



# Regatta-Playbook User Manual V 1\_2

## *Detailing the boats configuration.*

This page addresses the specifics of the data you have, how your boat behaves, how we process it and what level of detail you want to see in your reports. It is OK to accept the defaults and just create a configuration.... OR...you can configure it to your specific needs.

**Section 1: General Settings.** The small “Information bubble” explains each field if you need more info. Here’s the fields:

**Use Expedition Polars?** Your exported log contains polar and target data. It’s best to use it unless you’re experimenting with it.

**Summary Language:** English. Sorry, there’s no others at this moment, but if there are specific requests we will consider it.

**Input File Units:** The default for logging is feet, so unless you KNOW it’s different, keep it this way

**Output File Units:** We will convert to Meters if you want.

**Auto Fill Data:** In general you want to say yes, as any missing data, even for a second in any required field will abandon the processing of the file.

**Section 2: Maneuver Settings:** This section addresses how quickly your boat goes through maneuvers. Tacks, Jibes etc. it’s a good idea to look at a couple of tacks to get a good idea of what the times will be, as it is the basis of your analysis. The times shown are a good start for most modern race boats.

**PreTack Time:** This is the time before head to wind you want to include. This time should still have the boat at speed and at a normal upwind speed and trim. 10 seconds is typical

**PostTack Time:** This is the time that your boat takes to get back into full upwind trim. 20 seconds is probably too low for most, and 40 is probably too much. Less is better here but it still needs to be long enough to be at full speed. We would recommend 25 as a baseline.

**Fetch Angle:** Normally, we do our scoring based on your TARGET speed and angle. However, at some point you’re not going for best VMG and are just sailing to a mark. At this point, we change over to using POLAR speed. The TWA we use to determine this is called the “Fetch angle” It’s typically 5 degrees or more than your widest target TWA. For most, 55 covers it, some could use 50.

**Run Angle:** This is the downwind version of fetch angle. 135 is safe.

The screenshot shows the 'Create Configuration File' interface. At the top, a green bar says 'Create Configuration File' and 'Optimize your sailing performance with custom settings'. Below this, a message says 'The data for boat evenbetterboat has been submitted. Generic boat configuration applied (no custom file uploaded). Generic tack targets applied. Boat image uploaded successfully.' There are three status bars: 'Creating configuration for boat: evenbetterboat' (blue), 'Creating configuration for: evenbetterboat' (green), and 'Creating configuration for: evenbetterboat' (green). The 'General Settings' section has two dropdowns: 'Use Expedition Polars' (Yes) and 'Summary Language' (English). The 'Input File Units' (Feet) and 'Output File Units' (Feet) are also set to Feet. The 'Maneuver Settings' section has four input fields: 'PreTack Time' (Pre tack value (e.g., 15)), 'PostTack Time' (Post tack value (e.g., 25)), 'Fetch Angle' (Enter fetch angle (e.g., 55)), and 'Run Angle' (Enter run angle (e.g., 135)).



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**Section 3: Race Report Settings:** This section addresses the distribution, scope and complexity of your Race Reports.

**Race Course Type:** This is just the default and is also selectable at race file upload time

**Email Recap:** Do you want to send this to the crew when it's processes, or is it still a "secret"

**Auto Trim Logfile:** This actually has a large impact on how the file is processed. It tries to figure out when your race has started and when it is finished using things like your polar performance and TWA management, and it's easy for it to guess wrong. It is much better if you trim the file to length yourself. Default to NO.

**Race Report Type:** We have 2 basic "pre selections" Shallow, which is a basic race report, and "Deep" which has all 8 components selected. Selecting Shallow only allows the 2 sections. Selecting Deep allows you to pick any or all. Start with all options selected, and remove those that aren't useful as you gain experience.

## Section 4: Race Report Display Data.

These are the "summary tables" you see in the report that generally back up the graphics. The "narrow basics" would generally be the minimum you would want to see, It includes things the wind information, VMG, target and polar performance information

Everything beyond this is useful for identifying issues during maneuvers, and can get to specifics. You can look at a number of time and distance lost fields and comparisons to your polars and targets. Generally, start with a "wide" field and narrow it. A detailed description of these fields is at the end of this section.

## Section 5: Instrument Evaluation Settings.

Generally, we use maneuvers to QA the data. Things like checking for tack symmetry and HDG changes to see if the TWA is correct. Occur during these events. These parameters are used to "qualify" those events and to ensure the data is not misleading. Generally, they limit the records and events we use when reporting on the data.

**Records:** This field represents the number of records we use before and after events such as tacks to determine things like the actual tack angle and actual TWA. 15 is the default, which in normal flat water is good. Fewer records can give you a more fine grained result, but also introduce more "noise" Too many makes then subject to external factors such as wind shifts.

**BSP:** this is the percentage difference in BSP between the leading event and trailing event. A good tack will have you at a similar speed after the tack as before the tack, and a smaller number here means you only want to review the maneuvers where you are more "identical" coming out as when you went in. The default is 20% difference in BSP. Which is fairly large.

**TWA:** this is the minimum TWA below which we will not bother with an analysis. This should be a couple of degrees less than your target TWA.

**TWS:** This is the minimum TWS under which we will not bother with an analysis as there is very little wind stability under about 4 kts. The default is 5.

**Target:** This is the target BSP % under which we will not bother with an analysis, as it's clear that something is different than it was 30 seconds ago.

**Heading Boundary:** We use passing through 90 degrees as the first indicator that you have rounded a mark, but if you have been reaching around with a TWA of 90 then it's not very helpful. This field indicated the minimum heading change associated with passing through 90. Generally 20 works well, although if the TWS is particularly light, more may be needed. Too small will give you too many legs, to big will give you too few. 20 is the default.

The image shows three sections of the Regatta-Playbook User Manual interface:

- Race Report Settings:** A table of checkboxes for race report components. Columns include: Race Course Type (Windward-Leeward), Correct Instruments (Yes), Email Recap (Yes), Maneuver Graphs (Yes), Auto Trim Log (Yes), Recap Graphs (Yes), Race Report Type (Shallow), Sensor Graphs (Yes), Wind Barbs (Yes), Show Legs (Yes), and Report Instruments (Yes).
- Select Summary Columns:** A list of checkboxes for summary table columns. The checked items are Average TWA and Average TWS. Other items include Average Target Speed, Average Polar Speed, Target Speed Percent Met, Average Polar Percent Met, Average Target TWA, Average TWD, Average VMG BSP, Average VMG Target, Average VMG Target %, and VMO Time Loss.
- Instrument Evaluation Settings:** A grid of configuration fields for Records, BSP, TWA, TWS, Target, and Heading Boundary. Each field has a text input and a help text. Buttons at the bottom are "Create Configuration" and "Skip Configuration".



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## Summary Table – Data Columns Explained

When we read your file, we add a lot of data to it, most of which is related to times and distances at various vectors.

Field	Example Value	Definition	How we use it
event	event 0	Sequential number starting at 0. Every maneuver, including going straight is an event.	Event numbers are how we track what's going on. When you tack, the straight prior to the tack is an event, the tack is another event, and the straight after is an event.
up_down	Up	Upwind or Downwind	TWA less than 90 is upwind, 90 and higher is downwind Used extensively in determining events. It is the primary indicator for determining if you are ending a leg and rounding a mark.
maneuver type	LR	Type of event. S=Straight, T=tack, J=jibe, WR=weather rounding, LR=leeward rounding	This is what type of maneuver we believe this event data belongs to. It is based on some complex logic using TWA, BSP TWS and HDG.
port_starboard	P	P is port, S is starboard. (negative numbers on TWA are wind from port)	Used on polar presentation and in instrument evaluation
avg_BSP	7.03	STW based speed averaged for the entire event	We track 2 speeds. Your SOG (GPS reported speed) and BSP, which is your “speed through the water” used in instrument evaluation and straight efficiency measurement
avg_target_speed	9.91	Target BSP, accumulated for each record and then averaged for the entire event	the preferred source for this is the Expedition file, If it's not present we will pull it from your target table.
target_speed_percent_met	70.88	percent of target speed for the entire event. Uses STW	Used in loss/gain calcs
avg_polar_speed	10.13	Polar BSP averaged for the entire event	the preferred source for this is the Expedition file, If it's not present we will pull it from your polar table
avg_polar_percent_met	69.36	percent of polar speed for the entire event. Uses STW	Used in loss/gain calcs
avg_TWA	-17.12	TWA averaged for the entire event	negative numbers are port wind, positive are starboard wind
avg_Targ_TWA	67.03	Target TWA averaged for the entire event	the preferred source for this is the Expedition file, If it's not present we will pull it from your target table
avg_TWS	15.89	TWS averaged for the entire event	True Wind Speed