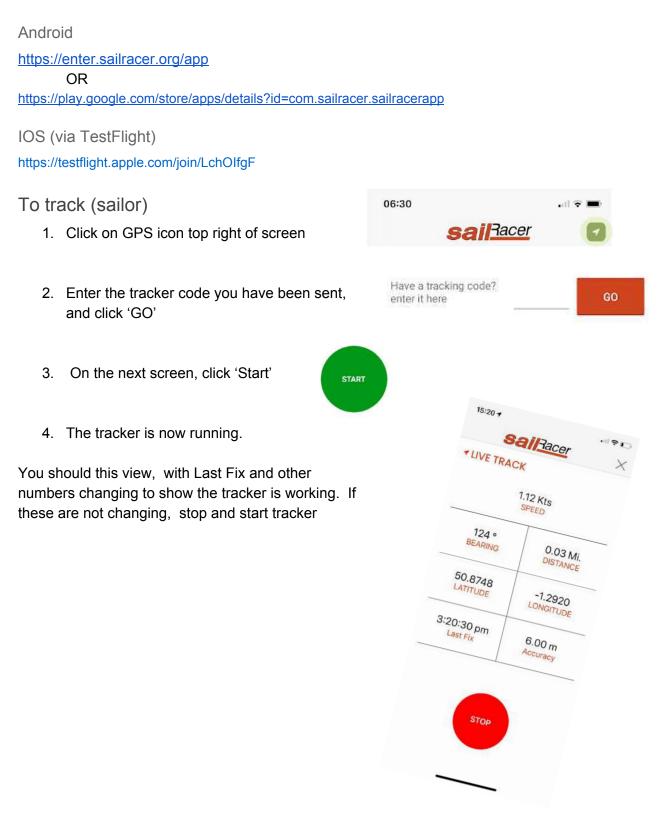
- Easy to use nothing to download and configure
- Always on don't need to remember to click start
- Long battery life compared to phone
- Not all sailors want to take an expensive smartphone afloat.
- Comes with waterproof bag
- Doesn't use sailor's mobile data plan
- Avoids compatibility issues across different phone types.
- Easier to support
- NFC electronic tally system







## To download the app (Beta version):





SailRacer GPS tracking

#### Phone GPS settings

It is best to have this set to **Always**, then if you minimise the App the GPS data will be always sent to the server . Also any sleep modes turned off

The tracker app will still work if there is No Connection available, storing the data and uploading when next makes a connection eg picks up clubs WiFi when coming ashore

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17:53 🕈 🗩	$\leftarrow$ Location permission Q
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ALLOW LOCATION ACCESS	SailRacer
Never	
Ask Next Time	Allow all the time
While Using the App	<ul> <li>Allow only while using the app</li> </ul>
Always 🗸	<ul> <li>Deny</li> </ul>
App explanation: "Allow SailRacer to obtain your location for tracking"	See all apps with this permission
	◄ ()) ■



# **Race Viewer**

Here you can see a list of events SailRacer has tracked, races can be viewed live and in replay. Search functions allow you to find and filter down to particular events.

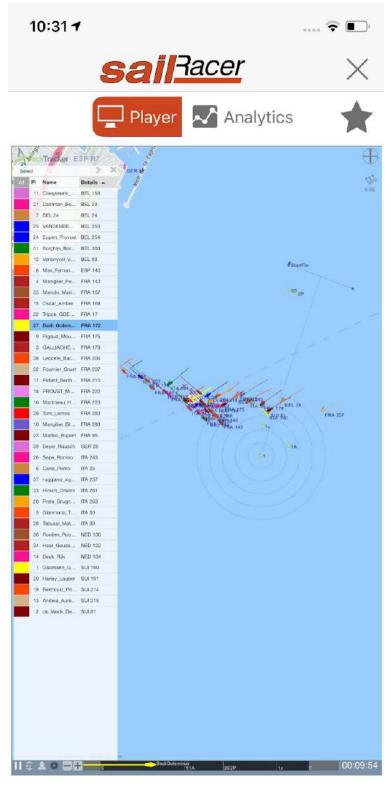
SailRacer has tracked over 10,000 races, covering all levels from club races to world championships, and all boat types (dinghy, windsurfer, sports boat, yachts, SUP, canoes and power boats etc)

SailRacer tracking overview





# **Race Viewer**



Watch the race in live or replay

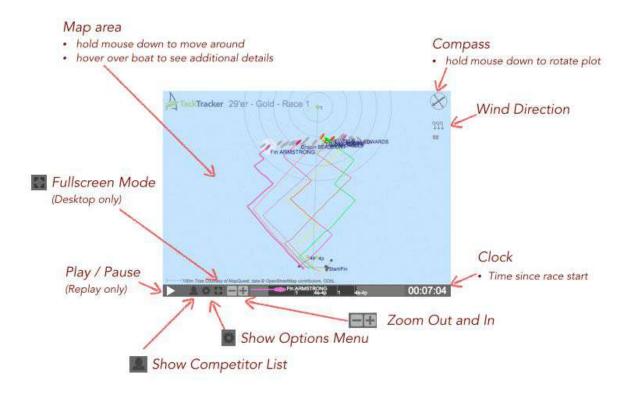
Select certain boats

Scroll through the race with slider (bottom of race viewer)

Overlay performance data (speed, VMG, bearing) and tails.



SailRacer GPS tracking



# Analytics and Data

The GPS tracking produces a wealth of data on a leg by leg basis, this helps coaches and sailors understand where the gain and losses have been made across the race course. Allowing comparison with other sailors.

- Leaderboard
- Overall series results, including discards
- Top Fastest
- Individual leg drill down
  - Time
  - Adjusted time
  - Port and Starboard deviations
  - VMG
  - Speeds
- All legs summary



11:07 🗲							
sai Racer ×							
Player Analytics							
Leaderboard	d –						
Searc	h:						
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2 Claeyssens_VandenBer							
3	3 Petard_Berthomieu						
4	Max_Fernandez						
5	Maniglier_Peters						
6	Damman Bergh						

Provisional overall series results calculated live during the racing the race based on latest current positions.



SailRacer GPS tracking

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11:09 🕇		
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Top Fastest		
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$\Leftrightarrow$	SailNo. 🛊	Speed 🗸
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d_Princivalle	SUI 214	13.18
Marion	FRA 167	13.14
leminov	FRA 172	12.68
u_HOVNANIAN	FRA 223	12.53
3erthomieu	FRA 210	12.36
THE ADMAID	EDA 170	12 26



SailRacer GPS tracking

	sa	Rac	er			$\times$
	Play	er 📈	Analytic:	s		
All Leg	S					-
				Searc	:h:	
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(View)	T NOOD T_Martifiedu		55.15	15	13.40	12
View	Martineau_HOVNANIAN	!	35:43	2	12:42	1





Races you have been entered in

From settings you can see what races you have coming up

Clicking on a race will bring up the course 16:53 **sail**Pacer Race : R2 Start : 13/06/2020 17:00:00 Course : Beacon 7P 7L Boundary 7L

Si	ai Racer	6
Settings		
Tracking Interval	5	
Tracking Code	Weston-W	
Race Admins		0
Version 1.0(1.9.6)		
Upcoming Races		
	ry 7L 7P Beacon 020 17:30	
	7P 7L Boundary 020 17:00	
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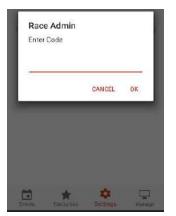
SailRacer GPS tracking

Maps

#### **Race Management**

1. Under 'Settings' click on 'Race Admin' and input the event organiser code you have been sent by SailRacer. A new tab 'Manage' should now appear at the bottom of the screen.

- 2. Click on the 'Manage' tab and select 'Race Management' from the top of the screen.
- 3. Select the Race you want to edit (e.g. R1).
- 4. Fill in the details on the next screen.
- 5. If your club uses fixed marks, and they have been pre-entered into the system, select 'Allow Preset Buoys Lookup'. A dropdown will appear click on it and select your club.
- 6. An 'Add' button will also appear. Click on this and select the buoys you want to race around, in turn

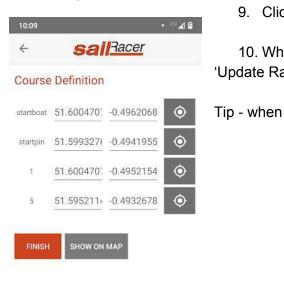






10:30			• ** ⊿ 8
← (	sail:	Racer	
Race Name			
R1			
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151			
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Type Of Event			
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Events Fav	ourites	Settings	Manage

- 7. If you want to 'ping' marks for your race, in the course box fill in the names of the marks to be rounded in order, separated by a space (e.g. 1 2 3 4).
- 8. Click on 'Course Definition' at the bottom of the screen. Go near each mark and press the 'ping' button next to the appropriate buoy name.



9. Click 'Finish' when done.

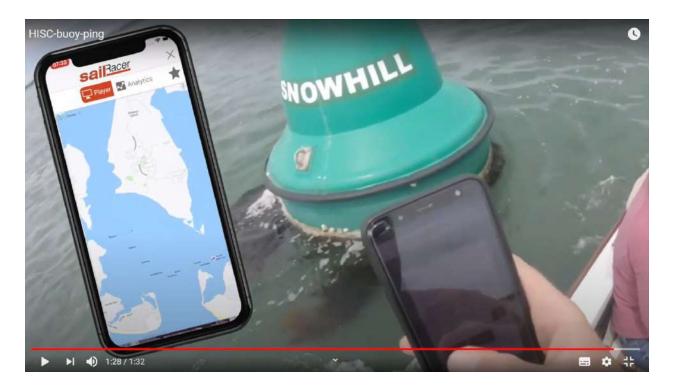
10. When you have filled in all of the details, click on 'Update Race'.



Events Favourites Settings Manage

#### Buoy Library - select from Manage screen

Here you can build up a library of fixed club marks to be re-used in different races. These can be pinged whilst visiting each buoy or manually entering their locations. If you have a file of buoy names with longitudes and latitudes, please email <u>info@sailracer.co.uk</u> and we will import against your account



See video http://new.sailracer.org/ResultsEntry/Article/9434

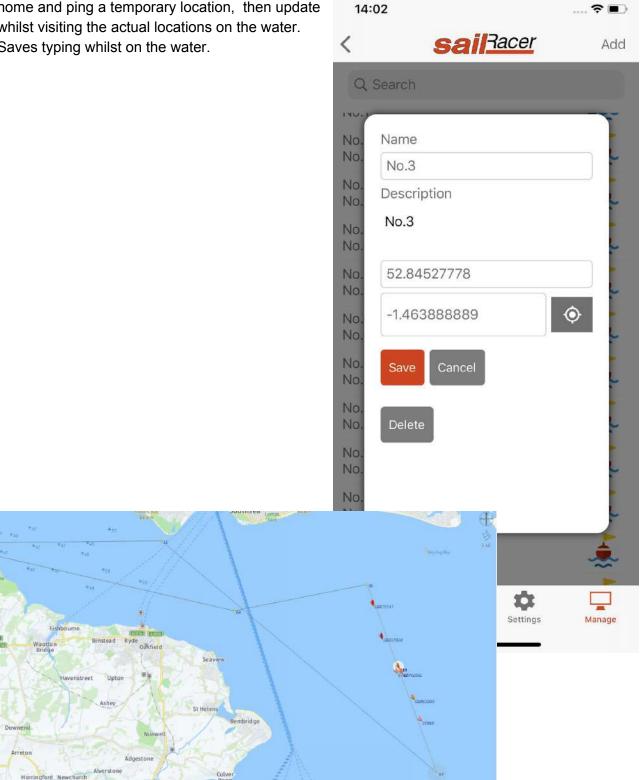
The following are special names if you have fixed start and/or finish lines, to define either end :

StartBoat StartPin FinishBoat FinishPin





Tip - Club Buoy Library, add the buoy names at home and ping a temporary location, then update whilst visiting the actual locations on the water. Saves typing whilst on the water.





SailRacer GPS tracking

Show Pare

# Entry List

	A	R	G	U	E
1	SailRacer			Import Entries	
2	Classtype	Sail Nos	Helm	PY/TCC	Code
13	GP14	4567	Sailor 2	1130	Code-B10
14	Laser Radial	7900	Sailor 3	<mark>11</mark> 47	Code-B6
15	Mirror	11233	Sailor 4	1390	Code-B28
16	Laser	14566	Sailor 5	<mark>1</mark> 108	Code-B16
17	2000	17899	Sailor 6	1090	Code-B8
18					
10					

This is set in a Google Sheet or imported from an online entry system

If you are using the Google Sheet, please click the **<u>Import Entries</u>** link prior to the start of your race, entries will be imported into the next race coming up (need to define one first).

The classtype will do a look-up against preset classes and their corresponding handicap. You can over type if your class is not listed and manually add PY or TCC (< 2)

The allocated and individual Code against each competitor is the one you should give them to enter in their SailRacer GPS Tracker App to ensure their tracks are correctly displayed.

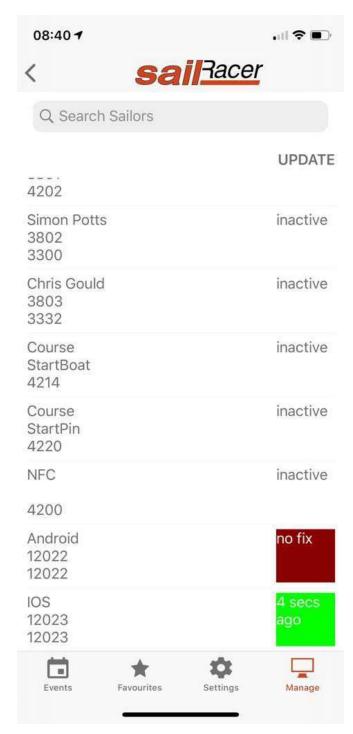
Have a tracking code? GO GO



# Trackers status

Here you can see all your trackers are live\*

\*NB the trackers will still log data even when no connection, but obviously the tracker status will not show them as live





NFC Checkin and electronic tally

Use the SailRacer App for electronic tally using NFC tags



**READY TO SCAN** 



HOLD YOUR TRACKER NEAR THE DEVICE TO CHECK IN



#### Scoring

Finishing times and lap count are calculated from the SailRacer GPS tracking data, the App allows corrections to be made, and or scoring codes added eg OCS.

If you are running an Open Start race the time the boat crosses the StartLine for the first time will also be recorded from the tacker.

For multiple start races (typically big handicap events), each boat will be assigned to one of the starts from the entry list and the elapsed time adjusted accordingly.

For a pursuit race finish positions will be calculated using the nearest distance to the finish line at the end of the race period.

### **sai** Racer < Race Name : Tiger R1 Started : 01/02/2020 13:30:00 Penny CLARK 505 9196 Mol Finish 14 : 07 : 33 Nac Time Val 2 Laps Cha Scoring code OCS Ton Las Start Number 2 Per 505 Save Cancel Lav Ent Me Done DNS OCS BFD DNF

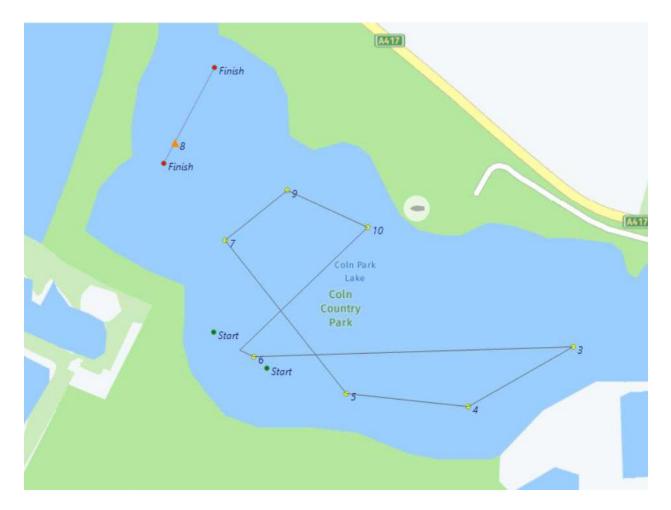


#### Race Set-up Guidelines

#### Course design and race setup considerations

**Open Starts (simple racing)** - here sailors can elect when they start it is important the finish line is offset away from the main course. The clock starts when the sailor crosses the line first and stops when they cross the finish line. The number of laps sailed will also be recorded.

The start and finish times determine when the race course is open and closed, to give sailors ample opportunity to race the course in their own chosen time and to spread out (socially distanced) it suggested to have race window at least twice the target time, so for a 30 minute race you would set the race window to 60 minutes.



**Normal Races** - here there is a designated start time. For races with a large number of races there can be several starts to fit everyone on the start line, these will often be at 3 minute intervals and be set in the race edit screen.

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**sai** Racer



Different Race Types

**Yacht Rac**e - here there are fixed number of laps for two laps a course configuration may look like this as an example :

2 laps	
123123	

3 laps

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#### 12313

**Average Laps** - here boats race around the course until a signal (often S flag - ) is made so that they can finish. Often boats will be crossing the finish line on each lap, so to keep the clock running you should set the time the Finish Line opens in the race edit screen.

The course only needs to be defined once as the number of laps may be different for each boat eg

1234
------

The elapsed time for each boat, allowing for different start time (if multiple start times set) and number of laps will be recorded. This will then give an average lap time corrected to handicap (PY or TCC) to determine the race ranking. The sailing instructions should include provision that the finish line can only be crossed in one direction (e.g. upwind) from a particular course and should be designated an obstruction if crossed elsewhere on the course. For example :

After starting, boats shall not cross the start/finish line in a downwind direction, and the start/finish line is an obstruction to boats approaching it from the upwind side.

**Navigation Rally** - typically used for power boat rallies on the water - Competing boats travel a defined course at their set speed, and the scoring system deducts points for each second early or late through the measurement gates.



# Web display and embeds

The SailRacer tracking can be embedded within your club website and also displayed on a big screen in the club house.



