



Sereno Routing

User guide

October 2026. Built and tested aboard S/V Sabado.

For planning a passage, not for navigating by.

Sereno Routing guide

How to plan a passage with Sereno Routing, on the web, the Android app and the iPhone app.

Sereno Routing plans a sailing passage on the latest weather forecasts. You give it a start, a finish and a departure time. It sails your boat's polar through the forecast, around land, reef and shallow water, and gives you the route, the conditions along it and a PDF to keep.

For planning, not for navigating. A route here is a plan made from a forecast and from coarse land, reef and depth data. Check it against your charts and the official forecasts, and keep your own watch.

Two ways to use it

Settings has a choice between two ways of working, and you can switch at any time:

- **Routing only:** the map, your routes and their reports. New accounts start here. It works like any other routing program, and the [Quick start](#) is all you need.
- **Routing and planning:** everything above, plus the planner, which screens several departure days on the weather ensembles, watches the trip and then the day you pick, and builds a passage brief. See [Planning a passage](#).

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Sereno is built and tested aboard S/V Sabado. Questions go to Ray, who gave you your token.

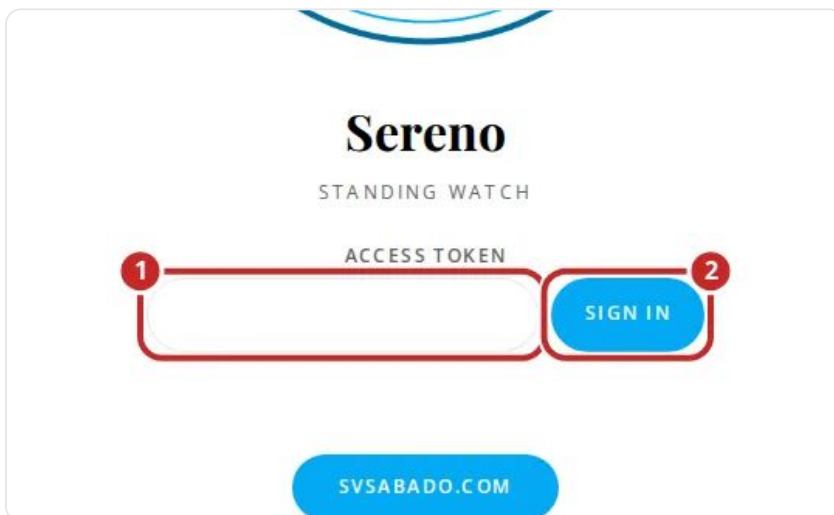
1. Quick start: just route it

From signing in to a PDF of your route. Nothing here needs the planner, watches or screening.

This page uses the web edition, which runs in any browser on a computer, tablet or phone. The Android app works the same way and is covered at the [end of this page](#).

Sign in

- 1 Open <https://sereno.svsabado.com>.
- 2 Paste the token Ray gave you into **Access token** and tap **Sign in**.



The token box (1) and Sign in (2). The browser stays signed in, so you do this once per browser.

You land on the Boat page. Tap **New route** at the top right.

Sabado

Fri 9 Oct, 07:35 GMT+11 [Weather map](#) [New route](#)

ROUTE	DEPARTS	MODELS	ARRIVES	STATE
Denarau to Noumea	Thu 15 Oct 07:00			Running
Unnamed route	Fri 16 Oct 07:00			Queued
Port Resolution to Port Vila	Fri 16 Oct 05:00		Sat 01:00 to 03:30	Done
Port Vila to Noumea Stops 8.2 nm short	Wed 21 Oct 06:00			Partial
Savusavu to Lautoka The start is inside the reef. Move the start into open water and run it again.	Fri 9 Oct 06:00			Failed
Tanna to Aneityum	Sat 10 Oct 06:00		Sat 18:15	Done
Lautoka to Suva The forecast doesn't reach the finish. Choose an earlier departure.	Fri 9 Oct 05:00			Failed

Planning a passage across several days? Turn on Routing and planning in [Settings](#).

SERENO ONE [Saillogger](#)

On passage since Thu 8 Oct, 03:43 GMT+11
Left Port Resolution, sailing

Last report **Fri 9 Oct, 04:35 GMT+11 (3 h ago)**
Position **21°23.8'S 168°21.8'E**
at sea, 120 nm SW of Port Resolution

Speed **6.6 kt**
Course **212°**

Reports reach Saillogger when the boat has a connection, so they can lag after an outage.

Place names © GeoNames (geonames.org), CC BY 4.0

S/V Sabado - Catamaran,
12.8 m
Polar: Lagoon 42
[Sign out](#)

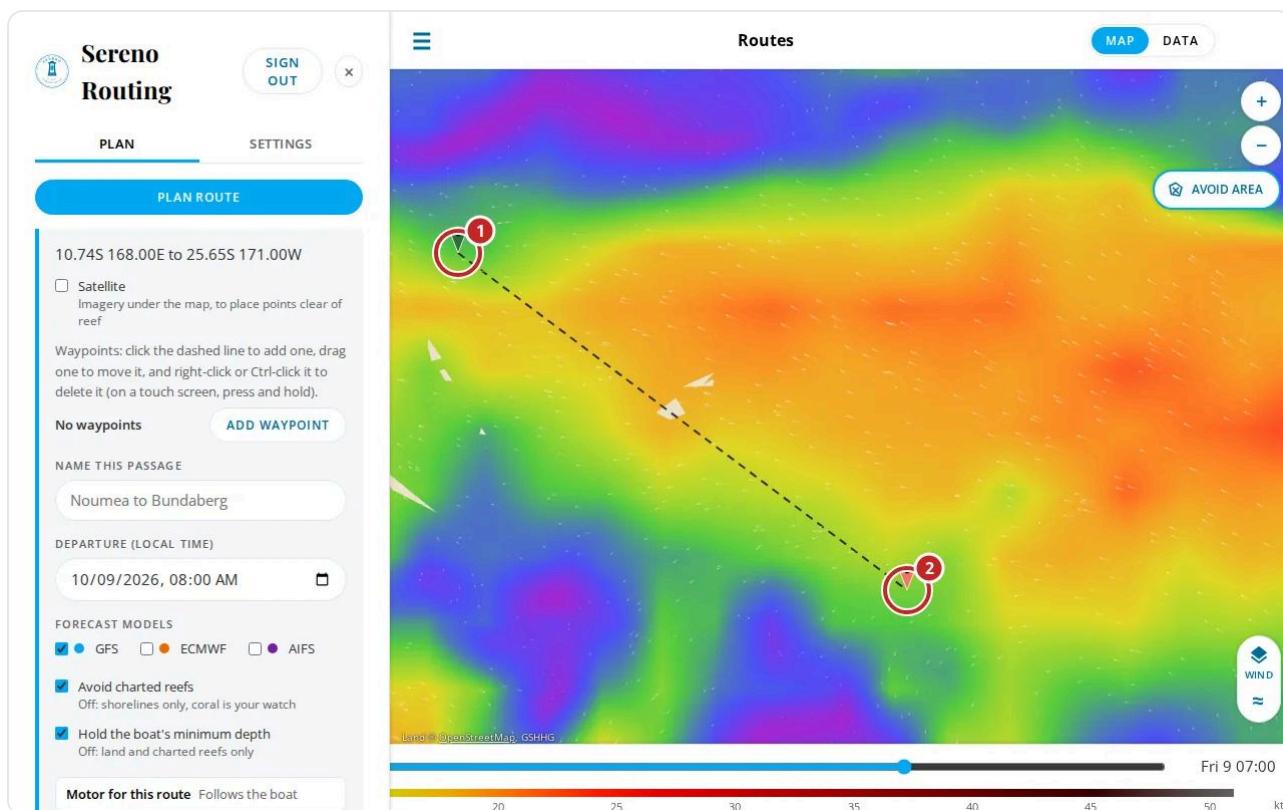
The Boat page lists your routes. New route opens the map ready for a start and finish.

Place the start and finish

The map opens with the button at the top of the side panel reading **Click start, then finish...** (on a touch screen, tap rather than click).

- 1 Click the map where the passage starts. A green pin drops there.
- 2 Click where it finishes. A red pin drops there, with a dashed line between them.

Zoom with the + and - buttons, the mouse wheel or two fingers. You can drag either pin afterward. Keep both ends in open water, outside any reef; the router plans to the water outside a pass, not into a lagoon.



Start (1) and finish (2). The form opens in the side panel as soon as both are placed.

Fill in the form and run it

- 1 **Name this passage:** optional, but it makes the routes list easier to read.
- 2 **Departure (local time):** when you plan to leave, in your device's time zone. It starts at the next whole hour.
- 3 **Forecast models:** GFS is ticked. Tick ECMWF as well, and AIFS if you like. Each model gets its own route, drawn on the same map, so you can see where they agree.
- 4 Scroll down and tap **Run route**.

4.19N 168.00E to 39.49S 171.00W

☐ Satellite
Imagery under the map, to place points clear of reef

Waypoints: click the dashed line to add one, drag one to move it, and right-click or Ctrl-click it to delete it (on a touch screen, press and hold).

No waypoints [ADD WAYPOINT](#)

NAME THIS PASSAGE 1
Port Resolution to Noumea

DEPARTURE (LOCAL TIME) 2
10/09/2026, 08:00 AM

FORECAST MODELS 3
☒ GFS ☐ ECMWF ☐ AIFS

☒ Avoid charted reefs
Off: shorelines only, coral is your watch

☒ Hold the boat's minimum depth
Off: land and charted reefs only

Motor for this route Follows the boat

NIGHT SPEED
Percent of polar after dark 100 %

Sailing angles

CLOSEST TO THE WIND
20° to 90° off the wind no limit °

DEEPEST DOWNWIND
90° to 180° off the wind no limit °

MEASURED FROM True wind ▾

Limits
Follows the boat

AVOID TRUE WIND OVER
5 to 80 kt. Empty: no limit no limit kt

AVOID WAVES OVER
Significant height, 0.5 to 15 m. Empty: no limit no limit m

[USE THE BOAT'S SETTINGS](#)

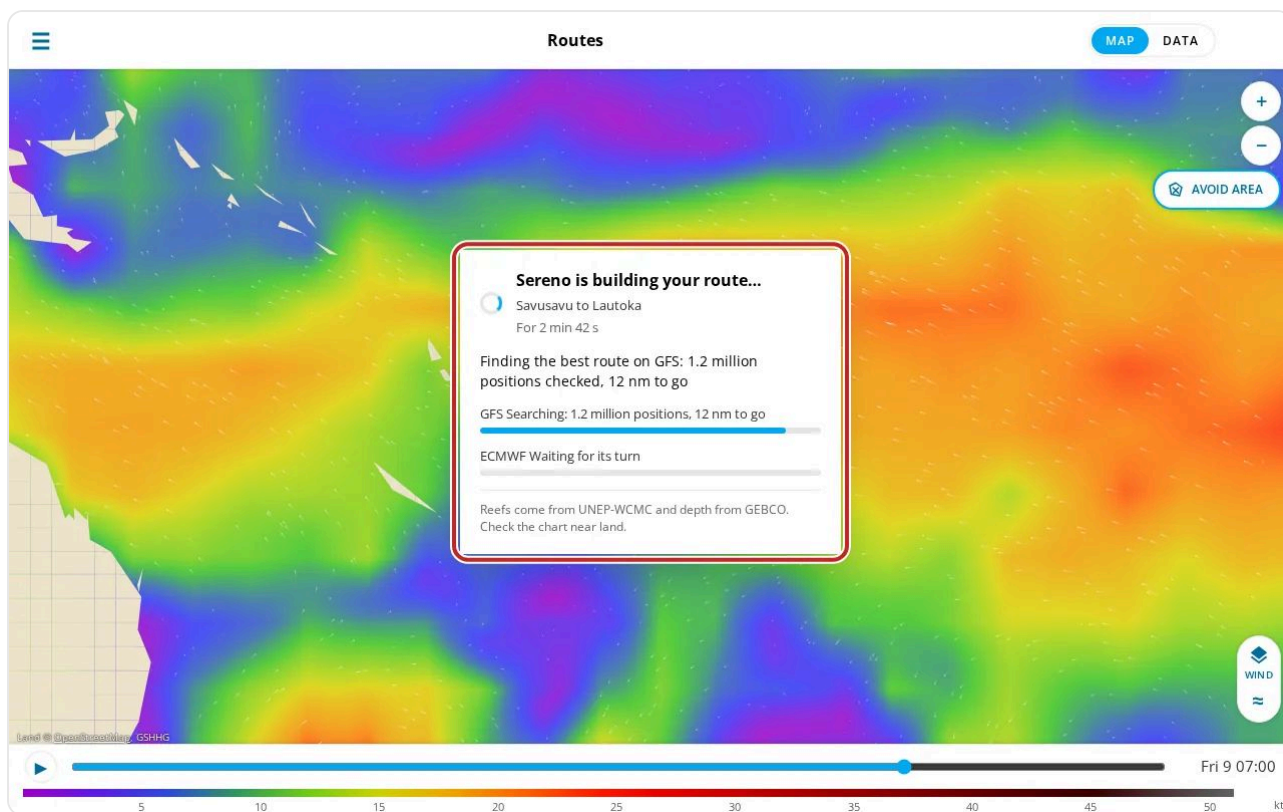
Ocean current
Follows the boat

☒ Use ocean current
Off: wind alone

4 [RUN ROUTE](#) [CANCEL](#)

Everything else in the form can stay as it is. It follows your boat's settings.

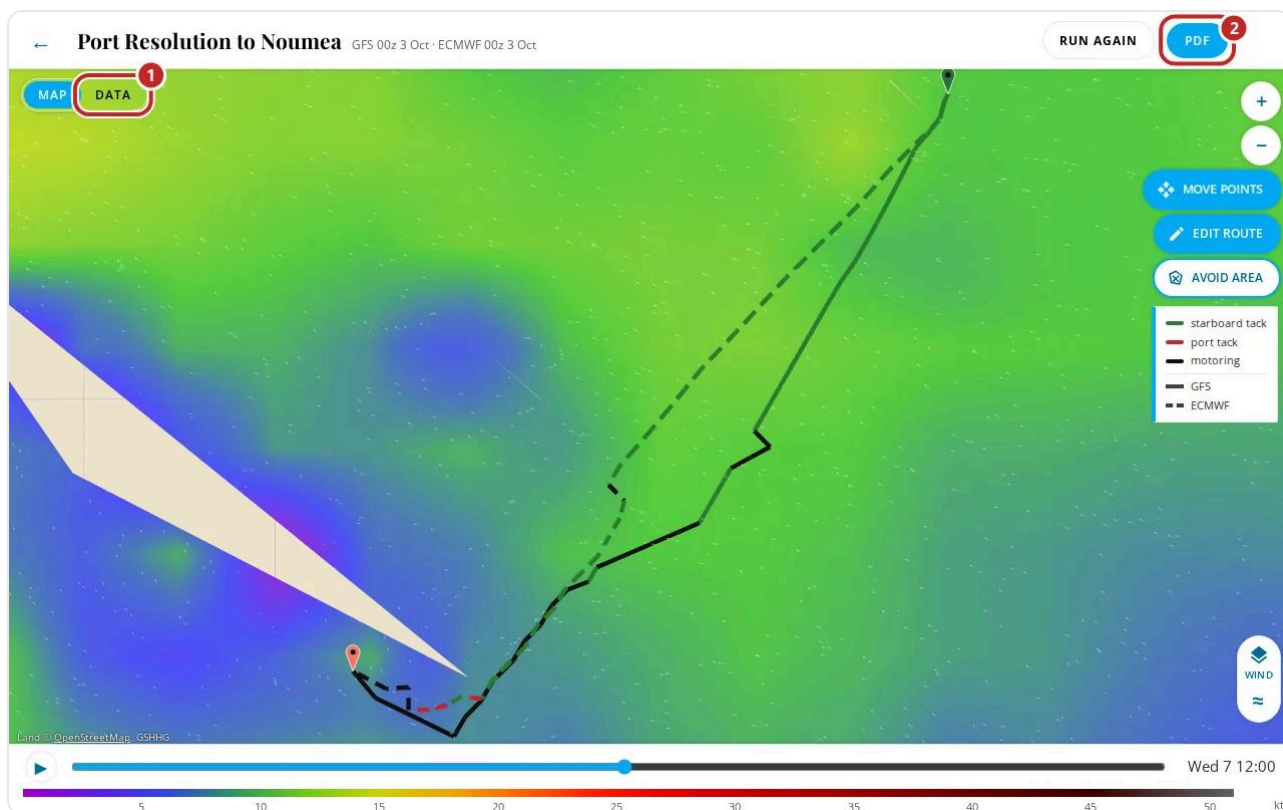
A box over the map shows how the route is coming along: reading the weather, working out the coastline and reef along the way, then searching each model in turn. It can take a few minutes, longer for a long passage or for several models. A long passage is planned in parts, and the box says which one it's on, such as *Part 2 of about 4*, then *Last part*. The total is an estimate from the distance left, so it can change as the route goes. You can close the box or leave the page; the route keeps running.



The progress box, with a line for each model.

Read the result

When it's done, the route opens on the map. The line's color shows the sail: green on starboard tack, red on port tack, black under motor. Each model has its own line style: GFS solid, ECMWF dashed, AIFS dotted. Drag the slider at the foot of the map, or tap play, to move the boats along their routes in time with the weather.

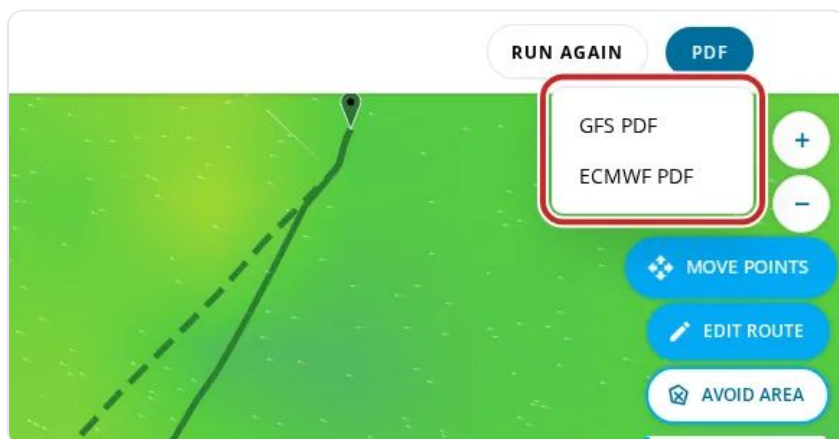


Data (1) switches to the tables and graphs. PDF (2) makes the report.

Tap **Data** for the numbers. **Summary** compares the models side by side: when you arrive, how far, how long under motor, the strongest wind, tacks and gybes, and the worst comfort. **Route** lists every leg. [Reading a route](#) covers each tab.

Get the PDF

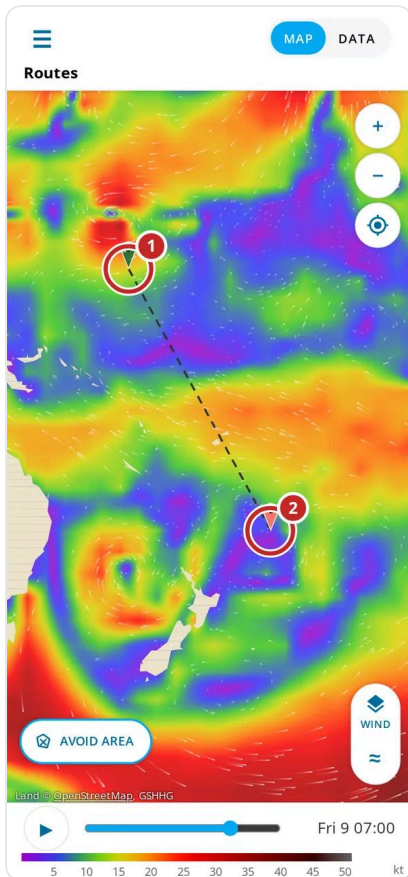
Tap **PDF** in the bar and choose the model. The router builds the report (the chart, the passage, the conditions and every leg) and your browser downloads it.



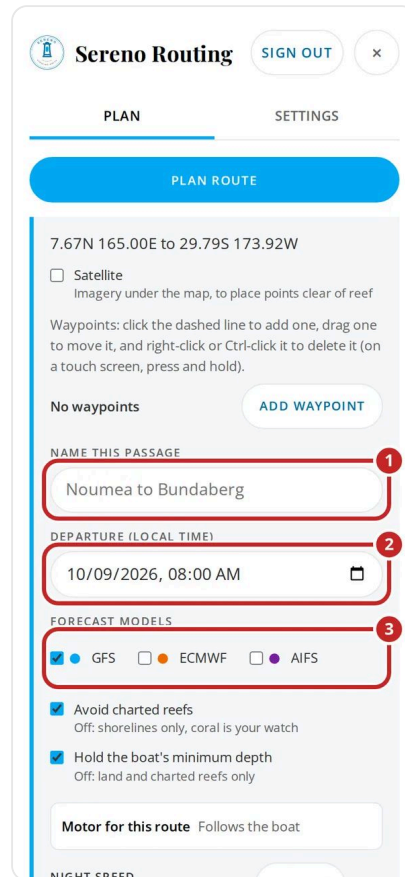
One PDF per model. GPX and CSV are on the Data face's Export tab.

On a phone's browser

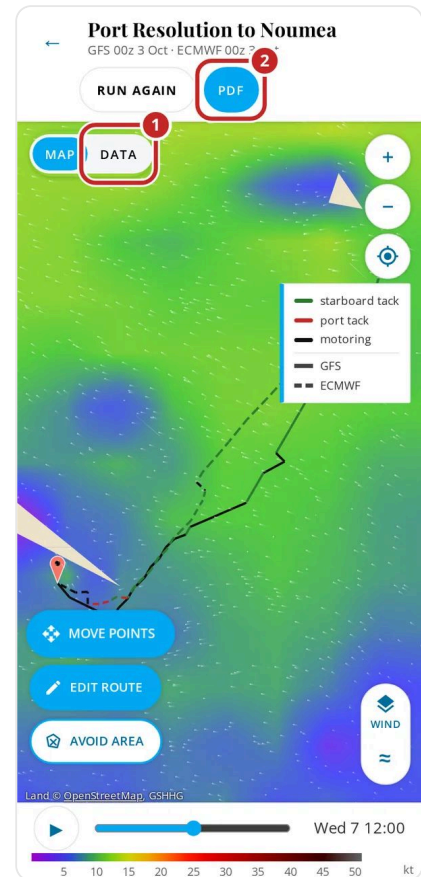
The same steps work on a phone. The routes list slides over the map: tap **Plan route**, close the list with ✕ to see the map, and tap the start and the finish. The form slides back over the map as soon as the finish is placed.



Start (1) and finish (2).



Name (1), departure (2) and models (3). Run route is further down.



The finished route: Data (1) and PDF (2).

On the Android app

Install it first (see [The Android app](#)). Then:

- 1 On the Weather screen, tap **New route**.
- 2 Tap the map for the start, then again for the finish. The hint line reads *Tap the start*, then *Tap the finish*.
- 3 Tap **Options** to name the route, set **Departs (local time)** and choose **Models** (GFS and ECMWF are on).

- 4 Tap **Route**. The route screen opens and shows its progress.
- 5 When it's done, switch **Map** to **Data**, then open the **Export** tab and tap **Download GFS PDF** (one button per model).

PHONE SCREENSHOT TO COME

Android, New route: the map with a start and finish pin, the hint line reading "Start and finish set. Drag either to move it.", the Clear and Options buttons, and the Route button at the foot.

2. Setup

Your membership, the places you can sign in, and the settings that describe your boat. Every route sails with these.

Your membership

You sign in with a membership at svsabado.com. A free membership is enough. Your boat, polar, routes, trips and units follow you between the web, the Android app and the iPhone app.

Access tokens, the long strings Ray gave the first testers, stop working on 15 November 2026. Until then a token still signs you in, under **Or sign in with an access token** on the front page. A membership is a separate account: routes made with a token don't move to it.

Signing in on the web

Open <https://sereno.svsabado.com> and tap

Sign in with your svsabado.com membership. If you aren't signed in on svsabado.com, it asks for your email and sends a sign-in link. Once you're signed in there, you come back to the Boat page. The browser keeps the sign-in, so next time it opens straight on the Boat page. No membership yet? **Join on svsabado.com**.

What the sign-in box can say:

Message	What to do
<i>That token wasn't accepted.</i>	Check you copied all of it, with no space at either end.
<i>Too many tries from here. Wait a few minutes and try again.</i>	After ten wrong tries, sign-in from that address pauses for a few minutes.
<i>The router isn't answering. Check the connection and try again.</i>	Your connection is down, or the router is restarting.

To sign out, use **Sign out** at the foot of the Boat page's side panel (behind the menu button on a phone), or at the top of the web edition's side panel.

The Boat page's side panel is how you move around: **Weather map** opens the map with no route, **Routes** opens the web edition's routes list, and **Polars** and **Boat profile** open the settings below. Items marked **Coming** aren't built yet.

iPhone and iPad

The iPhone app is in beta on TestFlight, Apple's app for testing apps before they're in the App Store. Ask Ray for an invitation, install TestFlight, then accept the invitation to install Sereno Routing. Tap **Sign in** and sign in with your svsabado.com membership, as on the web.

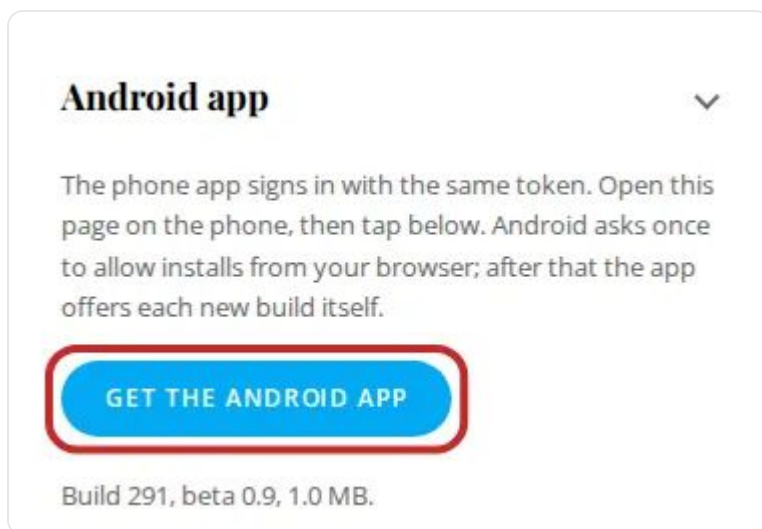
The web edition also works in Safari. To open it like an app, sign in, open **Routes** from the Boat page, then in Safari tap Share and **Add to Home Screen**. It opens on the map at your position if you allow location.

The Android app

The Android app is a separate, native app that signs in with the same membership and shares your routes and settings.

Getting it

- 1 On the Android phone, sign in on the web. The web edition and the Boat page show a **Get the Android app** banner with a **Download** button. The Boat page's side menu also has **Android app**, under **Guide**, on every device.
- 2 Tap **Download**. If you closed the banner, use the side menu's **Android app**, or the web edition's **Settings, Android app**.
- 3 Android asks once to allow installs from your browser. Allow it, then open the download to install.



Settings, Android app. The line under the button shows the newest build.

First run

The app opens on its Settings screen. **Router address** in the **Router** card is filled in already; change it only if Ray gives you a different one. Then, in the **Membership** card:

- 1 Tap **Open the svsabado.com sign-in page** and sign in there with your membership.
- 2 Press **Get a code for the app** on that page.
- 3 Type the code into **Code from the svsabado.com sign-in page** and tap **Sign in with this code**.

The card then says *Signed in with your svsabado.com membership as* Tap

Test connection: the **Connection** card should show a tick beside *Router at ... is up* and a line for each model with the forecast run it holds. Never type in a code someone else sends you: it would sign this phone in to their account. Until 15 November 2026 the **Token** field still takes an access token. Back takes you to the Weather map. The gear icon on any screen's title bar opens Settings again.

PHONE SCREENSHOT TO COME

Android, Settings, first run: the Router card with Router address and Token filled in, Save and Test connection, and the Connection card below showing the ticks after a test.

Updates

The app checks for a new build when it opens and once a day. When there's one, a strip under the title bar reads *Build N is ready. Install*, and a notification says the same. Tap **Install**. The first time, Android asks you to allow Sereno Routing to install its own updates: tap **Open setting**, turn on **Allow from this source**, come back and tap Install again.

What's different on the phone

- Avoid areas are drawn on the web. The phone lists them, switches them on and off, renames and deletes them.
- Polars are edited on the web. The phone chooses one, and can upload a `.pol` file.
- Trips are made, watched and deleted from **Watching** in the top bar, and a finished route's **Watch departures** makes a watched trip from it (see [Watch departures from a route](#)). The departure days' details and the brief PDF are on the web; a route made from a planner day shows its **Brief** tab on the phone too.
- The phone has **Display** settings of its own: wave heights in meters or feet, and a Day, Night or Auto theme.

Settings: Routing only, or Routing and planning

The top of Settings chooses how much of Sereno you see. **Routing only** is the map, your routes and their reports, and it's where new accounts start. **Routing and planning** adds the planner's Departures, Watching and briefs (see [Turning on planning](#)). The phone app follows the same choice, in its **Mode** card.

Settings: Boat

In the web edition, open the side panel's **Settings** tab (or **Boat profile** on the Boat page). Each field saves when you leave it, and the phone uses the same values.

Boat

HULL 1
Not set

Comfort is rated for this hull and length. A catamaran or trimaran feels seas on the beam and the bow more, and a longer hull rides a short sea better. Not set rates a 12 m monohull. The phone app uses the same settings.

LENGTH OVERALL 2
12 m

MINIMUM DEPTH 3
2.5 m

Routes keep to water at least this deep. The depth data reads shallow near coasts and reefs, so about twice your draft works better than a deep margin. Blank uses the default: 2 m when the route avoids reefs, whose shapes mark the real hazards, and 3 m when it doesn't. The phone app uses the same setting.

AVOID TRUE WIND 4
no limit kt

AVOID WAVES 5
no limit m

Routes go around wind and seas over these, or fail and say where they met them. Waves are significant height, as the Waves layer shows. Empty is no limit. A route can change them for itself under Limits. The phone app uses the same settings.

☒ **Use ocean current** 6
RTOFS surface current. Off plans routes on wind alone.

SAILLOGGER BOAT 7
Not set

The name at the end of your boat's Saillogger page: saillogger.com/svsabado is svsabado.

The Boat page shows the boat's status from its public Saillogger page: under way or at anchor, the last report and the position. The router reads it every 10 minutes at most, while you're using Sereno. The phone app uses the same setting.

Settings, Boat.

Field	What it does
1. Hull	Monohull, catamaran or trimaran. Comfort ratings depend on it: a multihull feels seas on the beam and the bow more. Not set rates a 12 m monohull.
2. Length overall	Also for comfort: a longer hull rides a short sea better.
3. Minimum depth	Routes keep to water at least this deep. The depth data reads shallow near coasts and reefs, so about twice your draft works better than a big margin. Blank uses 2 m when the route avoids reefs and 3 m when it doesn't. See Depth, reef and land data .

4. Avoid true wind over	A hard limit in knots. Routes go around wind over it, or fail and say where they met it. Empty is no limit.
5. Avoid waves over	The same for significant wave height, as the Waves layer shows it. AIFS has no waves, so it can't hold this limit.
6. Use ocean current	On, routes use the RTOFS surface current forecast. Off, they're planned on wind alone.
Past the forecast	Off by default. On, a route that outlasts the forecast carries on in the month's typical weather instead of stopping at the forecast's end (see Past the forecast).
7. Saillogger boat	If your boat has a public Saillogger page, the name at the end of its address (saillogger.com/svsabado is <code>svsabado</code>). The Boat page then shows where the boat is and when it last reported. See The Saillogger card .

Units, at the top of Settings, switches between metric and imperial.

The motor and sailing angles

The motor belongs to the boat and is on unless you turn it off. Out of the box the router motors at 6.5 kt when sailing would be slower than 4 kt, runs the motor for at least 30 minutes once it starts, and with **Prefer sailing** on runs it only where it's at least 30% faster than sailing.

On the Android app these are set for the boat under Settings, **Boat**: the **Motor** switch, **Motor below (kt)**, **Motor speed (kt)**, **Wait before motoring (min)**, **Shortest motor run (min)** and **Prefer sailing**. The same card holds the sailing angles (**Closest to the wind**, **Deepest downwind**, **Angles are apparent, not true**), then **Polar, by day (% , blank for 100)** and **Polar, at night (% , blank for 100)**. Tap **Save boat**.

In the web edition, change them for one route in the New route form:

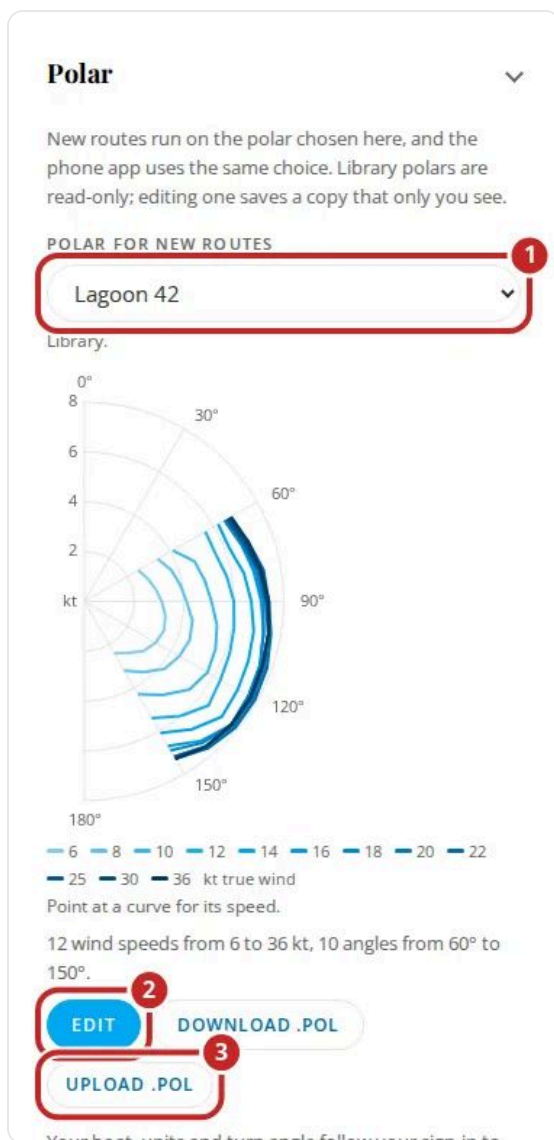
Motor for this route, **Polar** and **Sailing angles** (see [The route's options](#)). The form starts from the boat's values each time.

PHONE SCREENSHOT TO COME

Android, Settings, Boat card: Name, Saillogger boat, the Hull chips, Length overall, the Motor switch with its four fields, the sailing angles, Polar by day and at night, Minimum depth, the two limits, Use ocean current and Save boat.

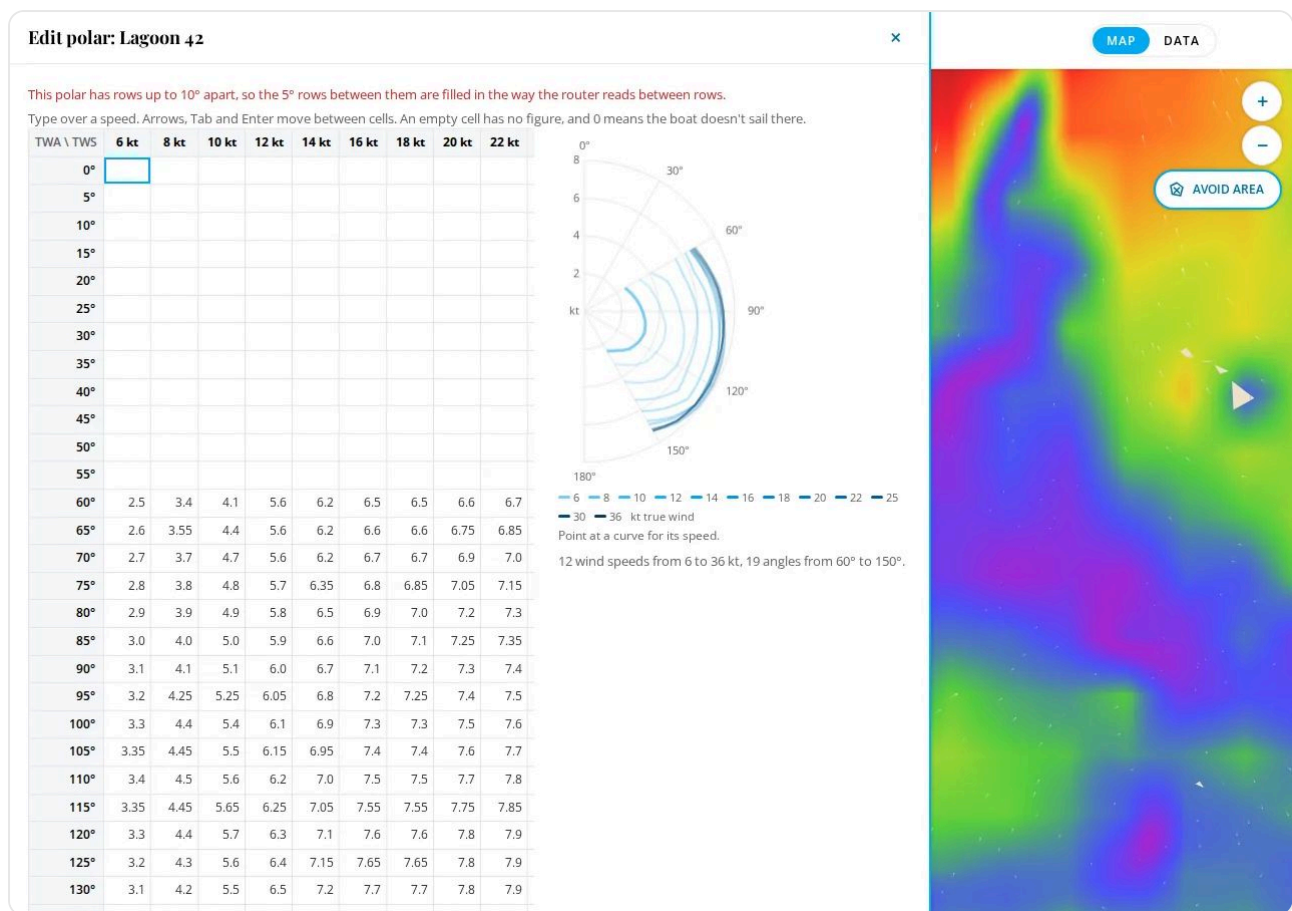
Settings: Polar

The polar is your boat's speed for each true wind speed and angle. Every route and every planner screening sails with the one chosen here.



Settings, Polar: the polar for new routes (1), Edit (2) and Upload .pol (3).

- **Polar for new routes** lists the library (about 180 boats, grouped by builder) and your own polars. Pick the nearest to your boat. The chart below shows its curves; point at a curve to see its wind speed.
- **Edit** opens the table in 5 degree steps. Library polars are read-only, so editing one saves a copy that only you see.
- **Download .pol** saves the table as a file.
- **Upload .pol** adds your own. The file is tab-separated: the first row holds the true wind speeds after a label cell, then there's one row per true wind angle, starting with the angle, with the boat speed in knots for each wind speed. A 0 means the boat doesn't sail there. Other formats aren't read.



The polar editor.

On the phone, **Polar for routes** in Settings chooses from the same list, and **Uploaded polar** uploads a `.pol` file.

3. Routing in depth

What the New route form can do, how to change a route and run it again, and what to do when one doesn't come out cleanly.

Choosing and comparing models

Each model you tick gets a route of its own, searched separately on that model's forecast and drawn on the same map:

- **GFS** (NOAA, United States). Drawn solid, colored blue in tables and graphs.
- **ECMWF** (the European Centre for Medium-Range Weather Forecasts). Drawn dashed, orange.
- **AIFS** (ECMWF's machine-learning model). Drawn dotted, purple. It has no wave forecast.

Where the routes run close together and arrive at about the same time, the forecasts agree and the plan is on firmer ground. Where they split, the weather is less certain, and the route you sail is likely to be different from any of them. The routes list says how far apart the tracks run (*Tracks 10.9 nm apart at most, 5.5 nm on average*), and the Data face's **Summary** and **Graph** tabs put the models side by side.

The router searches the models at the same time when it has the cores free, so a route with three models usually takes about as long as its slowest model. When the router is busy, a model waits its turn.

Under the model boxes, a line says how old each model's forecast is and when the next is due, for example *GFS 06z, 3 h old. Next run in about 2 h*. A run that's later than usual shows in amber. There's no need to wait for it: a route runs on the newest forecast held, and **Rerun, latest weather** sails it again on a newer one later.

DEPARTURE (LOCAL TIME)

10/09/2026, 08:00 AM

FORECAST MODELS

☒ GFS ☐ ECMWF ☐ AIFS

GFS 17z, 3 h old. Next run in about 7 h.

☒ Avoid charted reefs

How old each forecast is, under the model boxes.

Departure time

Departure (local time) is in your device's time zone; the PDF and tables show the same local times. The forecast has to reach from the departure to the arrival. GFS reaches about 16 days ahead, ECMWF and AIFS about 15 (ECMWF's 06z and 18z runs reach 6 days). A route that runs past the end of the forecast is planned as far as the forecast reaches, and the rest is shown as an estimate (see [Partial routes](#)).

A departure before the newest forecast run starts is refused, with the earliest time it can use.

The route's options

Below the models, the form holds the options for this route. Each starts from your boat's settings, says *Follows the boat* until you change it, and has **Use the boat's settings** to put it back. Changes here are for this route only.

☒ Avoid charted reefs
 Off: shorelines only, coral is your watch

☒ Hold the boat's minimum depth
 Off: land and charted reefs only

Motor for this route Follows the boat

☒ ALLOW MOTOR

MOTOR SPEED 6.5 kt

MOTOR WHEN SAILING BELOW 4 kt

DELAY BEFORE MOTORING 0 min

MINIMUM MOTOR RUN 30 min

☒ PREFER SAILING

USE THE BOAT'S SETTINGS

NIGHT SPEED 100 %
 Percent of polar after dark

Sailing angles

CLOSEST TO THE WIND 20° to 90° off the wind no limit °

DEEPEST DOWNWIND 90° to 180° off the wind no limit °

MEASURED FROM True wind

Limits
 Follows the boat

AVOID TRUE WIND OVER 5 to 80 kt. Empty: no limit no limit kt

AVOID WAVES OVER Significant height, 0.5 to 15 m. Empty: no limit no limit m

USE THE BOAT'S SETTINGS

Ocean current
 Follows the boat

☒ Use ocean current
 Off: wind alone

RUN ROUTE CANCEL

The options, with Motor for this route opened.

Option	What it does
Avoid charted reefs	On, the router fetches the charted reef shapes along the way and keeps out of them. Off, it plans on shorelines only, and coral is your watch.
Hold the boat's minimum depth	On, routes keep to water at least as deep as Settings, Boat says. Off, only land and charted reefs stop them.
Motor for this route	Tap to open. Allow motor off makes it a sailing-only route. With it on: Motor speed , Motor when sailing below , Delay before motoring , Minimum motor run and Prefer sailing , which runs the motor only where it's at least 30% faster than sailing.

Polar	Polar, by day and Polar, at night : whole percentages of the polar, 50 to 150. 100% sails your polar; 85% sails at 85% of it. Night replaces the day figure from sunset to sunrise. Each starts from the boat's setting.
Sailing angles	Closest to the wind and Deepest downwind keep the route inside the angles you sail, Measured from true or apparent wind. Empty uses what the polar allows.
Limits	Avoid true wind over and Avoid waves over for this route. See Wind and wave limits .
Ocean current	Use ocean current for this route. See Ocean current .
Past the forecast	Past the forecast: continue on climatology , off unless you or the boat's settings turn it on. See Past the forecast .

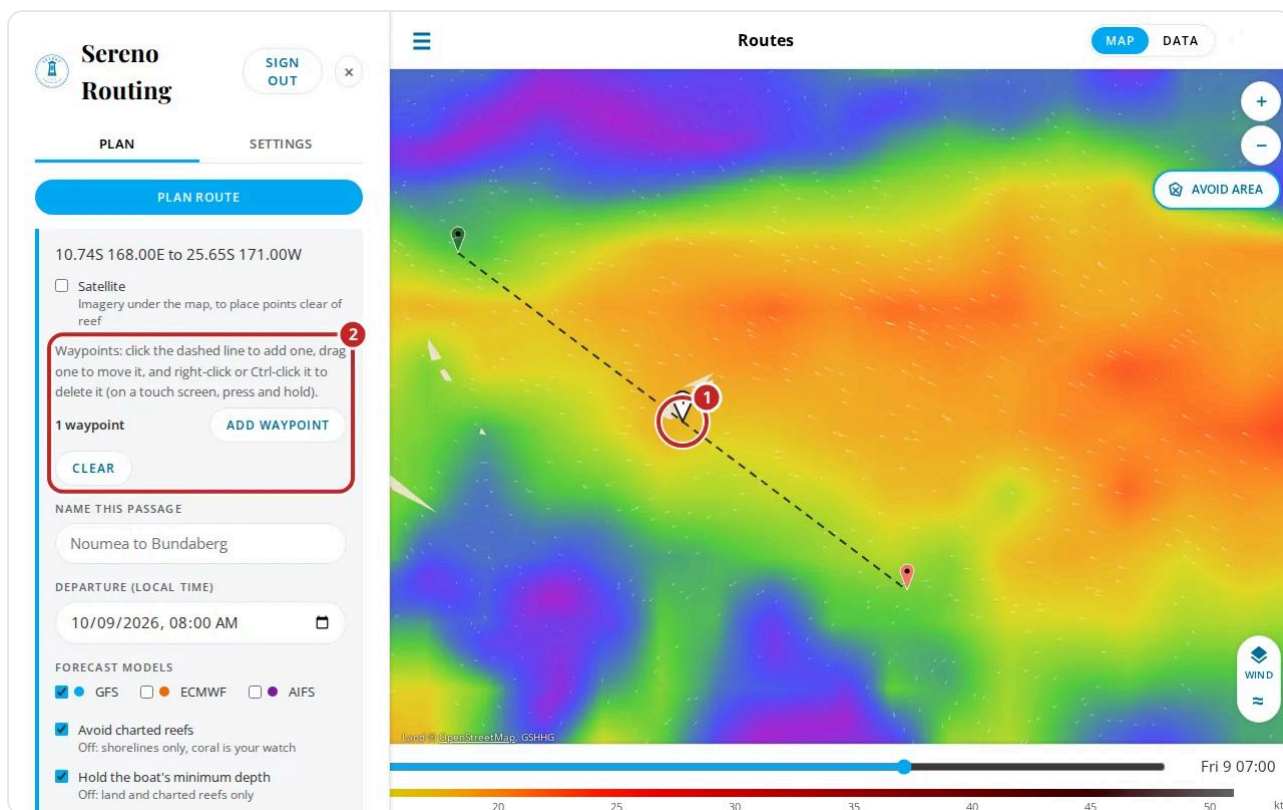
On the Android app these are in the New route screen's **Options: Avoid reefs, Hold minimum depth, Use ocean current, Past the forecast: continue on climatology, Motor for this route** (with **Motor allowed** or **Sail only**), **Limits for this route** and **Polar**.

Waypoints

A waypoint makes the route pass through a point: round the right side of an island, through a pass you know, or to break a long passage into legs. A route takes up to 10, at least 1 nm apart.

On the web

- **Add**: click the dashed line between the pins, or tap **Add waypoint** and then the map.
- **Move**: drag it.
- **Delete**: right-click it or Ctrl-click it. On a touch screen, press and hold.



A waypoint on the line (1) and the form's list of waypoints (2).

On the Android app

Once the start and finish are placed, the bar under the hint reads *Tap the dashed line to add a waypoint, drag one to move it, and press and hold one to delete it*. **Add waypoint** lets you tap the map instead (tap **Done adding** to stop), and **Clear waypoints** removes them all. Pins are numbered in order. Holding one asks *Delete waypoint 2?* with **Keep** and **Delete**.

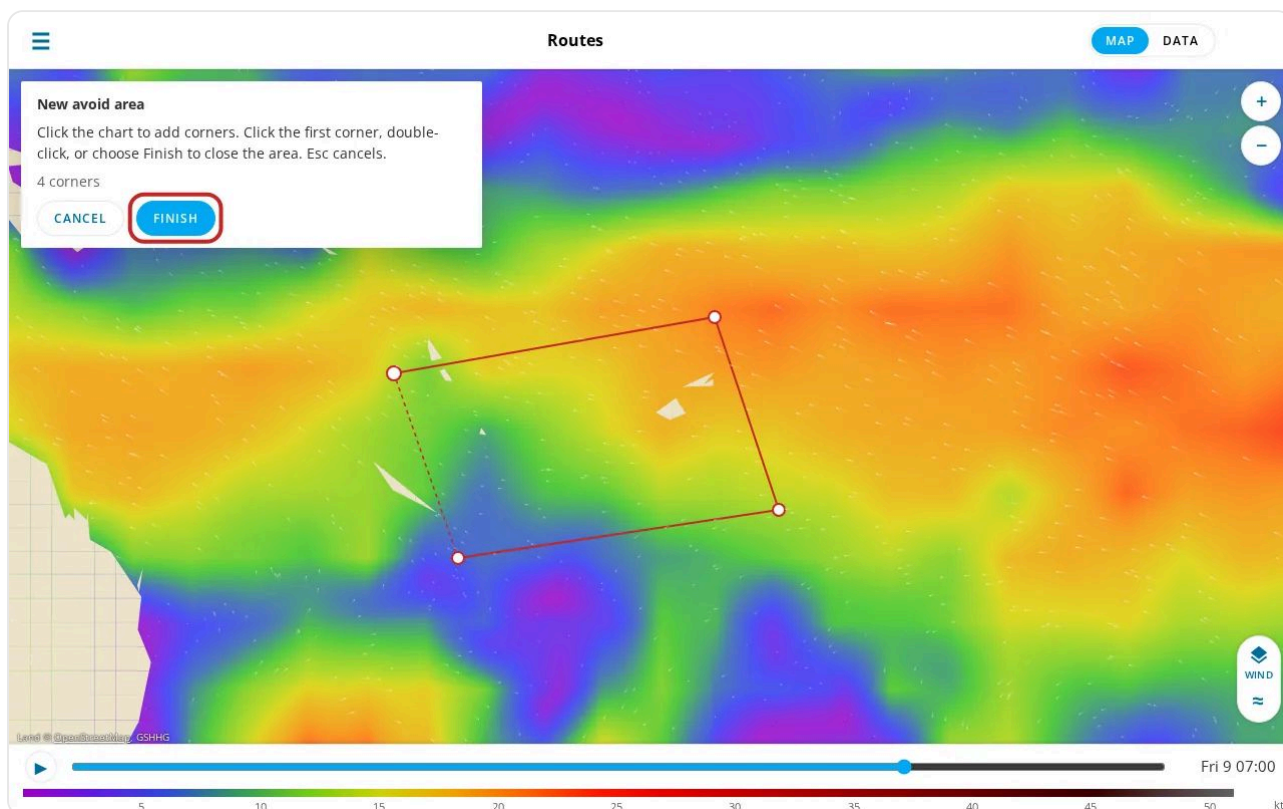
PHONE SCREENSHOT TO COME

Android, New route with two numbered waypoint pins on the dashed line and the waypoint bar showing "2 waypoints", Add waypoint and Clear waypoints.

Avoid areas

An avoid area is a shape that routes keep out of, as they keep off land: a military zone, a stretch of coast to stay clear of, a reef the charts miss.

- 1 Tap **Avoid area** on the map (or **Draw an area** under **Avoid areas** in the Plan tab).
- 2 Click the map at each corner.
- 3 Close the area by clicking the first corner again, double-clicking, or tapping **Finish**. Then give it a name. **Cancel** or Esc stops without saving.



Drawing an area: four corners placed, then Finish.

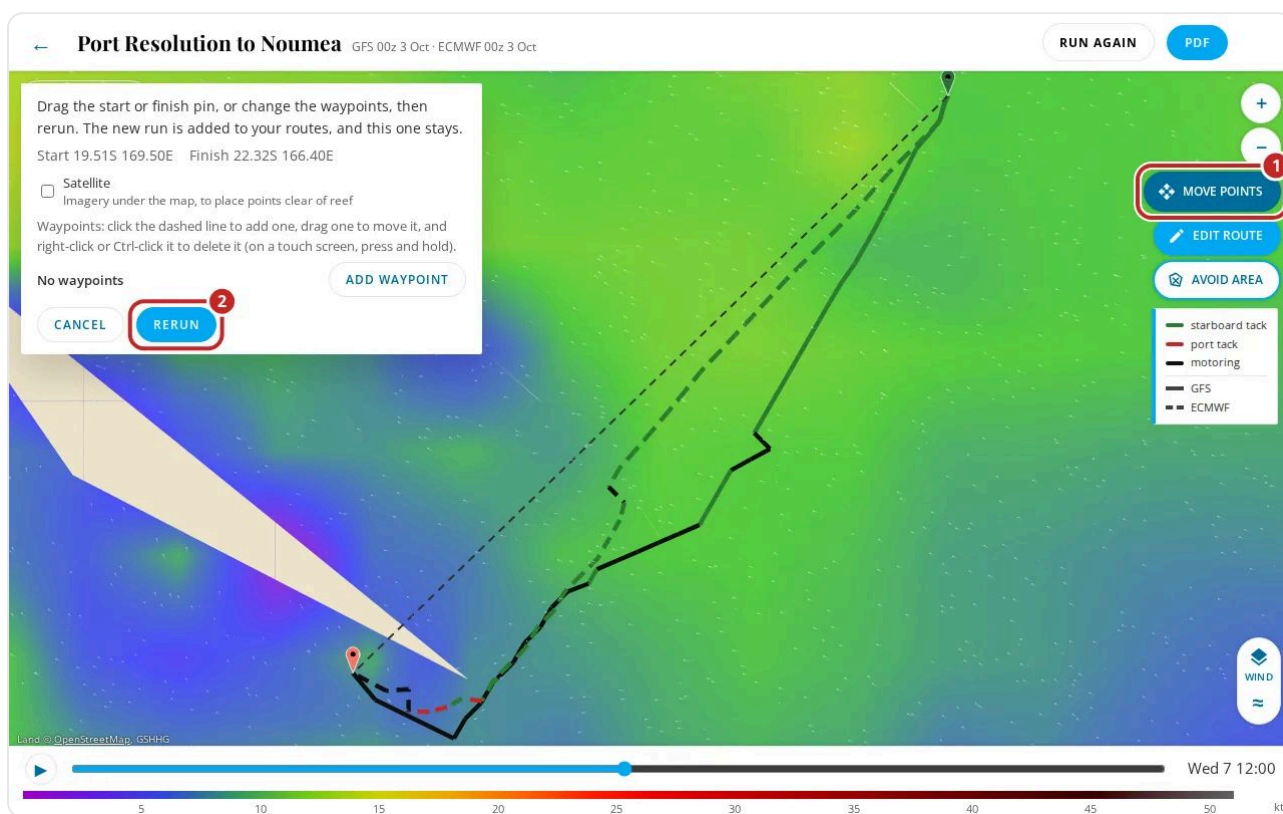
The Plan tab's **Avoid areas** list switches each one on or off, and edits or deletes it. Every route keeps out of every area that's switched on. A route already queued keeps the areas it was sent with. A start, finish or waypoint inside a switched-on area is refused, naming the area.

On the Android app, the round **Avoid areas** button lists them, with a switch, **Rename** and **Delete** for each. Areas are drawn on the web.

Edit, move and run again

A finished route can be run again in three ways. Each makes a new route, named with (2) after the original's name, and keeps the old one, so you can compare them.

- **Rerun, latest weather** in the routes list, or **Run again** in the route's bar: the same passage on the newest forecasts. If the departure has passed, it leaves at the next whole hour.
- **Edit route** on the map, or **Edit** in the routes list: the form opens filled in with the route's settings. Change anything and run it.
- **Move points** on the map: drag the start, finish or waypoints where they are, add or delete waypoints, then **Rerun**.



Move points (1): drag the pins, then Rerun (2).

On the Android app: the route screen's edit icon (**Edit and rerun**), its refresh icon (**Run again**), and the round button **Move the start, finish or waypoints**. The iPhone app has the same edit and run again icons in the route's top bar.

All three sail your boat as it's set now in Settings: a change to the polar's percentages, the sailing angles, the motor or the limits applies to the new run. Only what you chose for that one route carries over from it, such as **Sail only** or a wind limit set just for that route. **Edit** opens with your boat's current figures and the route's own choices over them.

Rename changes a route's name without running it again. On the web it's in the routes list. On the Android and iPhone apps, it's in the route's top bar, or press and hold the route in the Routes list.

The start and finish check

Before a route is queued, the router checks that each end is in open water. An end on land, inside a reef, or in water surveyed shallower than your minimum depth is refused, and the form says why:

Not run: check the start. Your start at 19.52S 169.49E is inside the reef. Try starting at 19.57S 169.54E near Mock Pass, in open water toward the finish, and pilot out to it by chart.

4.19N 168.00E to 39.49S 171.00W

☐ Satellite
Imagery under the map, to place points clear of reef

Not run: check the start

Your start at 4.19N 168.00E is inside the reef: there's no way out by water within 15 nm, keeping 0.3 nm off land and reef in 2 m or more. Try starting at 4.14S 168.05E near Mock Pass, in open water toward the finish, and pilot out to it by chart.

1
USE THIS START

Or turn on Satellite and place the start again, in open water.

2
RUN ANYWAY

Waypoints: click the dashed line to add one, drag

Use this start (1) moves the pin to the suggested point. Run anyway (2) sends the route as it is.

- **Use this start** or **Use this finish** moves the pin to the open water suggested. Check it, then tap **Run route**.
- The **Satellite** switch puts imagery under the map so you can see the reef and place the pin yourself.
- **Run anyway** sends the route past the check. The routes list notes that it ran past the check.

Plan to the water outside a pass, and pilot the lagoon by chart and eye. Inside reef, a router's data is at its weakest.

Automatic fixes

When a route stops short beside an obstacle, the router sometimes finds the fix itself and runs again. It keeps the new route only if it completes, and says what it did in the route's message, for example:

- *Routed round Ile Ouen by 22.50S 166.90E.* It added a turn point to lead round an island or reef. Your pins aren't moved.
- *Started from 22.42S 166.38E near Dumbea Pass: pilot the first 4.2 nm by chart.* The start was moved to open water.
- *Finished at 16.98S 168.40E: pilot the last 3.1 nm by chart.* The same for the finish.

Partial routes

A route that can't reach the finish shows as far as it got. A dashed gray line joins its end to the finish, and a bar over the map says why it stopped and what to try. The routes list shows *Partial GFS route:* and the reason; the Boat page shows *Stops 8.2 nm short.*



A partial route. The bar's button runs the route again with the suggested point.

The bar's buttons each run a new route at once:

- **Use this finish:** finish at the open water the search reached or suggests, and plan the last miles on the chart.
- **Use this start:** the same for a start the search couldn't get out from.
- **Use this waypoint:** when there's a way round a reef or island far from the ends, a waypoint there.

When the models suggest different points, the button names the model, for example **Use this finish (GFS)**. Other common causes and what to do are in [What the messages mean](#).

When the forecast ends before the passage does, the route is planned as far as the forecast reaches and the rest is an estimate on the great circle, labeled *No forecast: estimate* on the map. Run it again later, as newer forecasts reach further. The warning bar says it once for every model that ran out, and **Details** opens each model's own reason:

The forecast ends Oct 27, so both routes stop short: 312 nm (GFS) and 280 nm (ECMWF) from the finish. The rest is an estimate arriving about Oct 30. Continue on climatology for October?

The bar's **Continue on climatology** runs the route again with that option on (see [Past the forecast](#)). Where climatology isn't held for the passage, the question is replaced by *Run the route again as newer forecasts reach further*.

Flagged routes

Every complete route is checked for steadiness: turns sharper than the boat would make, circling, zigzags under motor, the motor going on and off, tacks and gybes far more often than the wind shifts, or little headway for the miles sailed. A route that fails is flagged. It's still drawn, but the bar over the map says which stretch to distrust:

The route zigzags under motor around 10.95N 61.42W from 10-03 10:30 (14:30Z) to 10-03 12:10 (16:10Z) (5 turns of more than 60 degrees under motor). Try finishing at 10.90N 61.45W, before that stretch, and plan the last miles by chart.



A flagged route. Near an end, the bar suggests a start or finish past the bad stretch.

Near the start or finish, use the bar's **Use this start** or **Use this finish**. In the middle of a passage, treat the stretch as unplanned, or try another departure time.

Wind and wave limits

With a limit set, the route goes around wind or waves over it. If there's no way around, the route stops and says whose limit stopped it, and where and when it met the wind or seas:

Your boat's wind limit (25 kt, in Settings, Boat) stopped this route: on every way through, the true wind reaches 31 kt about 12 nm north of Tanna from 10-08 17:00 (06:00Z). Raise the limit, turn it off for this route, or try another departure.

A limit set in the form for this route alone reads *This route's wind limit (25 kt) stopped it* instead. When the same limit stopped every model, the bar says it once for all of them, with the highest wind or sea met and how far from the finish the routes end.

The bar's **Raise the limit** opens the route in Edit with the limit's field ready to change. When the models met different limits, there's a button for each, **Raise the wind limit** and **Raise the wave limit**. Saving runs the route again, as Edit does.

Set the boat's limits in Settings, Boat, and change them for one route in the form's **Limits**. Waves are significant height. AIFS has no waves, so a wave limit can't be held on it: route on GFS or ECMWF for that.

Past the forecast

A passage can outlast every forecast. By default the router plans it as far as the forecast reaches and draws the rest as an estimate. With

Past the forecast: continue on climatology on, in the route's options or as the boat's default in Settings, the router carries on in the month's typical weather and plans the whole passage, round land and reef as usual. The warning bar offers the same switch when a route has run out of forecast, ending its summary with *Continue on climatology for October?*(see [Partial routes](#)). The button runs the route again with the option on, and keeps the first.

The typical weather is the month's median wind speed from the direction the wind most often comes from there, with the month's median seas, from ERA5, the European reanalysis of 1995 to 2024. It has no gales and no calms, so it's a sketch of the passage, not a forecast of it. You'll see which part is which:

- The summary says *Days 1 to 15: forecast. Days 16 to 20: climatology for October, not a forecast.*
- On the map the legs on climatology are faded, with a ring where the forecast ends.

- In the leg table they're shaded, and each says how often the month passes your wind and wave limits there: *In October, winds here pass your 25 kt limit about 12% of the time.* Your limits don't stop a route on climatology.
- The PDF boxes the same words on its first page, with the rule and ERA5's credit.

A newer forecast moves the split later, so Rerun, latest weather has fewer days on climatology. Ocean current stops where the current forecast does, as it does on any long route.

Ocean current

With **Use ocean current** on, the route sails the RTOFS surface current forecast as well as the wind, so it favors a fair stream and avoids a foul one. The routes list says what it found, for example *GFS current up to 1.2 kt with you, 0.8 kt against.*

The current forecast reaches about 8 days. A passage past its end is planned on wind alone from there. If planning with current leaves a route short of the finish or flagged, the router plans it on wind alone instead and says so: *Planned without ocean current: with it, the search didn't reach the finish.*

The **Current** layer shows the current on the map, and the **Current** tab lists it leg by leg.

Depth warnings

Routes keep to your minimum depth where the depth data is surveyed. Where a leg crosses data that reads shallower (often estimated near coasts and reefs), the route isn't refused, but it's marked:

Depth warning on 2 legs: depth data as low as 0 m (estimated, not surveyed) near Isake Passage; check the chart.

Red marks on the map show where, and those legs are tinted in the tables and the PDF. Tap a mark for its depth. Check each one against the chart.



Depth warnings on the map.

Storm and disturbance notes

Every finished route is checked against the official storm forecasts and the router's own upper air disturbance indication, and a route that passes near either carries a note. A note never changes the route: the router finds the same route with the checks on or off, and it doesn't steer round a storm, hold back a departure or stop short because of one. Whether to sail is the captain's decision.

- **Official storms.** The forecast tracks of the tropical cyclone warning centers, as the [Storms layer](#) shows them. A route is noted when, at any time along it, the boat would be within 200 nm of where the center's track puts the storm at that time. The track runs from the advisory position through the forecast positions, in straight lines between them. Nothing is said for a time more than 3 h before the advisory or after the last forecast position, or when the router holds no reading less than a day old.
- **Upper air disturbance.** The router's own indication, read from the newest upper-air run of each model the route used: spin, a closed low, low shear, a warm core and the moisture and CAPE for deep convection, together (the rule is in [Understanding: Storms and upper air disturbances](#)). A route is noted when it passes within 250 km (135 nm) of an indicated area at a forecast step within 24 h of the boat being there.

The notes are fixed sentences filled in with the numbers. An official storm reads:

NHC advisory 25, issued Tue 15:00Z, has Hurricane Simon (75 kt) within 140 nm of the route near 21N 108W on Wed. It's the center's forecast, it can change, and the decision is the captain's.

The wind is the center's figure for the forecast time nearest the boat's closest pass. An upper air disturbance reads:

An upper air disturbance is indicated in GFS within 95 nm of the route near 14S 172W, Wed to Fri: spin of $9.1e-5$ /s at 850 hPa, CAPE up to 1,850 J/kg, 700 hPa humidity of 78% and wind shear of 9 m/s, its spin strengthening. It's one indication among several, not a forecast, and the decision is the captain's.

The numbers are what the model read at the disturbance's center at the step nearest the boat: the spin at 850 hPa, the CAPE (the energy for deep convection), the humidity at 700 hPa, about 3,000 m up, and the wind shear between 850 and 250 hPa. Where the model publishes no CAPE (AIFS) the note says so. A weaker sign, with the spin, low, shear and warm core but not the moisture or CAPE, is never in the warning bar: it's listed in the PDF's details, with what it lacked, and ends *On its own it doesn't indicate a disturbance.*

It says *on the route* when the track crosses an indicated area, and *its spin strengthening or weakening* when, within the first day after it's found, the spin rises to 1.25 times its first figure or falls to 0.8 times. When more than one is near, the nearest storm or the strongest disturbance is named and the sentence adds *and 1 more.*

Where the notes show:

- The warning bar over the map, with the centers' credits under a storm note.
- The routes list, a line per model under the route, starting with the model's name.
- The leg table on the Data face: the legs the note covers have an amber mark at the left of their time, and hovering over the row shows the note. On the Android app, the legs near an official storm are shaded.
- The route PDF: a box on page one headed *Official storm forecast, a note or Upper air disturbance, one indication.* A disturbance, indicated or a weaker sign, also gets a line in **Day by day** for each day it's near the track, and the rule in **How this was made**, with the weaker signs' line.

The planner notes a departure day and its brief the same way; see [Storms and disturbances on a day](#).

4. Reading a route

The map shows where the route goes and what the weather does around it. The Data face holds the numbers.

The routes list

The Plan tab lists your routes, newest first. Each shows a line per model: the distance in nautical miles, the hours at sea, the strongest wind in knots, the worst comfort, how many legs are flagged as over a comfort threshold, and the hours under motor. Below that, how far apart the models' tracks run and which forecast run each used.

	nm	hours	max kt	comfort	flags
● GFS	285.3	47.94	13.3	Coffee	22.4 h motor
● ECMWF	276.5	41.17	15.6	Easy	4.7 h motor

Tracks 44.3 nm apart at most, 25.5 nm on average
weather: GFS run 10-03 11:00, ECMWF run 10-03 11:00

[OPEN](#) [EDIT](#) [SHOW ON CHART](#)

[GFS TABLE](#) [ECMWF TABLE](#)

[RERUN, LATEST WEATHER](#) [RENAME](#)

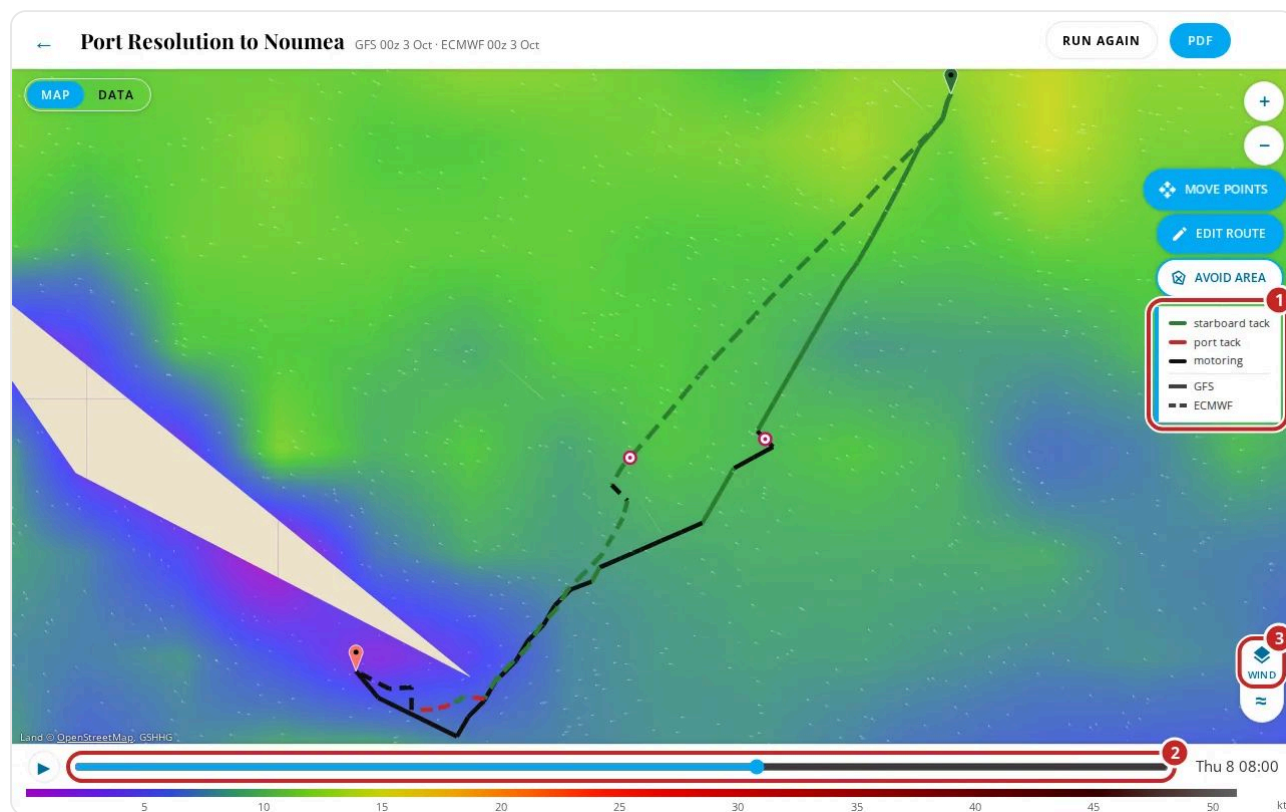
[DELETE](#)

A route in the list.

- **Open** opens it on the map. **Show on chart** draws it on the map beside others without opening it.
- **GFS table** and the other model tables open the leg-by-leg table in a sheet, with a **Columns** chooser.
- **Edit**, **Rerun, latest weather**, **Rename** and **Delete** do what they say. See [Edit, move and run again](#).

The Boat page lists the same routes in a table with their state: **Queued**, **Running**, **Done**, **Partial** or **Failed**.

The route on the map

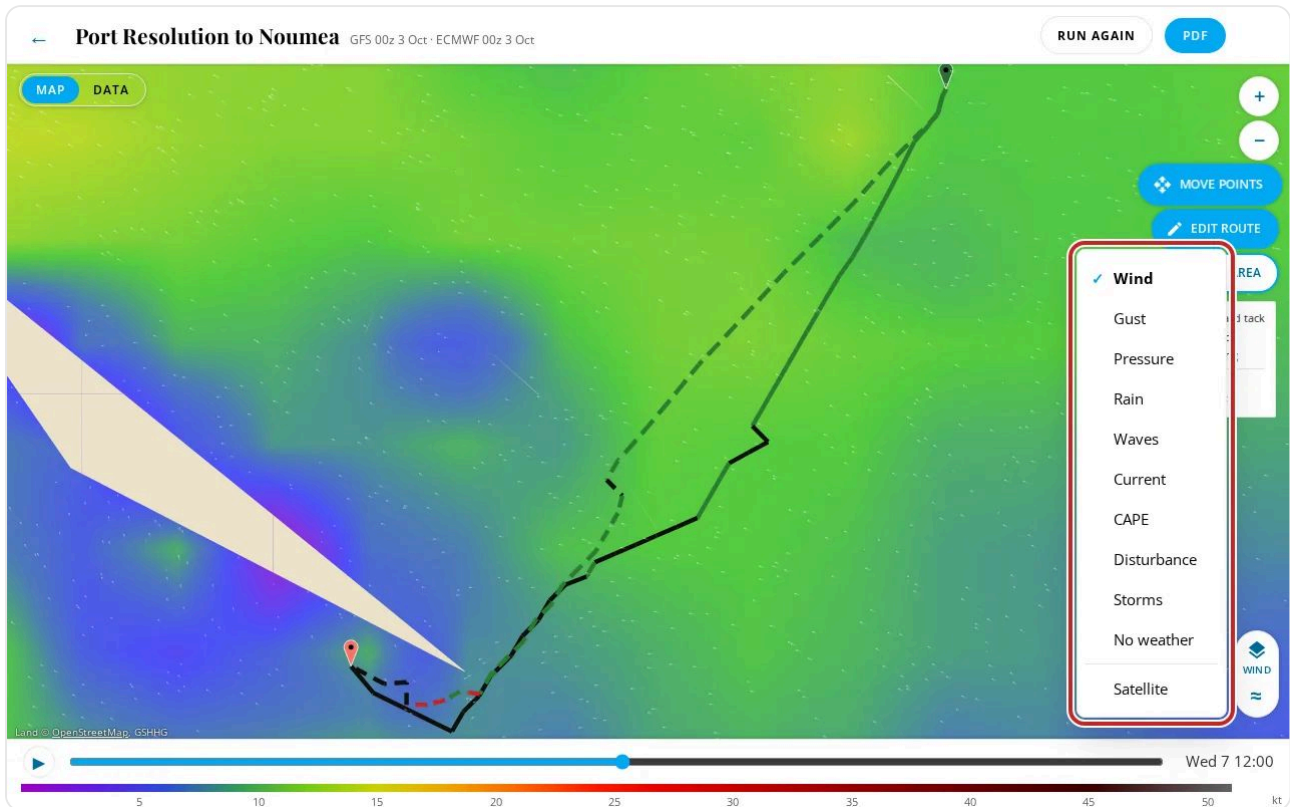


The key (1), the time slider (2) and the weather layer button (3).

- **The key** (1): green is starboard tack, red is port tack, black is under motor. GFS is drawn solid, ECMWF dashed and AIFS dotted. **Depth warning** appears when the route has depth marks.
- **The slider** (2) sets the time for the weather on the map and moves a boat along each route to where it would be. Drag it, or tap play to run it forward. The time beside it is local.
- **The layer button** (3) chooses the weather shown under the route. The button below it, $\approx$, turns the moving streaks on and off.

The title bar shows the route's name and the forecast run each model used, with **Run again** and **PDF** at the right. $\leftarrow$ goes back to the list.

Weather layers



The weather layer menu.

Layer	Shows
Wind	True wind speed in knots, with streaks moving downwind.
Gust	Gust speed.
Pressure	Sea-level pressure, with isobars.
Rain	Rain rate.
Waves	Significant wave height. The streaks follow the wave direction.
Current	The RTOFS surface current, whichever model is shown, as moving particles. The slider runs to the end of the current forecast.
CAPE	Convective energy: high values mean squalls and thunderstorms are possible.

Disturbance	The air's spin at 850 hPa, about 1,500 m up, with the strongest areas outlined: one of the signs of an upper air disturbance. See Storms and upper air disturbances .
Storms	The official tropical cyclones: position, strength, forecast track, cone and wind radii, over the wind at half strength. See Storms and upper air disturbances .
No weather	The plain map.
Satellite	Cloud-free satellite imagery under everything else, to see reef and shore. It's separate from the weather layers.

The weather follows the map as you pan and zoom, with a loading box while it arrives. A model that lacks a layer (AIFS has no waves) shows wind instead and says so.

Storms and upper air disturbances

Two layers show what may be developing. They're for looking, and for the notes on routes and planner days. Neither changes a route; see [Storm and disturbance notes](#).

Storms

The **Storms** layer shows the tropical cyclones the official warning centers are tracking. The router reads them about every 6 hours from:

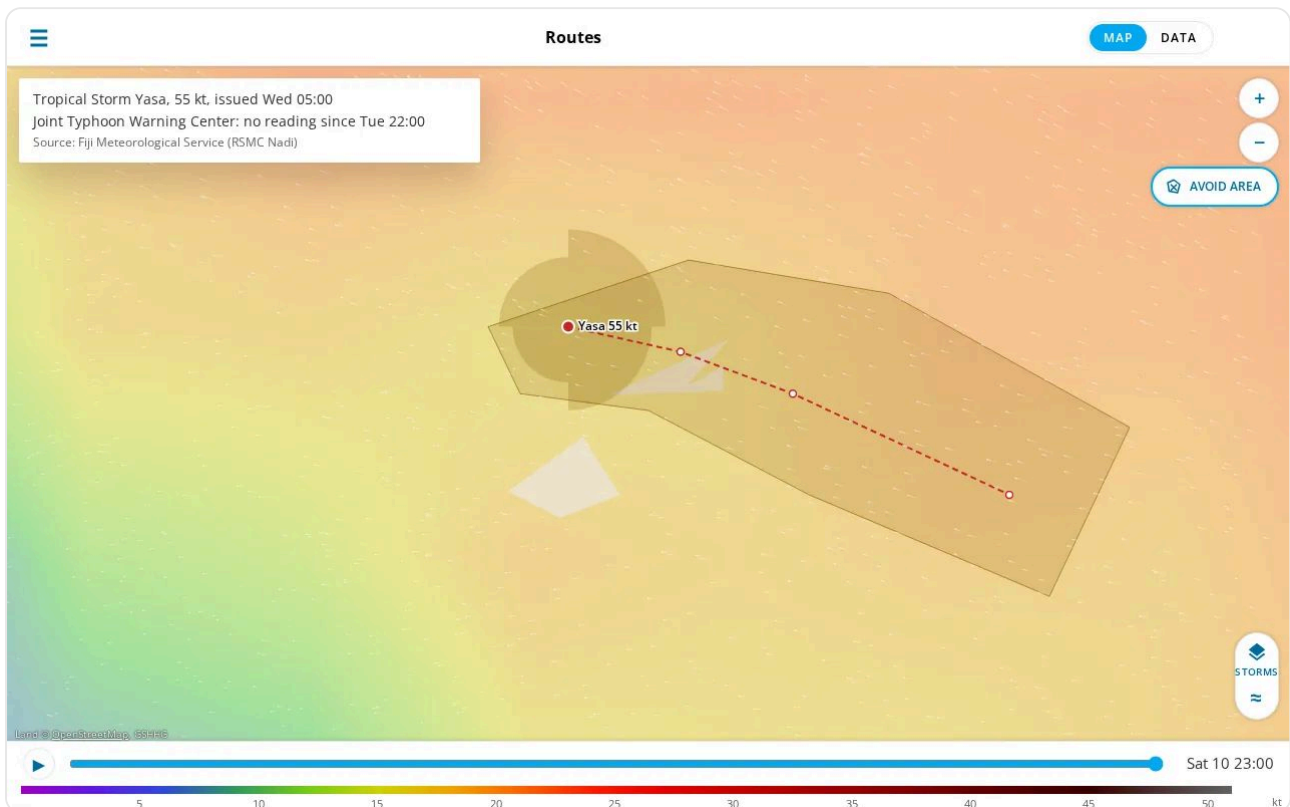
Center	Covers	Gives
NOAA National Hurricane Center	The Atlantic and the east and central Pacific	Position, strength, forecast track to 5 days, the cone, wind radii at 34, 50 and 64 kt
Japan Meteorological Agency	The northwest Pacific, numbered storms only	Position, strength, forecast track to 5 days with a probability circle at each point, wind radii at 30 and 50 kt
Fiji Meteorological Service (RSMC Nadi)	The southwest Pacific	Position, strength and forecast positions to 24 h. No cone or radii.

Joint Typhoon Warning Center

The west Pacific, the Indian Ocean and the Southern Hemisphere

Position, strength, forecast track, wind radii at 34, 50 and 64 kt. No cone.

A storm two centers cover is shown once, from the first of NHC, JMA, RSMC Nadi and JTWC that has it. Nadi's and JTWC's bulletins come through the US National Weather Service's copy of them. A bulletin more than 18 h old isn't shown.



The Storms layer, with the note box at the top of the map and the wind at half strength under it.

On the map, each storm has:

- A red marker at its position, labeled with its name and wind, for example *Yasa 55 kt*.
- The forecast track as a dashed line through a ringed point for each forecast time.
- The cone shaded amber, where the center gives one (JMA's is its probability circles).
- The wind radii as a wedge for each quarter: the widest is 34 kt (30 kt from JMA), darker for 50 kt, and red for 64 kt.

Hover over a marker for its strength, issue time and center, and over a forecast point for its time and wind. The wind colors under the layer are at half strength, so the storms stand out.

The note box over the map lists the storms in view, each with its issue time in your time zone, and the centers' credit under them: *Hurricane Simon, 80 kt, issued Tue 03:00*. It moves to the foot of the map when it would cover a marker. On a phone it's one line, the storm or *2 storms in view*; tap it for the list. *No storms in view* means none of the storms held is in the part of the map you're looking at. A center whose last reading failed is shown from the reading before, for up to 12 h, and the box says *no reading since* and the time.

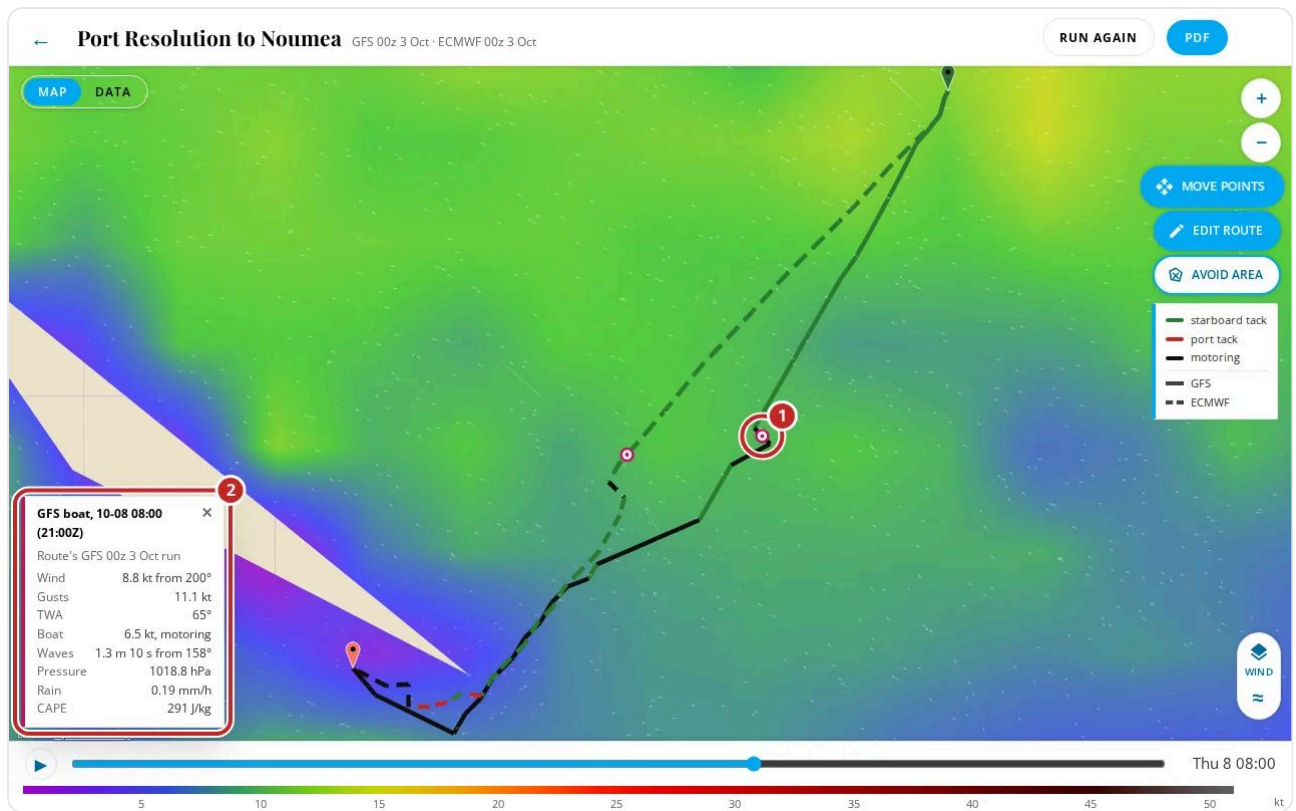
Disturbance

The **Disturbance** layer colors the spin of the air at 850 hPa, about 1,500 m up: the relative vorticity averaged over a 150 km box, in $1e-5$ per second, counted only when it turns the way lows do in that hemisphere (clockwise in the south). It comes from the newest upper-air run the router holds of the model shown, for 7 days in 6-hour steps, and follows the slider.

Areas at $8e-5$ per second or more within 30 degrees of the equator are outlined. The outline is the spin alone, one sign among several. A note on a route takes more: a closed low, 36 h of life, low shear, a warm core, and the moisture and CAPE for deep convection ([the rule](#)), so most outlined areas never become a note. The line under the map says what's drawn, for example *Spin at 850 hPa in $1e-5$ /s, 150 km average (the model's own vorticity)*. *Outlined: 8 or more between 30 degrees south and 30 degrees north. Spin is one of the signs an upper air disturbance is read from, with a closed low, low shear, a warm core and CAPE; on its own it isn't one. GFS 06z.*, followed by the model's credit.

The boat box

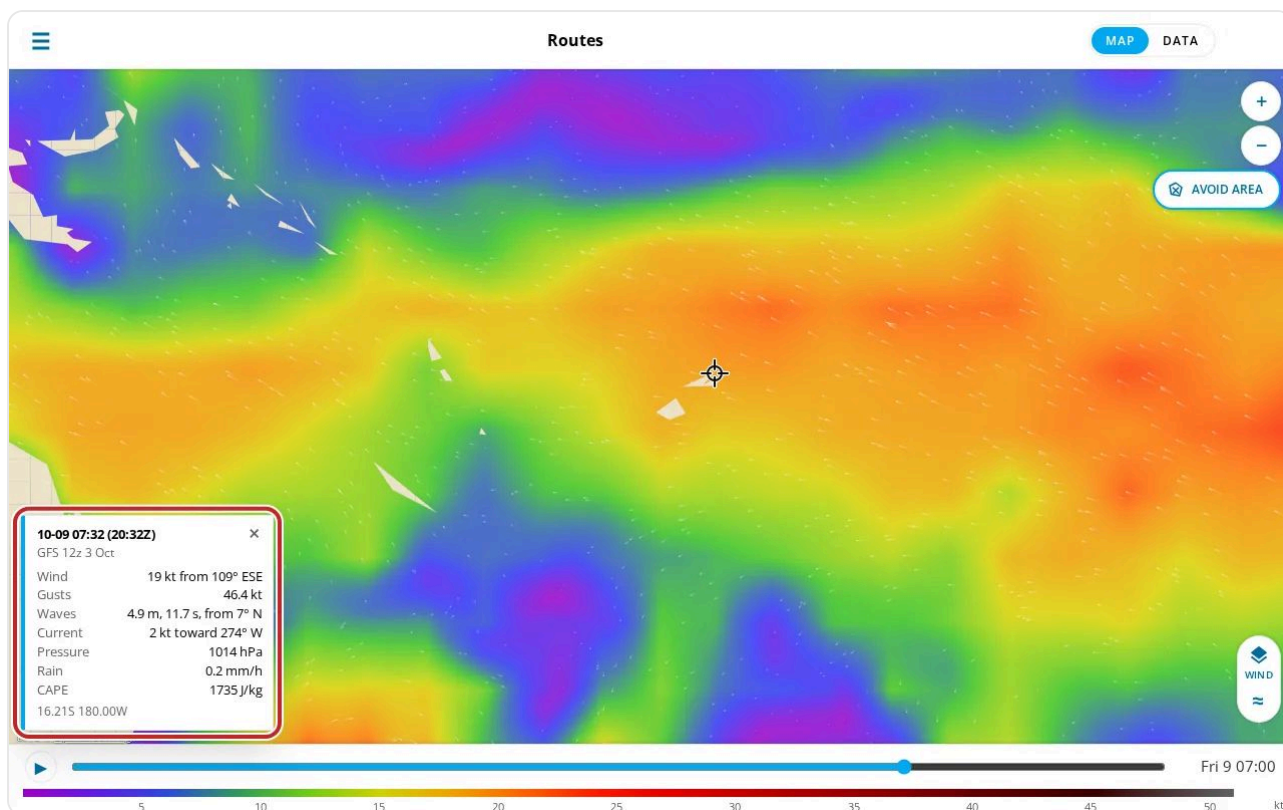
Click or tap a boat on a route to see its conditions at the slider's time: the wind, the true wind angle, the boat's speed and tack or motor, the waves, the current and how much of it runs along the course, and CAPE. It's read from the route's own table and follows the slider.



Tap a boat (1) for its box (2).

Weather at a point

Click or tap anywhere else on the map for the weather there at the slider's time: wind, gusts, waves, current, pressure, rain and CAPE, from the model shown. Drag the crosshair to move it; the close button shuts the box.

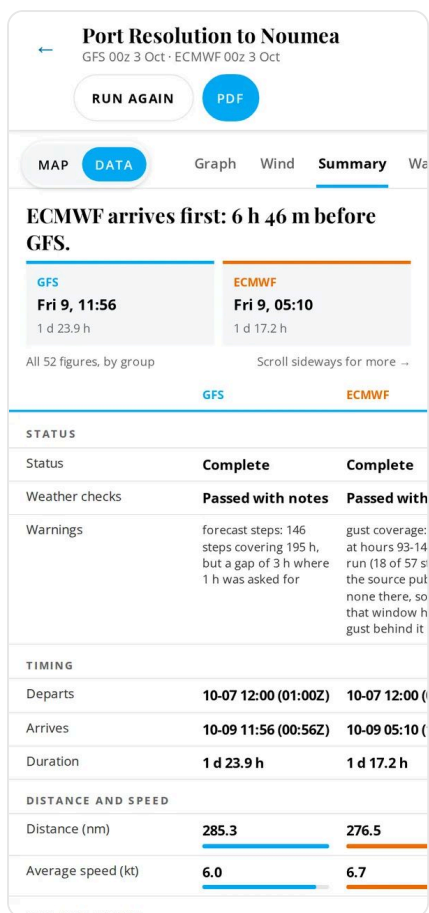


The weather at a point.

The Data tabs

Tap **Data** in the top left of the map to switch to the numbers, and **Map** to go back. The tabs run along the top as words, the open one underlined: **Graph**, **Wind**, **Summary**, **Wave**, **Current** (for a route planned with current), **Atmosphere** and **Export**. Every value is in your own units from Settings.

The tables show one model at a time. A switch above the table chooses **GFS**, **ECMWF** or **AIFS**, and the choice stays as you move between tabs. Every column is there: the tables scroll sideways, and the time column stays put while you do. Rows are grouped under the day, the time shows as hours and minutes, and night legs are shaded with a moon.



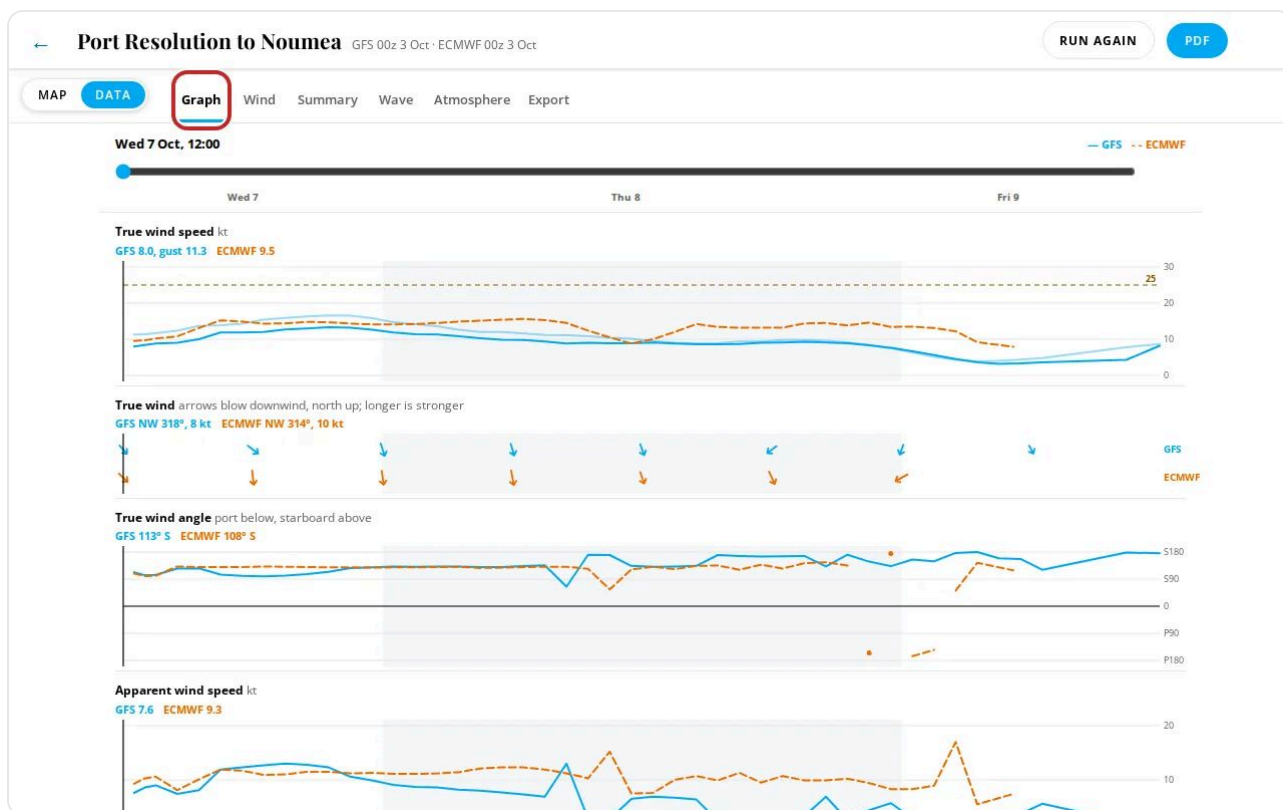
Summary on a phone.

Graph

Every value along the passage on one time axis, a line per model: GFS solid, ECMWF dashed, AIFS dotted. Alternate days are shaded. Drag the time slider at the top: a line moves through every chart, and each chart reads out each model's value at that moment.

Wind direction, the seas' direction and the current's set are rows of arrows, one row per model, one arrow every 6 hours of the passage, with north up. Wind and sea arrows point the way the wind blows and the seas run; current arrows point the way the water flows. A longer arrow is stronger wind, higher seas or faster current.

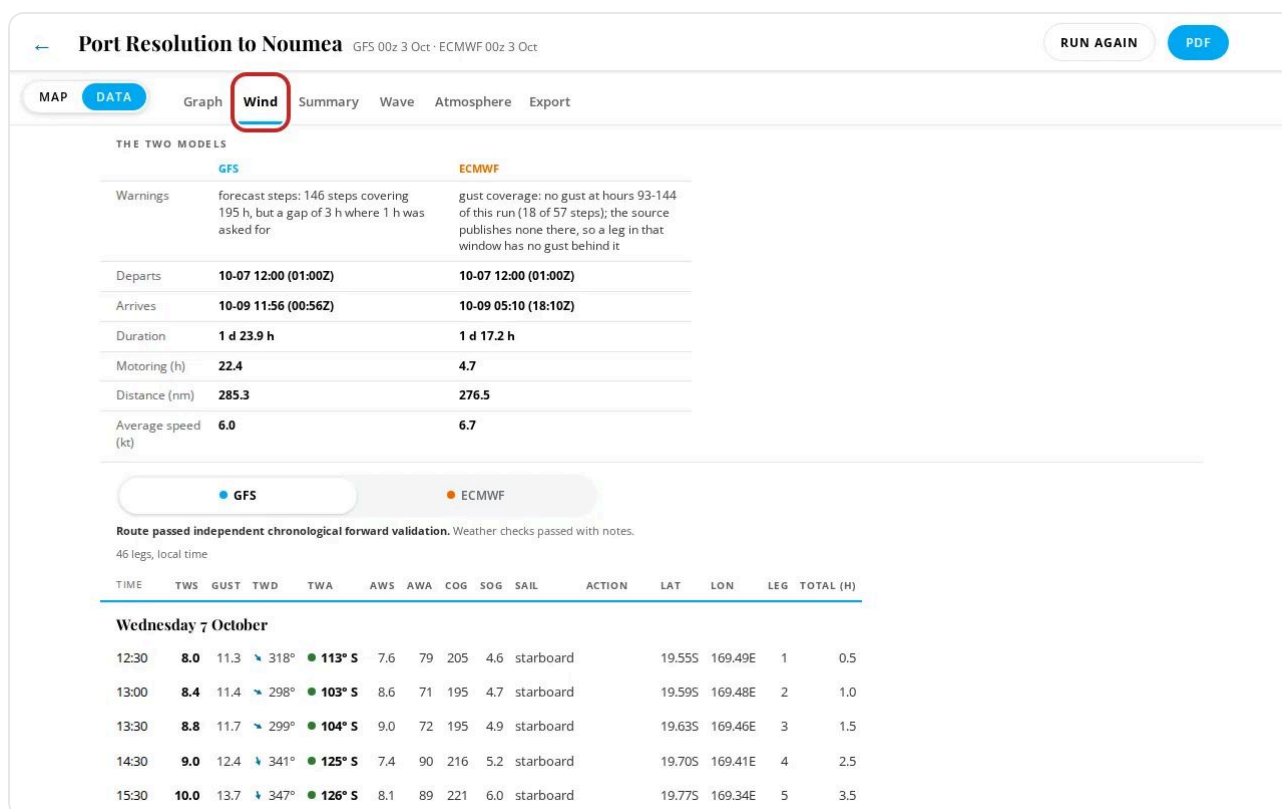
Seas on the boat shows your boat every 12 hours, pointing up as it's heading, with an arrow where the steepest part of the sea, wind sea or swell, meets it: on the bow, the forward quarter, the aft quarter or astern. Seas on the right of the boat are on starboard. The outline follows your hull type in Settings. Steep seas on the bow are the roughest. The **i** button explains the models.



Graph.

Wind

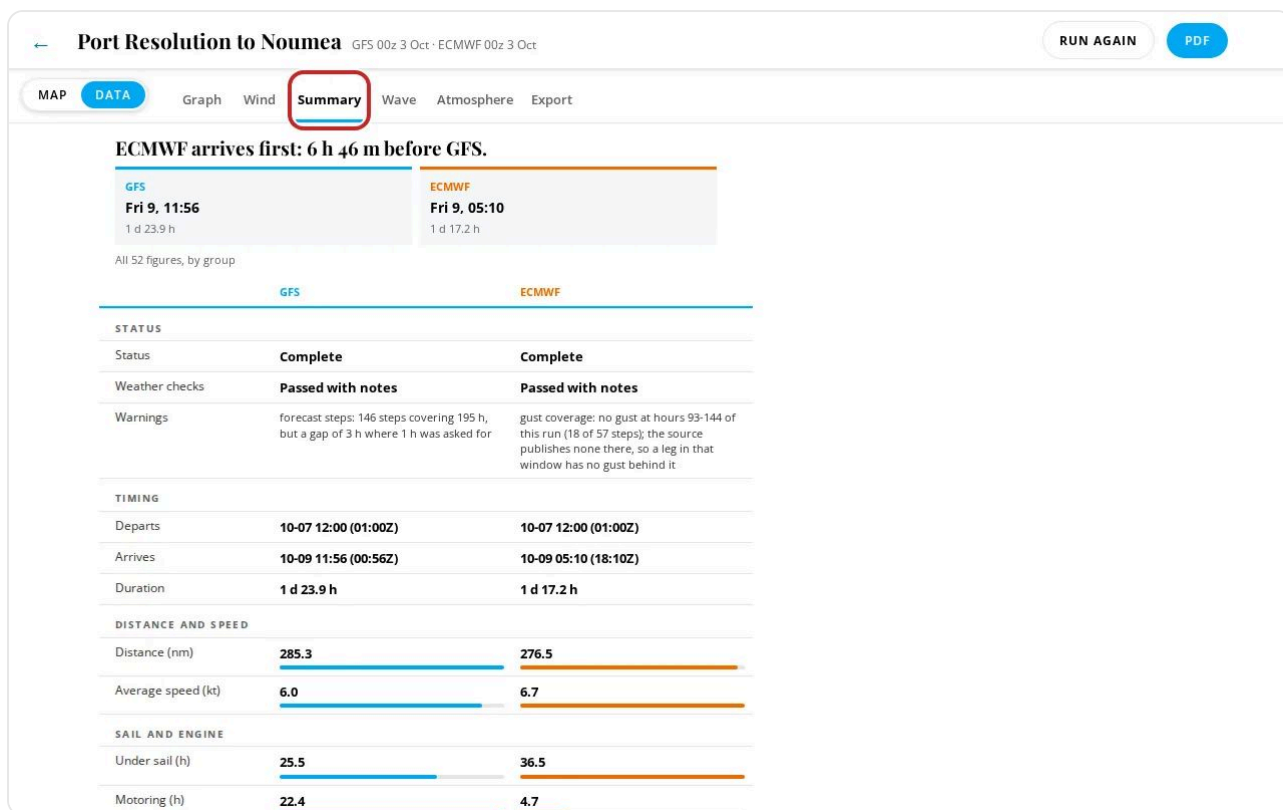
The models compared first: warnings, ocean current, departure and arrival, duration, motoring, distance and average speed. Then the chosen model's every leg: true wind and gusts, the wind's direction with an arrow, the wind angle with a red dot on port and a green dot on starboard, the apparent wind, course and speed over the ground, current, the sail and any action (tack, gybe, motor on or off), and at the end each leg's position, number and hours from the start.



Wind.

Summary

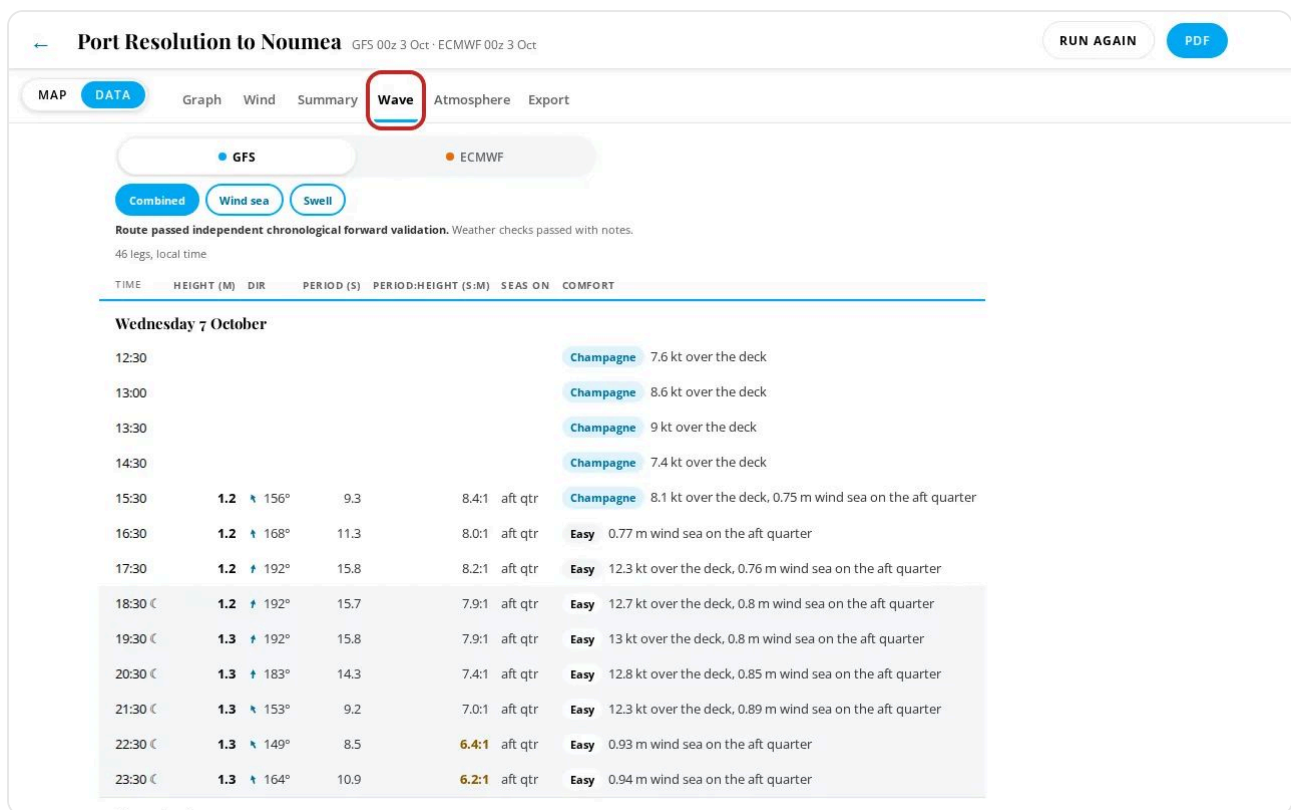
It opens with which model arrives first and by how much, and a card per model with its arrival and duration. Below, every figure for the models side by side, in groups: status, timing, distance and speed, sail and engine, tacks and gybes, wind, points of sail, weather, comfort, seas, limits, and how the route was found. A thin bar under each figure compares the models at a glance. This is where to compare models.



Summary.

Wave

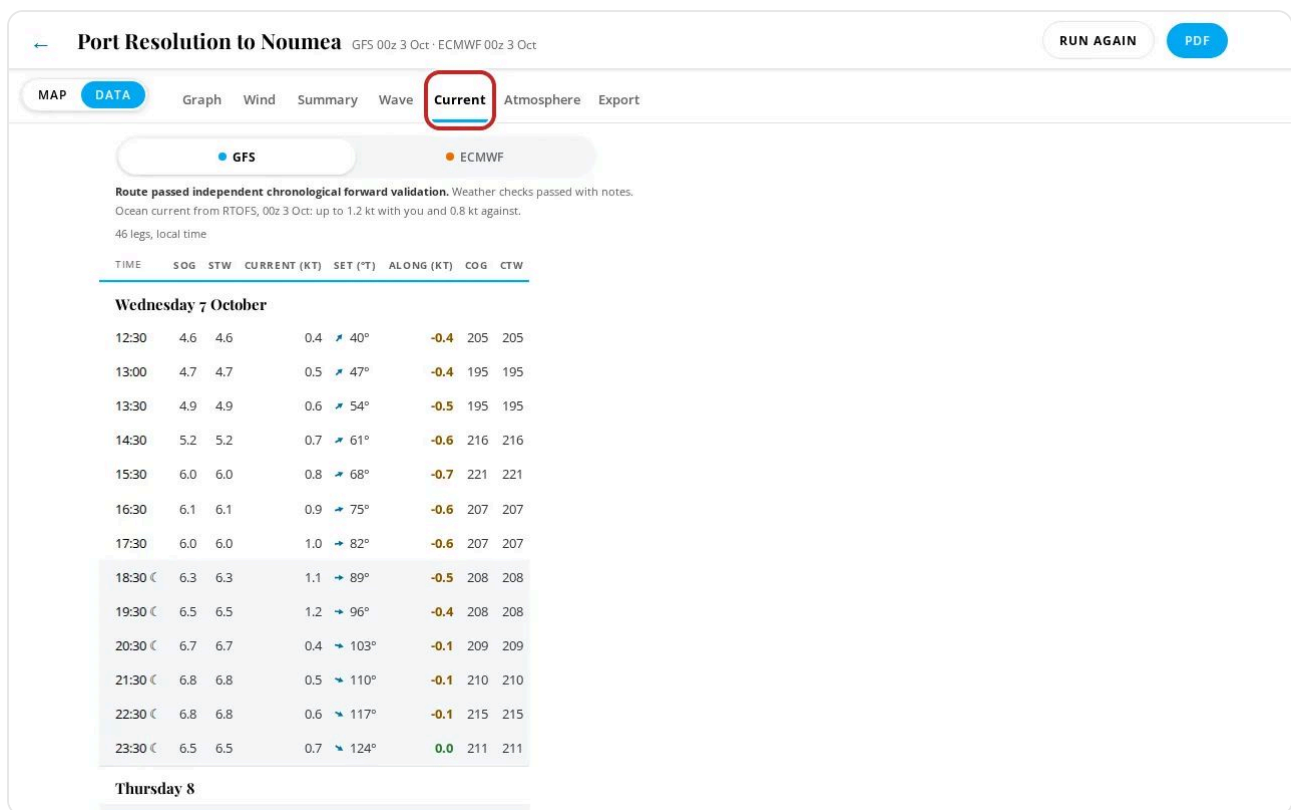
Wave height, direction and period per leg, with **Period:height** and which side of the boat the seas are on. Steep values are in amber; see [Comfort](#). The comfort rating shows with its reason. **Combined**, **Wind sea** and **Swell** choose which part of the sea the table shows.



Wave.

Current

Shown for a route planned with current: speed over the ground and through the water, the current's speed and set with an arrow, how much runs with you (green) or against you (amber) along the course, and the course over the ground and through the water.



Current.

Atmosphere, Export and the planner's tabs

Atmosphere lists pressure, rain, CAPE, day or night, and where a model has them, air temperature, cloud and humidity; CAPE at or over the squall threshold is in amber. **Export** holds the GPX and CSV for the model you choose, the route PDF, and what to check before you follow the route (see [Reports](#)). A route made from a planner day also has **Risk**, the ensembles' numbers for that day, and **Brief**.

Comfort ratings

Every step of a route gets one of five comfort levels, best to worst:

Level	Feels like
Champagne	Flat and steady.
Easy	Sleeping fine.
Coffee	One hand to move, still cooking.

Rough	Two hands, no cooking.
Sick	Nobody is sleeping.

Each rating comes with its reason, the wind over the deck or the sea that decided it, for example *11.3 kt over the deck* or *1.8 m swell on the bow*. The ratings depend on the hull and length in Settings, Boat. How they're worked out is in [Understanding: Comfort](#).

On the Android and iPhone apps

The route screen has the same Map and Data faces, and the same Data tabs. Tap a boat for its box, tap the map for the weather at a point (long-press to put the crosshair where you press), and use the round eye button to choose the model shown.

The layer picker has **Disturbance** and **Storms** as on the web. On Storms, each marker is labeled with the storm's name and wind and, under that, its issue time, and each forecast point with its hours ahead, for example *+24 h*. The note box sits in the first corner of the map, top first, where it covers no marker or label. It shows one line until you tap it for the whole list.

PHONE SCREENSHOT TO COME

Android, a finished route on the Map face: the route key, the boat box open for the GFS boat, the timeline at the foot and the layer button.

PHONE SCREENSHOT TO COME

Android, the same route on the Data face with the Summary tab open.

5. Reports

A PDF to read or print, CSV for a spreadsheet, GPX for a plotter, and the planner's passage brief.

The route PDF

Tap **PDF** in the route's bar and choose a model, or use **Download PDF** on the Export tab. There's one PDF per model. The router builds it, which takes a little while, and your browser downloads it. Times print in your device's time zone.

It holds:

- A box on page one for each thing to know before the rest: the route is partial, has depth warnings, runs on climatology past the forecast, or passes near an indicated upper air disturbance or an official storm (see [Storm and disturbance notes](#)). Then the contents, linked to each section.
- The chart: the track colored by tack and motor, the start, finish and waypoints, and arrows for the current.
- **The passage:** departure, arrival, duration, distance, average speed, hours under sail, under motor and at night, tacks and gybes.
- **Conditions along the way:** true and apparent wind, gusts, boat speed, the highest waves and steepest seas, the comfort split, legs over a limit and the current, with bars for wind angle and wind speed.
- **What was asked for:** the polar, the forecast run, the sailing angles, the motor, the polar by day and at night, the boat comfort was rated for, land clearance, minimum depth, reefs and avoid areas.
- **The weather data:** the checks the forecast passed before it was used.
- **Leg by leg:** a row per leg with time, speed, course, current, wind, waves, sail, action and comfort, with the comfort's reason under each row. Legs with depth warnings are shaded.

After the legs come the passage brief's pages, worked out along this route's own track and times:

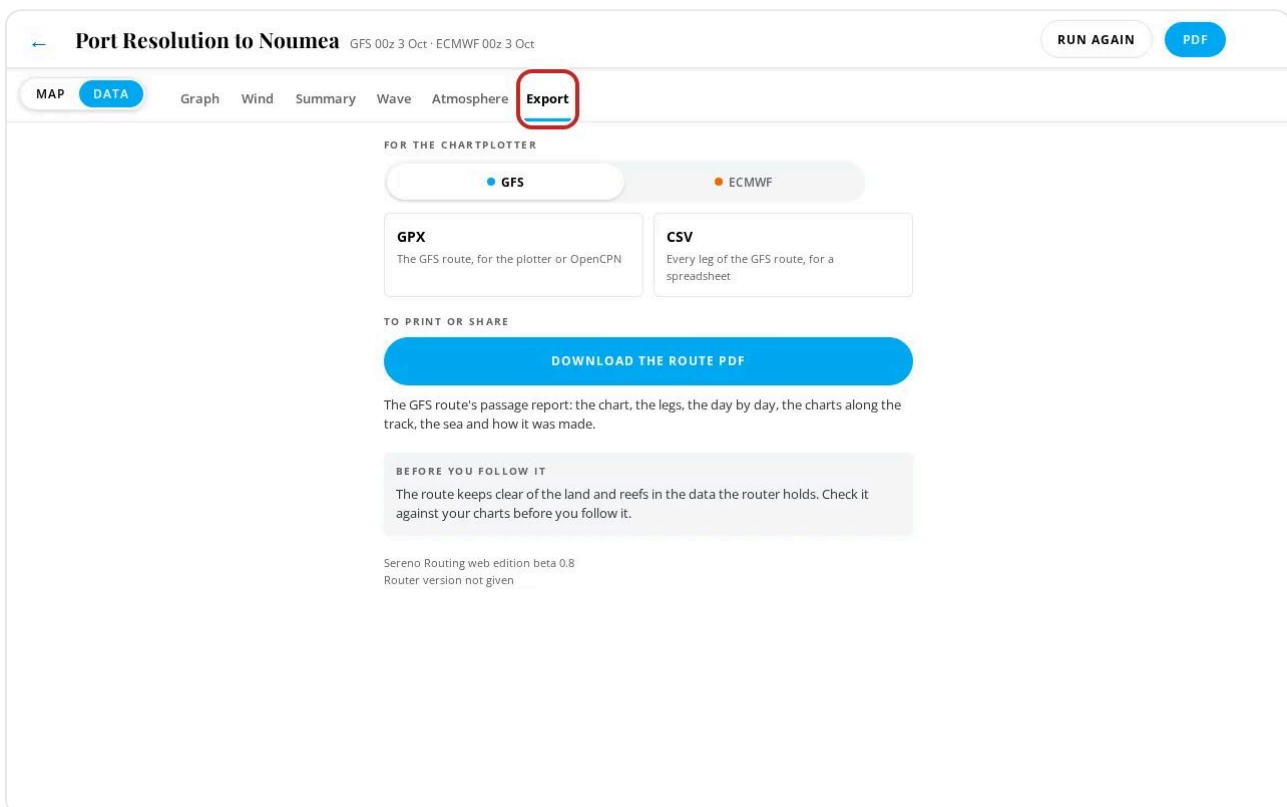
- **Day by day:** each day at sea, with a line for any upper air disturbance near the track that day, the weaker signs included.
- **Ensemble spread:** how far the ensembles spread on the wind along the track and on the arrival time.

- **Upper air:** each day's squall risk and what the models' upper air shows, with the source and run of each model.
- **Along the track:** charts of each model's conditions against time, current included, with the ensembles' 10th to 90th percentile wind shaded behind them where it's held.
- **The sea:** wave height and period, and how steep the sea is.
- **Official forecast:** where one is set up (Fiji so far).
- **How this was made:** the sources, the rules every sentence follows, and the credits.

Wave heights and wave limits print in meters or feet, as your **Units** setting asks (on the Android app, its **Display** setting).

CSV and GPX

On the Data face, open **Export**.



The Export tab.

- **Download CSV:** the full leg table, a column per value, for a spreadsheet.
- **Download GPX:** the route as a GPX route for a chart plotter or navigation app. It holds the departure, the arrival, your waypoints, and a point at each turn of more than 20 degrees,

each with its planned time, speed and wind in the description. The Android app lets you set the turn angle (0 keeps every leg).

A GPX route from here is a plan from a forecast. Before you follow any of it, check every leg against your charts, especially near land and reef.

On the Android app, the Export tab has **Share GPX**, **Share CSV** and one **Download GFS PDF** button per model. Files are saved to Downloads and offered to the share sheet.

The passage brief

With **Routing and planning** on, each screened departure day has a passage brief: a longer PDF about the weather for that day's passage, built from the ensembles as well as the three models. Open it with **Open brief** on the day (see [One day](#)) or on the Watching page. The first brief in an area takes a few minutes; later ones take seconds. When it's ready, choose **Open PDF** or **Save PDF**.

SIGN OUT

X

PLAN

DEPARTURES

SETTINGS

All trips

Port Resolution to Noumea

19.52S 169.53E to 22.29S 166.40E, 4 days from 10-10 07:00 (20:00Z).

Polar: Lagoon 42, Blue Buddha owner polar

4 of 4 days screened, 0 routed.

Screened 10-08 04:19 (17:19Z), as asked.

Sat 10 Oct

WARNING

Seas: ECMWF waves under 2 : 1 (to 1.5 m, median 1.7 : 1, 4 h of the passage).

Departs 10-10 07:00 (20:00Z) 39.4 h, 35.9 to 44.1 arrives 10-11 21:50 (10:50Z) worst comfort Easy

Sun 11 Oct

WARNING

Seas: ECMWF waves under 2 : 1 (to 1.7 m, median 1.9 : 1, 12 h of the passage).

Departs 10-11 07:00 (20:00Z) 35.5 h, 33.8 to 38.1 arrives 10-12 17:44 (06:44Z) worst comfort Easy

Mon 12 Oct

WARNING

Seas: ECMWF waves steeper than 1 in 40, under 2 : 1 (to 2.0 m, median 1.5 : 1, 17 h of the passage, steep for 4 h); seas: GFS waves under 2 : 1 (to 1.7 m, median 2.0 : 1, 8 h of the passage).

Departs 10-12 07:00 (20:00Z) 34.6 h, 32.8 to 37.5 arrives 10-13 16:41 (05:41Z) worst comfort Easy

Routes

Sun 11 Oct

WARNING

Departs 10-11 07:00 (20:00Z)

Seas: ECMWF waves under 2 : 1 (to 1.7 m, median 1.9 : 1, 12 h of the passage).

Route this day

Watch this day

Open brief

The ensembles

Hours, both ensembles

35.5 h, 33.8 to 38.1

Passages over 25 kt

0 of 82

Passages gusting over 35 kt

0 of 82

Wind over 30 kt

0% of passages

Gusts over 40 kt

0% of passages

Seas past the WARNING rules

100% of passages

Seas past the NO rules

0% of passages

Feet rule, worst spell

1.5 : 1, steep (ECMWF waves, 11.5 h under 2 : 1 at the median)

Comfort

Mostly Easy, worst 3 h Easy

Waves

ECMWF waves under 2 : 1 (to 1.7 m, median 1.9 : 1, 12 h of the passage)

The ensembles, every member sailed

	ECMWF ENS	GFS
Members	51 of 51	31 of 31
Hours, median	36.2 h	34.7 h
Hours, 10th to 90th	35.4 to 38.1 h	33.8 to 36.4 h
Arrives, median	10-12 19:12 (08:12Z)	10-12 17:44 (06:44Z)
Most wind, median	17 kt	16 kt
Most wind, 90th	18 kt	18 kt

The brief, ready to open.

It holds:

Sereno Routing guide

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1. **Trip estimates:** hours at sea, arrival, distance, average speed, point of sail, current, comfort and fuel, for your polar and for a conservative 80% of it, from every ensemble member.
2. **Day by day:** each day at sea: wind, gusts, direction, waves, boat speed, current, distance, motor hours and comfort.
3. **The sea:** wave height and period, and how steep the sea is.
4. **The weather story:** the weather along the way, with the squall risk (low, isolated, moderate or high), and the note for any indicated upper air disturbance or official storm near the passage, the weaker signs' line under it, and the centers' credits (see [Storms and disturbances on a day](#)).
5. **Along the track:** charts of the conditions along the path.
6. **Official forecast:** where one is set up (Fiji so far).
7. **How this was made:** the sources and the method, including the rule that indicates an upper air disturbance.

Wave heights print in meters or feet, as your units setting asks.

A route made from a planner day has a **Brief** tab, on the web and on the Android app, with **Download brief PDF**. On the web, its **Upper air disturbance** and **Tropical cyclones** cards carry the same notes.

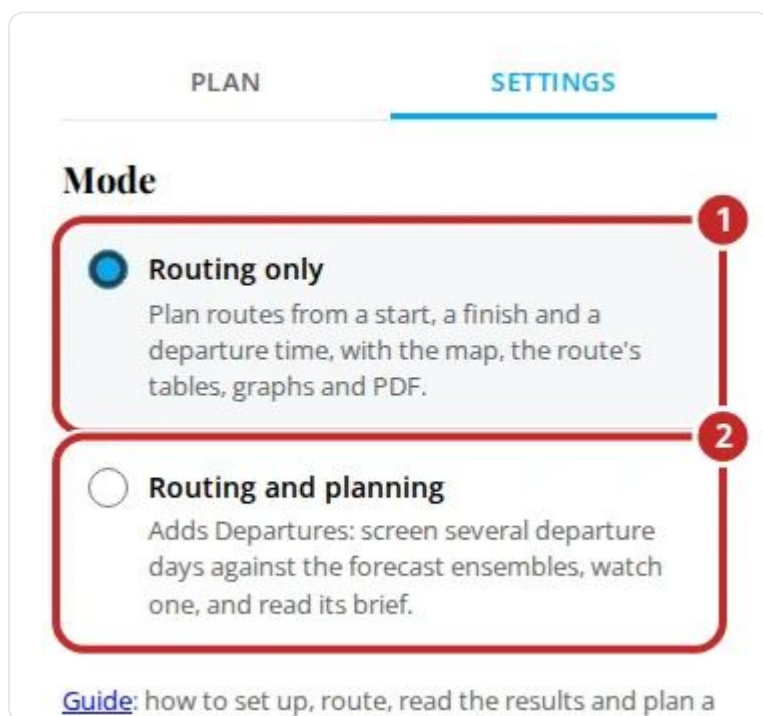
6. Planning a passage

Optional. The planner helps choose the day to leave. It screens several departure days on the weather ensembles, says which look good, watches the trip and then the one you pick, and builds its brief.

A route answers "how do I sail this passage if I leave at this time?" The planner answers "which day should I leave?" It sails your boat along one safe path for each departure day, on every member of two weather ensembles, and reports how many of those passages meet strong wind or rough seas. When you've chosen a day, route it for the full plan.

Turning on planning

New accounts start in **Routing only**, which hides the planner. To use it, open the web edition's **Settings** and choose **Routing and planning** at the top. On the Android app it's the **Mode** card, first in Settings. The **Departures** tab then appears beside **Plan**, and the Boat page's menu gains **Watching** and **Briefs**.

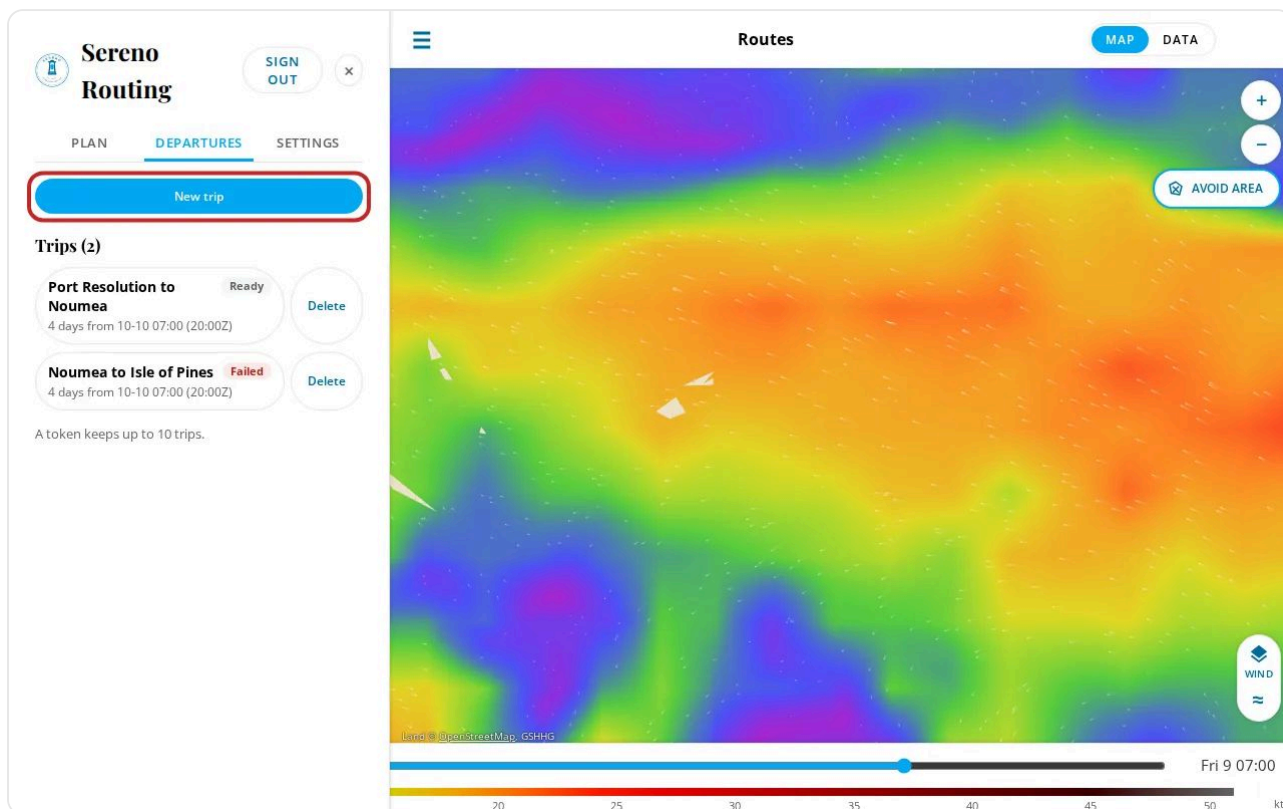


Routing only (1) or Routing and planning (2), at the top of Settings.

Switching back to Routing only hides the planner again. Your trips are kept for when you switch back, and a watched trip or day carries on being screened.

Making a trip

A trip is one passage screened over several departure days. In the web edition, open **Departures** and tap **New trip**.



Departures, with New trip marked and the trips below.

- 1 Start and finish:** tap **Pick on the map**, then tap the start and the finish. Or choose an existing route under **Or the start and finish of a route**. They must be 2 to 1,500 nm apart, or up to 5,000 nm where the router holds the climatology (see [Long passages](#)).
- 2 Name this trip.**
- 3 Earliest departure (local time):** the first day to screen, within the next 14 days.
- 4 Departure days:** how many days to screen, one departure a day at the same time, up to 10.
- 5 Forecast models:** GFS, ECMWF and AIFS are each sailed once beside the ensembles, for comparison.
- 6 Tap Screen the days.**

New trip

Screens each departure day on the ECMWF and GFS ensembles and the router's own runs, and says which days look good.

START AND FINISH
4.19N 171.00E to 9.26S 175.78W

[Pick on the map](#)

OR THE START AND FINISH OF A ROUTE

NAME THIS TRIP 1

EARLIEST DEPARTURE (LOCAL TIME) 2

DEPARTURE DAYS

One departure a day at the same time, for up to 10 days.

Forecast models
☒ GFS ☒ ECMWF ☒ AIFS

The router's runs sailed beside the ensembles. Route this day routes on them.

3

New trip: the name (1), the earliest departure (2) and Screen the days (3).

A box shows the screening's progress: the safe path round land, reef and shallows, fetching the ensembles along the way, then sailing each day. You can keep up to 10 trips; **Delete** beside a trip removes it and its screenings, and leaves any routes made from it.

The day cards and verdicts

Open a trip to see a card for each departure day, with its verdict, the reason, and the numbers: when it departs, the median passage time and the range (*35.5 h, 33.8 to 38.1* is the median, then the 10th to 90th percentile), the arrival and the worst comfort.

[All trips](#)
Port Resolution to Noumea
 19.52S 169.53E to 22.29S 166.40E. 4 days from 10-12 07:00 (20:00Z).
 Polar: Lagoon 42, Blue Buddha owner polar
4 of 4 days screened, 0 routed.
 Screened 10-10 04:19 (17:19Z), as asked.

Not watched.

Watch this trip

Mon 12 Oct
WARNING

Seas: ECMWF waves under 2 : 1 (to 1.5 m, median 1.7 : 1, 4 h of the passage).
 Departs 10-12 07:00 (20:00Z) 39.4 h, 35.9 to 44.1
 arrives 10-13 21:50 (10:50Z) worst comfort Easy

Tue 13 Oct
WARNING

Seas: ECMWF waves under 2 : 1 (to 1.7 m, median 1.9 : 1, 12 h of the passage).
 Departs 10-13 07:00 (20:00Z) 35.5 h, 33.8 to 38.1
 arrives 10-14 17:44 (06:44Z) worst comfort Easy

Wed 14 Oct
WARNING

Seas: ECMWF waves steeper than 1 in 40, under 2 : 1 (to 2.0 m, median 1.5 : 1, 17 h of the passage, steep for 4 h); seas: GFS waves under 2 : 1 (to 1.7 m, median 2.0 : 1, 8 h of the passage).
 Departs 10-14 07:00 (20:00Z) 34.6 h, 32.8 to 37.5
 arrives 10-15 16:41 (05:41Z) worst comfort Easy

Thu 15 Oct
WARNING

Seas: ECMWF waves under 2 : 1 (to 2.2 m, median 1.3 : 1, 31 h of the passage); seas: GFS waves under 2 : 1 (to 1.9 m, median 1.4 : 1, 17 h of the passage).
 Departs 10-15 07:00 (20:00Z) 34.9 h, 32.4 to 37.9
 arrives 10-16 16:28 (05:28Z) worst comfort Coffee

The day cards. Tap one for its numbers.

Verdict	Means
GO	None of the rules below is met: fewer than 10% of the passages pass your wind or wave limit, fewer than 5% spend 3 h or more at Sick, and the median passage spends under 6 h at Rough or Sick.
WARNING	10% or more of the passages pass a limit, or 5% or more spend 3 h or more at Sick, or the median passage spends 6 h or more at Rough or Sick.
NO	20% or more of the passages pass a limit, or 10% or more spend 3 h or more at Sick.

No verdict

The forecast doesn't cover a full passage from this day yet, and the reason says so.

The limits are the wind and wave limits you set in **Settings, Boat**, and the comfort levels are the ones the router rates every route with (Champagne, Easy, Coffee, Rough, Sick). A passage passes the wind limit when its strongest wind is over it, and the wave limit when its highest sea is over it. With no limits set the day is judged on comfort alone, and the reason starts *No wind or wave limits set: judged on comfort*.

The reason is one or two plain sentences, the deciding cause first, with heights in the unit you chose in Settings: *32% of passages pass your 25 kt wind limit from Sat 02:00. The median passage meets seas up to 12 ft and is Rough or worse for about 18 h*. Each share is taken from each ensemble, and the larger counts. Where the two ensembles alone would give different verdicts, the reason names them: *The ensembles disagree: ECMWF ENS says Go, GEFS says Warning*. The period to height and the steepness of the seas don't decide the verdict; they're in the day's details. The three models sailed once each are listed beside the ensembles for comparison but don't vote, unless no ensemble covers the day, when they decide it. How the ensembles work is in [Ensembles and spread](#).

Above the cards, **Watch this trip** starts the watch described under [Stage 1](#).

Port Resolution to Noumea
19.52S 169.53E to 22.29S 166.40E. 4 days from 10-12 07:00 (20:00Z).

Polar: Lagoon 42, Blue Buddha owner polar

4 of 4 days screened, 0 routed.
Screened 10-10 04:19 (17:19Z), as asked.

Not watched.

Watch this trip

Watch this trip, above the day cards.

Under the cards, **Screen again** screens every day on the newest ensembles, and **Rescreen with my current polar** appears when you've changed your polar in Settings since the trip was screened. A trip keeps the polar it was screened with until then, so its verdicts don't change under it.

Long passages: forecast, then climatology

The ensembles reach 15 to 16 days. A passage that ends inside them is screened as described above. A longer one is screened on the forecast as far as it reaches and on climatology after that, and the router does it by itself. Where the router holds the climatology, the planner takes passages up to 5,000 nm.

Each day card says how many days of its passage are on each:

Days 1 to 15 forecast; the last 5 days (Oct 27 to 31) are climatology for October, a likelihood for the month, not a forecast.

It counts the days, so you can tell five days of climatology from five hours. The first of the climatology days can be partly forecast.

On the days after the forecast ends, each ensemble member sails in the month's typical weather in place of a forecast. The wind and seas come from ERA5, the European reanalysis for the Copernicus Climate Change Service, 1995 to 2024, gathered for each month and each 1 degree of ocean. How often the wind reaches 15, 20, 25, 30, 34 and 41 kt, how high the seas get and where they come from are all in it. A member that is windy at the end of the forecast stays windy for about a day, then settles into the month's range. The rules are fixed, so the same trip screened twice on the same runs gives the same answer, and they're written out under **How this was made** in the brief.

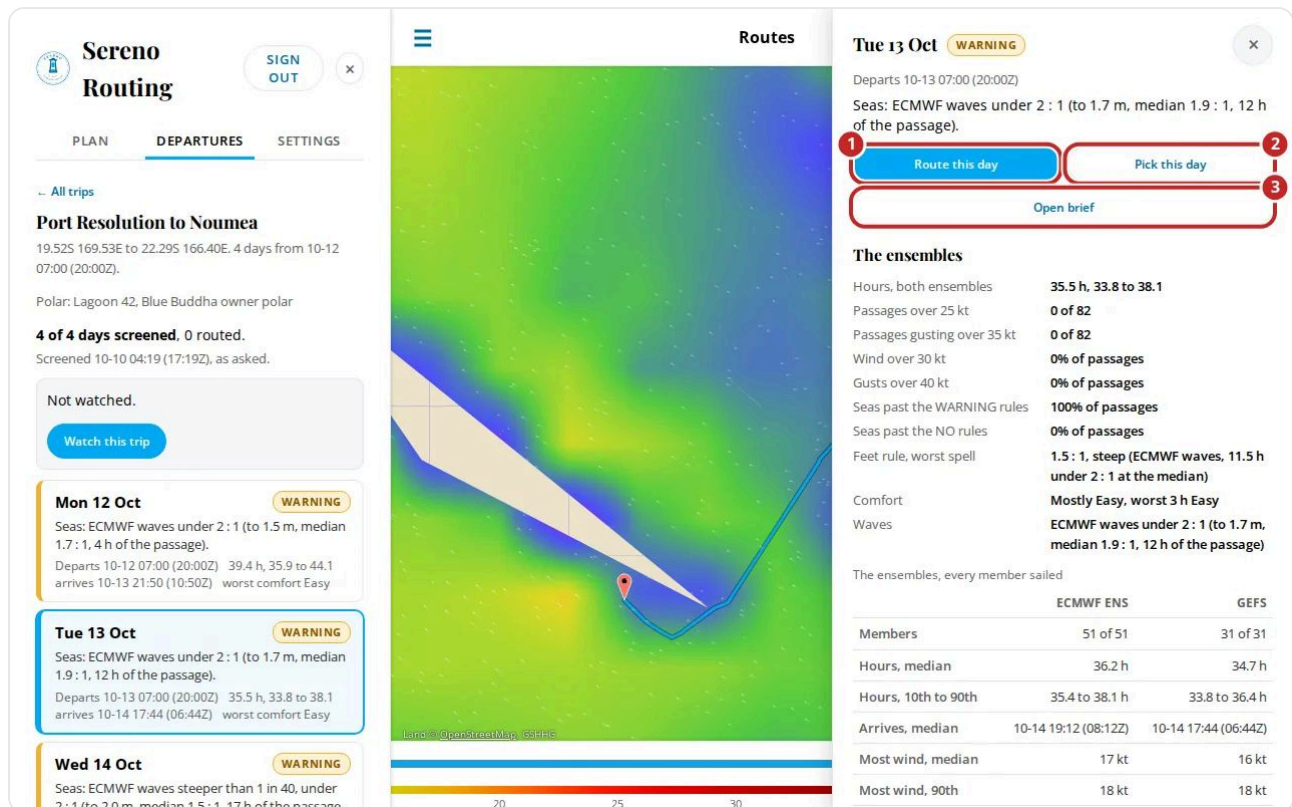
A verdict that rests on climatology says how likely a limit is for that month. It doesn't forecast anything. The reason keeps the two apart, and says when the climatology days are what set the verdict: *On the forecast days alone this day is Go; the climatology days set the verdict*. Climatology doesn't know this year's pattern, and ERA5's grid under-represents the strongest winds and the steepest seas.

You set nothing. Each new ensemble run reaches further, so the same trip screened tomorrow says *Days 1 to 16 forecast and the last 4 days*, and a watched trip is screened again after each run. A long passage over 10 departure days takes a few minutes to screen. Wherever the climatology is used, the day, the brief and its PDF carry ERA5's credit: *Contains modified Copernicus Climate Change Service information 2026*.

One day: route it, watch it, brief it

Tap a card to open the day. It shows the full reason and the numbers behind it: the passages past your wind and wave limits, each wave model's height, period to height and

steepness, the comfort, a chart of the wind's spread along the path, a table for each ensemble, the three models' runs, and how old each forecast is.



Route this day (1), Pick this day (2) and Open brief (3).

- **Route this day** queues an ordinary route for the trip's start, finish and that day's departure, on the trip's models and polar. It appears in your routes list, and opens like any other. The day then says how many times it's been routed.
- **Pick this day** watches this day alone, and keeps it screened as new forecasts arrive (Stage 2, below). On a day you're already watching, the button reads **Stop watching**.
- **Open brief** builds the passage brief PDF (see [The passage brief](#)).

A route made from a day shows a Departures panel beside it, with the trip's days, and its Data face adds **Risk** and **Brief** tabs.

Watch departures from a route

A route you've already made can become a watched trip. On a finished route, tap **Watch departures**: on the web it's beside **Edit route** on the map, on the Android app a button on the route's map, and on the iPhone the binoculars in the route's top bar. The New trip form opens filled in from the route:

- its name, start and finish, and the models it ran on
- 4 departure days
- the route's departure as the earliest. If that's more than 6 hours past, it moves forward a day at a time until it isn't.

Change anything you like, then tap **Screen and watch**. The trip is screened and watched at once, and opens in Watching. The route itself isn't changed. Only one trip is watched at a time, so if another was watched, it says *Watching this trip now, in place of* A route with waypoints is screened direct from start to finish, and the form says so.

Storms and disturbances on a day

Each screened day is checked against the same two things as a route (see [Storm and disturbance notes](#)), along the median passage: the safe path, timed from the departure over the median passage time.

- **Official storms:** the day is noted when the boat would be within 200 nm of where a center's forecast track puts a storm at that time.
- **Upper air disturbance:** the day is noted when the passage comes within 250 km (135 nm) of an indicated disturbance in the newest ECMWF or GFS upper-air run, at a step within 12 h of the boat being there. One both models show is named once, with both models. Weaker signs don't reach the day; the brief lists them in its details.

The note has its own line on the day card and in the day's sheet, apart from the reason. A disturbance's line is the note itself, with its numbers, for example *An upper air disturbance is indicated in ECMWF and GFS within 70 nm of the route near 14S 172W, Wed to Fri: spin of $9.1e-5$ /s at 850 hPa, CAPE up to 1,850 J/kg, 700 hPa humidity of 78% and wind shear of 9 m/s, its spin strengthening. It's one indication among several, not a forecast, and the decision is the captain's.* The verdict is the planner's own, from your limits and comfort, and a note doesn't change it: a Go day can carry a storm note. The brief carries the same notes (see [The passage brief](#)). Whether to sail is the captain's decision.

Watching

A watch has two stages, and you can watch one passage at a time. First you watch the whole trip, to see which day comes good. Then you pick the day you'll leave, and the watch narrows to it. Watching another trip asks first: *You're watching Port Resolution to Noumea, the whole trip. Watch this one instead?* Picking a day on the trip you're already watching asks nothing.

In either stage the router screens again each time either ensemble has a new run. GEFS and ECMWF ENS each run four times a day, at 00z, 06z, 12z and 18z, so a watched trip is screened up to about four times a day. ECMWF's 06z and 18z runs reach 6 days rather than 15: a departure whose passages all end inside one is sailed on it, and any other on the 00z or 12z run before it. Each screening is logged with the runs that set it off and what changed. A router that reads the ensembles from Open-Meteo rather than its own copy screens again after the 00z and 12z runs only. The Departures panel says which rule applies.

Stage 1: watching the trip

Open a trip and tap **Watch this trip**. You don't pick a day. A screening already covers every day, so each new run rescreens all of them, and the watch tells you about progress: whether the best day has changed, and whether any day has become Go or stopped being Go.

The **best day** is the first Go day. If no day is Go, it's the first Warning day. Days count from the earliest departure, and a day with no verdict, or a No, is never the best. The line under the trip's name states it: *Watching the whole trip. Best: Fri 16 Oct, Go. 2 of 5 days Go*. The watch ends once the trip's last departure has passed.

The **Watching** page, from the Boat page's side panel, shows the trip in this stage: the stage, the best day, the Go days, the departure days side by side with the best day chosen, and the trip's run log.

Sereno

Weather map

Boat

PLAN

Routes13

Watching1

Briefs

SAIL

UnderwayCOMING

ArrivalCOMING

ReviewsCOMING

BOAT

Polars

Boat profile

Guide

S/V Sabado - Catamaran, 12.8 m

Polar: Lagoon 42

Sign out

Watching the trip

Port Resolution to Noumea · Polar: Lagoon 42, Blue Buddha owner polar

Rescreen with my current polar (Lagoon 42)

Alert settingsCOMING

Stop watching

WATCHING THE TRIP

Stage

Best day

Go days

1 of 2, the whole trip

Mon 12 Oct, WARNING

0 of 4

The router screens every day again on each new ensemble run. Pick a day in Departures to watch only that one.

DEPARTURE DAYS, SCREENED AGAIN AS NEW RUNS LAND

DAY	TRACK	ENSEMBLE	COMFORT	VERDICT	RUNS, FOR COMPARISON
Mon 12 Oct		39 h, 36 to 44 seas, WARNING 100%	Easy	WARNING	● 37.1 ● 36.5 ● 37.3 h
Tue 13 Oct		36 h, 34 to 38 seas, WARNING 100%	Easy	WARNING	● 34.5 ● 34.6 ● 35.3 h
Wed 14 Oct		35 h, 33 to 38 seas, WARNING 100%	Easy	WARNING	● 33.8 ● 34.2 ● 34 h
Thu 15 Oct		35 h, 32 to 38 seas, WARNING 100%	Coffee	WARNING	● 33.9 ● 33.8 ● 34.6 h

Ensemble is the passages' median hours, then the 10th to 90th percentile, and the tiers more than 10% of them reach. Track is the planner's safe path, dashed for a day not routed yet. The runs are GFS, ECMWF and AIFS each sailed once on it.

RUN LOG

9 Oct 17:19Z

First screening of this trip.

Alerts when the verdict changes, the ETA moves or the data goes stale: coming.

The Watching page, stage 1: the whole trip.

Stage 2: watching the chosen day

When one day looks right, open it and tap **Pick this day**. The watch narrows to that day. It keeps screening on each new run, and the phone tells you when the day's verdict changes. The watch ends once that day's departure has passed. **Stop watching** ends it sooner, and **Watch this trip** widens it back to the whole trip.

Tue 13 Oct

WARNING

×

Departs 10-13 07:00 (20:00Z)

Seas: ECMWF waves under 2 : 1 (to 1.7 m, median 1.9 : 1, 12 h of the passage).

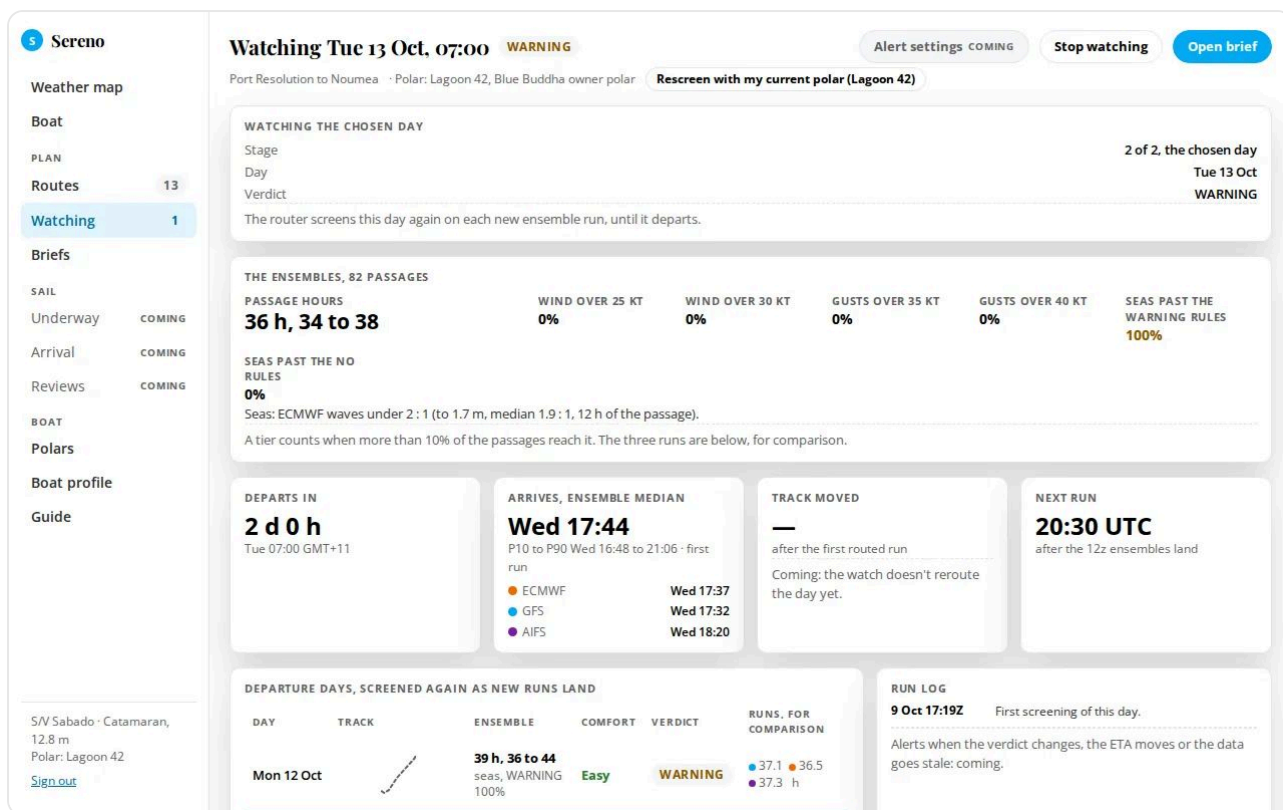
Route this day

Pick this day

Open brief

Pick this day, on a trip you're already watching.

The Watching page then shows the chosen day:



The Watching page, stage 2: the chosen day.

- **The ensembles:** passage hours and the share of passages past your wind and wave limits and at Sick.
- **Departs in, Arrives, ensemble median** (with the 10th to 90th percentile and each model's arrival), and **Next run:** when the next screening is due.
- **Departure days, screened again as new runs land:** the trip's days side by side, so you can see whether a neighboring day now looks better.
- **Run log:** each screening and what changed, with the stage the watch was in.

The bar has **Stop watching** and **Open brief**.

Passage watch notifications on the Android app

While a trip or day is watched, the Android app checks it about once an hour when the phone has a connection, and posts a notification on its own **Passage watch** channel. The words come from fixed templates on the screening's numbers, so the same screening always reads the same.

In stage 1 the notification tells progress, compared with the last screening the phone saw:

- *Port Vila to Noumea: Fri 16 is now Go (was Warning). Best: Fri 16. 2 of 5 days Go. A day became Go, or stopped being Go.*

- *Port Vila to Noumea: Best day changed from Thu 15 to Fri 16. 0 of 5 days Go.* The best day changed, and no day became or stopped being Go.
- *Port Vila to Noumea: screened again on the GEFS 06z run. Best: Fri 16, Go. 2 of 5 days Go.* With Every new screening chosen, a screening where none of that moved.

In stage 2 it tells the chosen day's verdict:

- *Fri 16 Port Vila to Noumea: was Go, now Warning. 18% of passages pass your 25 kt wind limit from Sat 03:00.*
- *Fri 16 Port Vila to Noumea: screened again on the GEFS 06z run, still Go.* With Every new screening chosen.

Settings, Passage watch chooses **Only when the verdict changes** (the default) or **Every new screening**. In stage 1, the default means the best day changed or a day became or stopped being Go. Tapping a stage 1 notification opens the trip, with its days and the best day marked. Tapping a stage 2 notification opens the day, with its verdict, its numbers, the runs it was screened on and the run log.

The Android app sets the watch itself. **Watching** in the top bar shows the watched trip at the top, with its best day and **Stop watching**, and **Your trips** below it, each with **Watch**. Open a trip and tap a day, then **Pick this day**, to watch only that day. **New trip** makes a trip there, with the same fields as the web's: tap the start and the finish on the map, then the name, the earliest departure, the departure days and the models. Swipe a trip left to delete it; its screenings and watch go with it.

The app finds a watch set on the web when it's next opened, or within a day by its daily check. On Android 13 and later it asks once for permission to post notifications, the first time it finds a watch. The check stops when the watch ends or is stopped. Android's battery saver can hold it back, so a notification can come later than the hour. The iPhone and the web edition don't notify.

7. Understanding the results

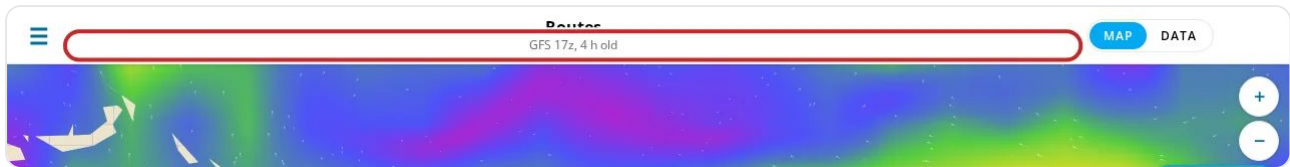
What a route is made from, where each part is weak, and what the messages mean.

Weather models and runs

Each model runs four times a day, at 00z, 06z, 12z and 18z (UTC), and each run is a forecast from that hour forward. A run takes hours to compute and publish, so the newest one held is always a few hours old.

Model	From	Reaches	Steps	Usually here after the run
GFS	NOAA	16 days	Hourly to 5 days, then 3-hourly	About 4.5 h
ECMWF	ECMWF's open data	15 days from the 00z and 12z runs, 6 days from 06z and 18z	3-hourly, then 6-hourly	About 8.5 h
AIFS	ECMWF's machine-learning model	15 days	6-hourly	About 8.5 h
RTOFS current	NOAA	8 days, one run a day	Hourly to 3 days, then 3-hourly	Within the day

All three weather models are on a 0.25 degree grid, about 15 nm. They don't see a squall, a wind acceleration round a headland or a sea breeze. AIFS has no waves.



How old each model's newest run is, under the map's title.

The age line reads like *GFS 00z, 9 h old; ECMWF 12z, 21 h old, late; AIFS 06z, 3 h old. late* means the next run is overdue. A route uses the newest run held whose forecast reaches the planned arrival. For ECMWF that may be the longer 00z or 12z run even when a newer 06z or 18z run is held, and the route's warnings say so.

A forecast gets less reliable the further ahead it looks. Beyond about 5 days, treat a route as a sketch, and run it again as newer runs arrive.

Ensembles and spread

An ensemble is a weather model run many times at once from slightly different starting points. Where the runs agree, the forecast is settled; where they spread apart, it isn't. The planner uses two:

- **ECMWF ENS**, 51 members.
- **GEFS** (NOAA's GFS ensemble), 31 members.

For each departure day, the planner sails your boat along the safe path once on every member, 82 passages when both are in, in 15-minute steps with your polar, sailing angles, polar by day and at night and motor. It reports:

- **The median and the range.** *39 h, 36 to 44* is the median passage time, then the 10th and 90th percentiles: 8 in 10 passages took between 36 and 44 hours.
- **Risk.** The share of passages that pass your wind limit, pass your wave limit, or spend 3 h or more at Sick. The verdict follows those shares and the comfort levels ([the day cards](#) give the rules).
- **Spread along the path.** A band from the 10th to 90th percentile of the wind at each point, with the median as a line. A wide band means an unsettled forecast.

Gusts in the planner are worked out as 1.23 times the sustained wind, the factor used at sea, rather than taken from any model's gust field.

The ensembles are coarser than the single models, so the planner is for choosing a day. Route the day you choose for the detailed plan.

Polars

A polar is a table of boat speed for each true wind speed and angle. The router reads speeds between the table's figures, and a 0 means the boat doesn't sail there. Its routes are only as good as the polar: a builder's polar for a racing setup will be faster than a loaded cruising boat, and the route will be early.

The planner and the brief sail two bounds: your polar, and a **conservative polar** at 80% of it, day and night. The conservative one stands for a loaded boat, a foul bottom or seas that slow it. Your arrival will most often fall between the two.

Polar, by day and **Polar, at night** scale the polar. Each is a whole percentage of the polar itself, 50 to 150: 100% sails your polar, and 85% sails at 85% of it. The night figure replaces the day figure from sunset to sunrise, so a crew that reefs at night can set it lower, and a boat that keeps up with its polar can set both higher. If most of the figures in the polar are too high for your boat, set both lower. The conservative polar is 80% of whatever you set. The sailing angles keep the boat out of angles it won't sail.

When sailing would be slower than the **Motor when sailing below** speed on the best heading, the router motors at the motor speed. Motoring legs steer the direct course toward the finish along the safe path.

Comfort

Every step of a route gets the worse of two ratings:

- **Wind over the deck:** the apparent wind. Champagne under 12 kt, Easy under 18, Coffee under 23, Rough under 33, Sick above.
- **Motion:** how hard the boat moves in the sea. Each wave train (wind sea, swell and the short sea on top) is judged on its own and the worst decides. A sea on the bow moves a boat more than one from astern, and short waves move a long boat less.

A catamaran or trimaran gets extra for seas on the beam (roll) and seas over 1.5 m on the bow (slamming). A sea steeper than 1 in 20 rates Rough from any direction. That's why the ratings depend on the hull and length in Settings, Boat.

Period:height is the wave period in seconds per meter of height. A 2 m sea at 8 seconds is 4:1. Sailors use the feet version: 3:1 or better (period in seconds over height in feet) needs no thought, under 2:1 is worth thinking hard about, and 1:1 is a square sea.

The comfort model is a first guess, not yet checked against logged passages. Use it to compare days and routes rather than as a forecast of how the trip will feel.

Current

The current is NOAA's RTOFS ocean model, at about 5 nm, one run a day reaching 8 days. It gives the ocean currents and eddies. At that grid it can't show the streams in passes, harbors and close inshore: check those in your tide tables and pilot books.

A route with current shows how much ran with you and against you. If planning with current leaves a route short or unsteady, the router plans it on wind alone and says so.

Depth, reef and land data

- **Land** is the GSHHG world shoreline. At best it's good to a few hundred meters, and small islands and rocks can be missing.
- **Reefs** are the UNEP-WCMC charted reef shapes, fetched for each route's corridor when **Avoid charted reefs** is on. Not every reef is charted.
- **Depth** is GEBCO, in cells about 460 m across. Some cells are surveyed, many are estimated, and near coasts and in lagoons it often reads shallower than the water is. That's why the minimum depth works best at about twice your draft, why estimated cells only warn rather than block when reefs are avoided, and why a route may refuse to go through a pass you know is deep enough.

None of this replaces a chart. Near land, plan to the open water outside a pass and pilot the rest by chart and eye.

Storms and upper air disturbances

Two sources say what may be developing. Both give notes only: nothing from either goes into a route's search (see [Storm and disturbance notes](#)).

Official storms are the warning centers' own advisories, read about every 6 hours: NOAA's National Hurricane Center, the Japan Meteorological Agency, the Joint Typhoon Warning Center and the Fiji Meteorological Service (RSMC Nadi). What each gives is in [the Storms layer](#). They're the centers' forecasts as issued, and they change with each advisory. RSMC Nadi's advisories reach 24 h ahead. Where Nadi and JTWC both track a storm, Nadi's is the

one shown and checked, so in the southwest Pacific a route is checked against that storm for about the first day only.

An upper air disturbance is the router's own indication, read from the models' upper air. Forecasters look for several things at once before they expect a low to organize: spin near the surface, moist air through the middle of the atmosphere, little wind shear, warm water and the convection to feed it. Any one alone is common and means little. The indication asks for these together, between 30 degrees south and 30 degrees north:

- spin: the relative vorticity at 850 hPa, averaged over a 150 km box, of at least 8×10^{-5} per second, turning the way lows do in that hemisphere;
- a closed low in the sea-level pressure at least 2 hPa deep within 250 km, lasting 36 hours or more;
- over half that life, wind shear between 850 and 250 hPa at its center of at most 25 m/s, and a warm core: the 500 hPa temperature within 200 km of its center at least that of the ring 400 to 700 km out;
- and, over half that life, the convection: humidity at 700 hPa within 200 km of at least 72%, and CAPE within 500 km (its 90th percentile) of at least 150 J/kg. AIFS publishes no CAPE, so its disturbances are judged on humidity alone.

One that has everything but the convection is a weaker sign. It's listed in the details (the PDF's day by day and how it was made, the brief's line under its note), never in the warning bar or on a planner day.

CAPE is the energy a rising parcel of air can gain, so it says whether deep showers and squalls can grow. It doesn't say they'll organize around a low, and the tropics hold plenty of it most days. Tried on its own as a limit, it dropped real systems: a mature system has used up much of the CAPE near its center. The moisture at 700 hPa tells a developing system from a passing low better. So the rule uses CAPE as a floor and humidity as the main test.

The rule was chosen on ten years of ERA5, the European reanalysis, against IBTrACS, the world's record of tropical cyclone tracks, 2015 to 2024. The indication was within 300 km of 97.6% of the record's points with winds of 64 kt or more and 81.3% of those at 34 to 63 kt, and about 22 a year worldwide were far from anything the record lists (34 before the convection test). Within 1,500 nm of Fiji that's about 5 a year (7 before), 4 of them from December to March. Most depressions aren't caught. On archived GFS forecasts, rules like it found fewer systems the further ahead the forecast looked: about 8 in 10 a day ahead and about a third five days ahead, since a model's vortex is weaker at range.

A note is one indication among several, not a forecast. The official advisories come first: where a center is tracking a storm, its forecast is the one to read.

What the messages mean

A route that fails or falls short says why, where and what to try. These are the common ones. Times in them are in your device's time zone with UTC in brackets, for example 10-08 17:00 (06:00Z), and positions are latitude and longitude.

The message starts	What it means	What to do
<i>Not run: check the start / finish. Your start at ... is inside the reef / on land / in water surveyed at under 2 m.</i>	The start and finish check refused an end.	Use this start or Use this finish, or turn on Satellite and place it in open water. Run anyway sends it as it is. See the check .
<i>Wind forecast does not cover the route endpoints or requested time.</i>	The departure, or the passage at a slow pace, runs outside the forecast held.	Choose a departure inside the next two weeks, or add waypoints and plan a long passage in stages.
<i>departure ... is before the newest ... run held here</i>	The departure is earlier than the forecast starts.	Depart at or after the time it gives.
<i>The forecast ends ..., so the route stops ... nm short of the finish</i>	The route is planned as far as the forecast reaches; the rest is an estimate.	Use it as a sketch and run it again as newer forecasts reach further, or Continue on climatology. See Partial routes .
<i>The search stopped getting nearer to the finish ...</i>	The search got stuck close to the finish, usually beside reef or land.	Use this finish, or set the finish in open water and plan the last miles on the chart.
<i>The search stopped ... with the motor allowed, so wind wasn't what held it: it couldn't find a way through the reef ...</i>	Reef, land or shallows block every way in.	Finish just outside the pass and pilot in; or add a waypoint that leads round.

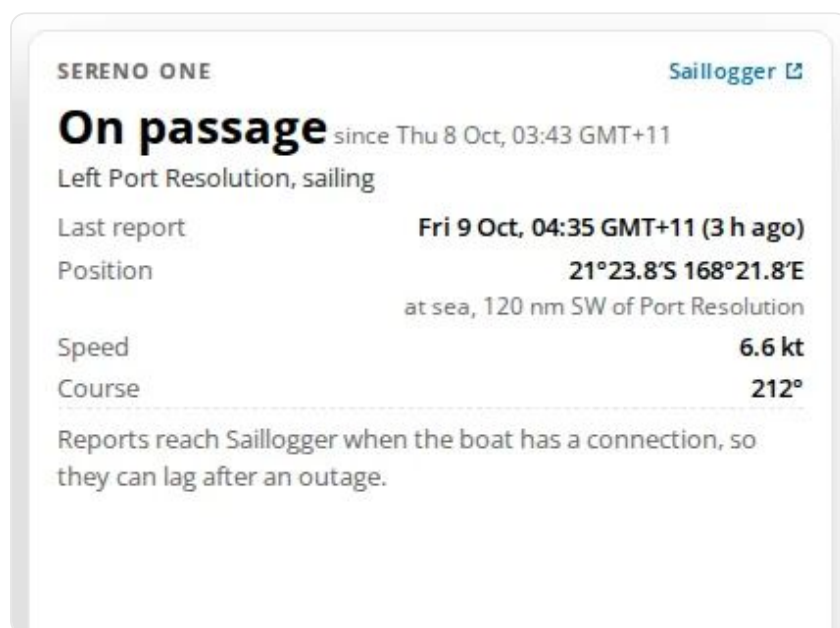
<i>The route couldn't get past the ... and stopped about ... nm short</i>	Stuck far from the finish behind an island or reef.	Use this waypoint if offered, or turn on Satellite, find the way round, add a waypoint there and run it again.
<i>... in open water, with nothing in the way where it stopped: the passage outran the search.</i>	A long passage used up its search before the finish.	Add a waypoint partway so each leg is searched on its own.
<i>Under sail alone this passage could not be completed ...</i>	With the motor off, the wind doesn't get the boat there in time.	Allow the motor, or try another departure.
<i>The router found routes to the finish, but each crossed water shallower than the ... minimum depth</i>	The depth data reads shallow in a lagoon or pass.	Finish just outside the pass, or plan with reefs on.
<i>Your boat's wind limit (... kt, in Settings, Boat) stopped this route / This route's wave limit (... m) stopped it</i>	The limit can't be kept on any way through.	Use Raise the limit in the bar, turn the limit off for this route, or try another departure. See Wind and wave limits .
<i>AIFS holds no wave forecast, so the ... wave limit can't be held on it.</i>	AIFS has no waves.	Route on GFS or ECMWF, or turn the wave limit off for this route.
<i>The route zigzags / turns back on itself / sails in circles / makes little headway / switches the motor on and off / tacks and gybes far more often than the wind shifts ...</i>	A flagged route: complete, but that stretch is unsteady.	Near an end, use the suggested start or finish. In the middle, treat the stretch as unplanned or try another departure. See Flagged routes .

<i>NHC / JMA / JTWC / RSMC Nadi advisory ..., issued ..., has ... within ... nm of the route</i>	A warning center's forecast track passes near the route while the boat is there. The route isn't changed.	Read the center's latest advisory and look at the Storms layer. The decision is the captain's. See Storm and disturbance notes .
<i>An upper air disturbance is indicated in ...</i>	The model's upper air shows spin, a closed low, low shear, a warm core and the moisture and CAPE for deep convection near the route. It's one indication among several. The route isn't changed.	Look at the Disturbance and Storms layers, read the official outlooks, and watch it on later runs. The decision is the captain's.
<i>Storm forecasts couldn't be checked for this route.</i>	On the Android app: the router held no reading from the centers less than a day old.	Check the centers' advisories yourself.
<i>Depth warning on ... legs</i>	Some legs cross depth data shallower than your minimum.	Check those legs on the chart.
<i>Routed round ... / Started from ... / Finished at ...</i>	The router fixed a near miss itself.	Pilot the miles it names by chart.
<i>Planned without ocean current: ...</i>	Current wasn't used, and why.	Nothing, unless you turned it off by mistake.
<i>The search stopped near your avoid area ...</i>	An avoid area may be in the way.	Switch it off or redraw it smaller.
<i>this token already has 3 routes queued or running</i>	Each person can have three routes queued or running at once.	Wait for one to finish, or delete a queued one.
<i>the router has 12 routes queued or running ...</i>	The router is busy.	Try again in a few minutes.

<i>the router restarted before this route finished</i>	The route was lost in a restart.	Run it again.
<i>no polar: none is chosen in Settings ...</i>	No polar is chosen.	Choose one in Settings, Polar.
<i>Your sign-in has ended. Sign in again.</i>	The browser's sign-in expired.	Sign in with your token.

The Saillogger card

If your boat reports to Saillogger and you've set **Saillogger boat** in Settings, Boat, the Boat page's **Sereno One** card shows its latest public report: on passage (with speed and course) or at anchor (with the anchor's position and swing), the time of the last report, and the position with the nearest place name. Sereno reads it at most every 10 minutes while you're using Sereno. Reports reach Saillogger when the boat has a connection, so they can lag after an outage. Tap the card to open the boat's Saillogger page.



The Saillogger card for a boat on passage.

On the Android app, the same card heads the Routes list.