



User Guide

Avalon Offshore

Version 8

iOS and Android

A. Introduction - Avalon Offshore V8	6
2. Important Notice	6
3. Document Scope	6
B. Purchase and Installation	7
1. Supported Platforms	7
2. Purchasing the Application	7
3. Tablet Settings	8
a. Apple	8
b. Google	9
4. In-App Purchases: Premium Subscription, Maps, and Races	10
5. Canceling the Premium Weather subscription	10
a. Apple:	10
b. Google	10
6. Installing Avalon Offshore on Another Device	11
a. Apple	11
b. Google	12
c. Recovering In-App Purchases from the App Store, Play Store, or Avalon e-shop	12
d. Recovering your data stored on Avalon Cloud	12
C. Main Menu and Settings	13
1. Modules	13
2. General Settings (full mode)	15
a. Navionics Settings	16
3. Boat Settings (Full Mode)	20
5. Map Settings	22
6. Routing settings (full mode)	25
a. Basic settings	25
b. Advanced Settings	26
c. Race Settings	28
7. Navigation settings	29
a. Basic settings	29
b. AIS/NMEA Settings	30
c. Active Look Settings	32
8. Model Settings (Weather)	33
a. Winds and gusts	33
b. Compressed winds from "Iridium Go" and other satellites	35
c. Currents	35

c. Waves	36
9. Weather settings (data)	37
D. Routing	38
1. Introduction	38
2. Layers and display options in routing mode	39
3. Routing controls display	40
1. New Route	42
2. Waypoints	43
a. Auto Waypoints	43
b. Manual Waypoints	44
3. Calculate the route	46
a. Standard/Bathymetric Routing	47
b. Best Departure Calculation	49
c. Calculating the departure time based on the desired arrival time	52
d. Multi-scenario calculation	53
e. Trade-off between time saved and additional distance	57
4. Route table	59
5. Guided Routing	60
6. Exclusions	61
7. Route Management	63
8. Managing waypoints	65
4. Viewing in routing mode	66
5. Meteogram	78
6. Receiving weather data via satellite	79
a. Other Satellite Systems (Inmarsat, etc.)	82
E. Navigation	83
1. Navigation screen display	84
a. Navigation controls	84
1. Create POI	85
2. Route Management (Navigation)	86
3. Alarms	87
4. Anchoring	88
5. NMEA	89
6. AIS	90
7. Performance Tracking	91
8. Record track	91

9. Regatta start	92
b. Boat Info	95
c. Tide Station	97
d. Compass tool	98
e. Maps	99
f. Weather Display	100
2. Navigation Point Management	101
F. Velocity Prediction Polars (aka « polars »)	102
1. Select a polaire from the polaire library	102
2. Calculate your performance curves with Avalon VPP	103
3. Obtaining polar curves at sea	112
4. Private Polars in .pol format	116
5. SailSelect: Composite Polar -> Multi-Sail Polars	118
5. Sail settings	121
G. Nautical Charts	123
1. Avalon Vector Chart Packs	123
a. Available Packs	124
b. Purchase Avalon vector packs	125
c. Downloading Avalon Vector Packs	126
2. Raster Mapping (public and private)	127
3. Mapping ©Navionics Boating	128
4. Managing maps downloaded to the tablet	129
5. Uploading your personal maps	130
a. Apple	130
b. Android	132
H. Avalon Cloud	133
1. Registration and Synchronization	133
2. Transferring speed profiles	134
3. Transferring navigation data collected at sea	135
4. SailSelect to convert a composite polars chart into polars charts by sail	135
5. Import Points of Interest in batch using CSV format	135
6. Transfer your no-sail zones to multiple tablets	135
I. Transferring Personal Files to Avalon	136
1. iOS on iPad/iPhone	136
2. iOS on MacBook (M1 and later)	136
3. Android	137

J. Store	138
K. Race Option	139
L. Weather (old version)	140
1. Meaning of the icons	140
2. Weather sources	141
a. Introduction	141
2. Weather Module Settings	143
M. Reset the app	145

A. Introduction - Avalon Offshore V8

2. Important Notice

Avalon Navigation Systems shall in no way be held responsible for any damages that may occur as a result of using this software. The skipper remains fully responsible for navigation on his boat.

Regarding the nautical charts, whether provided free of charge or purchased as in-app purchases within the software, Avalon Navigation Systems has not verified the accuracy of the information contained in these charts and assumes no liability for them.

These charts must not be used for navigation. The use of this product for cruise planning or during the cruise does not comply with SOLAS requirements.

Possession of these derivative products does not exempt the user from the obligation to use the appropriate nautical documents as required by national or international regulations.

3. Document Scope

This document covers the Avalon Offshore versions on Apple and Google platforms.

B. Purchase and Installation

1. Supported Platforms

We recommend installing the application on a device with a 10-inch screen for better readability. However, the application will also work on devices with smaller screens (minimum 6 inches).

Avalon Offshore runs on the following platforms:

- iPad and iPhone with iOS 10 or later
- Android (version 5 or higher)
- MacBook (Air and Pro) – new generation (Apple chip)
- Chromebook and Chromebox

Avalon Offshore does not work on Windows (PC or Surface tablet), except via an Android emulator. However, this has not been tested by Avalon, and Avalon does not guarantee that the software will function correctly under an Android emulator.

2. Purchasing the Application

The application is purchased directly from the Apple and Google stores:

- **Apple:** <https://apps.apple.com/fr/app/avalon-offshore/id975313021>
- **Google:** <https://play.google.com/store/apps/details?id=com.avalon.avalonoffshore.app&gl=US>

Once purchased, the app can be installed for free on all the devices (tablets, phones, or computers) you own, provided that:

- These devices are registered with the same Apple or Google account
- There is no mixing between Apple and Google. If you purchased Avalon Offshore on the App Store, you can only install it on Apple devices. The same applies to Google.

The app is a **one-time** purchase. You can uninstall and reinstall it at any time and will receive all future updates.

The Premium subscription must be renewed annually, but a single subscription covers all your devices (of the same type).

However, you will need to perform a **“Restore Purchases”** to activate the subscription.

To retrieve your chart packs purchased from the Avalon e-shop, you must:

- Be logged into Avalon Cloud using the credentials used to purchase the pack
- Reload the charts from the “Chart Management” menu and synchronize the app using the same Avalon Cloud account used to purchase the charts.

3. Tablet Settings

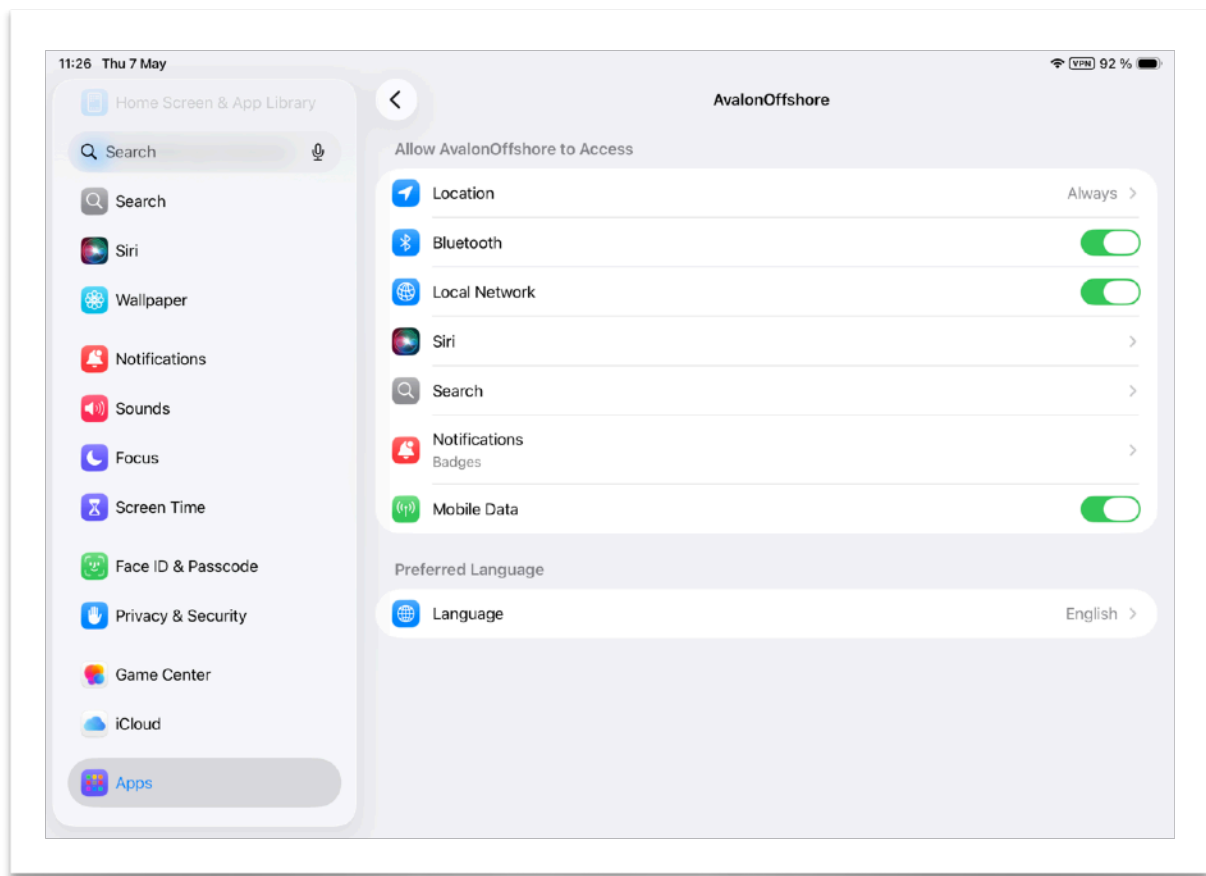
To function properly, certain permissions must be granted to Avalon Offshore in the tablet's settings.

a. Apple

Avalon must be able to access your location in the tablet settings to position your boat while navigating:

- When the app is active: The built-in GPS will only work if the app is in the foreground. Recording the route will therefore require the app to remain in the foreground.
- Note: The GPS continues to work even when the app is running in the background. Route recording is not interrupted.

Avalon must also have access to the boat's local network to connect to the onboard NMEA network.



b. Google

Go to the tablet's settings, then Apps. You must grant Avalon Croisière access to:

- Location: To determine the boat's position using the tablet's GPS
- Contacts: Avalon (Android) does not access your contacts, but this permission is required to allow you to retain your in-app purchases (free of charge) if you install the app on another tablet
- Storage: To be able to export and import data (routes, winds, charts, etc.)

4. In-App Purchases: Premium Subscription, Maps, and Races

The Premium Weather subscription is purchased directly from the tablet via the main menu by clicking the STORE icon.

Maps and the course option can be purchased from the Avalon e-shop on our website. You must have an Avalon Cloud account and access the e-shop from the "Products and Prices" webpage;

The Premium Weather subscription can also be purchased from the Avalon Store.

5. Canceling the Premium Weather subscription

If you purchase Premium Weather through the Avalon Store, it is a subscription that expires after one year. You do not need to cancel it. If your cruise ends after the subscription period, you can purchase it again. 365 days of access will be automatically added.

If purchased from the App Store or Google Play, the Premium (Weather) subscription is valid for one year and is automatically renewed annually.

To cancel it, you must:

a. Apple:

- Go to your tablet's **Settings**.
- Tap on "**Your Name**" (Apple ID, iCloud, Media & Purchases).
- Then, go to **Subscriptions**.
- Cancel the **Premium** subscription.
- You can also manage this by visiting your Apple account on the web.

b. Google

- Go to play.google.com.
- In the top right corner, click your **profile icon**.
- Click Payments & subscriptions.
- Next to the subscription you want to cancel, select **Manage**.
- In the confirmation window, click **Cancel subscription**.

Important: We guarantee price stability for automatically renewed subscriptions at the original price at which the subscription was purchased.

Once the subscription is canceled, if you wish to re-subscribe, the price in effect at the time of the new subscription will apply.

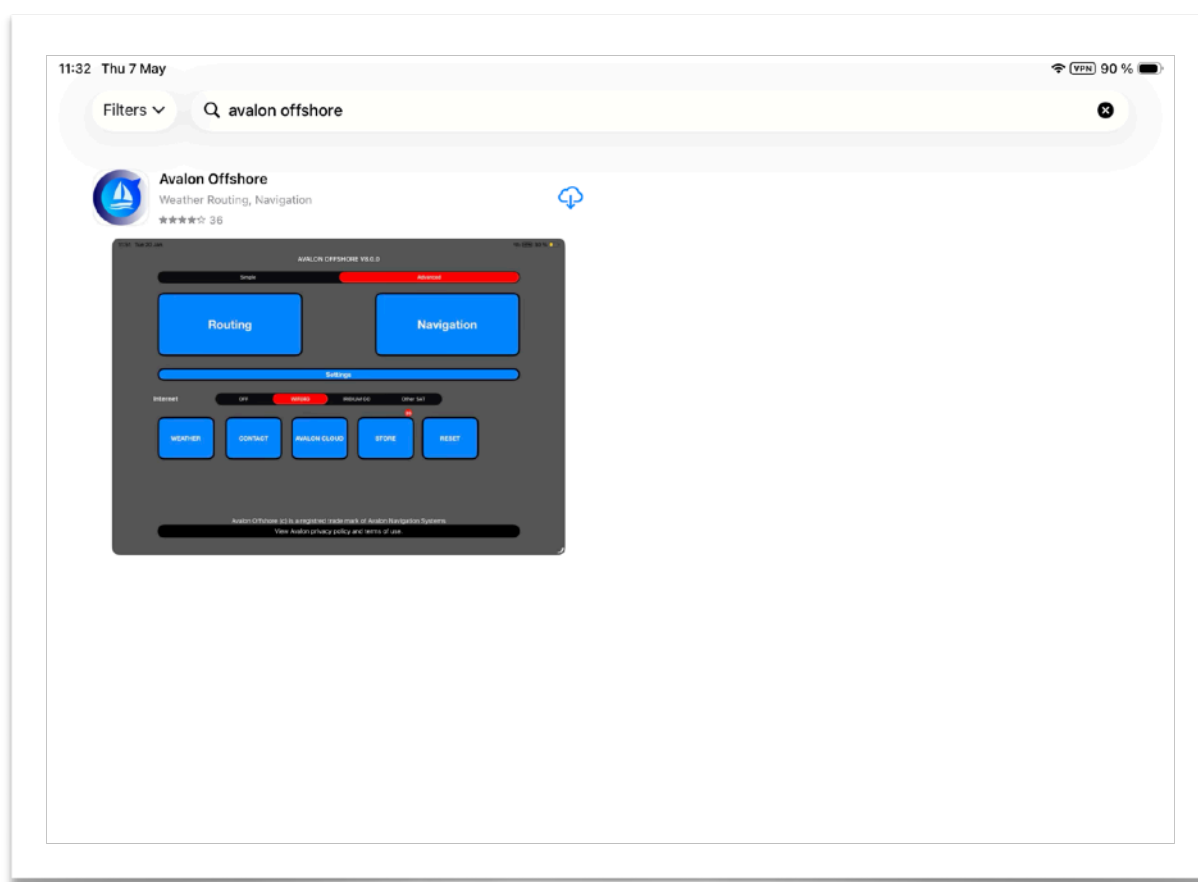
6. Installing Avalon Offshore on Another Device

If you would like to install Avalon on another tablet, phone, or computer for free, the new device must be signed into the same Apple or Google account. The same principle applies if you replace your tablet or phone.

Important: If you purchased Avalon Offshore via Apple and wish to install it on Google, you will need to purchase the application again. Because the Apple and Google "stores" are competitors, the applications they offer are different.

a. Apple

- Go to the **App Store** and search for **Avalon Offshore**.
- You will then see a "cloud with a downward arrow" icon (if you are logged in with the same Apple ID). This cloud icon indicates that the installation is free.



- Click the "cloud" icon, and Avalon will install for free on your device.
- Once Avalon Offshore is installed, go to your tablet's **Settings** > **Apps** and grant Avalon permission to access:
 - **Location:** (If you have a built-in GPS)
 - **Local Network:** (Required to access the onboard NMEA network via Wi-Fi)
 - **Cellular Data:** (If your device has a SIM card, to download wind data via 4G without needing a hotspot or tethering)

b. Google

- Go to the **Play Store** and search for **Avalon Offshore**.
- Click **Install**.
- The app will install for free if you're signed in with the same Google account. Once installed, go to your tablet's **Settings** > **Apps** and grant Avalon permission to access:
 - **Location (GPS)** to enable the use of the tablet's GPS.
 - **Local Network** to allow Avalon to connect to your boat's network

c. Recovering In-App Purchases from the App Store, Play Store, or Avalon e-shop

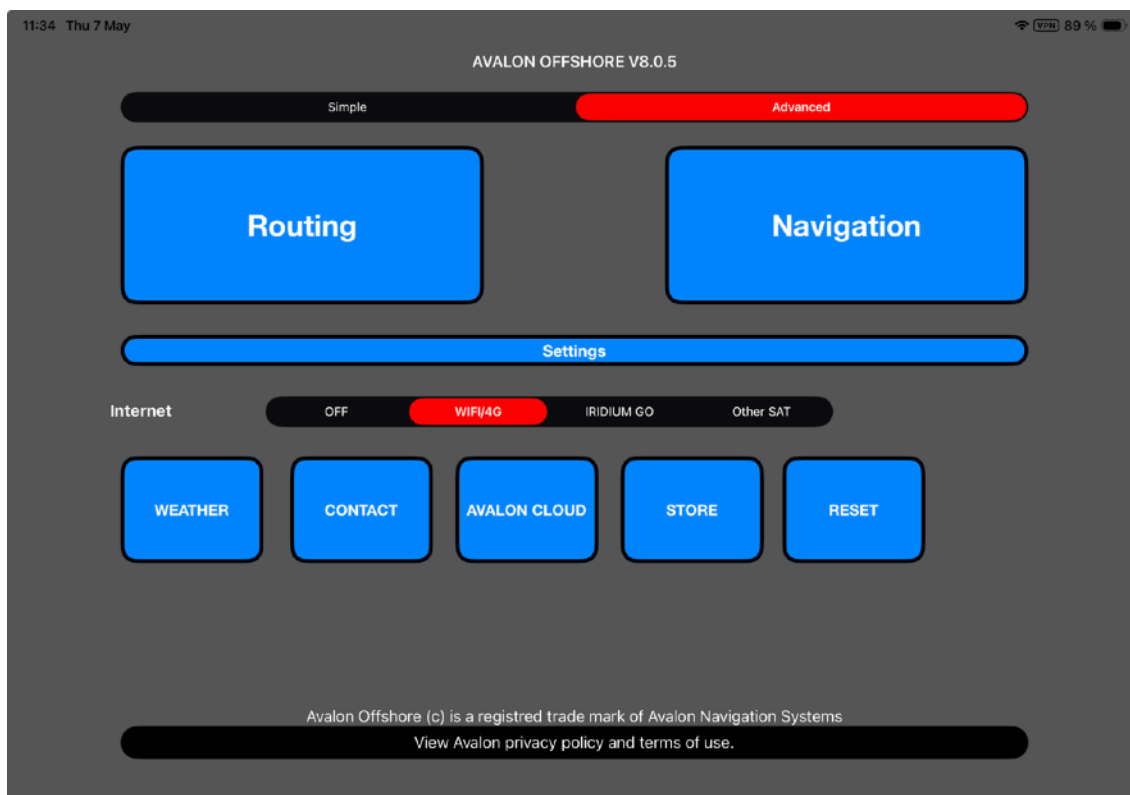
- To restore your Premium subscription for free on your new device, go to the **STORE** menu and click **Restore Subscriptions**.
- To reload your raster map packs purchased on the Avalon e-shop, go to Chart Management, then **SHOM or UKHO Packs**. Avalon will offer to reload the maps you previously purchased.
- To reload your vector (ENC) map packs purchased on the Avalon e-shop, go to Chart Management, then **ENC Vector Maps**. Avalon will offer to reload the maps you previously purchased within the last year.

d. Recovering your data stored on Avalon Cloud

If you use Avalon Cloud, connect the new device (via the "Avalon Cloud" menu) using your username and password. Then, perform a synchronization, and your important data (polars, exclusion zones, POIs, Race Option, Premium Weather) will be transferred to your new device.

C. Main Menu and Settings

1. Modules



From top to bottom:

Usage Mode

- **Simple:** Recommended for skippers new to Avalon Offshore. In this mode, access to settings is limited and some routing features are restricted.
- **Advanced:** Recommended for skippers familiar with Avalon. Access to settings is unrestricted, and all routing functions are available.

2 Main Modules:

- **Routing:** To calculate a route based on forecast weather and analyze weather conditions for the cruise.
- **Navigation:** To follow your route while at sea, with access to NMEA data, AIS, various alarms, etc.

Settings: All settings required for Avalon's operation are consolidated in this module.

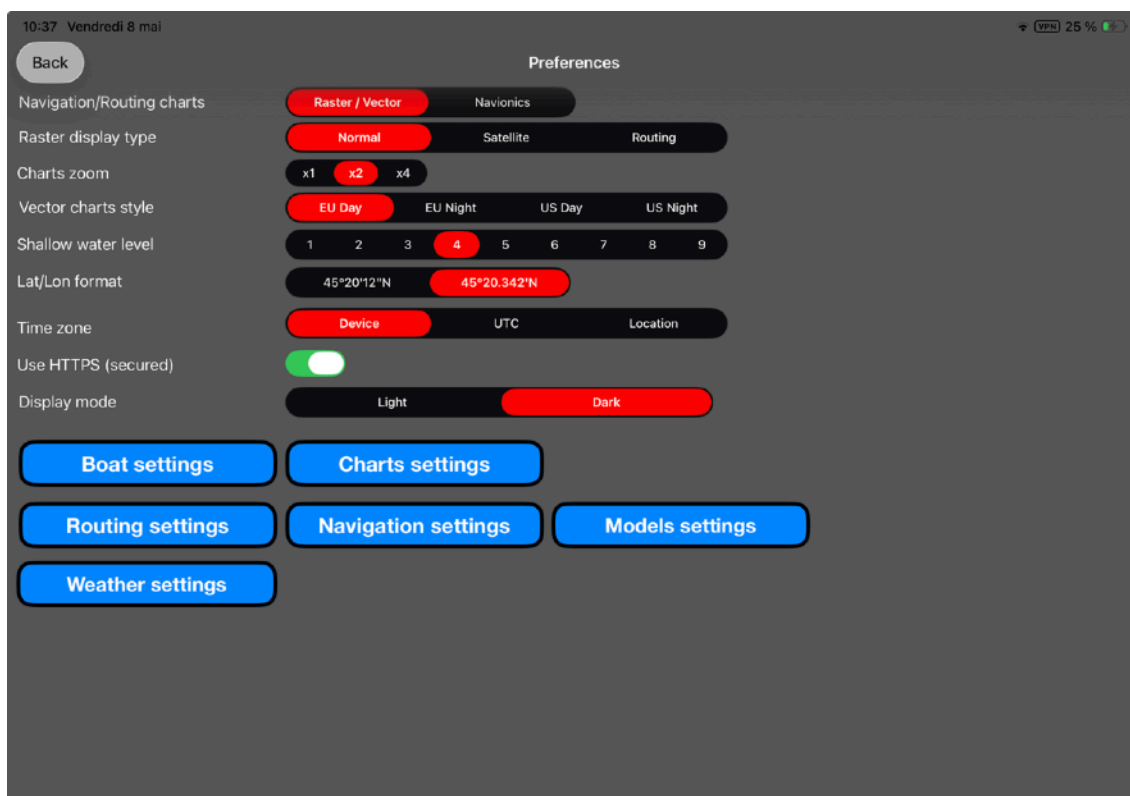
Internet: Select your Internet connection mode.

- **Off:** No connection
- **Wi-Fi/4G:** Connection via Wi-Fi router, 4G/5G phone, Starlink
- **Iridium Go:** Opens the Iridium Go connection menu. Data transmission limited to winds and gusts by default.
- **Other Sat:** Standard connection, but data transmission is limited to wind and gusts by default (like Iridium Go)

You will also find 5–6 additional features:

- **Weather:** Old weather module. Use this if you want to view the weather in a static manner (not synchronized with the boat's progress) for a specific geographic location. For example, checking the weather in Quiberon Bay for next weekend.
- **Contact:** To contact the Avalon team via email.
- **Avalon Cloud:** To manage the connection to your web space and synchronization between Avalon Offshore and Avalon Cloud.
- **Store:** To manage your in-app purchases and restore purchases. If a red dot appears, one or more updates are available.
- **Reset:** To reset the app (or just certain features) to their original state without having to reload the app.
- **Iridium Go:** Appears when the connection mode is active. It is used to verify the connection to the Iridium network and the internet. Data downloads are controlled by the routing module.

2. General Settings (full mode)

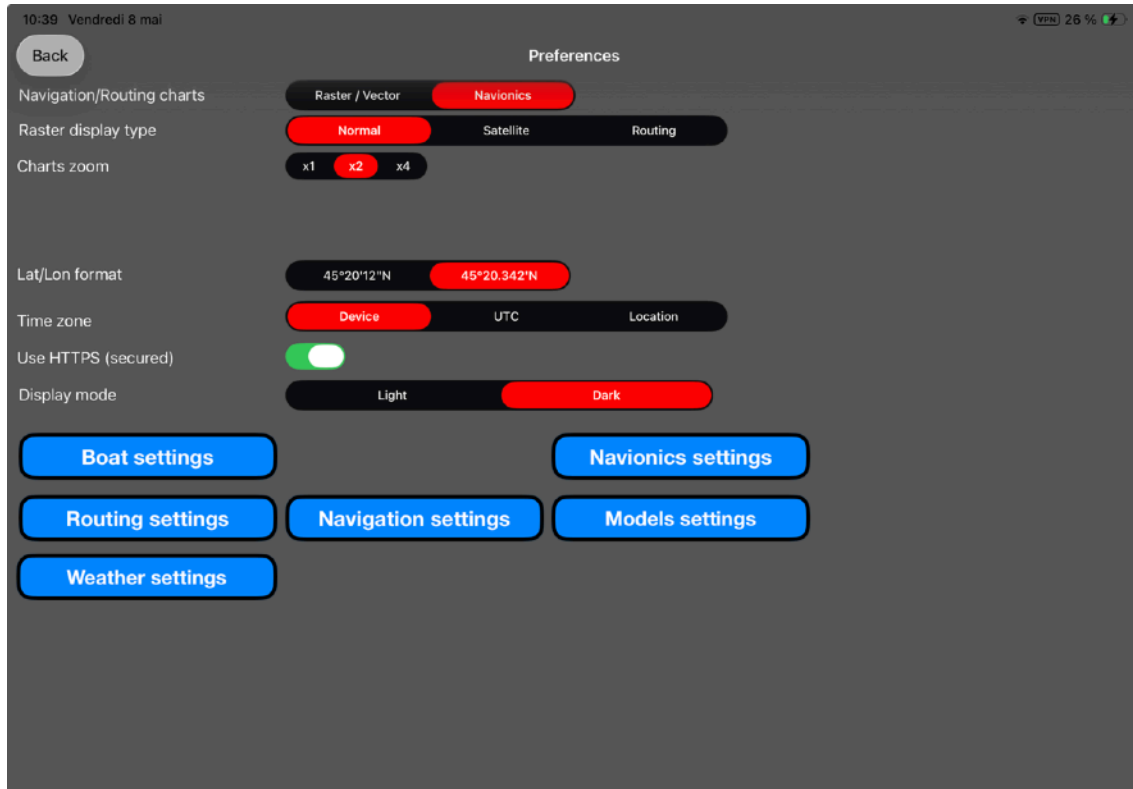


- **Routing/Navigation Maps:** Navionics if you have a Boating subscription, Raster/Vector otherwise.
- **Map Display Mode:** Normal or Satellite for the default Google map, Routing to display the internal bathymetric map used by the Avalon routing engine
- **Map Zoom:** With a high-definition raster map (300 DPI) such as SHOM, you can zoom up to 4x. For UKHO (120 DPI), we recommend zooming only 1x or 2x
- **Vector Map Style:** If you are using Avalon vector maps, you can choose the display style for these maps: EU for “SHOM appearance,” US for “NOAA appearance” in day or night mode.
- **Shallow Water:** With Avalon vector charts, you can choose a different display color for your shallow water definition.
- **Lat/Lon Format:** Allows you to choose between Degrees, Minutes, Seconds or Degrees, Decimal Minutes. Degrees, Decimal Minutes is generally used for placing buoys or gates in regattas.
- **Time Zone:** By default, the tablet’s time is used, but you can opt for UTC (GMT) or select a time zone for transoceanic crossings (multi-time zone).
- **Display Mode:** Light or Dark (for night navigation)

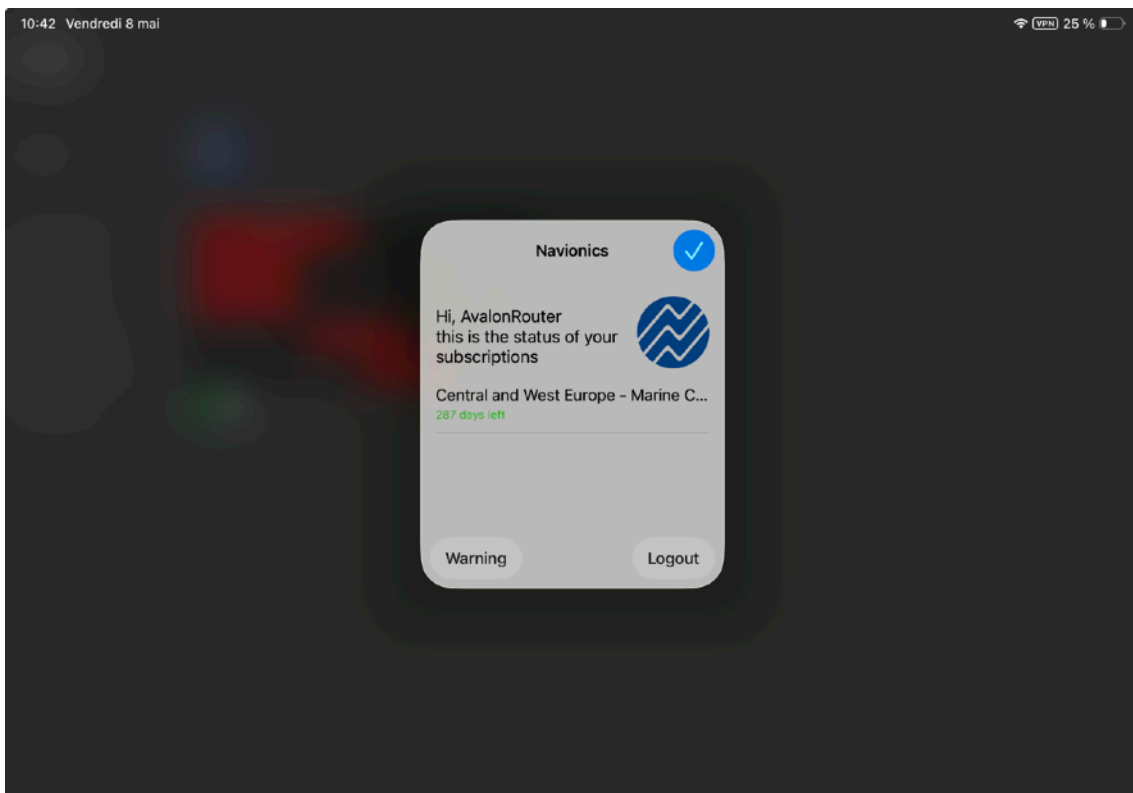
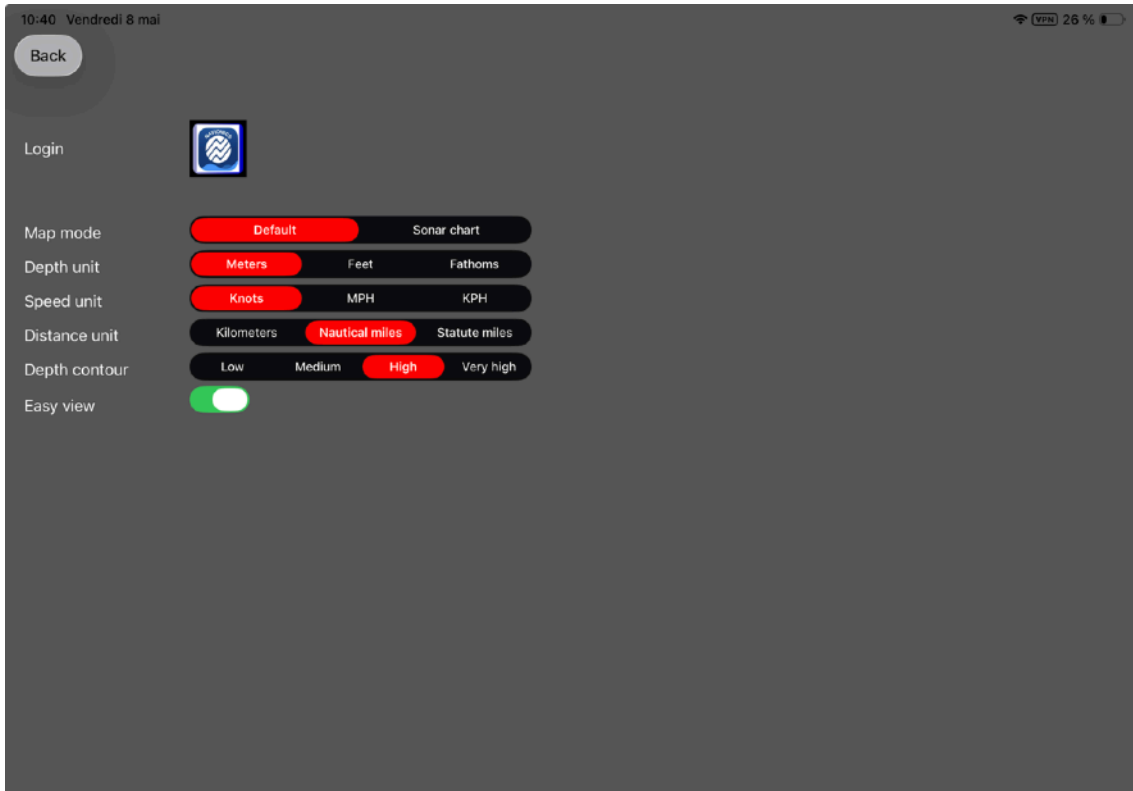
a. Navionics Settings

If you are using Navionics charts, tap Navionics and the settings screen will look slightly different:

A "Navionics Settings" button will then appear.



Click on it, then on the Navionics logo to enter your Navionics credentials



If your Navionics credentials are valid, Navionics will display the number of days remaining in your subscription. Navionics charts will then be displayed in Avalon in high resolution. If your credentials are not recognised, please contact Navionics.

3. Boat Settings (Full Mode)

There are 4 methods for loading or refining your boat's polars:

1. Select a standard performance profile from our library.
2. Calculate them using our Avalon VPP custom performance profile calculation system (see the chapter "Custom Performance Profiles (Avalon VPP)").
3. Use your own performance profile file in ".pol" or ".csv" format. If your file is in CSV format, you must rename it to ".pol" so that it is automatically recognized and loaded into Avalon. (See the chapter "Private Performance Profiles in .pol Format")
4. Refine your polars by collecting speed data while sailing. (See the chapter "Collecting Polars at Sea")

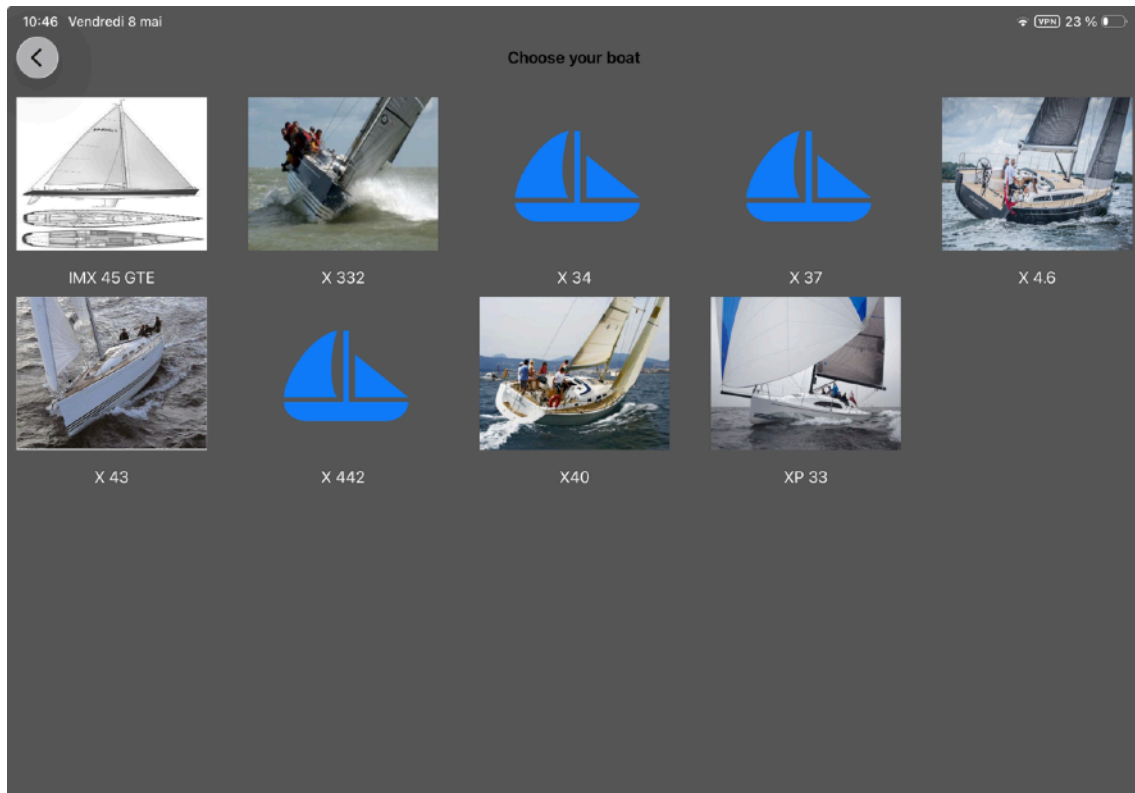
Regardless of the type of polyroute used, you can adjust the efficiency and operating ranges of each sail.

Click on "Boat Settings"



Avalon has approximately 500 boats in a database accessible to Avalon users. Boats are sorted by shipyard.

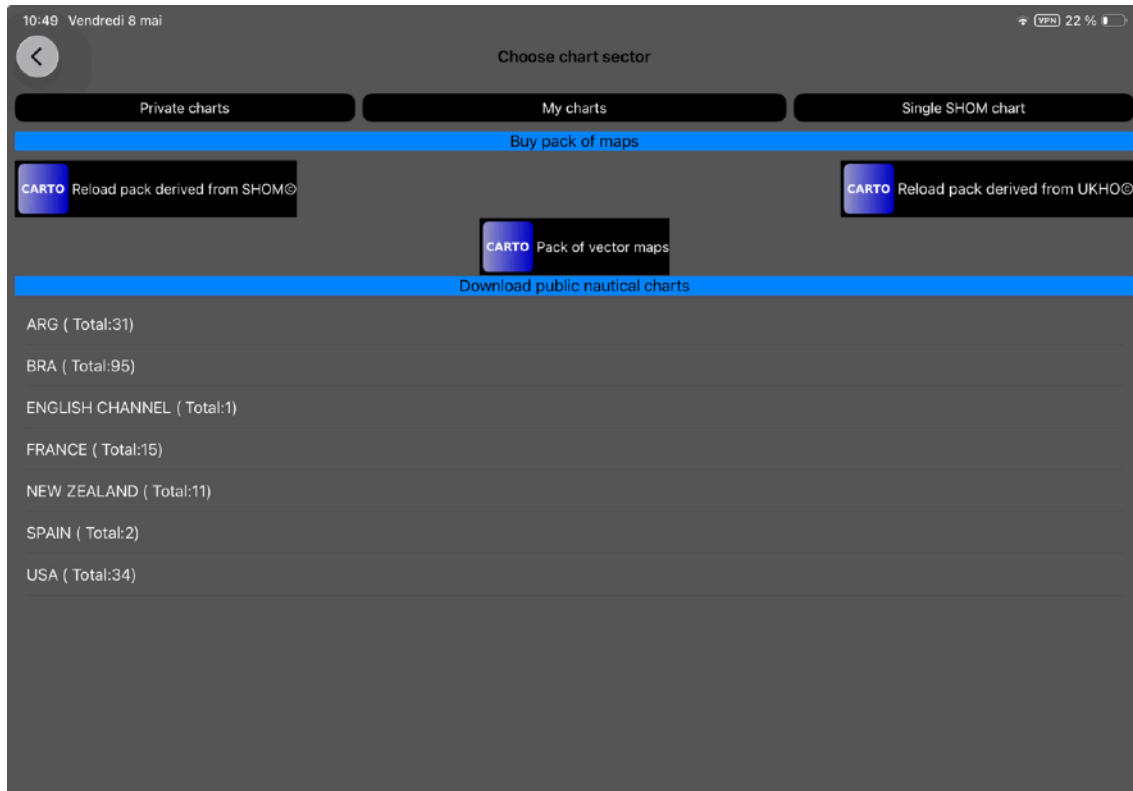
For example, "X-Yachts":



Select IMX 45 GTE (for example)
Then confirm. We will return to sail settings in the chapter "Polar Charts and Sail Settings."



5. Map Settings



This screen allows you to manage the charts installed on the tablet and also to download/re-download vector charts purchased on our website

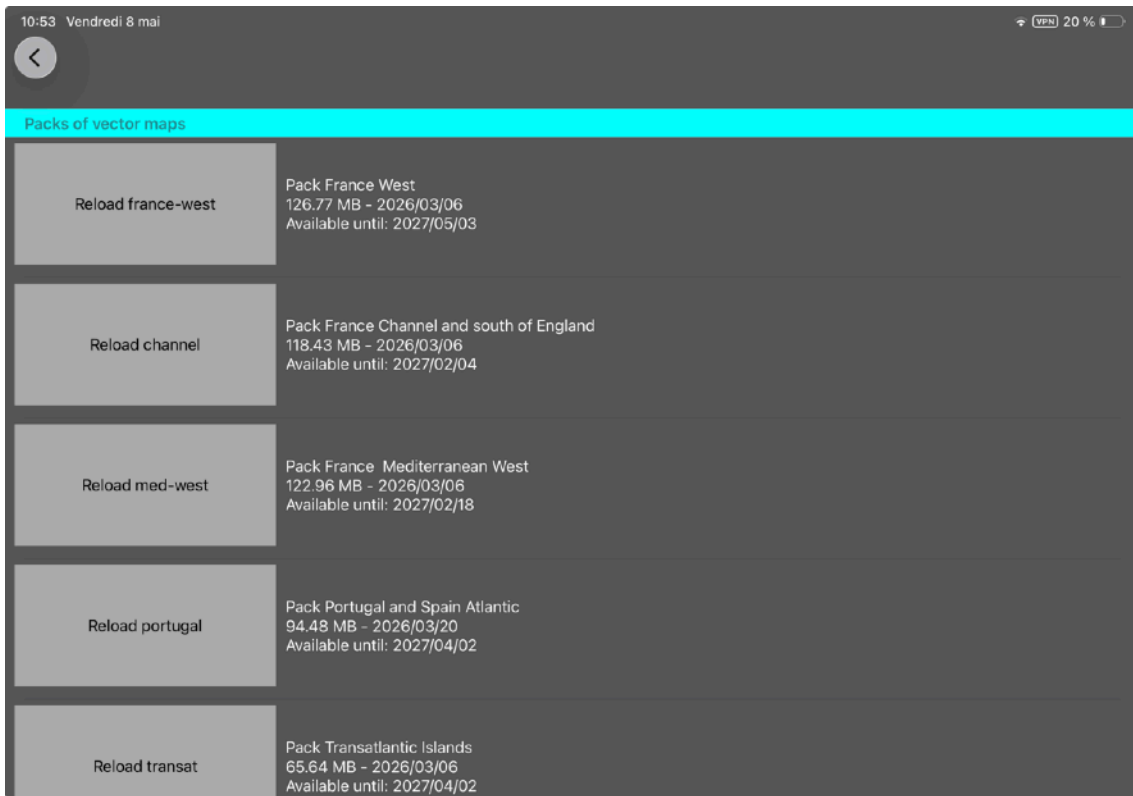
- **Private Maps:** Manage raster maps (KAP, GeoTIFF, MBTiles) loaded onto the tablet.
- **SHOM Unit Maps:** For certain users who purchased SHOM unit maps from Avalon several years ago.

- **My Charts:** To select the map to display in Avalon. Only one map can be displayed at a time to avoid display conflicts. In the example below, the Western Mediterranean vector pack is selected.



- **Reload SHOM-Derived Pack:** For users who purchased one of our “lifetime” packs consisting of SHOM©-derived maps in 2024 or earlier.
- **Reload UKHO-Derived Pack:** For users who purchased one of our “lifetime” packs consisting of UKHO©-derived maps in 2024 or earlier.

- **Vector Map Pack:** To download or re-download Avalon vector map packs



- **Download Public Nautical Charts:** Free base maps are available to our users. However, these are very imprecise.

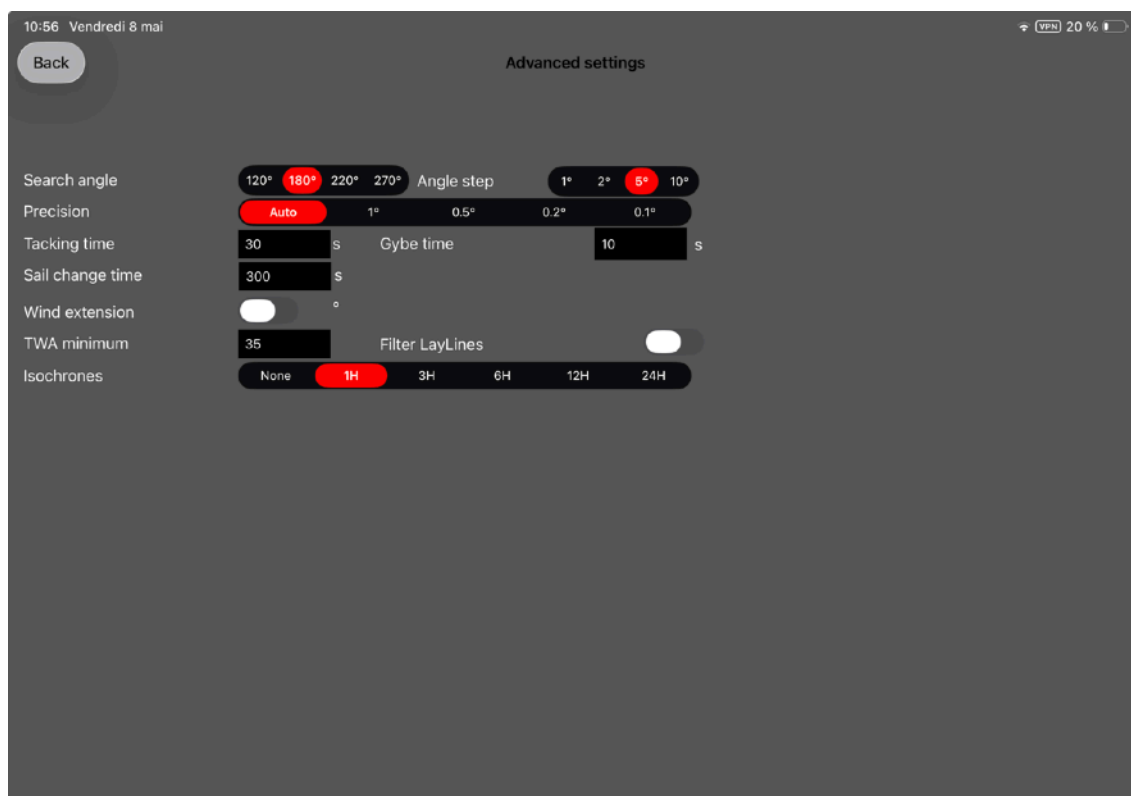
6. Routing settings (full mode)

a. Basic settings



- **Engine speed:** To specify your preferred engine speed. Set to 0 if you are sailing 100% under sail. This data is useful for hybrid routing (sail and engine)
- **Fuel consumption:** In liters per hour, Avalon can show you your estimated fuel consumption and also the fuel savings by following the route calculated by Avalon. (This can be very significant)
- **Engine if SOG is less than:** Threshold for engine activation when (approach) speed is too low.
- **Engine if TWS is less than:** Threshold for engine activation in case of insufficient wind. Sometimes, there is enough wind and time, and you do not want Avalon to activate the engine. In that case, you will sail more by tacking.
- **Target size:** size of the finish circle in miles. Avalon will consider you to have arrived when the calculated course is within this zone (recommendation: 0.5 or 1 nautical mile. Below this, Avalon may not find a correct solution).
- **Waypoint size:** size of the waypoint circle in miles or the width of the gate. As soon as Avalon enters this circle or passes through the gate, it will use a central heading toward the next waypoint or the finish.
- **Wind limit:** The calculated route will avoid winds that are too strong. Be careful, because in this case, Avalon may not find a route at all. (Same applies to waves)
- **Wave limit:** The calculated route will avoid waves that are too high. This calculation is based on combined waves, but the route details will also provide information on swell waves and wind waves (height, duration, and period).
- **Minimum Depth:** In navigation areas covered by Avalon vector map packs, you can select the minimum navigation depth. The start, finish, and waypoints must be defined in an area with sufficient water depth. Note: You do not need to own the Avalon vector map(s) to use this feature.
- **ADVANCED SETTINGS:** To access the Race settings (see below)
- **RACE SETTINGS:** To access the Race settings (see below)

b. Advanced Settings



- **Search angle:** Increasing the angle can help avoid setting waypoints but will increase calculation time. On a tablet, it is best not to exceed 220 degrees.
- **No angular search.** 5 or 10 degrees seem to be good values. It may be necessary to decrease these values in a narrow bay, for example, which would require very rapid course changes.
- **Accuracy:** The farther the routing horizon, the higher the accuracy required from Avalon. This value is managed automatically but can be adjusted manually (only for users experienced in routing techniques).
- **Tacking time:** Time lost during a tack-to-tack change. Note: This time must not exceed the time between course changes.
- **Gybing time:** Time lost during a gybe. Note: This time must not exceed the time between course changes.
- **Sail change time:** Time lost during a sail change. Note: This time must not exceed the time between course changes.
- **Wind Extension:** Avalon can provide up to 394 hours of wind forecasts using the NOAA GFS 0.25 or 1-degree data source. However, you can calculate a longer route (up to 500 hours) by checking this option. Avalon will then use the latest available wind forecast to calculate the route beyond the last available wind forecast.
- **Land detection:** Allows you to disable land detection. The route found by Avalon may then cross land

- **Minimum TWA:** Allows you to set a minimum upwind angle. Note: Setting the angle too high may prevent Avalon from "finding" a route.
- **Layline Filter:** Instructs Avalon not to stray from the laylines when calculating the route. This can be limiting, as Avalon may need to stray from the laylines to exit a narrow bay, for example.
- **Isochrons:** Displays routing isochrons every xx hours. Isochrons are very useful for identifying different route options.
- **Show previous route:** Avalon can choose whether or not to display the previously calculated route for comparison between two routes.
- **Max calculation time:** After this time, Avalon considers that it has not found a route and stops the calculation.

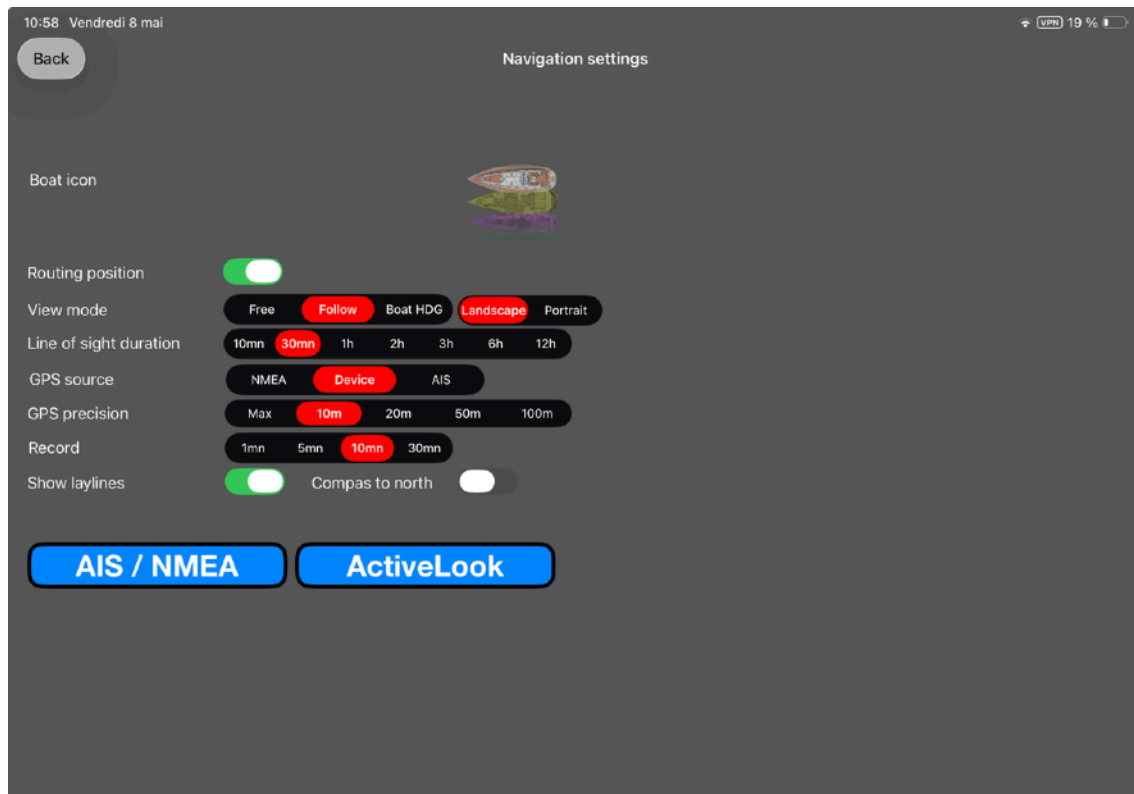
c. Race Settings



- **Race Routing:** Allows you to run a more sophisticated routing algorithm, though it takes slightly longer to calculate.
- **Use wave parameters:** to enable "cross-sea" detection and the influence of sea conditions on the boat's polars. (not available on Android)
- **Modify wave parameters:** to manage the coefficients for increasing/decreasing the boat's speed based on sea conditions. (not available on Android)
- **Wind waves derived from swell:** allows you to recalculate wind waves in (very large) areas where these wind waves are not calculated by FNMOC. (not available on Android). This issue does not exist with Météo France WAM.
- **Time Shift:** to shift wind forecasts in time
- **TWS coefficient:** to adjust wind strength
- **TWD rotation:** Angle: to vary the wind angle (TWD)
- **Clear competitor positions** received via DCC position files

7. Navigation settings

a. Basic settings

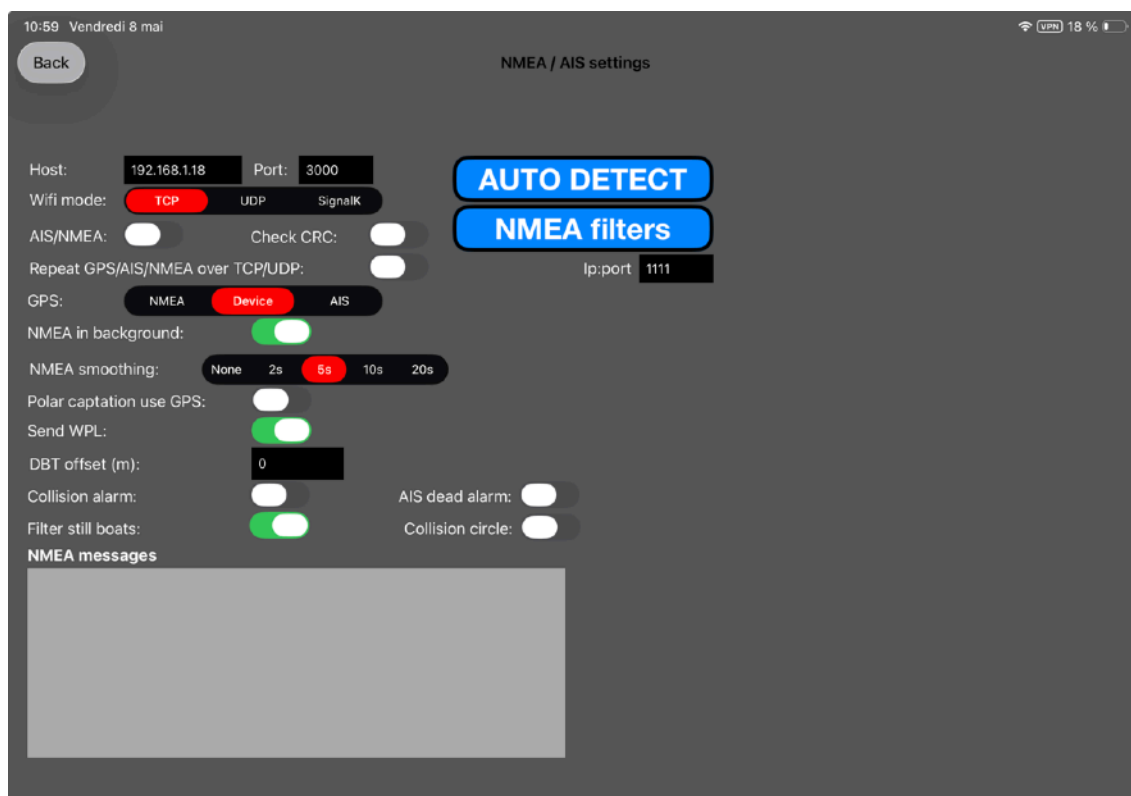


- **Boat icon:** To choose the display color of the boat on the map
- **Estimated position:** Displays the boat's estimated position as calculated by the route planning
- **Display mode:** Centered to keep the boat in the center of the screen, otherwise free.
- **Display mode:** Landscape or Portrait (easier to follow navigation on a phone)
- **Planned Route:** Sets the length of the vector from the boat's bow to the desired duration
- **GPS Source:** Select the GPS to use in Avalon
- **GPS accuracy:** The maximum is 5m. On low-end Android tablets, it is best to set the GPS accuracy to 10m to display the boat's position.
- **Record:** Records the actual route at the specified frequency (no recording, 10s, 1 min, 10 min, 1 hr, or 3 hr). Be sure to keep the GPS active even when the app is in the background. If you're using an NMEA connection, you must also keep the NMEA connection active at all times. (see AIS/NMEA page)
- **Display Laylines:** Shows or hides laylines while navigating to optimize upwind and downwind legs. If a target is specified (waypoint, destination, compass, POI), Avalon then displays the distance and time to the next tack (for port and starboard legs)
- **Compass North:** Orients the chart toward the boat's heading (does not work on Navionics charts)

AIS/NMEA: To access the AIS and NMEA settings screen (see next page)

ActiveLook: To configure the Engo Augmented Reality glasses

b. AIS/NMEA Settings



AUTO DETECT: If your Wi-Fi router is recognized by AVALON, the connection settings (server and port) will be automatically selected.

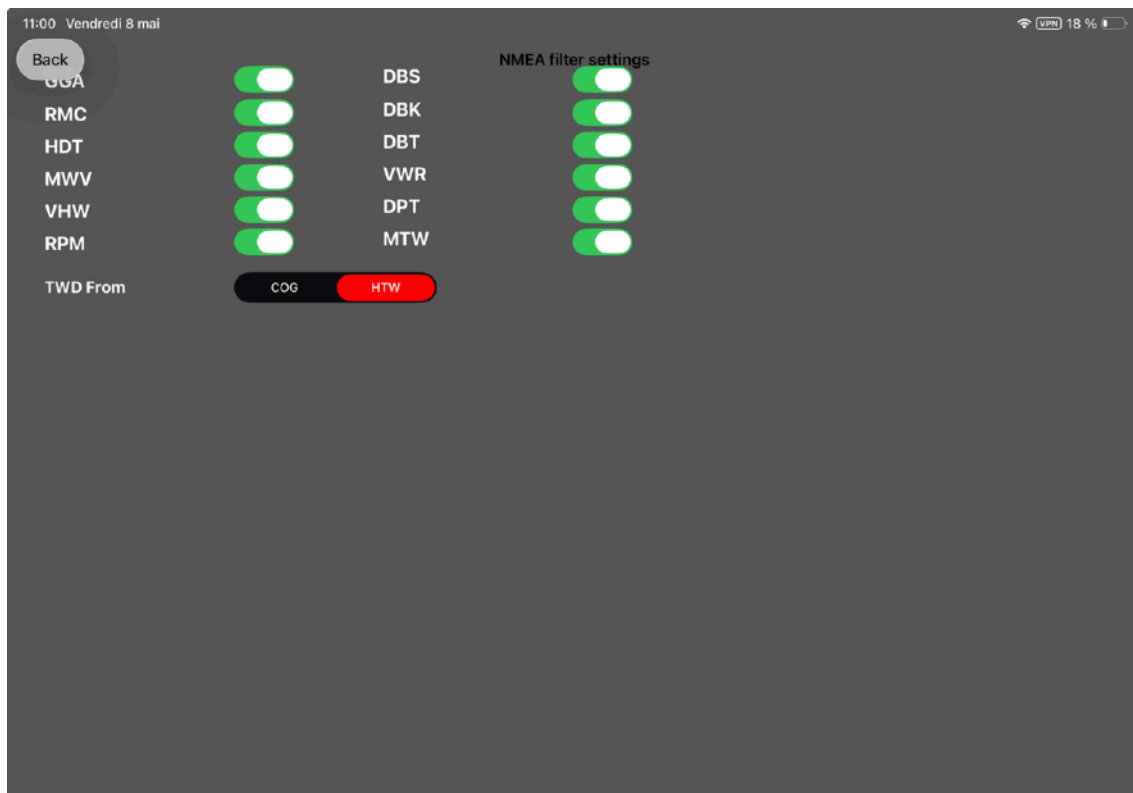
Note: The tablet must be connected to the onboard Wi-Fi

NMEA Filters: To filter the NMEA messages accepted by Avalon (see below)

- **Server:** Enter the server address specified in your Wi-Fi router's documentation here.
- **Port:** Enter the server address specified in your Wi-Fi router's documentation here.
- **Wi-Fi Mode:** Choose between TCP if you are connecting only one tablet to the onboard Wi-Fi router, or UDP if you have multiple tablets connected
- **AIS/NMEA:** Connects the tablet to the onboard NMEA or AIS Wi-Fi router. Allows the display of vessels equipped with an AIS transponder if the tablet is connected to an NMEA or AIS Wi-Fi port. Also allows reading of NMEA instruments via Avalon, for example to have a "depth" anchor alarm in addition to the "distance" alarm.
- **CRC Check:** Leave checked (except for certain Digital Yacht devices that do not comply with the NMEA 0183 standard)
- **Repeat GPS/AIS/NMEA (Android only):** Sends AIS, NMEA, and GPS data to other tablets (Apple or Android) on the specified **port** in UDP mode.
- **NMEA in the background:** Yes if you want to continue recording your route even when Avalon is no longer in the foreground.
- **NMEA Smoothing:** Data transmitted by the unit can vary significantly. It is therefore best to average it over 2, 5, 10, or 20 seconds.
- **GPS track capture:** Choose between STW (speed from the wheel) or SOG (speed over ground). It is best to use STW (with a properly calibrated speed log!)
- **Send WPL:** To send waypoints from the Avalon navigation route to the onboard display. Requires a bidirectional Wi-Fi multiplexer.
- **DBT Offset:** Depth sounder offset relative to the waterline.
- **Collision Alarm:** Triggers an alarm when a vessel is about to cross your path within "x" miles (CPA) within "y" minutes (TCPA)
- **AIS Disconnection Alarm:** Triggers if the AIS signal is lost via Wi-Fi.

-
- **CPA:** Closest Point of Approach
- **TCPA:** Time to CPA = Time remaining until reaching the minimum approach point.
- **Stationary Vessel Filter:** Shows or hides vessels that are not underway
- **Collision circle:** Allows you to display or hide the collision circle (CPA) when a vessel poses a risk
- **NMEA Messages:** Displays NMEA messages received by Avalon. (Useful for verifying Avalon's connection to the Wi-Fi multiplexer)

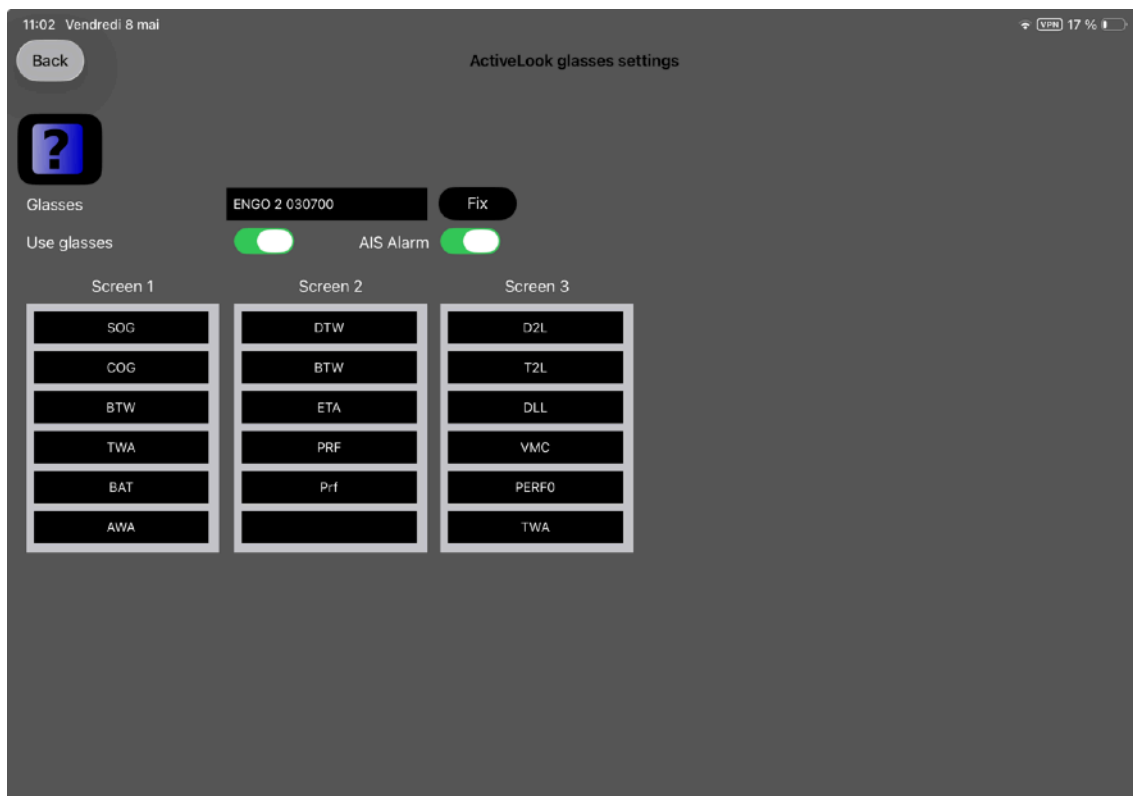
NMEA Filters: You can filter the NMEA messages accepted by Avalon. Refer to your NMEA unit's documentation.



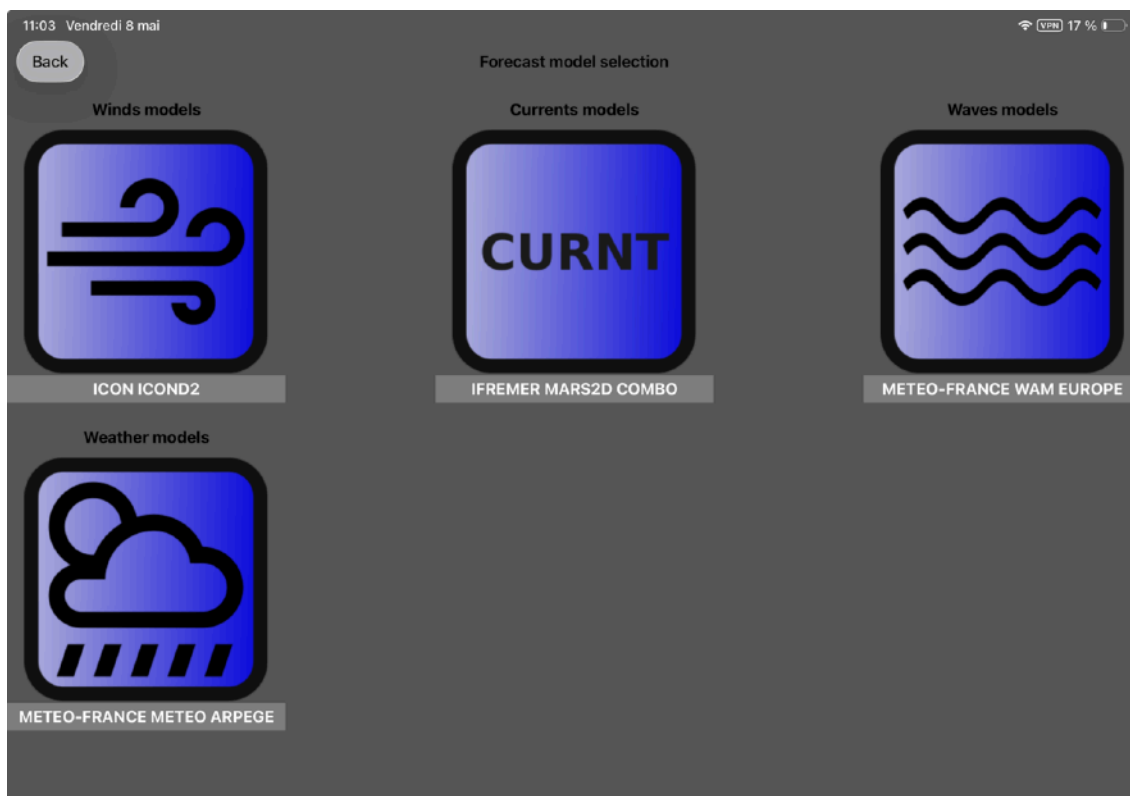
c. Active Look Settings



If you have Augmented Reality glasses, you can configure 3 screens with up to 6 data points each. You switch screens by quickly waving your hand in front of the right lens.



8. Model Settings (Weather)



Select your preferred model for each of the 4 data types:

- Winds and gusts
- Currents
- Waves
- General Weather

The following weather models are available with a Premium subscription:

a. Winds and gusts

Zone de Navigation	Modèle	Pas	Horizon	Prods / Jour	Maillage
Monde	NOAA GFS 0.25 deg	3h	400 heures	4	0.25 Degré
Monde	NOAA GFS 1 deg	3h	400 heures	4	1 Degré
Monde	NOAA GFS ENS (30 modeles)	3h	400 heures	1	1 Degré
Monde	ECMWF	3h	240 heures	2	0.4 Degré
Europe	Arpege	1h	112 heures	4	0.1 Degré
Europe	Icon	1h	120 heures	4	0.07 Degré
Europe	Icon 30	1h	30 heures	8	0.07 Degré
USA/Caraibes	NAM Conus	1h	84 heures	4	0.15 Degré

Zone de Navigation	Modèle	Pas	Horizon	Prods / Jour	Maillage
USA/Caraibes	NAM Caraibes	3h	84 heures	4	0.15 Degré
USA	HRRR ConUs				
France	Arome	1h	35 heures	4	0.025 Degré
France	Arome HD	1h	35 heures	4	0.010 Degré
France	Open WRF	3h	120 heures	1	0.1 Degré
Hawai	NAM Hawai	1h	84 heures	2	0.05 Degré
Porto Rico	NAM Porto Rico	1h	84 heures	2	0.05 Degré
Guam	NAM Guam	1h	84 heures	2	0.05 Degré
Italie	Open WRF	3h	120 heures	1	0.010 Degré
Italie	Open WRF Thyreneene	1h	48 Heures	1	0.035 Degré
Italie	Open WRF Sicile	1h	48 Heures	1	0.035 Degré
Espagne	Open WRF	1h	120 heures	1	0.010 Degré
Grece	Open WRF Ioniennes	1h	120 heures	1	
Grece	Open WRF Ioniennes HD	1h	48 Heures	1	0.035 Degré
Grece	Open WRF Egée NW	1h	48 Heures	1	0.035 Degré
Grece	Open WRF Egée NE	1h	48 Heures	1	0.035 Degré
Grece	Open WRF Egée SW	1h	48 Heures	1	0.035 Degré
Grece	Open WRF Egée SE	1h	48 Heures	1	0.035 Degré
Grece	Open WRF Patras	3h	48 Heures	1	0.035 Degré
Est Med	Open WRF Croisade	3h	120 heures	1	0.010 Degré
Est Med	Open WRF Taurus	3h	120 heures	1	0.010 Degré
Croatie	Aladin				2 km

b. Compressed winds from "Iridium Go" and other satellites

Zone de Navigation	Modèle	Pas	Horizon	Prods / Jour	Maillage
Monde	NOAA GFS 1 deg	3h	400 heures	4	1 Degré
Monde	ECMWF	3h	240 heures	2	0.4 Degré
Monde	Arpege	1h	112 heures	4	0.5 Degré
Europe	Arpege	1h	112 heures	4	0.1 Degré
Europe	Icon	1h	120 heures	4	0.07 Degré
Europe	Icon 30	1h	30 heures	8	0.07 Degré
USA/Caraibes	NAM Conus	1h	84 heures	4	0.15 Degré
USA/Caraibes	NAM Caraibes	3h	84 heures	4	0.15 Degré

c. Currents

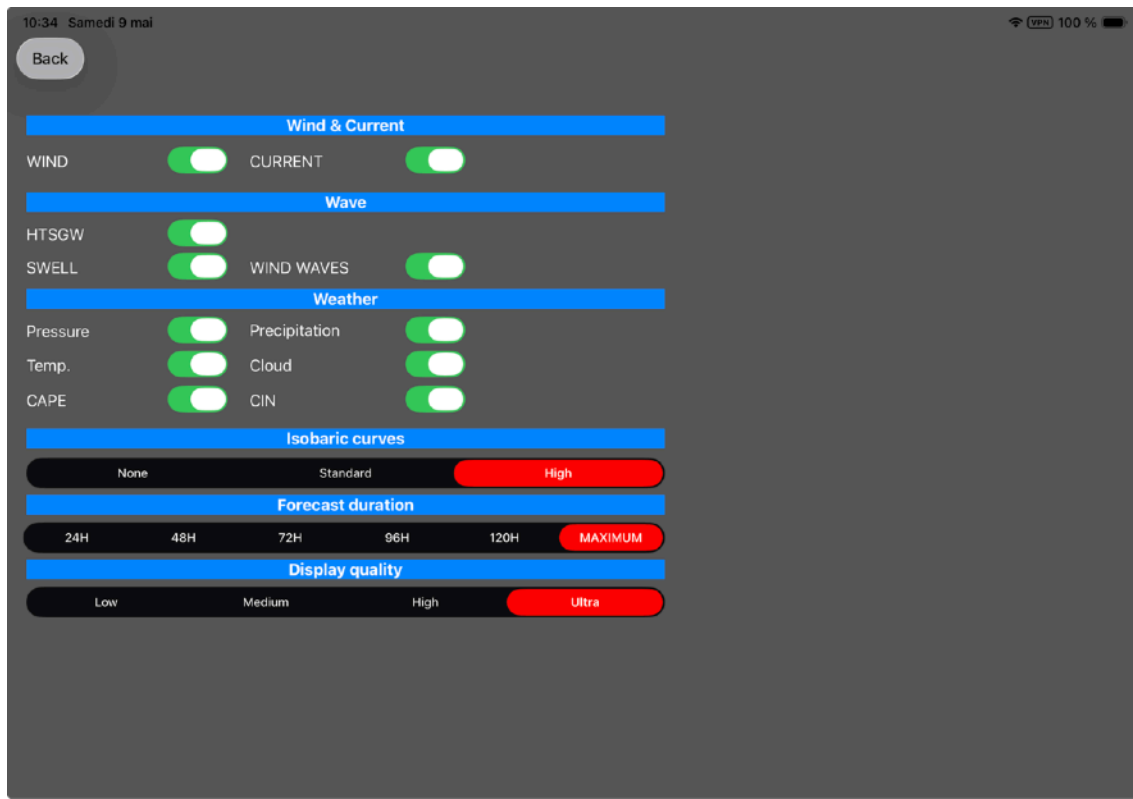
Zone de Navigation	Modèle	Pas	Horizon	Prods / Jour	Maillage
Monde	Copernicus Marine	1h	240 heures	1	0.25 Degré
Ouest Europe	Copernicus Marine IBI	1h	120 heures	1	0.03 Degré
Mediterranee	Copernicus Marine Med	1h	120 heures	1	0.063 Degré
Baltique	Copernicus Marine Baltic	futur			
USA East	NCOM	3h	72 heures	1	0.033 Degré
Caraibes	NCOM	3h	72 heures	1	0.033 Degré
Sud Californie	NCOM	3h	72 heures	1	0.033 Degré
Hawaii	NCOM	3h	72 heures	1	0.033 Degré
Alaska	NCOM	futur			

c. Waves

Zone de Navigation	Modèle	Pas	Horizon	Prods / Jour	Maillage
Monde	MF France WAM Monde	3h	114 heures	1	0.1 Degré
Monde	NOAA Waves				
Europe	MF WAM Europe	3h	114 heures	1	0.1 Degré
France	MF WAM France				

9. Weather settings (data)

When you have a Wi-Fi connection, we recommend that you check all data options.

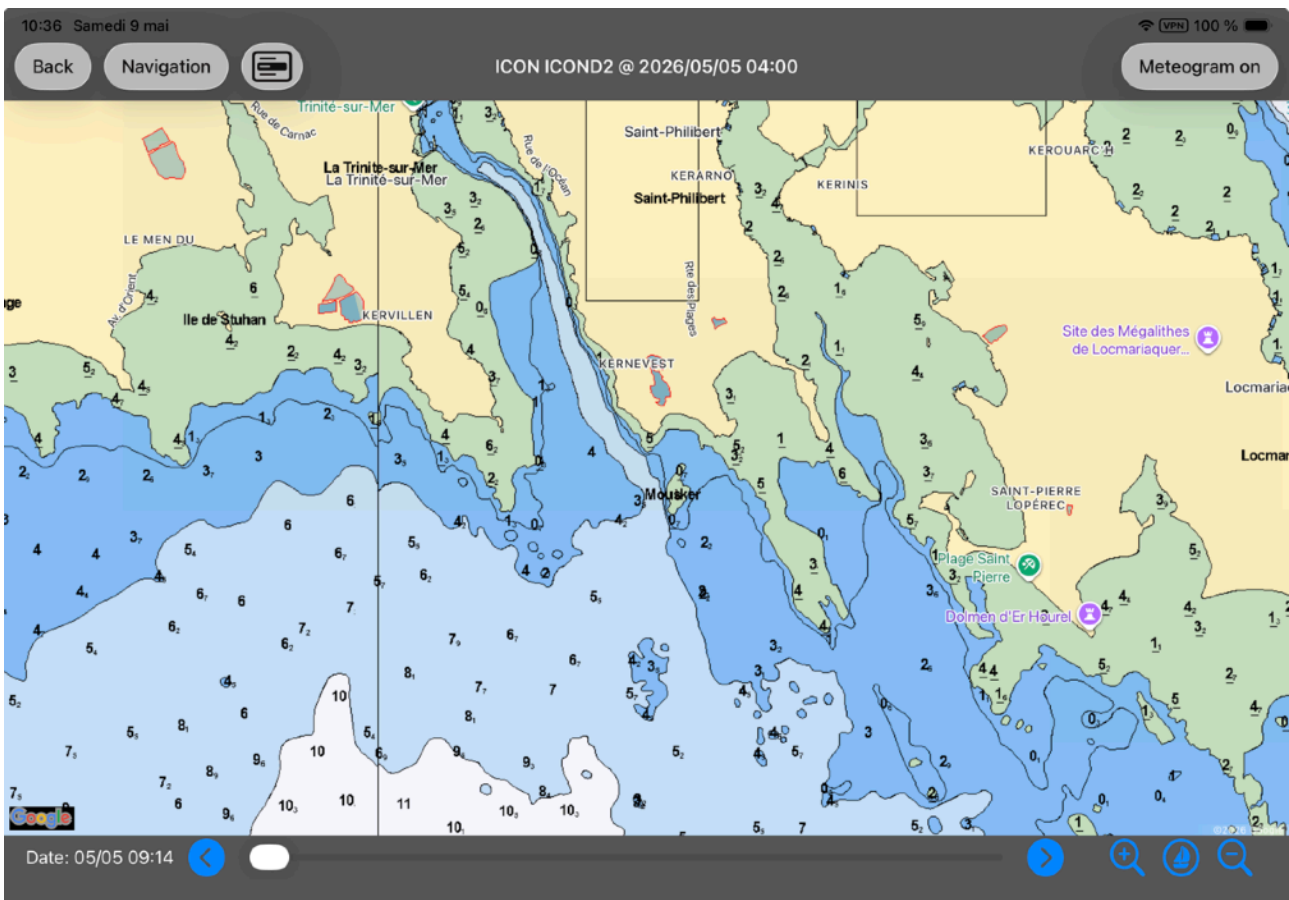


D. Routing

1. Introduction

Avalon allows you to calculate a route in 3 ways:

- Beginner mode for skippers new to weather routing, with few options and settings available. This option only allows you to calculate a route between two pre-registered ports. We also recommend starting with a few port-to-port routes using the “guided routing” command.
- "Advanced User" mode, which lets you harness the full power of Avalon. After a few routes in "Beginner" mode, we recommend switching to "Advanced" routing.
- Expert mode (included with the Race option) allows for a comparative route analysis based on various scenarios: route options, weather models, sensitivity to polar charts, wind, etc.



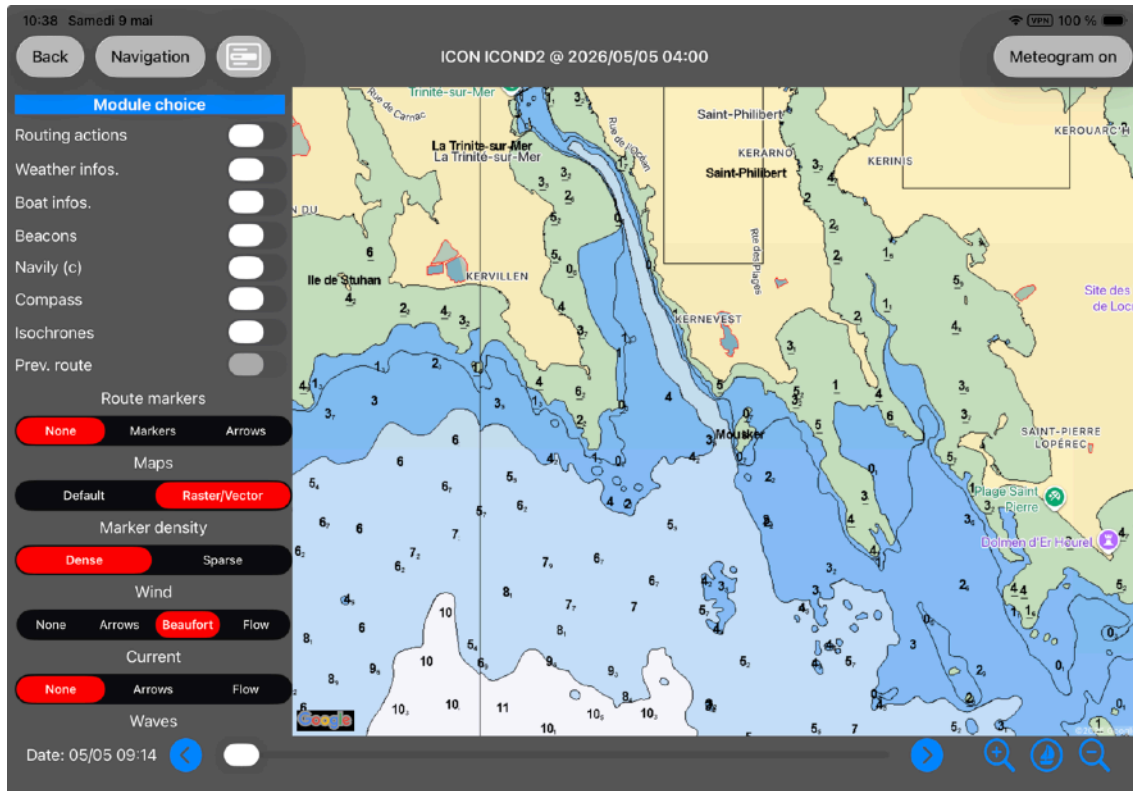
Click on “Routing”
To display the "commands" icons, click the "layers" icon:



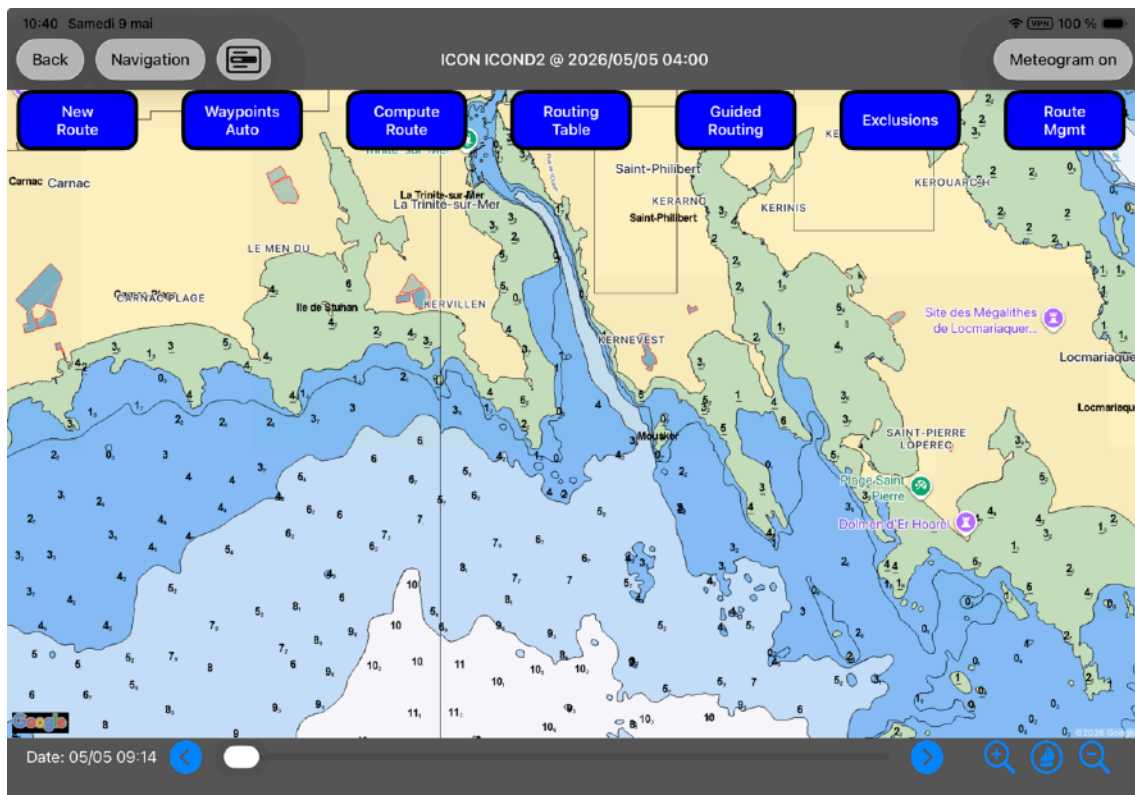
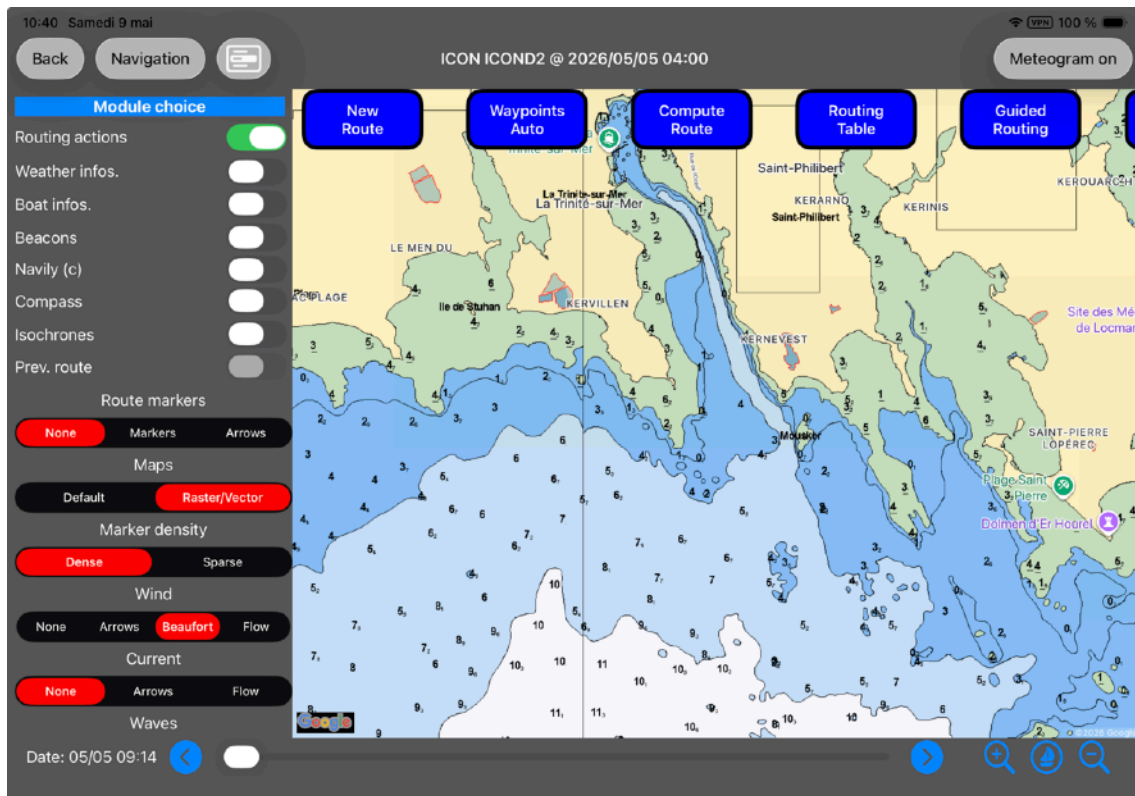
2. Layers and display options in routing mode

Click on "Routing."

Then click on the "Layers" icon (3 horizontal bars at the top). A sidebar appears. If you click again, it disappears to leave more room for the map.



3. Routing controls display



To see the map better, you can hide the menu bar on the left by clicking the "Layers" icon again.

The "Routing" controls are:

- New Route: To create a route.
- Auto Waypoints: To place waypoints that may be needed to exit/enter a bay or round a headland.
- Calculate Route: Link to the route calculation screen.
- Route Table: View the route summary and the detailed route table.
- Guided Routing: Recommended for beginners; set the departure port, arrival port, and start the calculation.
- Route Management: Save, export, restore, import, etc., a route

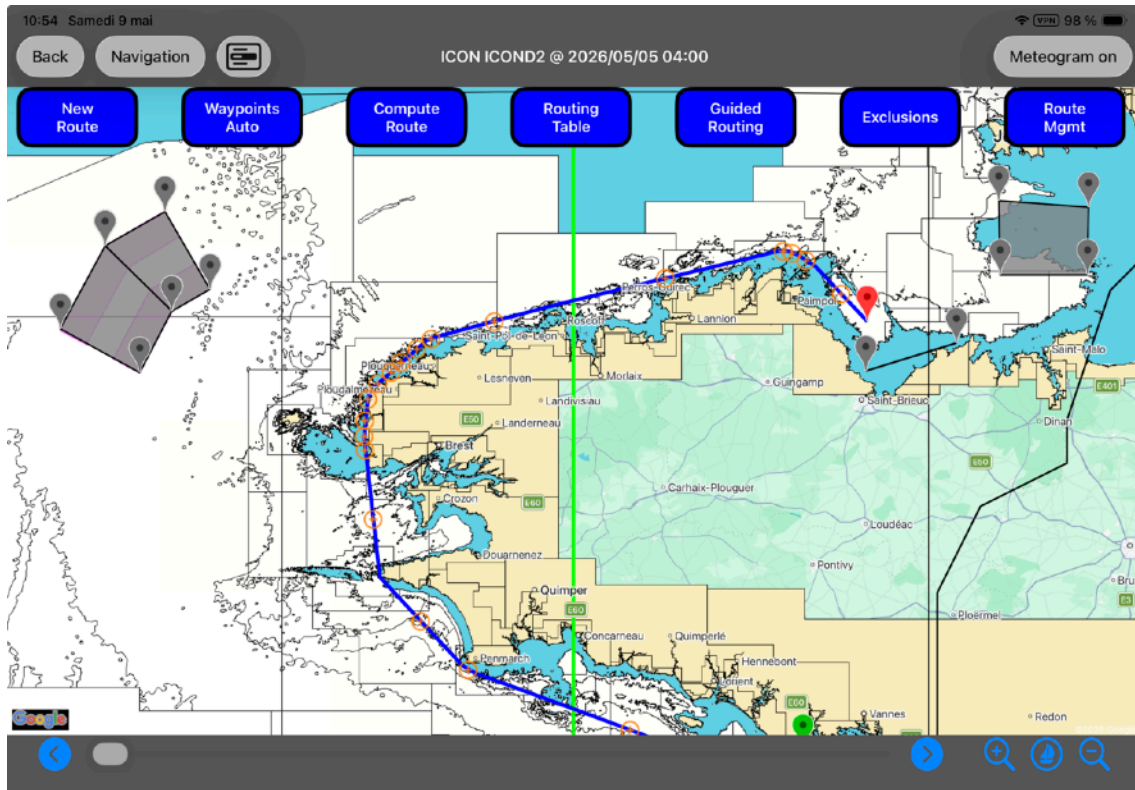
1. New Route

Click on “New Route.”

Place the departure point and the arrival point by long-pressing on the map. In our example, we’re starting from Lorient and heading to St Brieuc.

Once the start and end points are set, a blue dashed line roughly representing the direct route is displayed.

Don't worry if this route strays slightly onto the earth. The route won't go that way.



2. Waypoints

For a complex route that must pass headlands or enter deep bays, it is recommended to add waypoints.

The principle of a waypoint is that once it is reached or passed, the route calculation will set a course toward the next waypoint or toward the destination.

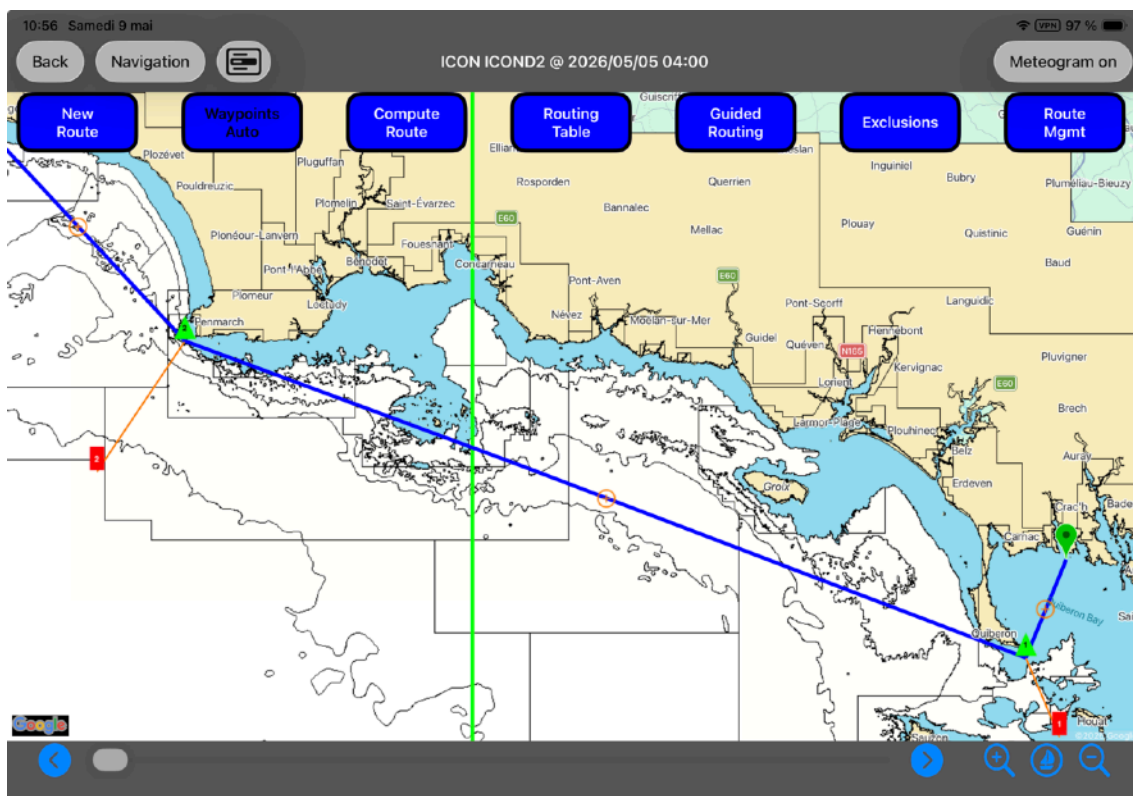
You can modify a waypoint by long-pressing on it until a crosshair appears. You can then drag the waypoint to its new position.

To delete a waypoint, tap the waypoint. A window will appear showing the waypoint's location. Tap this window, and you can then delete the waypoint.

a. Auto Waypoints

Avalon makes this step easier by offering to add waypoints automatically.

Click on Auto Waypoints, and gate-type waypoints will be added.



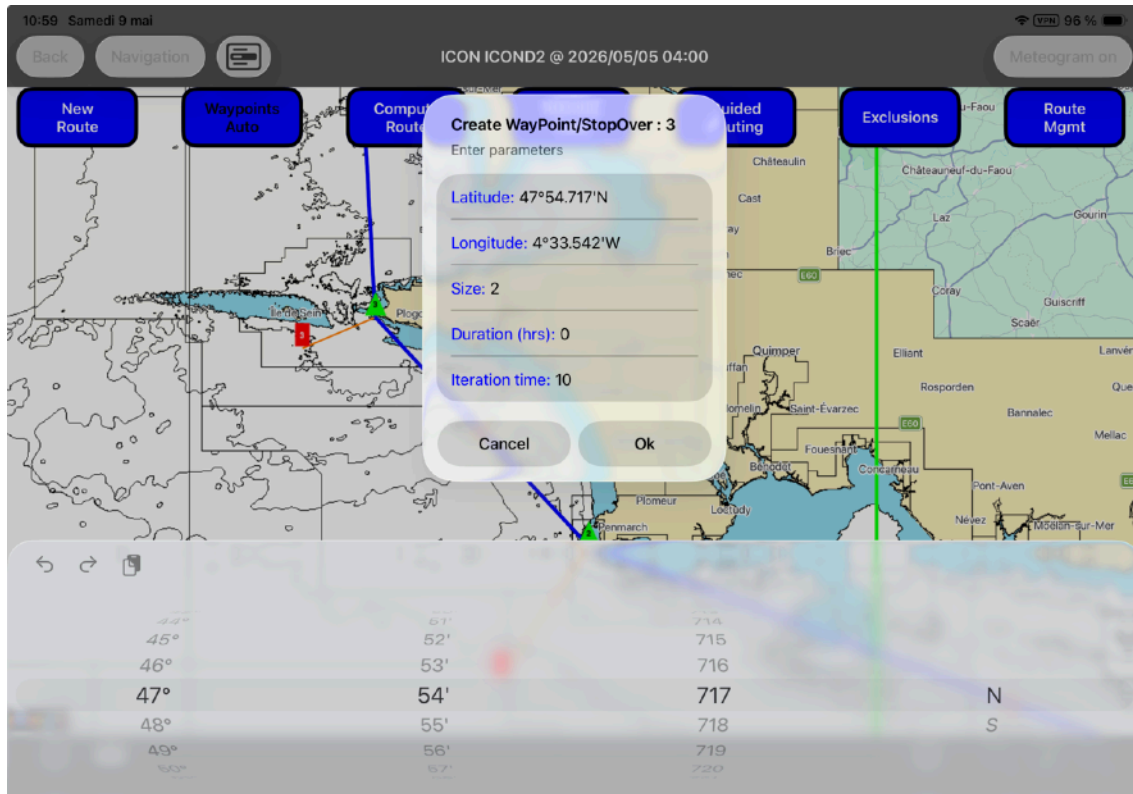
If

the route isn't fully calculated, check the partial route. If the route is blocked right in front of a waypoint, move it slightly away from the coastline. (Long-press and then drag the "stuck" waypoint.)

b. Manual Waypoints

You can also add one or more waypoints manually by clicking on one of the small circles around a "+" located on the middle of every blue segments.

You can create "circle" or "gate" type waypoints. After each waypoint, you can redefine the isochrone time. This can be very useful when you need to pass through a narrow navigation channel or, conversely, when you exit a narrow channel and reach the open sea (for example, when sailing on the Gironde and reaching the Atlantic).



A

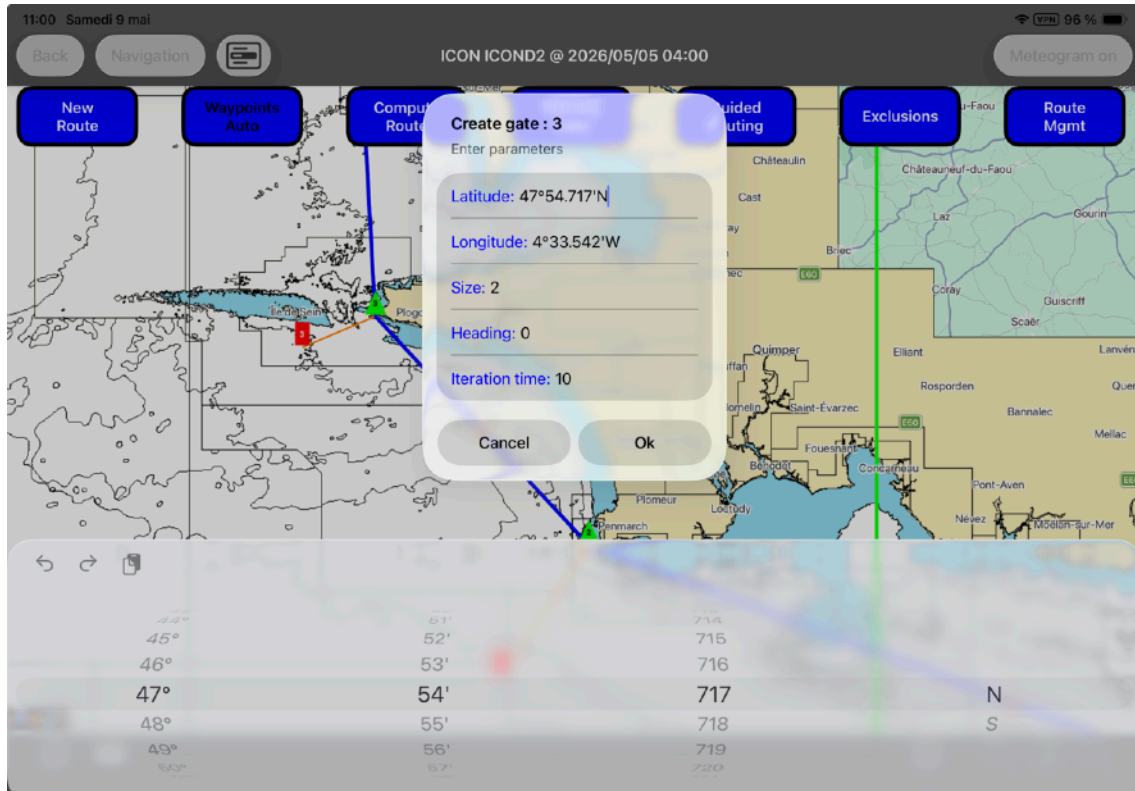
circle waypoint can also define a stopover for which you set the duration.

For a gate-type waypoint, the settings are slightly different:

- A gate cannot be a waypoint
- You can define the distance between the "buoys," as well as their angle

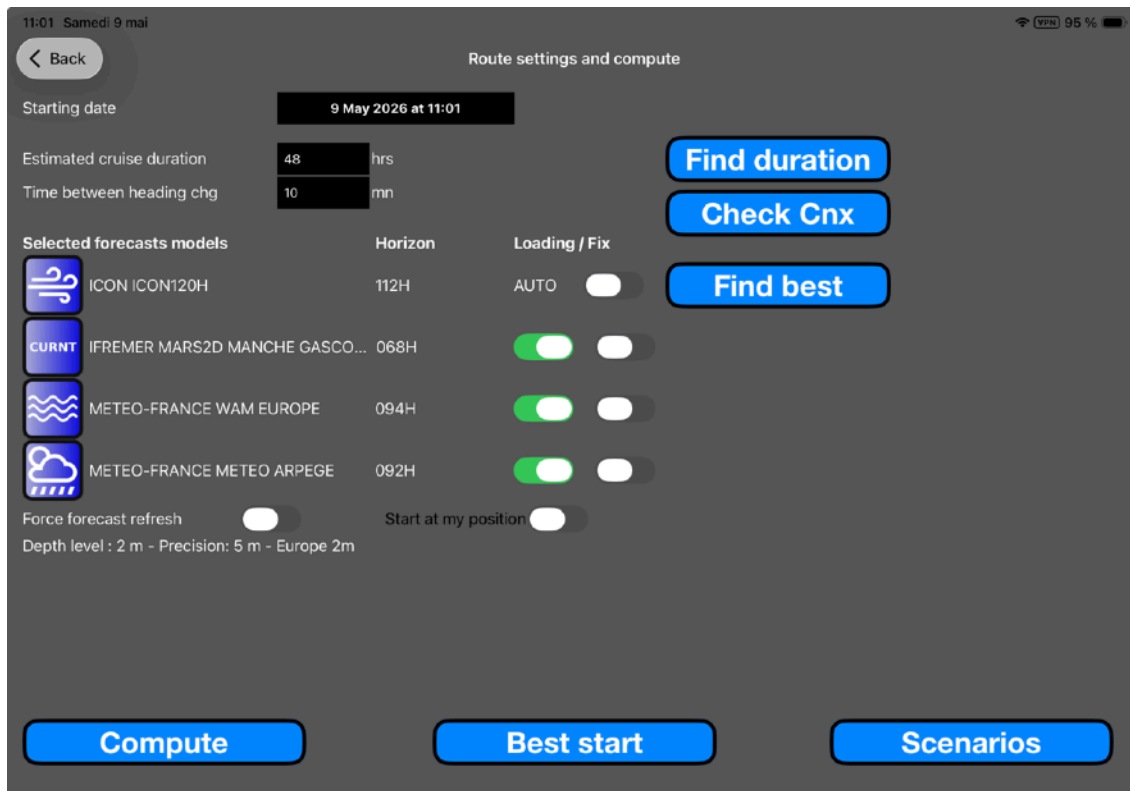
You can always manually move the port or starboard buoy

A large gate will avoid constraining the course and eliminate the need for “pivot points” used by our competitors who do not use gates!



3. Calculate the route

You arrive at a screen where you can set the route calculation parameters:



- **Departure date:** Desired departure time and day. Make sure the selected wind model has the necessary forecast horizon.
- **Estimated duration of the cruise:** This approximate data is necessary to allow Avalon to automatically download the required wind forecast horizon. Press "Estimate duration" for an automatic estimate.
- **Time between course changes (or time between isochrones):** Duration in minutes between each course change. It may be necessary to reduce this value in a narrow bay, for example. For long crossings, it is best to use a value of 30 or 60.
- **Selected Weather Models:** Displays the weather models you have selected in the general settings of the ROUTING module or in the settings of the WEATHER model.
- **Horizon:** Indicates the forecast period available on our servers.
- **Loading (off/auto):** Specifies whether you want to disable the loading of certain weather data.
- **Fixed:** To lock a model so it is not modified by "Auto Selection." For example: you want to calculate a route in the Bay of Biscay with a departure in 7 days and you do not want Auto Selection to replace Copernicus IBI (which only has 5 days of forecasts) with Copernicus Global (which has 15)
- **Reload Winds:** If you want to force a reload of the weather forecasts. Rarely used because Avalon will always check if new forecasts are available before running the calculation.
- **Start from my position:** To be able to easily rerun a route when you're at sea.
- **AUTO SELECTION:** Avalon will select the weather models best suited to your cruise based on the navigation area, the duration of the cruise, and the planned departure date.
- **CALCULATE:** Starts the route calculation.
- **BEST DEPARTURE:** Allows you to calculate multiple routes based on different departure times

- **SCENARIOS:** Available in the Race option: To access route analysis based on various assumptions: weather models, sail and crew efficiency, route alternatives, etc. It also allows you to test how sensitive a route is to changes in forecasts and thus determine whether the additional distance of the optimal route (in terms of time) is offset by the potential time saved. (see the “Race Option” chapter)

a. Standard/Bathymetric Routing

Avalon’s routing engine uses bathymetric mapping in areas covered by the vector charts sold by Avalon.

It is compatible with any cartography chosen by the user: SHOM, Navionics, Google, Open Sea Map, MbTiles, etc.

Avalon takes water depth into account when calculating the route to provide you with a theoretical route, calculated by the routing engine, that closely matches the actual navigation route.

This feature is available in all navigation areas covered by Avalon vector charts.

- Mainland France
- England and Ireland
- Belgium
- Netherlands
- Spain
- Portugal
- North Atlantic Islands (Madeira, Canary Islands, Cape Verde, Bermuda, Azores)
- Lesser Antilles
- Mainland USA (excluding Alaska)
- Hawaii
- Polynesia
- New Caledonia
- Madagascar, Comoros, Seychelles

We have added a "minimum depth" setting in the app's preferences (accessible from the main menu) where you can select the minimum depth required for your boat. This bathymetric chart is internal. It is used by Avalon to calculate the route.

Note: Avalon does not guarantee the accuracy of this data. It is the skipper’s responsibility to verify the navigation route using official charts.

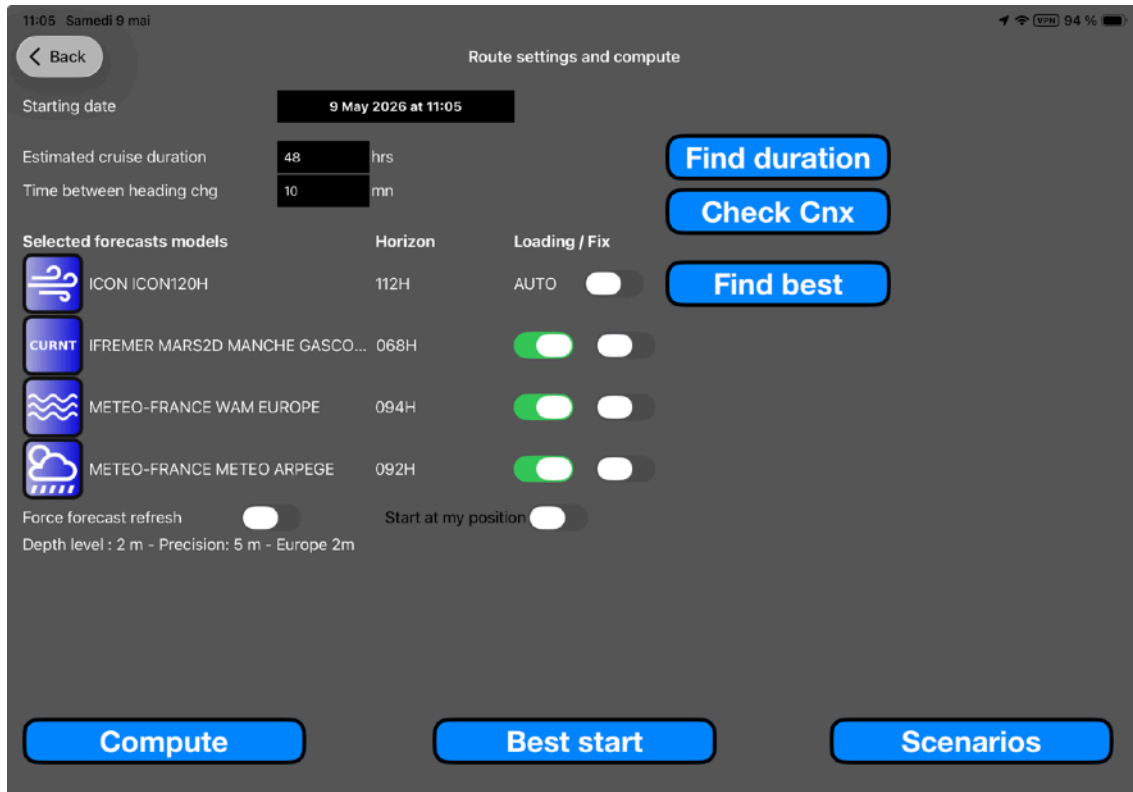
The desired minimum depth is set in the routing settings:



If you want a route that does not take depth into account, select "Coastal."

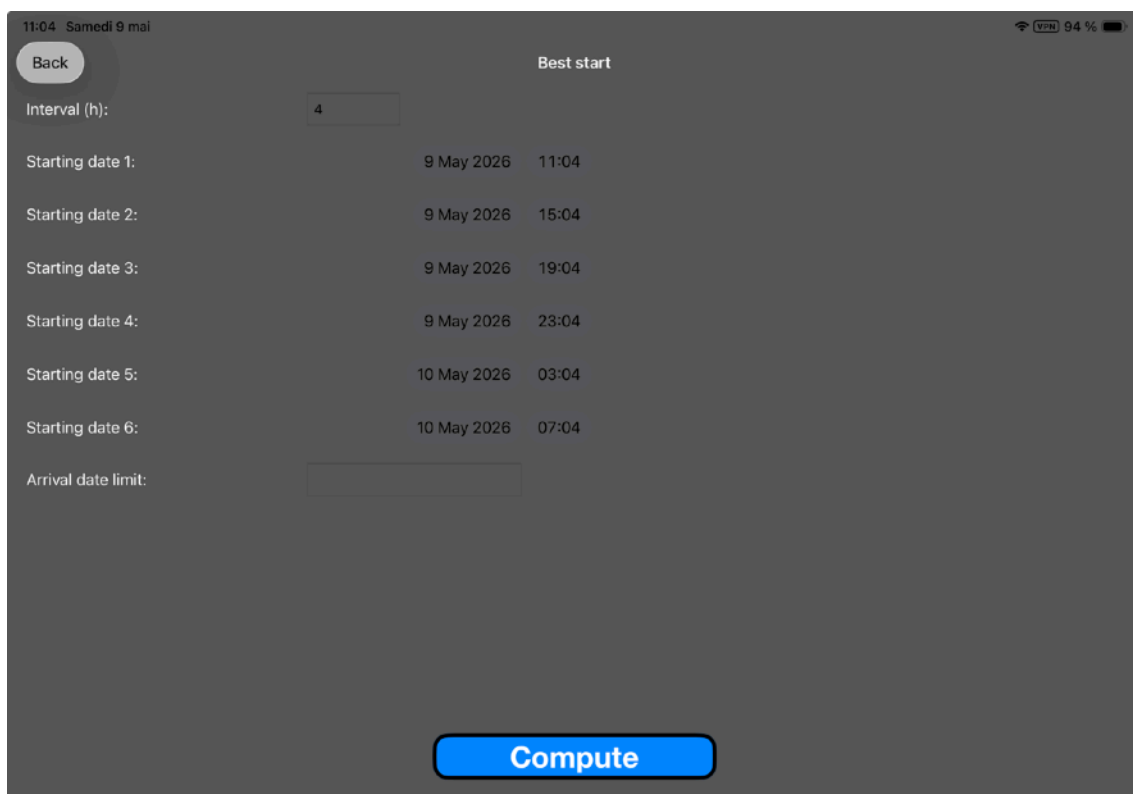
b. Best Departure Calculation

You can access the best departure calculation from the calculation settings.



You can set departure dates one by one or simply specify a time interval starting from a planned departure date.

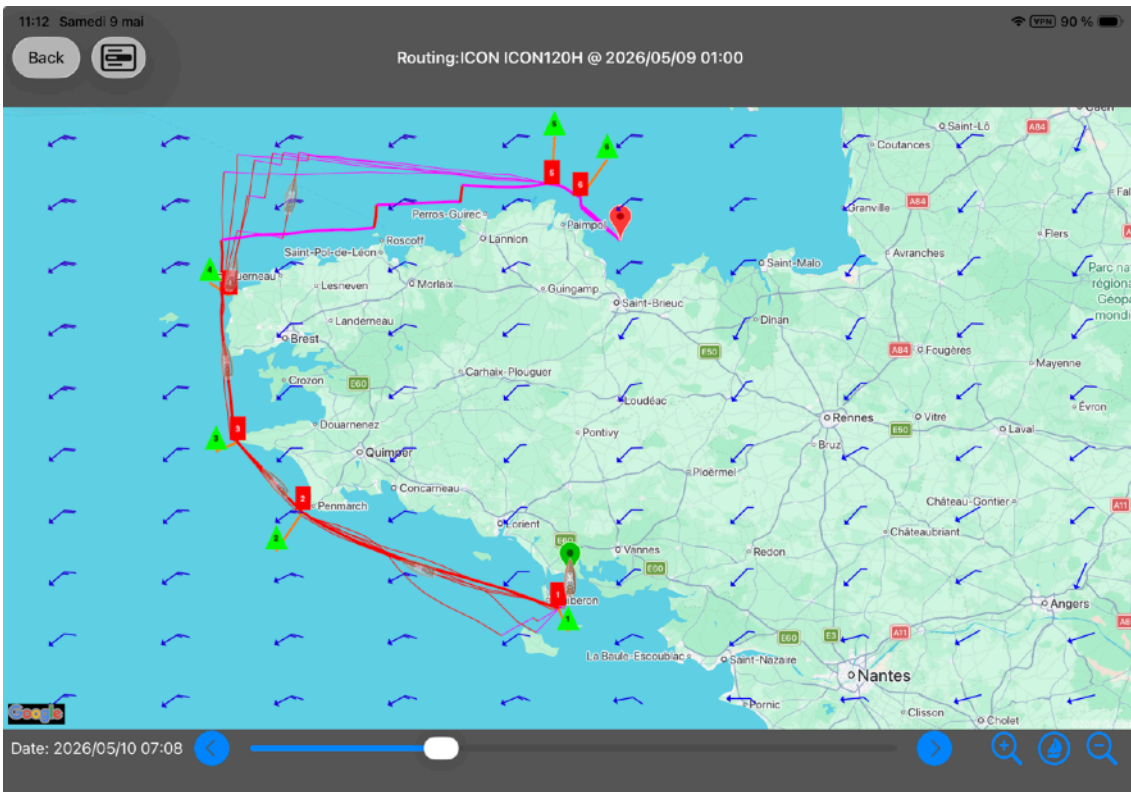
Note: Weather models must have the necessary forecast horizon.



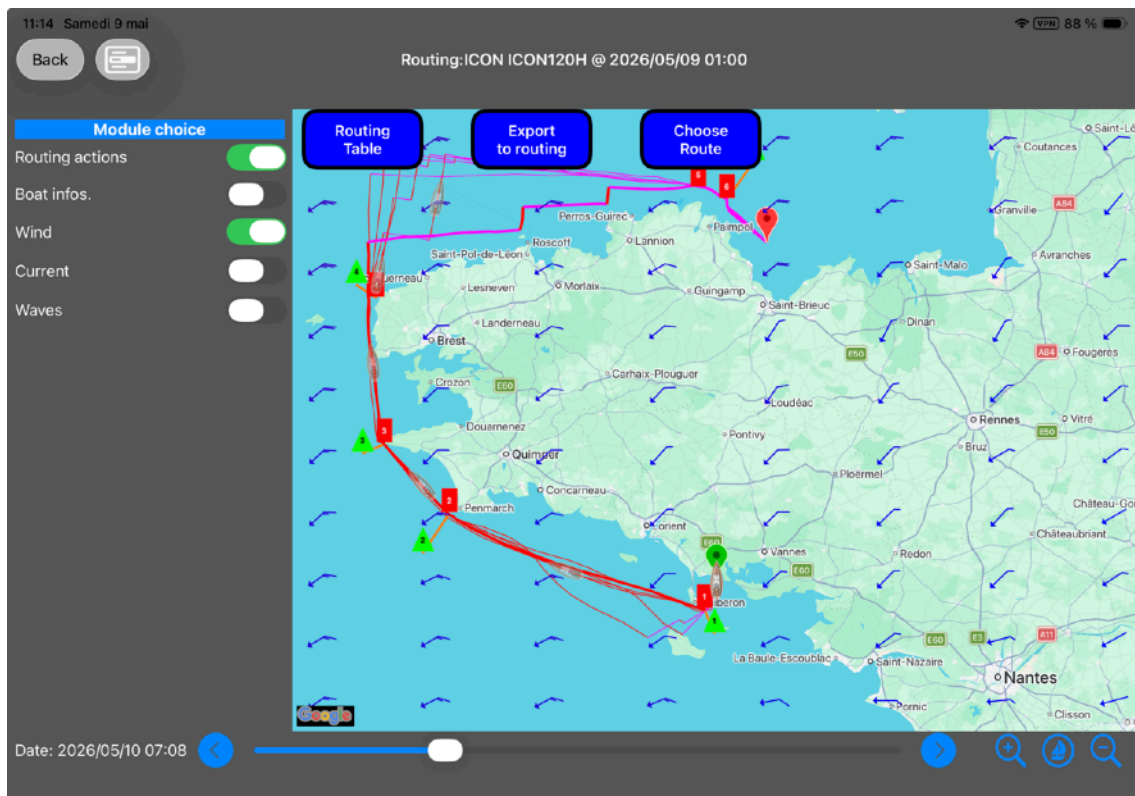
To start the calculation, click CALCULATE.
 A table summarizing the routes appears:

Start date	Duration	Distance (nm)	TWS (kts)	Gust (kts)	Sail	TWA	Waves (m)
05/09 11:08	1 Day 5 Hours 37 Minutes Sailing : 1 Day 5 Hours 37 Minutes	234.37 (+ 30.24)	5.27 → 28.67	8.62 → 40.69	Main Rolling Genoa: 17H42M Main Spi: 06H03M Main Code0: 05H52M	0°↔45°: 09H 45°↔60°: 04H03M 60°↔90°: 05H17M 90°↔120°: 04H13M 120°↔170°: 07H04M	0.59 → 2.93
05/09 15:08	1 Day 4 Hours 39 Minutes Sailing : 1 Day 4 Hours 39 Minutes	232.23 (+ 28.09)	5.14 → 29.67	8.17 → 42.06	Main Rolling Genoa: 17H14M Main Spi: 06H21M Main Code0: 05H03M Main Spi Asy: 01M	0°↔45°: 05H41M 45°↔60°: 09H38M 60°↔90°: 01H53M 90°↔120°: 03H36M 120°↔170°: 07H51M	0.43 → 3.31
05/09 19:08	1 Day 3 Hours 18 Minutes Sailing : 1 Day 3 Hours 18 Minutes	228.85 (+ 24.71)	5.44 → 29.49	8.68 → 41.19	Main Rolling Genoa: 18H50M Main Spi: 05H21M Main Code0: 03H07M	0°↔45°: 03H15M 45°↔60°: 11H44M 60°↔90°: 04H21M 90°↔120°: 01H37M 120°↔170°: 06H21M	0.32 → 3.43
05/09 23:08	1 Day 2 Hours 14 Minutes Sailing : 1 Day 2 Hours 14 Minutes	229.33 (+ 25.19)	5.45 → 29.75	11.46 → 42.71	Main Rolling Genoa: 18H25M Main Code0: 05H51M Main Spi: 01H07M Main Spi Asy: 51M	0°↔45°: 03H10M 45°↔60°: 10H16M 60°↔90°: 04H02M 90°↔120°: 07H05M 120°↔170°: 01H41M	0.30 → 3.47
05/09 11:08	Arrival: 05/10 16:45					0°↔45°: 03H55M	
05/09 15:08	Arrival: 05/10 19:47						
05/09 19:08	Arrival: 05/10 22:26						
05/09 23:08	Arrival: 05/11 01:22						
05/10 03:08	Arrival: 05/11 04:22						
05/10 07:08	Arrival: 05/11 07:47						

Select the desired departure by clicking on the list below the table.

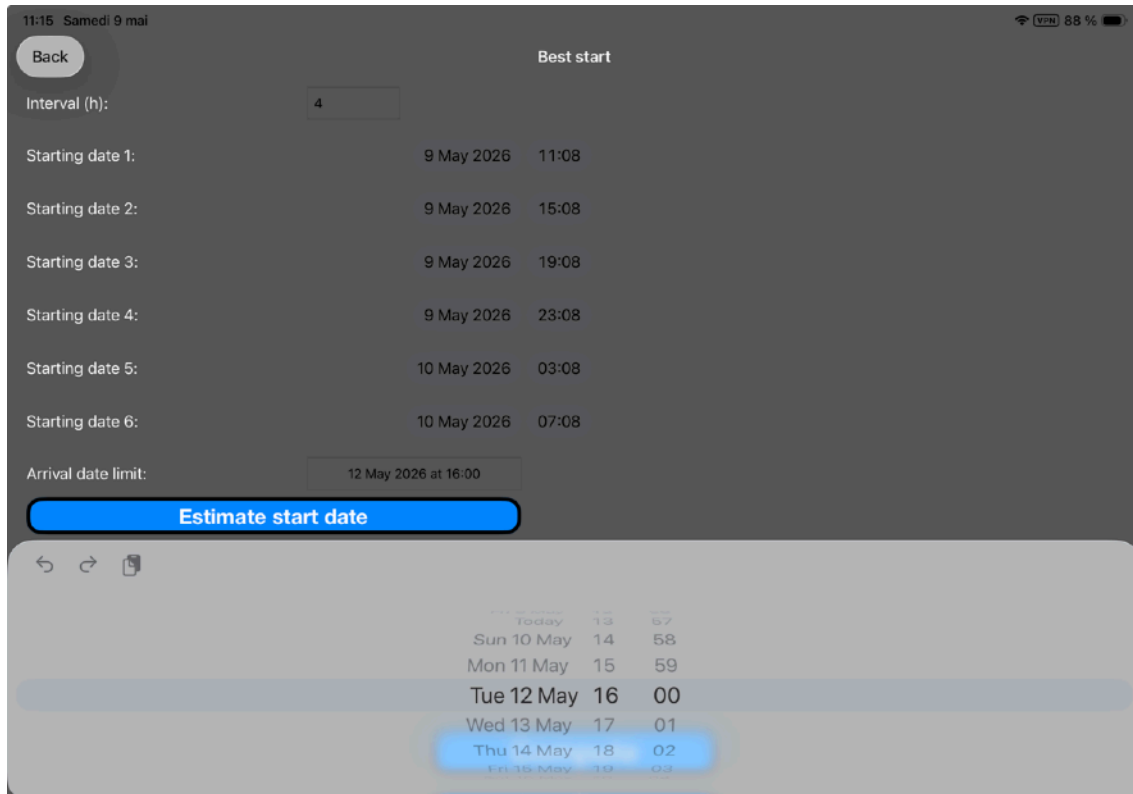


The route in bold appears as the main calculated route; the other routes also appear in gray. You can change the main route by clicking on the "Choose Route" icon.



You can then export the selected route to Routing

c. Calculating the departure time based on the desired arrival time



When you must arrive at a port by a certain time due to a threshold or lock, or if you wish to arrive at an anchorage during daylight hours, Avalon allows you to calculate the departure time that will enable you to arrive at the desired time.

To do this, go to the "Best Departure" module (explained earlier) and set an arrival time that fits the boat's schedule.

Then set your desired arrival time, and Avalon will provide an estimated departure time.

You can then recalculate the route using the recommended departure time. Avalon will calculate a route that allows you to arrive at the desired time. A tolerance of plus or minus 10 minutes is acceptable.

d. Multi-scenario calculation

This feature is available with the race option.

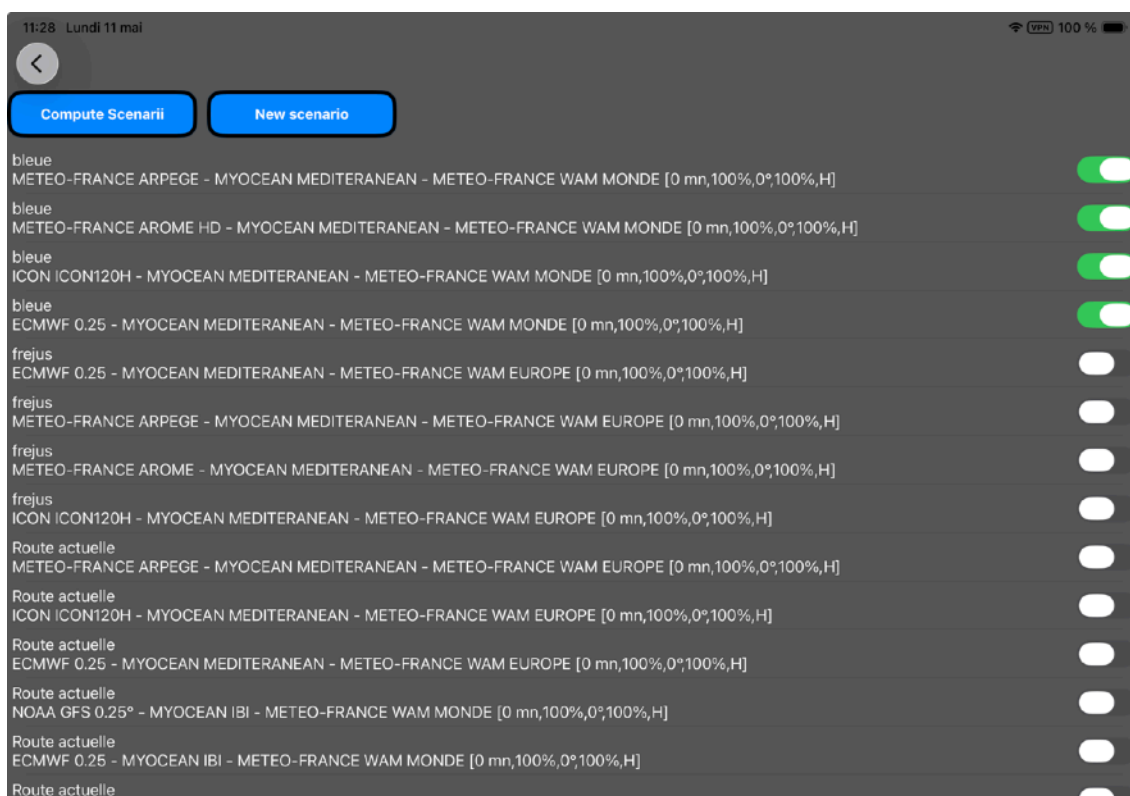
Multi-scenario analysis makes it very easy to compare:

- Multiple route options
- Multiple weather models for the same route to validate weather stability (see next chapter)
- Wind shift assumptions
- Assumptions regarding polar efficiency

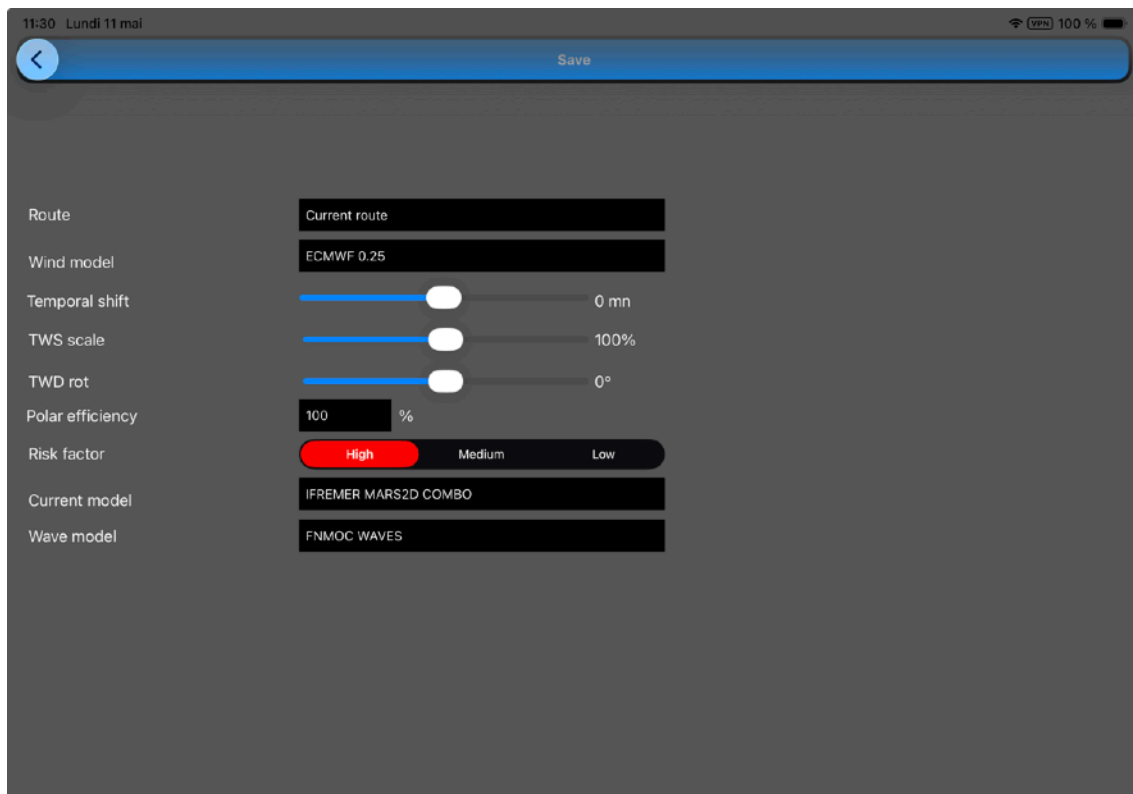
After the calculation, a summary table of the tested scenarios allows you to choose the best route, display it on the map alongside the other scenarios, and then convert it into a route and subsequently into navigation.

Example: You want to compare a route from Saint-Raphaël to Porto-Vecchio via Cap Corse or via the Strait of Bonifacio

- Create the desired route in the routing module. Add the necessary waypoints. Calculate it to test it, then save it with a name.
- In the route calculation screen, click on “Scenarios”
- The list of scenarios that have already been created appears.
- You can select the scenarios you want to study
- To delete a scenario, swipe it to the left.



To create a scenario, click on New Scenario.



- Create the scenario by selecting the route, winds, currents, and waves using the sliders.
- If desired, you can vary the wind
- Save, then create and save the other scenarios
- Then click Back to return to the list of available scenarios.
- Select the scenarios to study, then run the calculations

- A summary table appears

11:35 Lundi 11 mai

Route	Duration	Distance (nm)	TWS (kts)	Gust (kts)	Sail	TWA	Waves (m)
bleue METEO-FRANCE ARPEGE METEO-FRANCE WAM MONDE MYOCEAN MEDITERANEAN [0 mn,100%,0°,100%,H]	8 Hours 17 Minutes Sailing : 8 Hours 17 Minutes	94.87	16.33 → 28.21	23.10 → 36.07	Main Rolling Genoa: 08H17M	60°↔90°: 02H47M 90°↔120°: 05H30M	1.09 → 2.14
bleue METEO-FRANCE AROME HD METEO-FRANCE WAM MONDE MYOCEAN MEDITERANEAN [0 mn,100%,0°,100%,H]	8 Hours 12 Minutes Sailing : 8 Hours 12 Minutes	95.08	15.66 → 29.88	25.60 → 37.74	Main Rolling Genoa: 08H12M	60°↔90°: 01H22M 90°↔120°: 06H50M	1.09 → 2.11
bleue ICON ICON120H METEO-FRANCE WAM MONDE MYOCEAN MEDITERANEAN [0 mn,100%,0°,100%,H]	8 Hours 21 Minutes Sailing : 8 Hours 21 Minutes	94.96	15.60 → 26.69	24.63 → 37.88	Main Rolling Genoa: 08H21M	60°↔90°: 01H41M 90°↔120°: 06H40M	1.09 → 2.13
bleue ECMWF 0.25 METEO-FRANCE WAM MONDE MYOCEAN MEDITERANEAN [0 mn,100%,0°,100%,H]	8 Hours 25 Minutes Sailing : 8 Hours 25 Minutes	95.05	11.95 → 24.17	20.47 → 36.86	Main Rolling Genoa: 08H25M	60°↔90°: 01H55M 90°↔120°: 06H30M	1.08 → 2.12

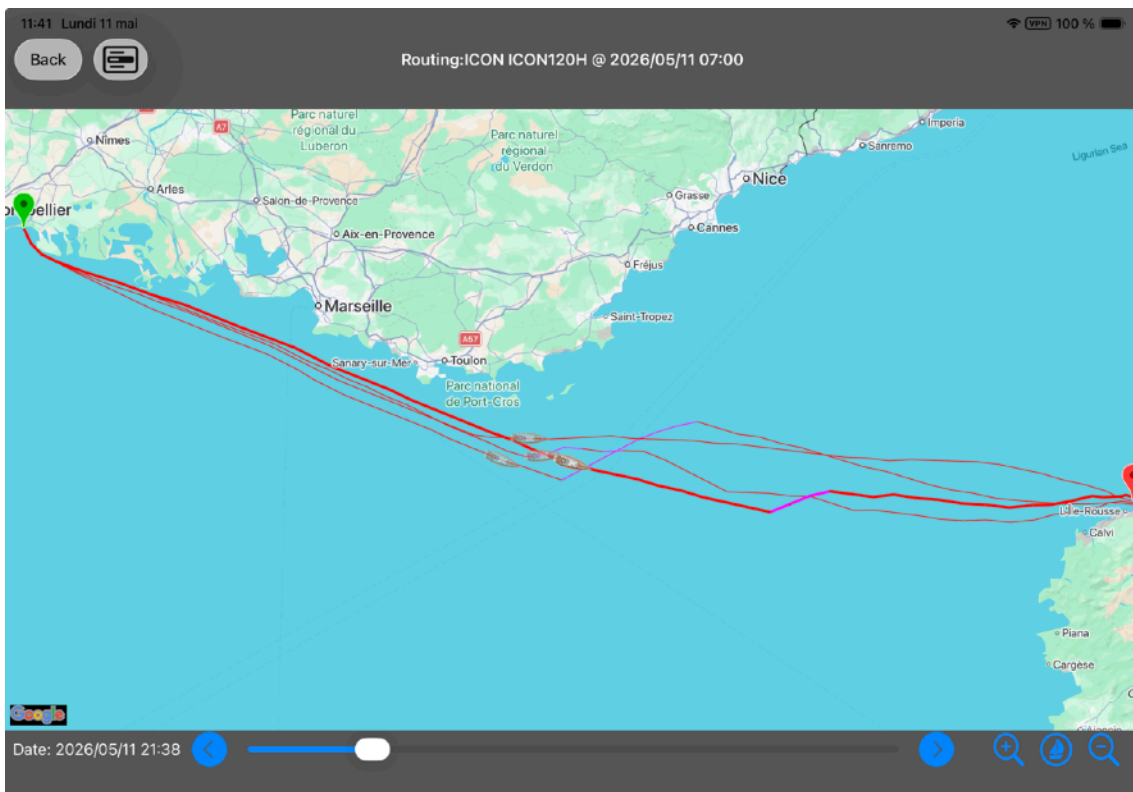
bleue models : [METEO-FRANCE ARPEGE - METEO-FRANCE WAM MONDE - MYOCEAN MEDITERANEAN] [0 mn,100%,0°,100%,H]

bleue models : [METEO-FRANCE AROME HD - METEO-FRANCE WAM MONDE - MYOCEAN MEDITERANEAN] [0 mn,100%,0°,100%,H]

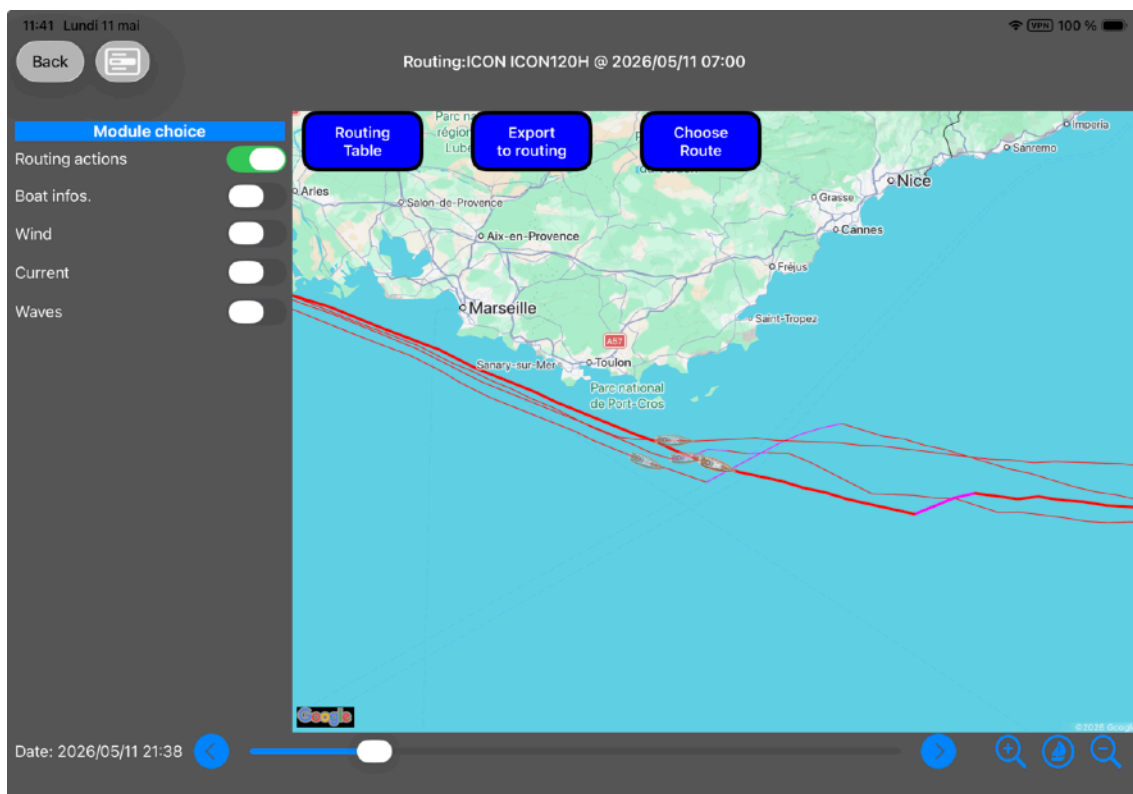
bleue models : [ICON ICON120H - METEO-FRANCE WAM MONDE - MYOCEAN MEDITERANEAN] [0 mn,100%,0°,100%,H]

bleue models : [ECMWF 0.25 - METEO-FRANCE WAM MONDE - MYOCEAN MEDITERANEAN] [0 mn,100%,0°,100%,H]

- Choose a reference scenario by clicking on one of the lines at the bottom of the screen.
- The routes appear on the screen



- To explore the different options, click on “Choose Route”



- Once the choice is made, click on “Export to routing”

e. Trade-off between time saved and additional distance

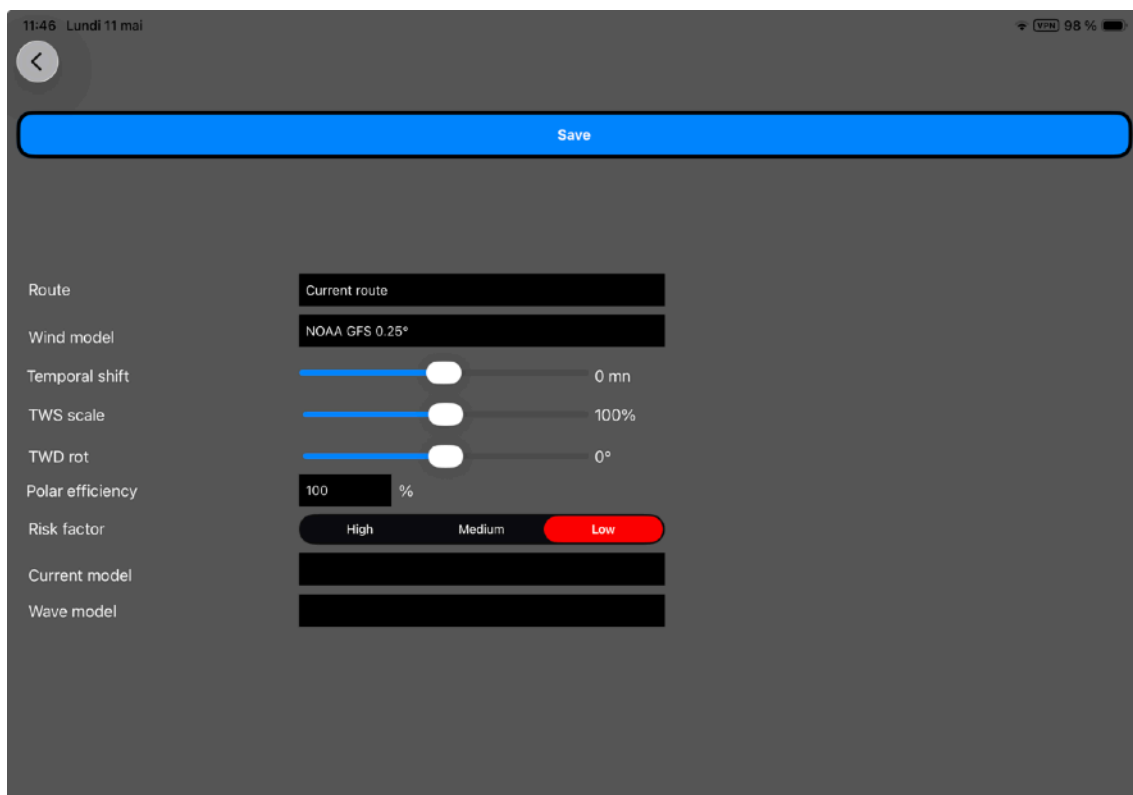
This feature is available with the race option.

Routing software will always calculate the fastest route in terms of time. However, you may encounter a situation where the route recommended by the software adds 50 nautical miles to your journey to save only 5 minutes.

Using the multi-scenario feature, Avalon can calculate 3 routes:

- Fastest route, regardless of the additional distance
- Route that deviates the least from the direct route
- Intermediate route: a compromise between distance and time

Go to Multi-Scenarios, then define 3 scenarios for the desired route, setting one scenario for each weather risk level: high, medium, and low.



Then calculate the scenarios:

11:50 Lundi 11 mai 97%

Route	Duration	Distance (nm)	TWS (kts)	Gust (kts)	Sail	TWA	Waves (m)
Current route NOAA GFS 0.25° [0 mn,100%,0°,100%,L]	11 Days 9 Hours 38 Minutes Sailing : 11 Days 9 Hours 38 Minutes	2539.50 (+ 15.86)	4.71 → 18.58	4.71 → 19.04	Main Spi: 8 Days 19H24M Main Code0: 2 Days 06H Main Rolling Genoa: 08H14M	0°↔45°: 02M 45°↔60°: 04H03M 60°↔90°: 13H09M 90°↔120°: 1 Days 21H 120°↔170°: 7 Days 16H24M 170°↔180°: 1 Days 03H	
Current route NOAA GFS 0.25° [0 mn,100%,0°,100%,M]	11 Days 6 Hours 52 Minutes Sailing : 11 Days 6 Hours 52 Minutes	2551.76 (+ 28.11)	5.44 → 18.70	5.44 → 19.72	Main Spi: 8 Days 14H41M Main Code0: 2 Days 10H Main Rolling Genoa: 06H11M	45°↔60°: 03H05M 60°↔90°: 06H06M 90°↔120°: 2 Days 02H 120°↔170°: 8 Days 41M 170°↔180°: 19H	
Current route NOAA GFS 0.25° [0 mn,100%,0°,100%,H]	11 Days 1 Hour 47 Minutes Sailing : 11 Days 1 Hour 47 Minutes	2666.31 (+ 142.66)	6.63 → 18.97	7.03 → 19.90	Main Spi: 8 Days 16H46M Main Code0: 2 Days 09H Main Rolling Genoa: 01M	45°↔60°: 01M 60°↔90°: 04H 90°↔120°: 1 Days 16H 120°↔170°: 9 Days 02H16M 170°↔180°: 03H30M	

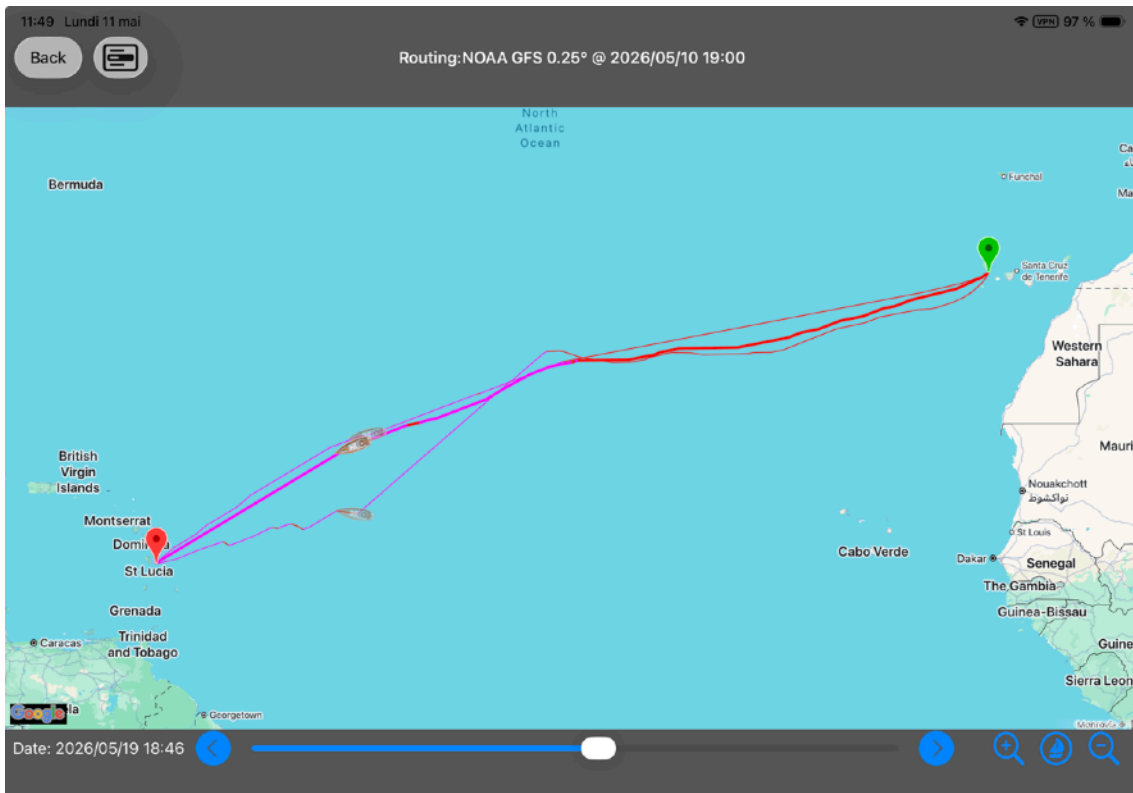
Choose master scenario to view

Current route models : [NOAA GFS 0.25°] [0 mn,100%,0°,100%,L]

Current route models : [NOAA GFS 0.25°] [0 mn,100%,0°,100%,M]

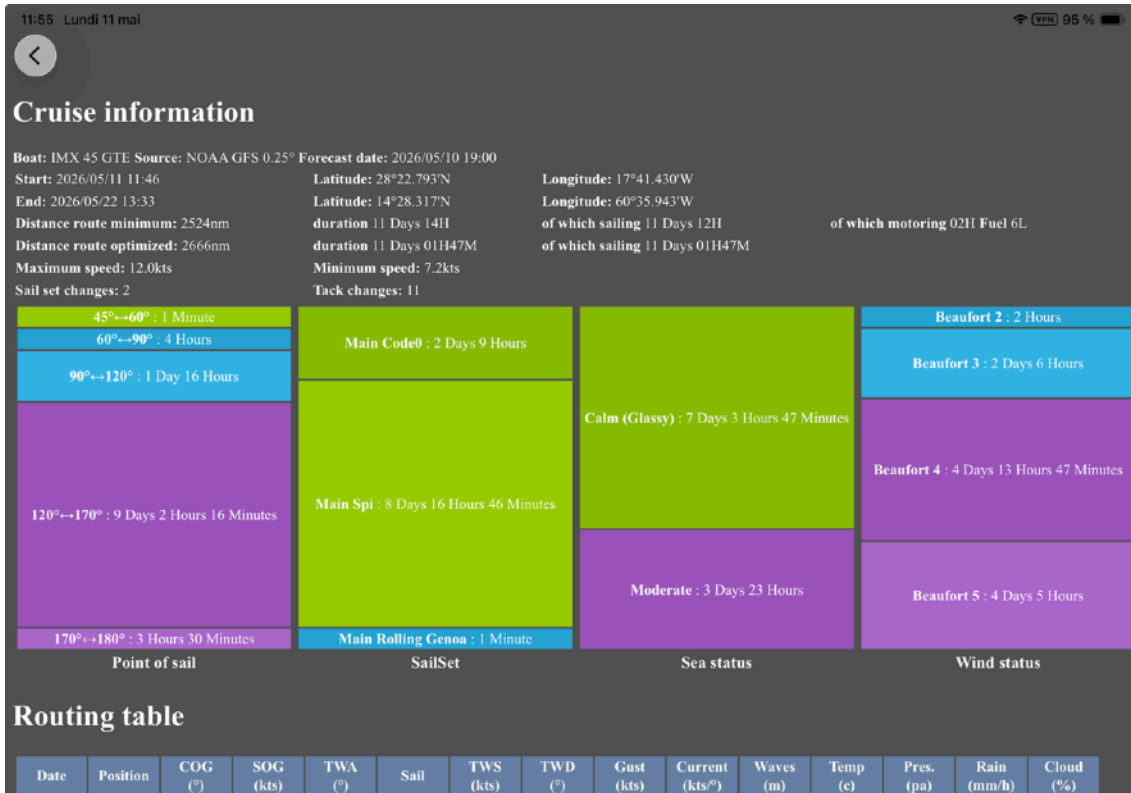
Current route models : [NOAA GFS 0.25°] [0 mn,100%,0°,100%,H]

- Select the route and export to the routing, as in a standard multi-scenario



4. Route table

After calculating the route, this command will provide you with an overview of the planned voyage and allow you to quickly assess whether it is advisable to depart on the scheduled date.



It also provides a point-by-point breakdown of your route. Changes in tack, sail, and arrival at waypoints are highlighted.

The screenshot shows a detailed 'Routing table' with 16 columns: Date, Position, COG (°), SOG (kts), TWA (°), Sail, TWS (kts), TWD (°), Gust (kts), Current (kts/°), Waves (m), Temp (°C), Pres. (pa), Rain (mm/h), and Cloud (%). The table contains 11 rows of data, each representing a waypoint on the route. The data is as follows:

Date	Position	COG (°)	SOG (kts)	TWA (°)	Sail	TWS (kts)	TWD (°)	Gust (kts)	Current (kts/°)	Waves (m)	Temp (°C)	Pres. (pa)	Rain (mm/h)	Cloud (%)
05/11 13:46 [3]	28°8.640'N 17°50.271'W	217°	8.5	79°	Main Code0	9.9	285°	10.4	-	1.7	20	1018	0.00	0
05/11 14:46 [4]	28°1.786'N 17°56.127'W	219°	8.7	88°	Main Code0	10.0	296°	10.5	-	1.9	21	1018	0.00	0
05/11 15:46 [5]	27°55.053'N 18°2.303'W	224°	8.6	94°	Main Code0	9.2	307°	9.6	-	2.1	21	1018	0.00	0
05/11 16:46 [6]	27°48.833'N 18°9.099'W	226°	8.9	101°	Main Code0	8.0	318°	8.7	-	2.2	21	1018	0.00	0
05/11 17:46 [7]	27°42.581'N 18°16.417'W	229°	9.4	104°	Main Code0	8.8	327°	9.5	-	2.3	21	1018	0.00	0
05/11 18:46 [8]	27°36.382'N 18°24.470'W	229°	9.5	108°	Main Code0	10.7	333°	10.9	-	2.3	21	1017	0.00	0
05/11 19:46 [9]	27°30.194'N 18°32.500'W	234°	9.4	108°	Main Code0	10.8	337°	11.1	-	2.3	21	1018	0.00	0
05/11 20:46 [10]	27°24.707'N 18°41.014'W	239°	9.2	107°	Main Code0	10.6	342°	11.0	-	2.3	21	1018	0.00	0
05/11 21:46 [11]	27°19.988'N 18°49.860'W	239°	8.9	112°	Main Code0	10.1	346°	10.3	-	2.3	22	1018	0.00	0
05/11 22:46	27°15.445'N 18°58.320'W	244°	8.6	112°	Main Code0	9.4	351°	9.4	-	2.3	22	1019	0.00	0

5. Guided Routing

This option allows Avalon to function like a car GPS.

Drawback: It only works from one pre-registered port to another pre-registered port. There are approximately 1,100 possible departure and arrival ports. If any are missing, you can request them from us.

11:58 Lundi 11 mai

Back

Compute route

Boat: IMX 45 GTE

Start	England France Germany	Corse Cote d'Azur Normandie et Nord	Cogolin Fréjus Golfe-Juan
End	England France Germany	Bretagne Manche Corse Cote d'Azur	Ajaccio Bastia

Motoring speed: 6 kts Use engine if speed below 3 kts

Duration: 12h 24h 36h 48h **3d** 4d 5d 6d 7d 8d

Start at: 11 May 2026 11:57

NOAA GFS 0.25° of 05/10 19:00 370H remains
IFREMER MARS2D MANCHE GASCOGNE 700M of 05/11 07:34 068H remains
METEO-FRANCE WAM EUROPE of 05/11 01:00 094H remains
METEO-FRANCE METEO ARPEGE of 05/11 01:00 092H remains

Find best

- Set the departure port using the scroll wheels: Country, region, port
- Same for the destination
- If necessary, change the engine operating parameters (trigger threshold and cruising speed)
- Estimate the cruise duration. Allow plenty of time, even a generous amount
- Enter the departure date and time
- Select "Auto" to determine the most appropriate weather models
- Finally, start the calculation

6. Exclusions

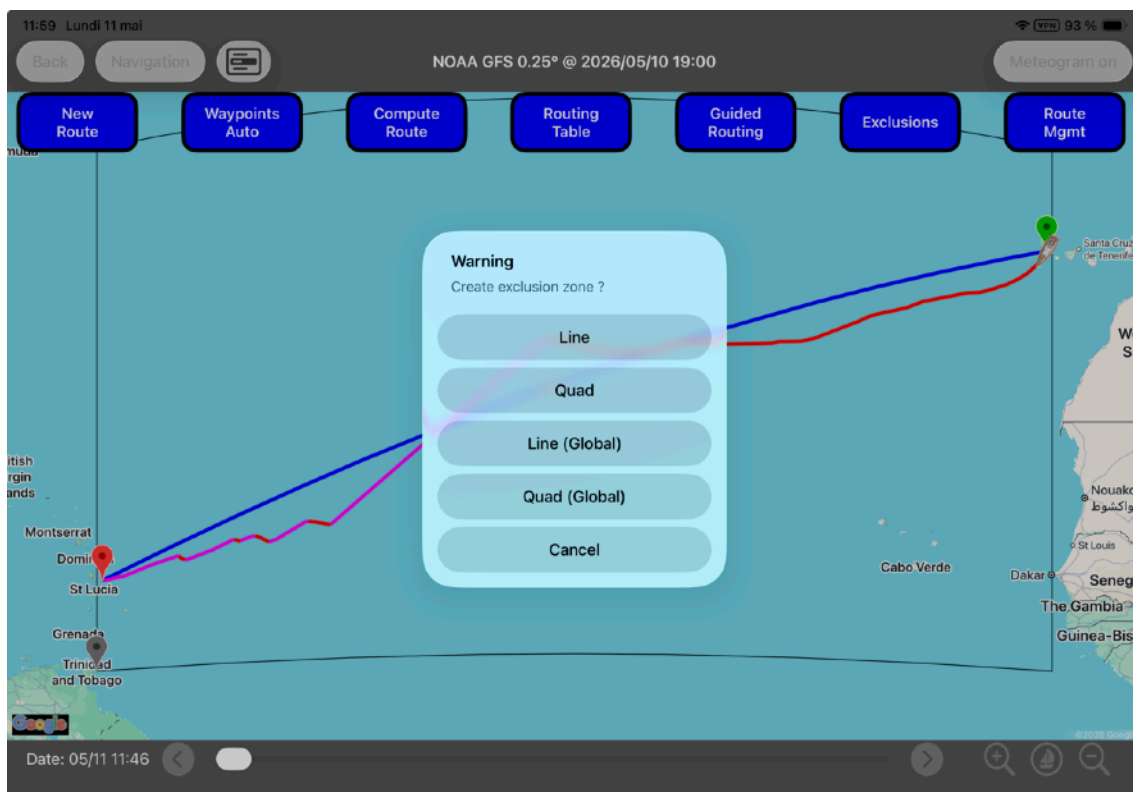
Navigation exclusions can be specified in the form of:

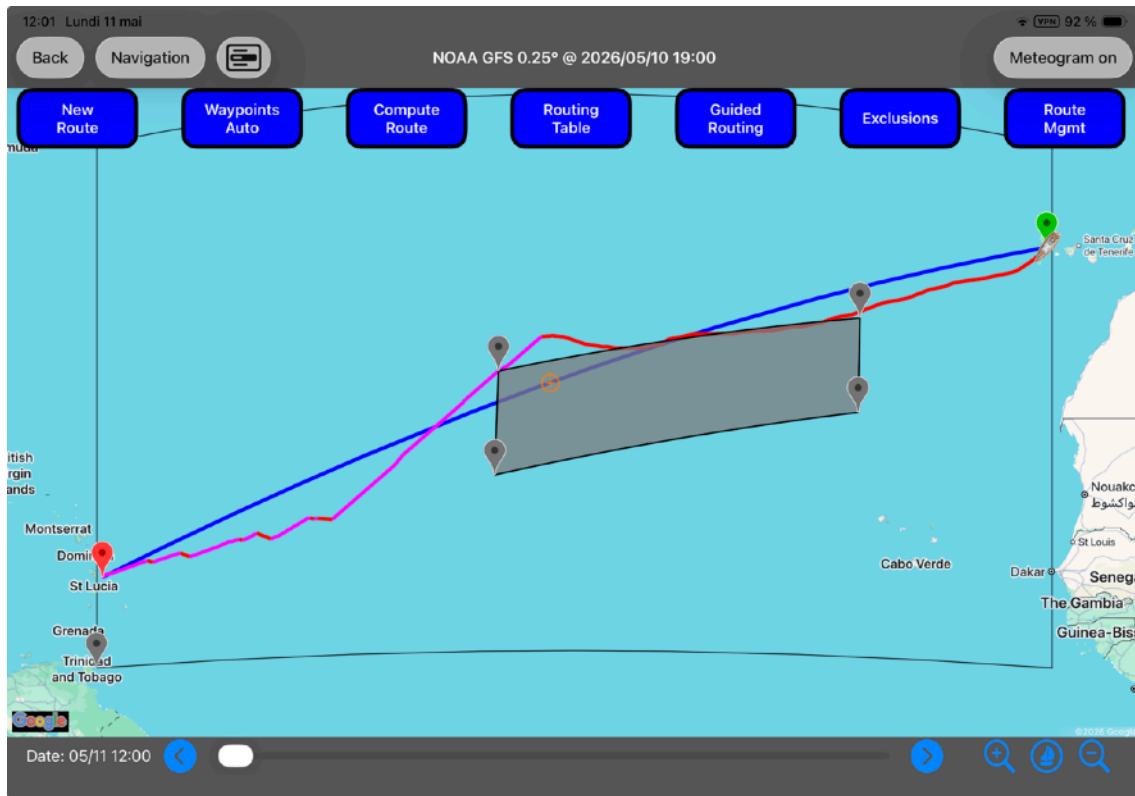
- Line: The route will not cross the line
- Quadrilateral: The routing will not enter the quadrilateral

If more than 4 points are needed to define a polygon with 5, 6, 7, ... sides, you must use 2 overlapping quadrilaterals.

Exclusion zones can be defined locally:

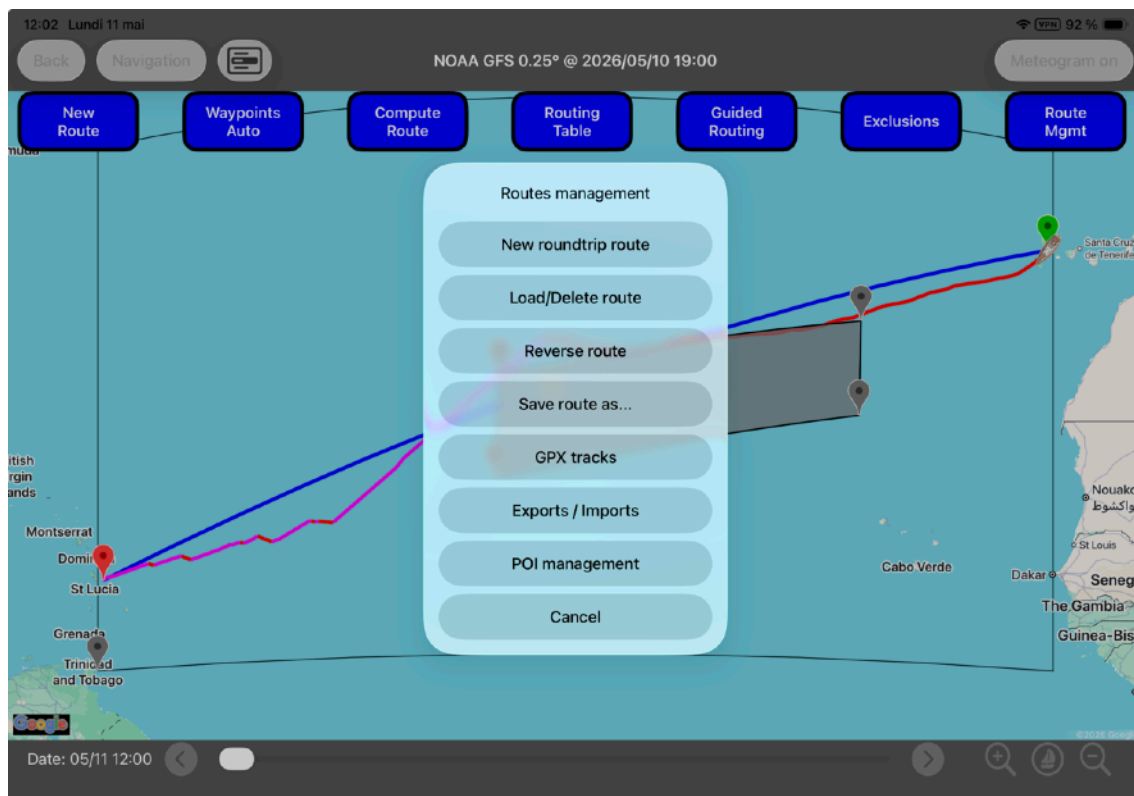
- Valid at the road level
- Globally: The zones can then be applied to multiple routes without having to define them again.





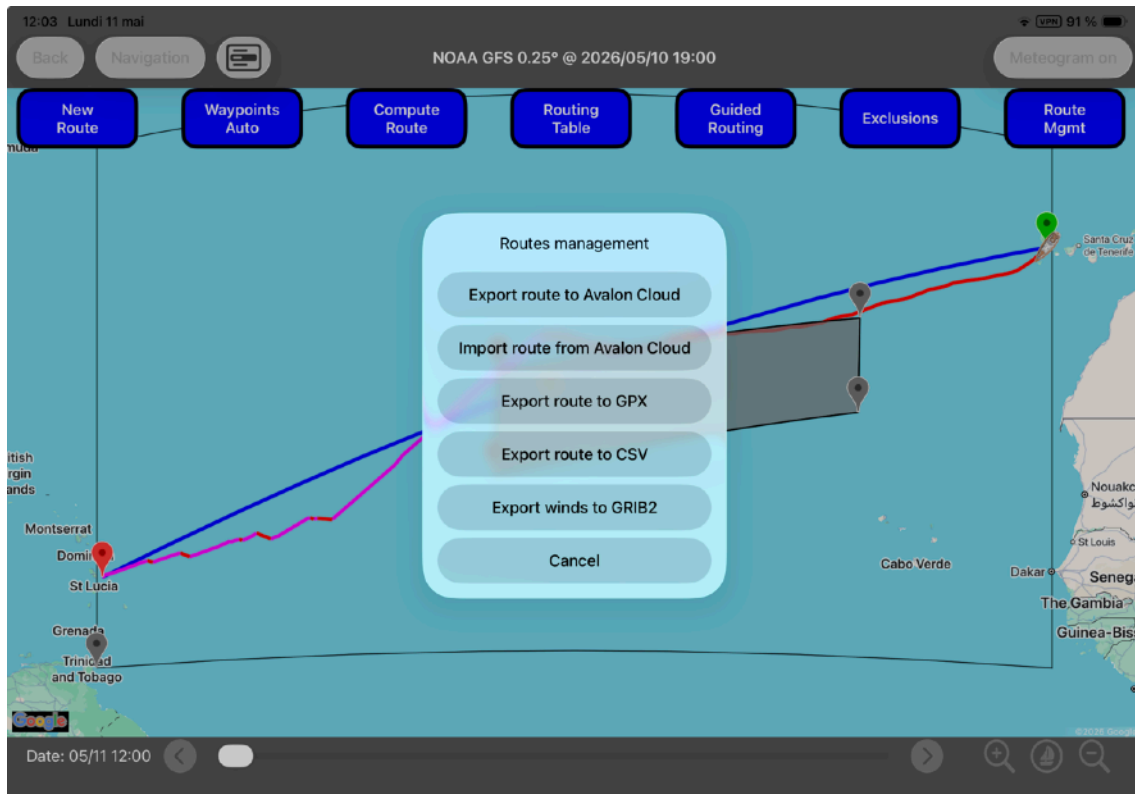
To delete a line or a quadrilateral, click on one of the points, then on the window defining the point. You can then delete the line or the quadrilateral.

7. Route Management



- **New Round-Trip Route:** Creates a start and end point at the same location, as well as a waypoint or stop.
- **Load/Delete a Route:** Restores a previously saved route. To delete, swipe the route to the left.
- **Reverse the route:** Changes the start to the finish and the finish to the start, while keeping the waypoints so you can easily calculate a return route.
- **Save Route As:** Saves the current route. Give it a clear name so you can find it later.
- **GPX Routes:** Manages GPX-format routes imported from other navigation systems, particularly “auto-routing” paths calculated by Navionics.

- **Exports/Imports:**



- **Export Route to Avalon Cloud:** The route (start, destination, waypoints, and exclusion zones) is exported to Avalon Cloud. A 6-letter code is assigned to the route, which can then be shared with other users via “Export Route to Avalon Cloud”
- **Import a route from Avalon Cloud:** Using a 6-letter code, load a predefined route that can be calculated.
- **Export a route to GPX format:** Exports an Avalon route to other systems that support the standard GPX format.
- **Export route to CSV format:** Exports an Avalon route to CSV format for sharing with the crew
- **Export winds to Grib 2:** Allows you to export the winds retrieved by Avalon to another routing or weather system.
- **Cancel:** Exits this menu

8. Managing waypoints

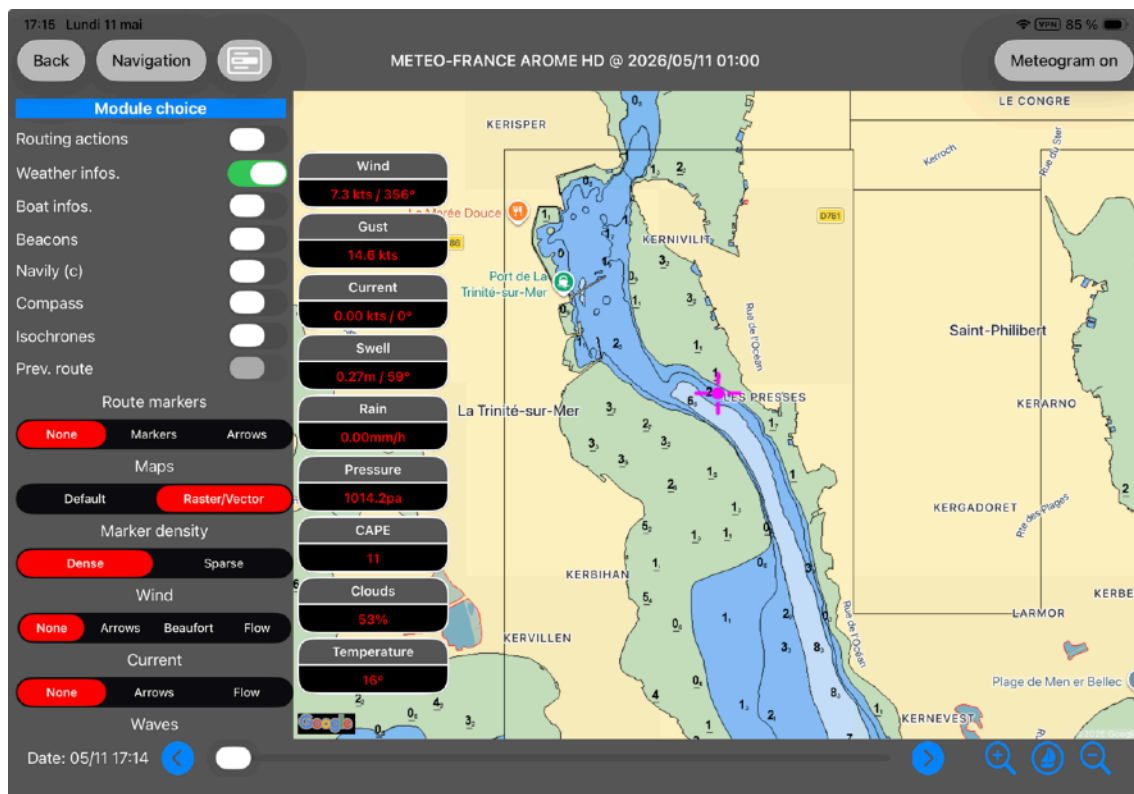
Creating a new route: Click on “New Route”

- Creating the start and end points: Long-click on the map
- Moving the start or end point: Long-click on the point. A large cross appears. The icon moves upward, and you can drag the point to the desired position.
- Modifying start and end point settings: Tap the point, then tap the point’s information or the point itself. You can then modify the latitude, longitude, and time between course changes from this point.
- Creating a waypoint or stopover: Tap the circle with a +. Choose between “circle” and “gate”
- Moving the waypoint: Long-press the point. A large cross appears. The icon moves upward, and you drag the point to the desired position.
- Editing the settings for a waypoint or stopover: Tap the point, then tap the point’s information or the point itself. You can then edit the latitude, longitude, size of the arrival zone at that point, the time between course changes from that point, and the duration of the stopover in hours.
- Deleting a waypoint or stopover: Tap the point, then tap it again. You can then delete this point in the settings window for that point that appears on the screen.

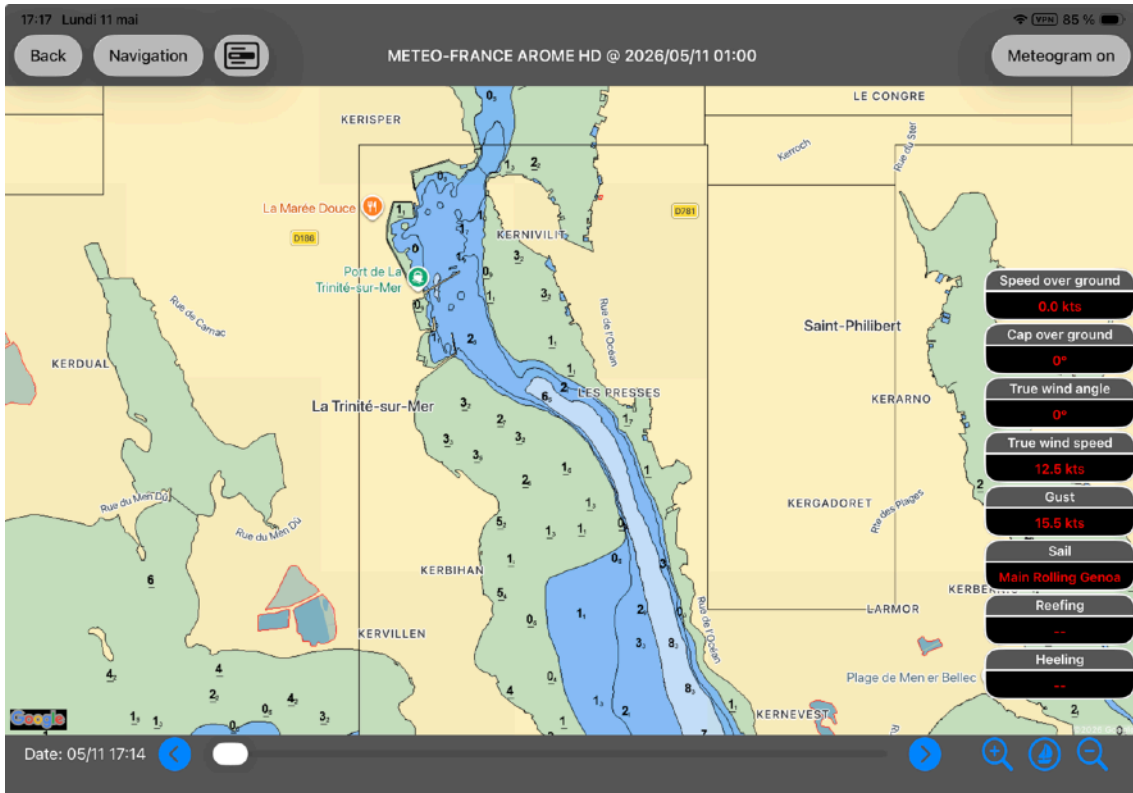
4. Viewing in routing mode

The sidebar lets you choose which information to display:

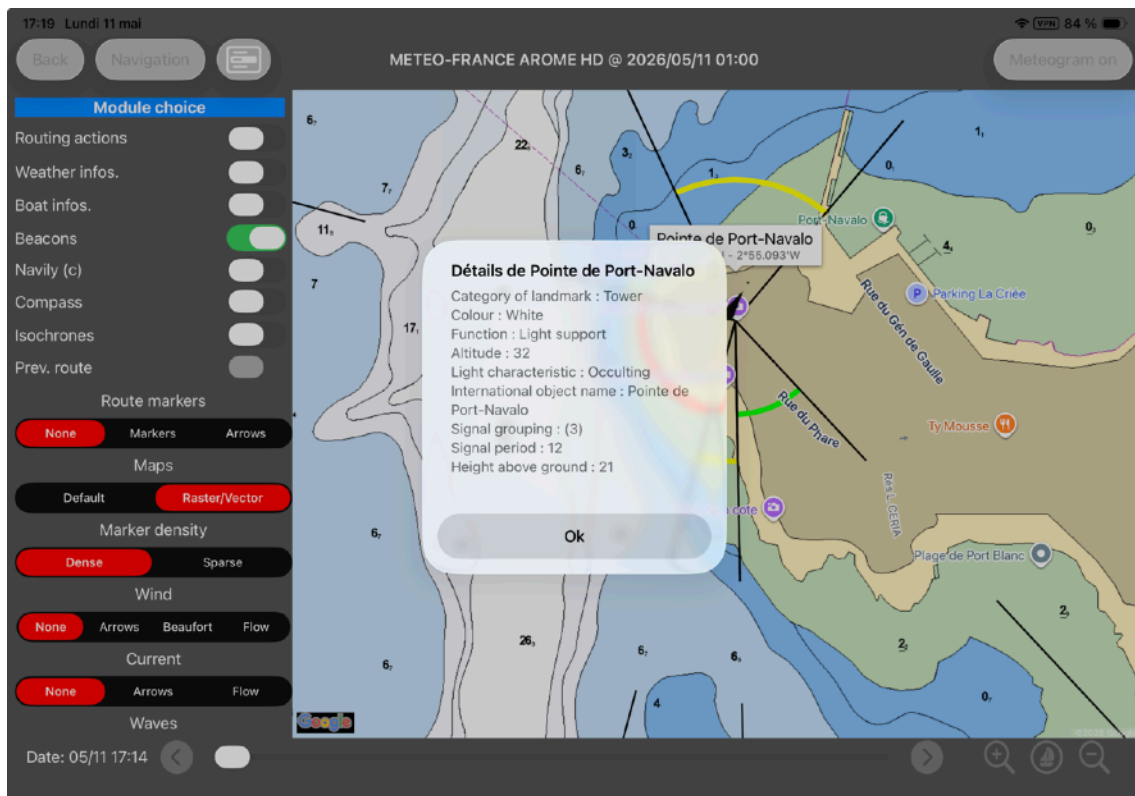
- Routing controls: The controls needed to define a route (see previous chapter)
- Weather info: To display weather data on the left side of the screen for the boat's location or any point on the map by dragging the crosshair over the map.



- Boat Info: Displays estimated data about the boat on the right side of the screen:

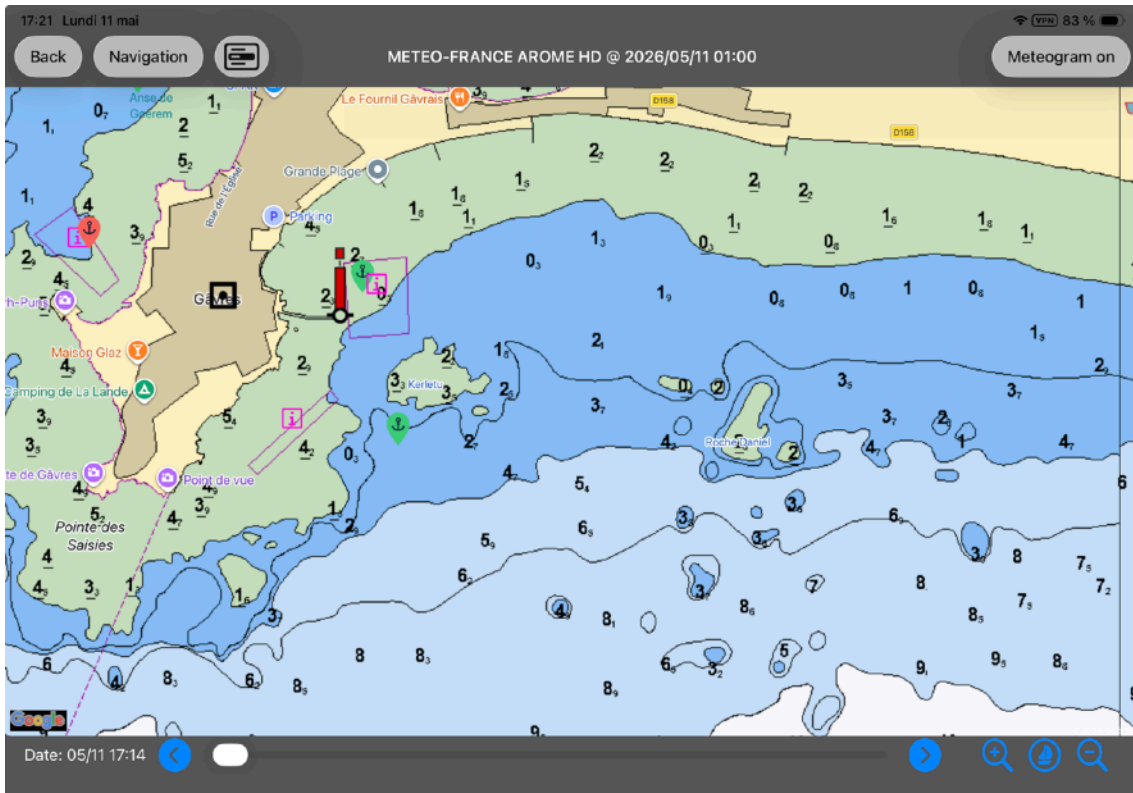


- Beacons: To display lighthouses and beacons with detailed information



Click on the small window to view the beacon's details:

- Navily: to display Navily ports and anchorages, with photos and reviews from boaters



17:21 Lundi 11 mai sand algae

< Back

Caractéristiques

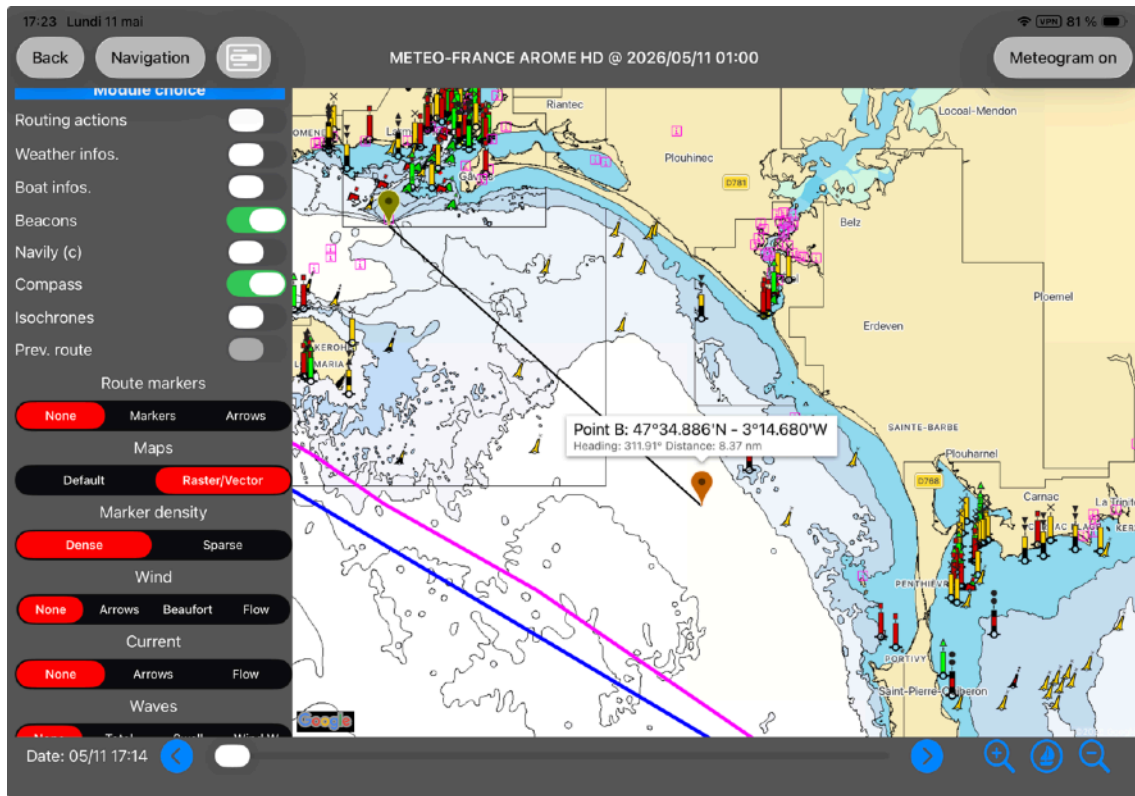
Note: 5/5 ★★★★★

- Plage
- Resto
- Ponton
- Ancre autorisée

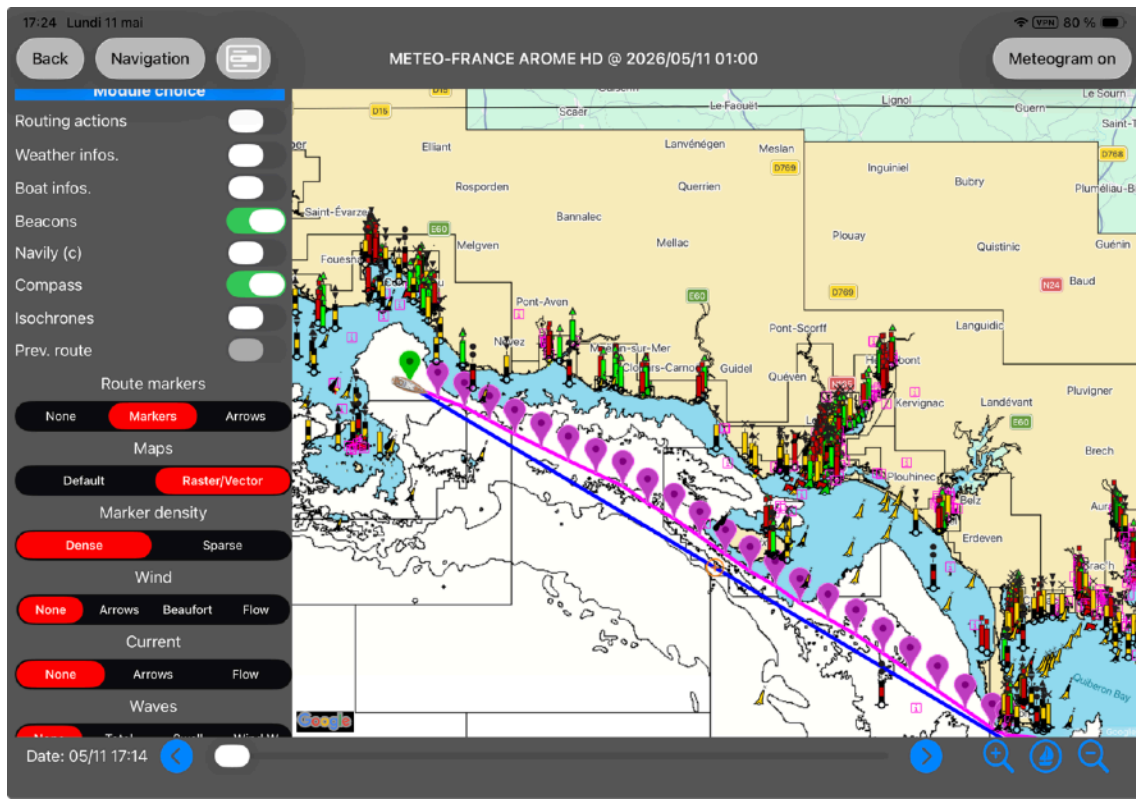
Les avis des plaisanciers (1 avis)

- Par Aim le 14/9/2023 :
With 1.85m draft this is a nice spot and alternative to Graves. Good holding and room to swing. At low tide rocks at SW and NE are visible and give more protection. Stayed here the night starting W18kts later NE8kts.

- Compass



- Waypoints:
 - None: Only the track is displayed
 - Markers: The route is displayed as "Google" points



The color of the points and tracks indicates:

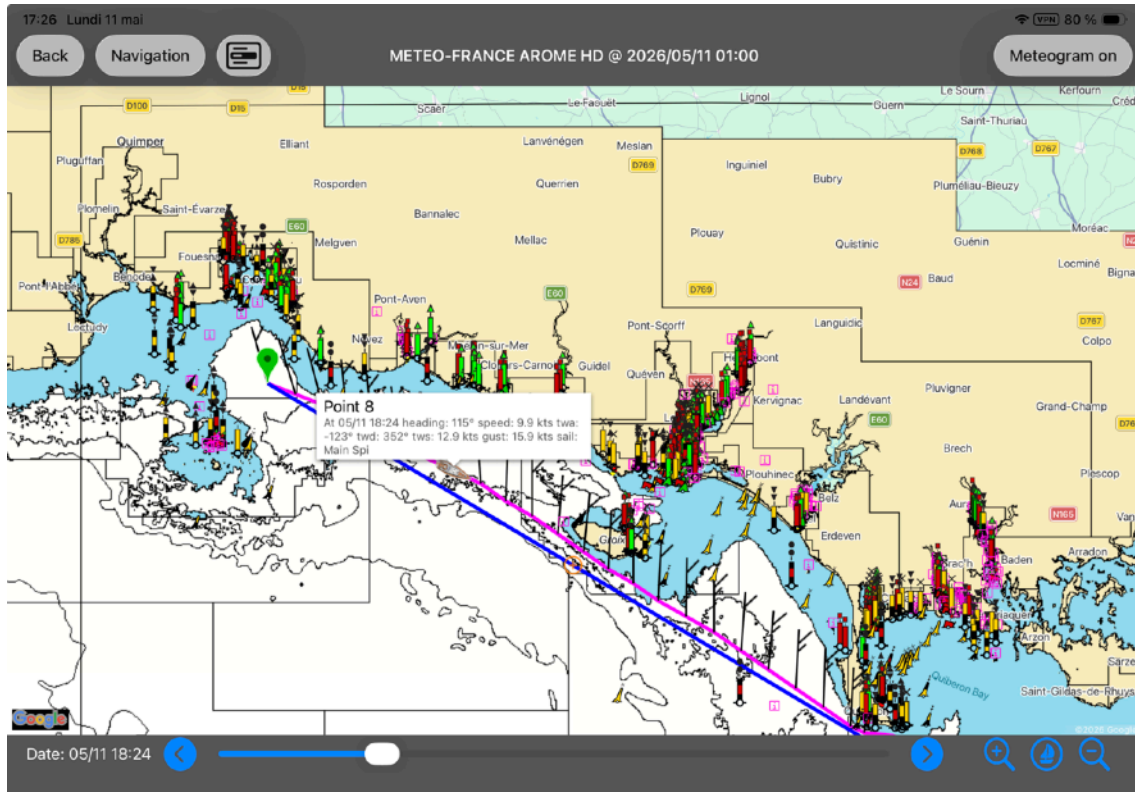
A) Whether the point was calculated based on an actual wind forecast:

- Magenta: Port tack
- Red: Starboard tack
- Black: Sailing under engine power

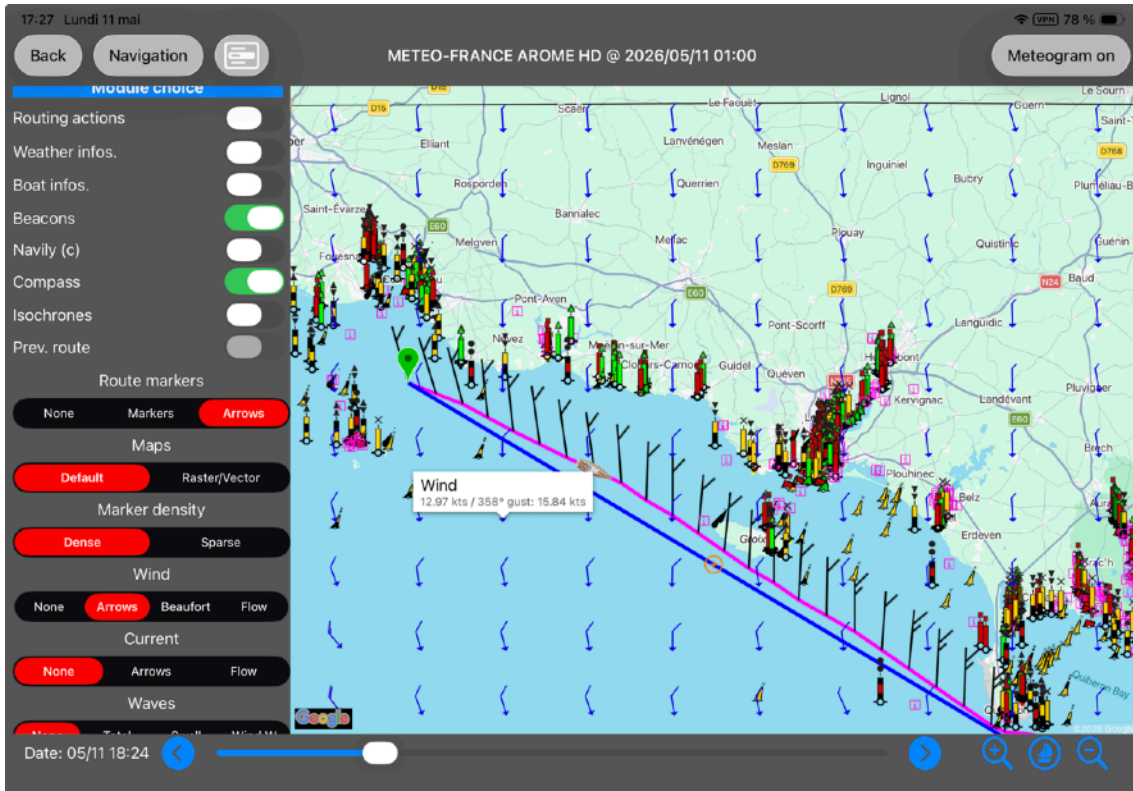
B) If the point was calculated using the "wind extension" option

- Cyan: Port tack
- Yellow: Starboard tack
- White: Motor sailing

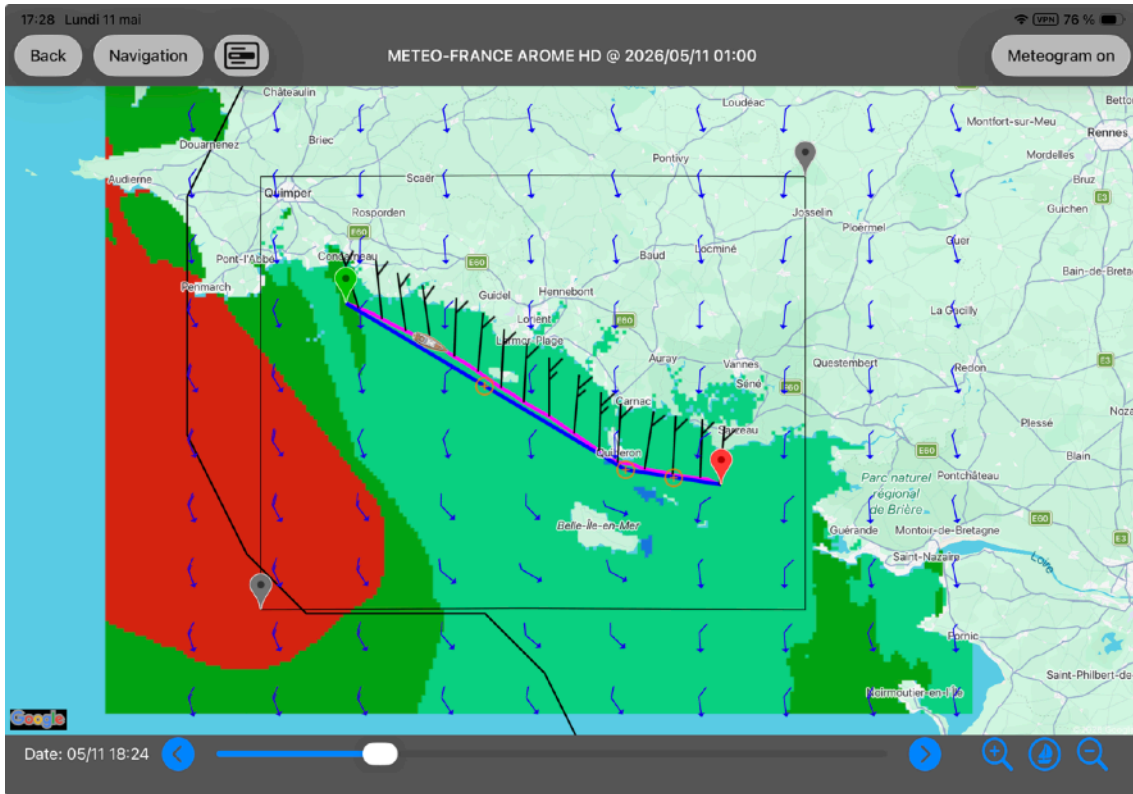
- Arrows: To indicate the expected wind strength when at the point



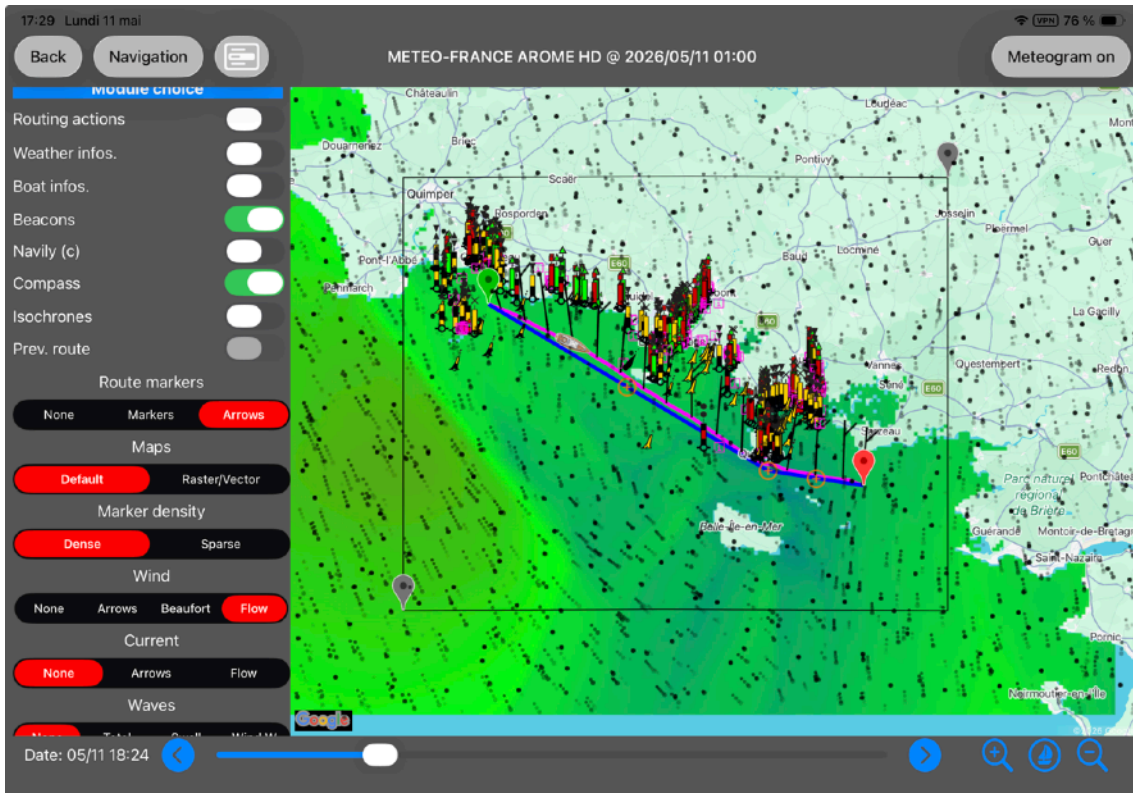
- Maps:
 - None (Google map background)
 - Raster/Vector to display Avalon digital charts or personal charts (mbtiles, etc.)
- Icon density: Dense or sparser (to avoid overloading the screen)
- Wind - None
- Wind - Wind arrows



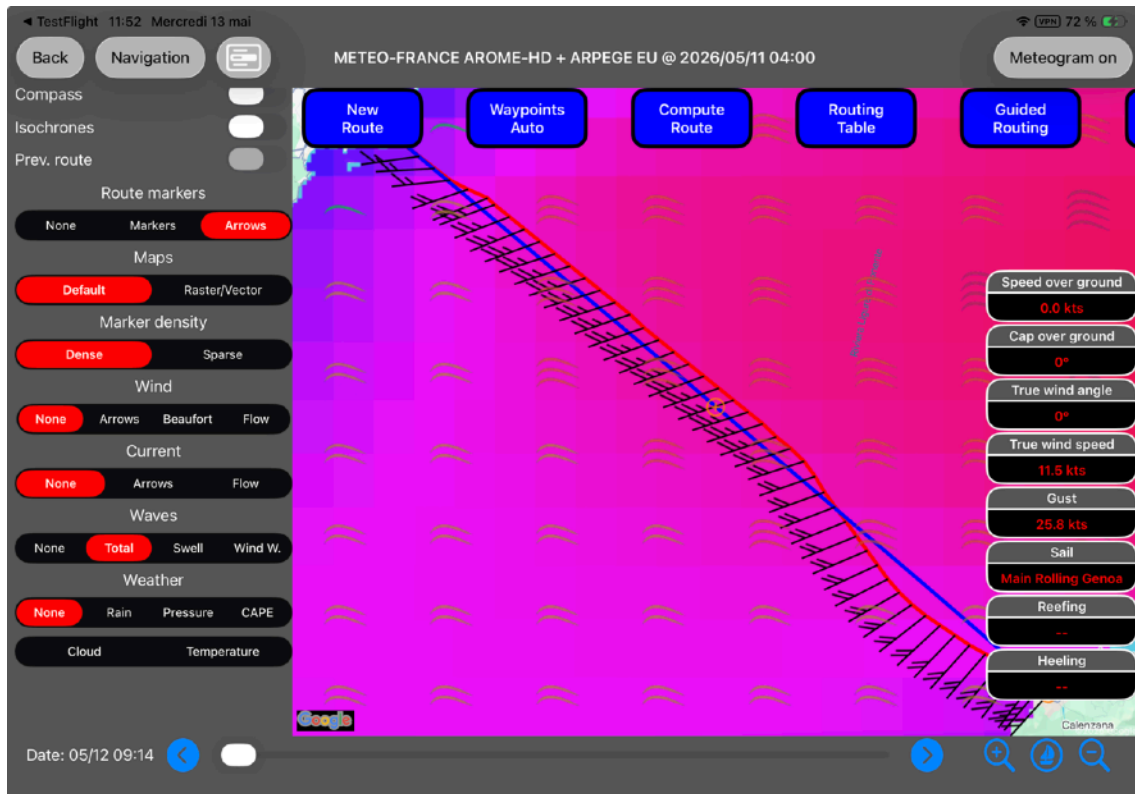
- Wind - Beaufort



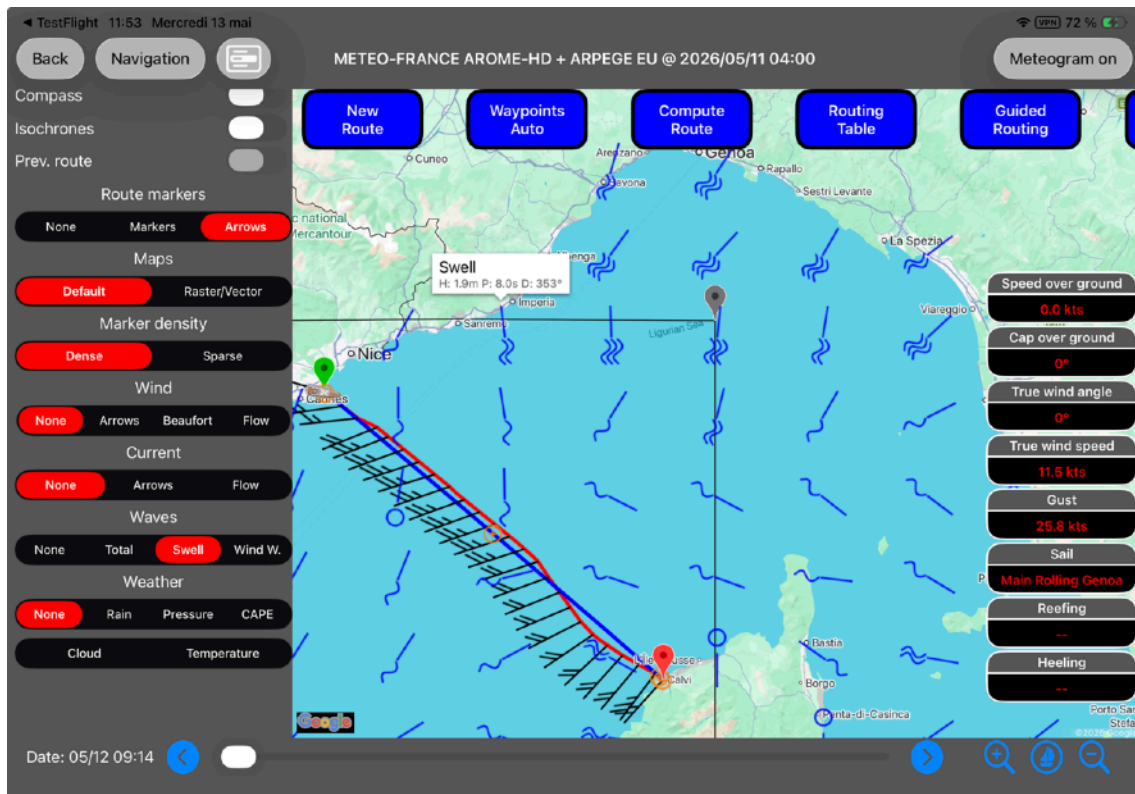
- Wind - Flow (« Windy » like)



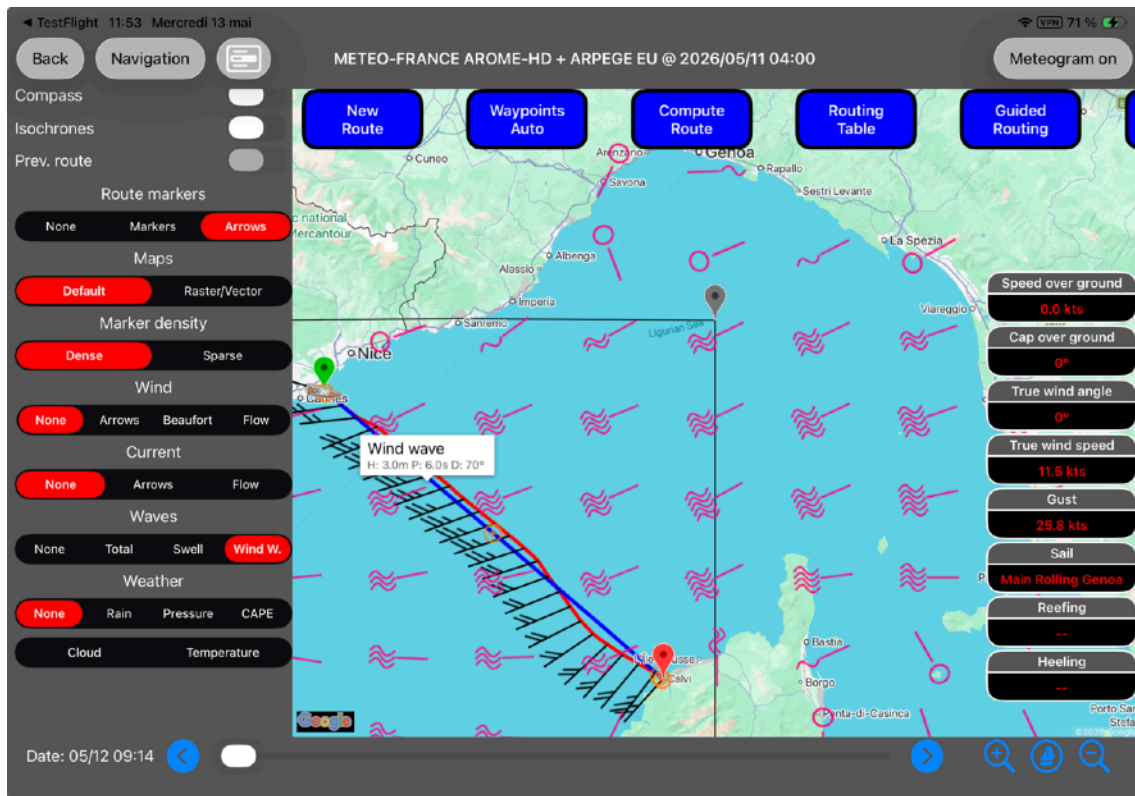
- Wave - Total: To display the combination of swell and wind waves



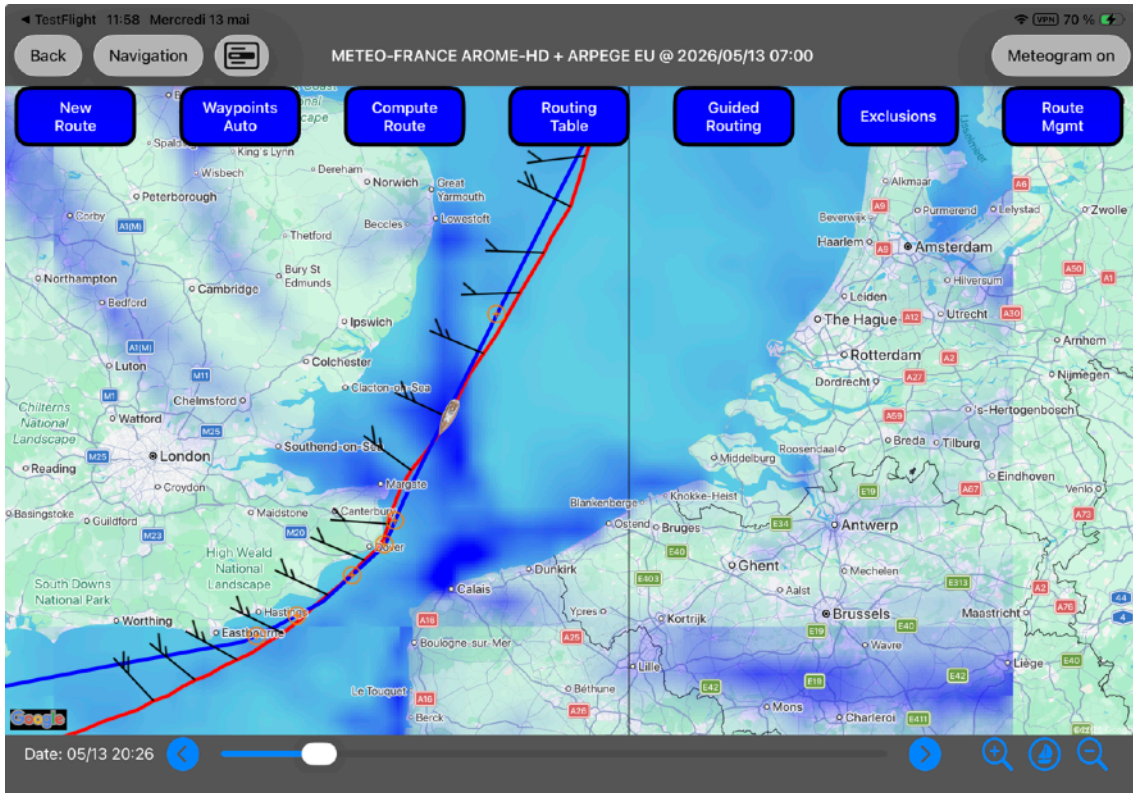
- Wave - Swell



- Wave - Wind wave



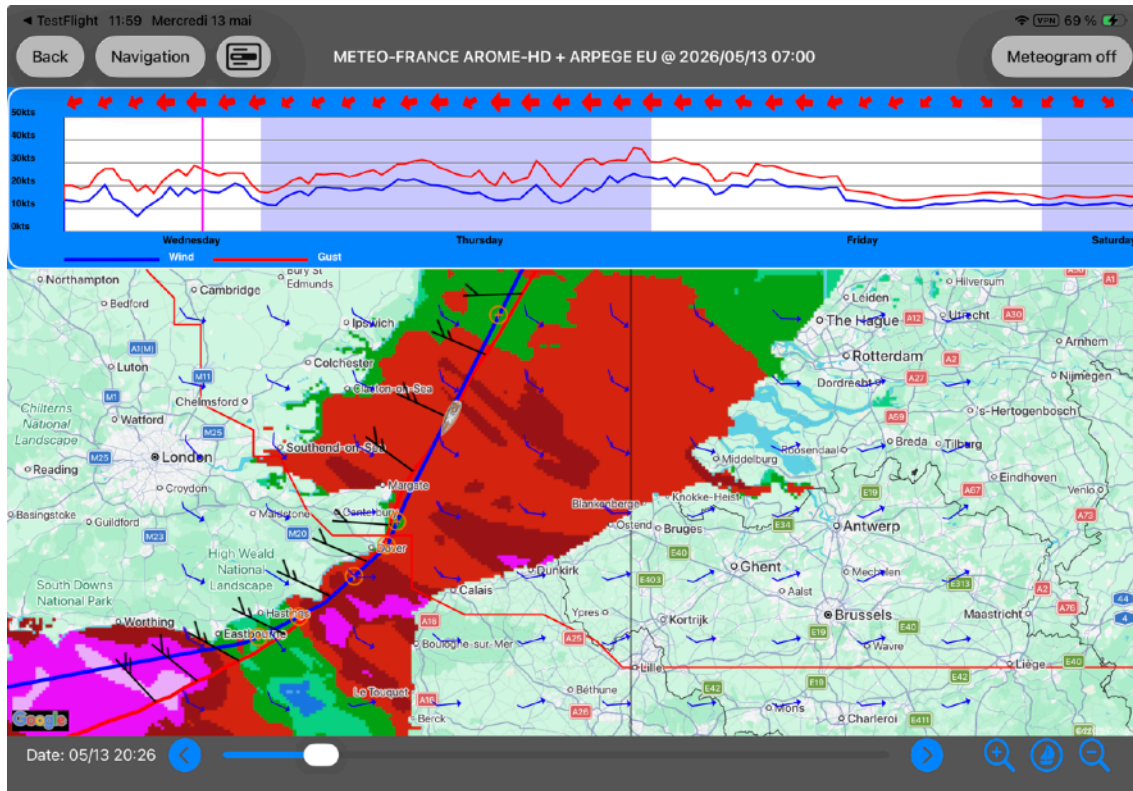
- Weather (general): You can display (as desired) the weather forecast as the boat progresses. Below is a visualisation of rain zones.



5. Meteogram

The meteogram is activated by clicking on “Meteogram” at the top right of the screen.

The meteogram allows you to see at a glance a weather parameter synchronized with the boat's position during the cruise. It therefore helps you anticipate “tricky” sections and, if necessary, modify the planned route or add a stopover.



6. Receiving weather data via satellite

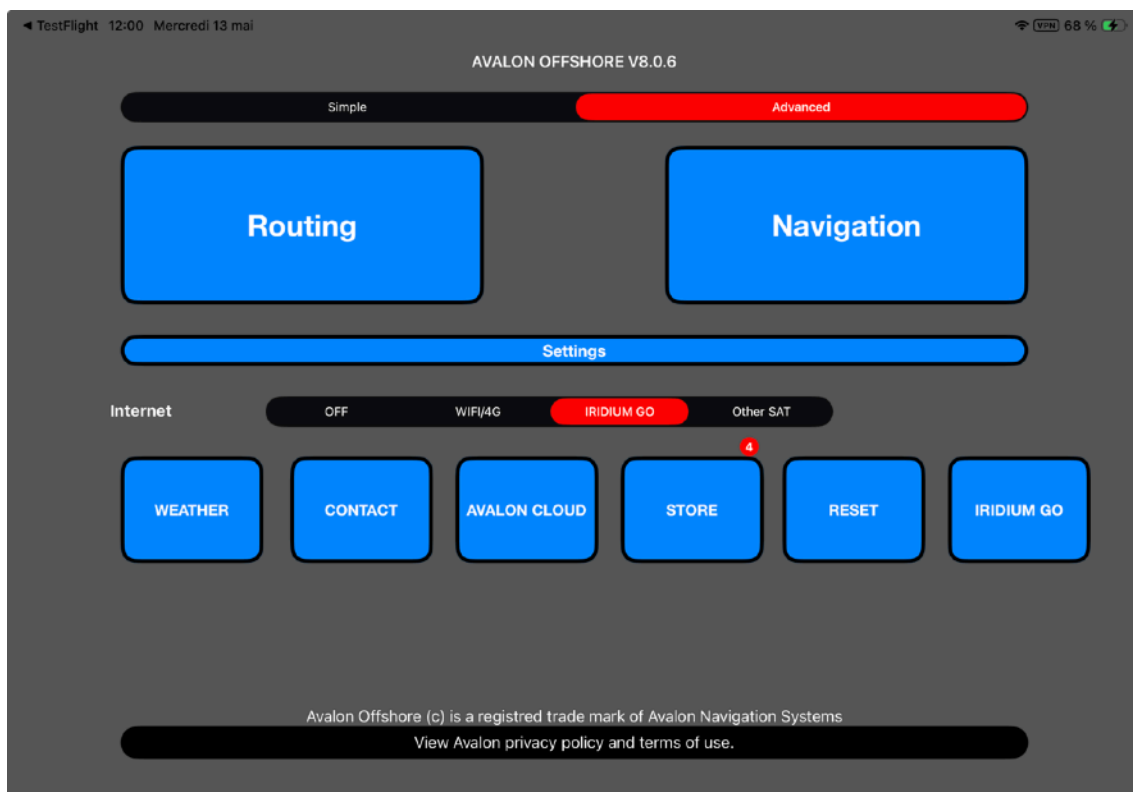
Starting with version 5.5, we have fully automated the connection process between Avalon Offshore and an Iridium Go, making it just as easy to download wind data as it is with a Wi-Fi or 3G/4G connection.

This process works on Apple iOS and Android.

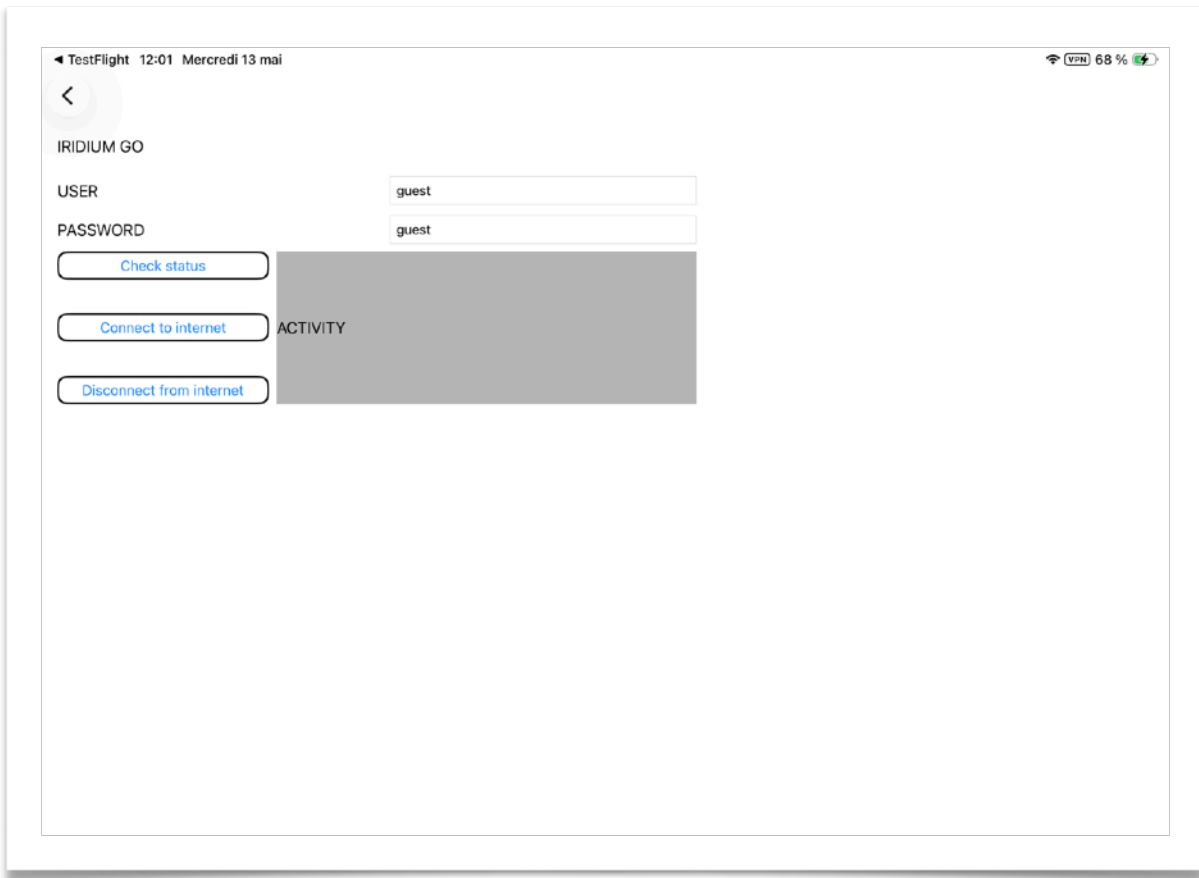
1. If you use Starlink, weather data will be retrieved “just like at home.” Leave the Internet setting on Wi-Fi on the home screen.
2. At sea, select the “Iridium” connection mode from the main menu. If this option is left set to “Wi-Fi/4G,” Avalon will attempt to connect to the Internet even though the Iridium connection is not yet active, and will therefore be unable to load certain pages, including the weather sources page.

If the “Iridium” option is enabled, Avalon will display the weather source pages cached within the app.

For other satellite systems, select “Other Sat.” If you want to check the amount of data transmitted while on land, you must also select “Other Sat” because Avalon will not detect a connected Iridium Go.



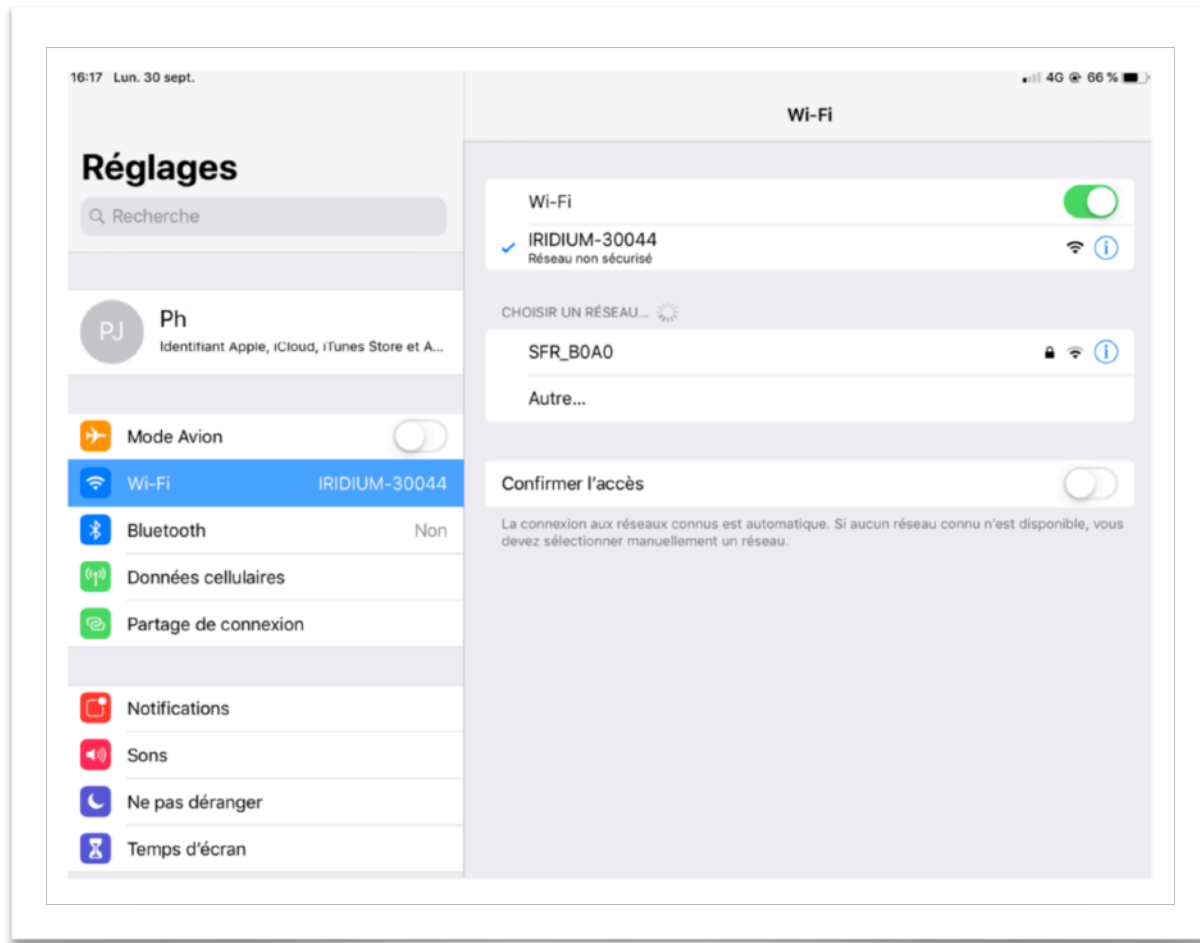
3. If you click on Iridium, you will access the Iridium settings menu in Avalon



4. In Avalon, select a compressed wind source labeled “Special Iridium.” Refer to the “Weather Sources” section in this document.



5. Connect your tablet to the “Iridium Go” Wi-Fi network



6. Go to routing and start the calculation.

The system performs the following tasks: Connects Avalon to the Iridium Go

- Connects the Iridium Go to the Internet
- Shows you the amount of data to be downloaded. Allow 1 minute per 10 KB.
- If you approve, it downloads the data and calculates the route.

If the satellite signal is lost, Avalon will attempt to reconnect after 90 seconds. The download will then resume where it left off without any data loss.

At the end of the transmission, Avalon automatically disconnects the Iridium

When you select “Iridium” or “Other Sat,” Avalon disables the loading of currents and waves to limit the amount of data transmitted.

For general weather, we recommend selecting only isobars (pressure lines) at standard resolution and for a 72-hour period in the weather module settings. Disable everything else—precipitation, storm zones, clouds, etc.—which would be too time-consuming to download. You can load the isobars for about 50 KB for your expanded navigation area (North Atlantic, Europe, etc.)

If, despite this, the download size still seems too large, limit the cruise duration to 72 hours. After 72 hours, the forecasts become less reliable anyway.

a. Other Satellite Systems (Inmarsat, etc.)

In this case, you cannot connect to the Iridium Go's Wi-Fi network. Avalon will need to connect to a Wi-Fi router connected to the reception system.

Select "Other Sat" from the main menu. This selection will:

- Automatically disabling the download of data other than wind data.
- The display of the data volume to be downloaded, which you must confirm to start the download.

Avalon will be able to download wind data as soon as the satellite connection allows for an Internet session. Be sure to unblock the Avalon server ports in any firewall on your Wi-Fi routers

You must add two exceptions to the firewall:

- 198.100.144.78
- 91.121.30.95
- 193.70.80.130

Select "All ports" and the "TCP" protocol.

E. Navigation

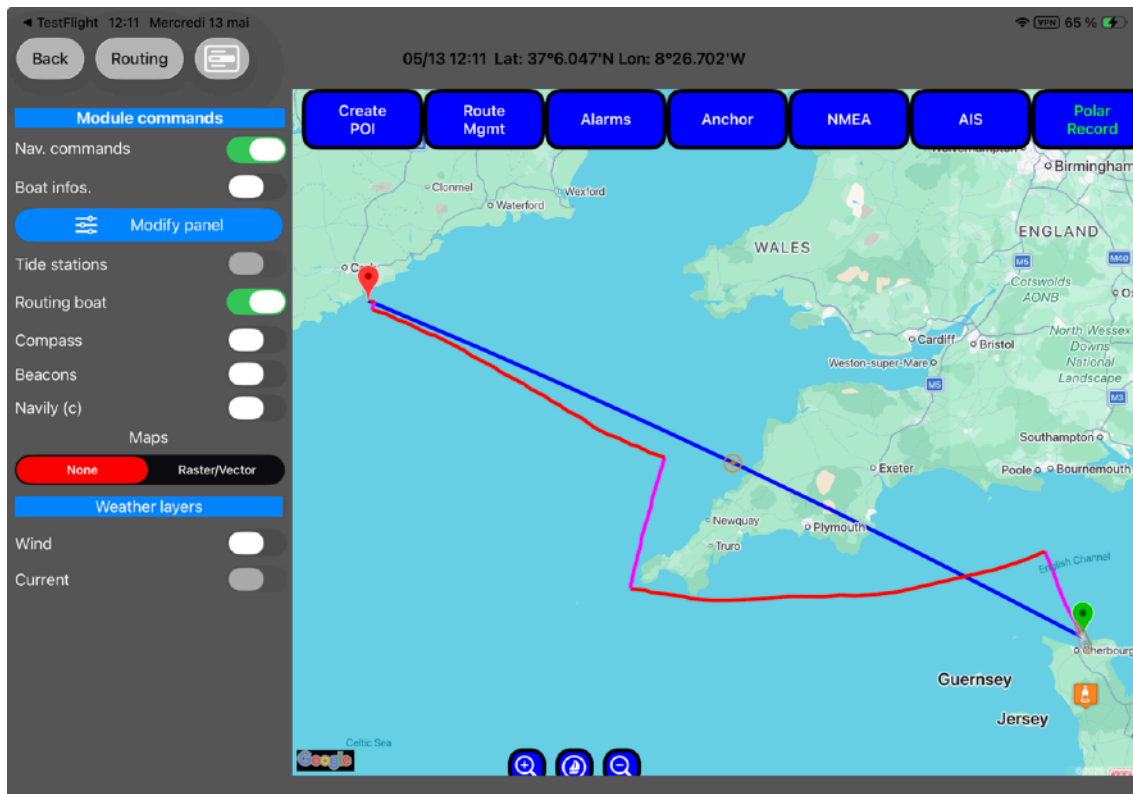
The route calculated by the routing system is merely a "strategy," based entirely on weather forecasts and predicted boat speeds.

In actual navigation, the course followed will differ slightly from the calculated course. It will depend on the actual weather conditions observed.

This is the purpose of the NAVIGATION module:

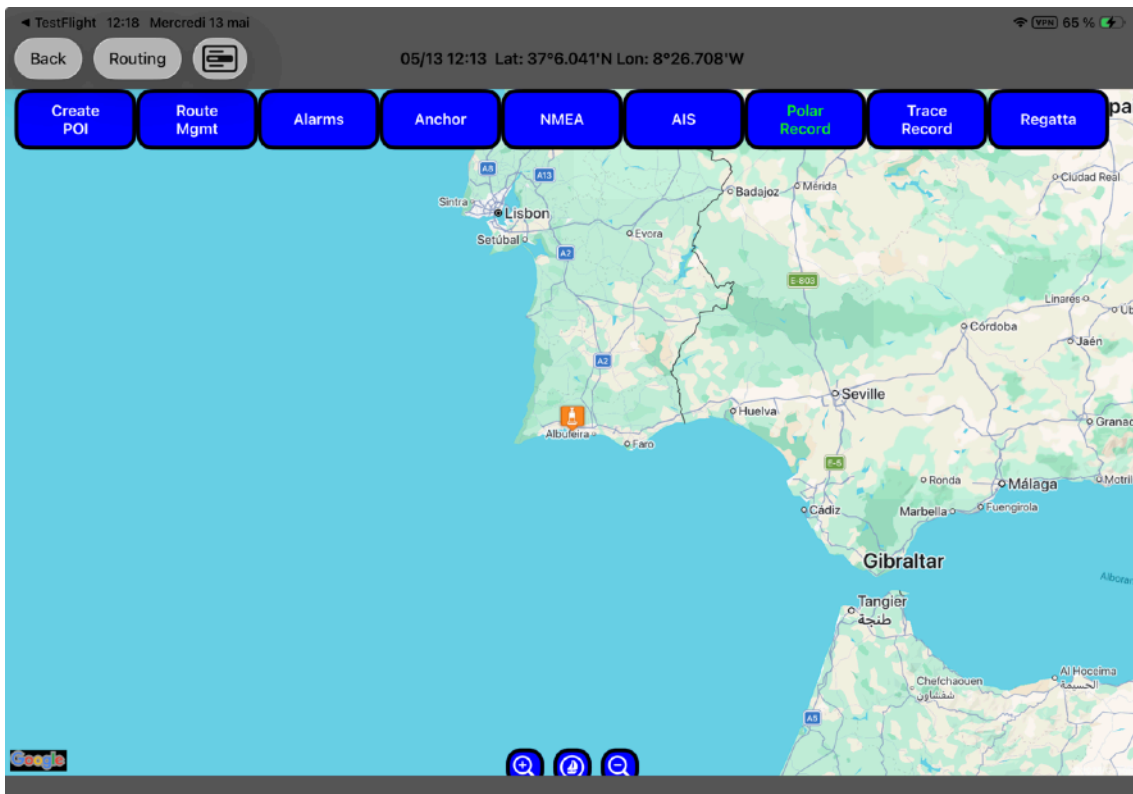
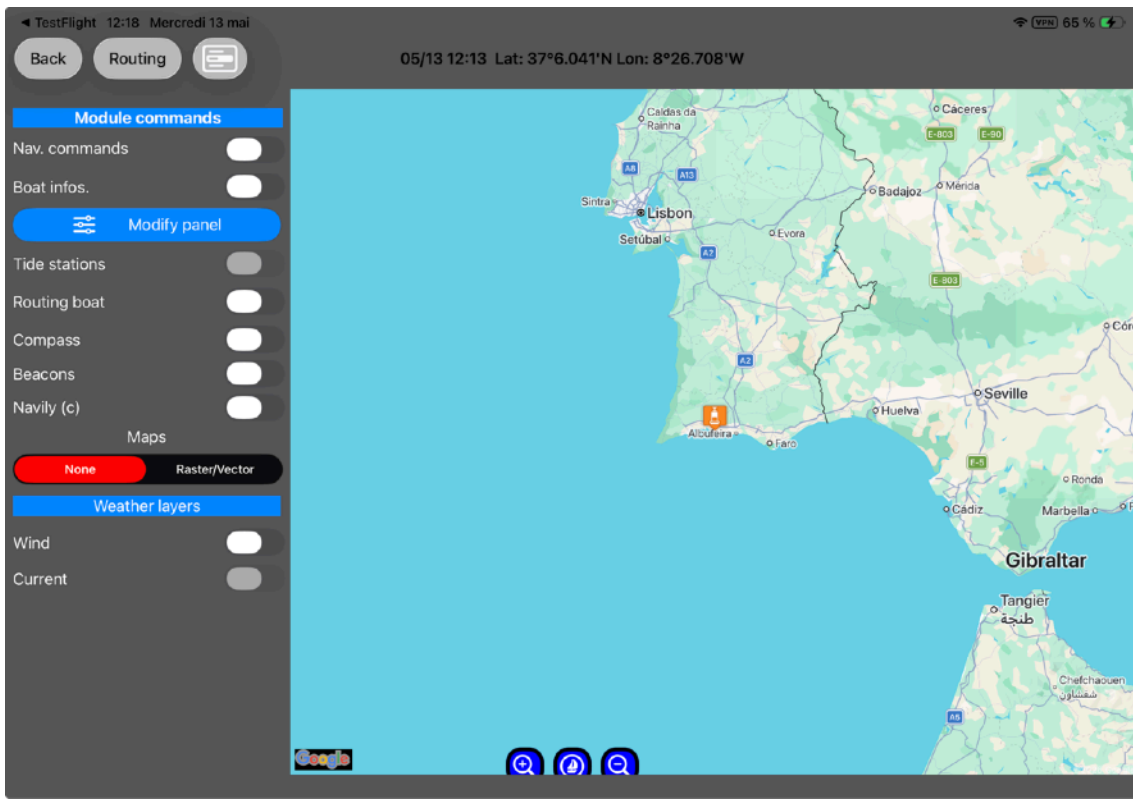
1. To define the course you actually want to follow by plotting it on a nautical chart and taking all necessary safety precautions (shallow waters, buoys, etc.)
2. To be able to track your route on a nautical chart.
3. Stay informed about collision risks with the AIS alarm
4. Capture the boat's actual track.
5. Collect data to refine your navigation charts
6. Benefit from an anchorage alarm
7. And for regatta sailors, better manage the start and optimize your tacks based on the laylines.

The Navigation controls appear by selecting "Navigation Controls" in the side panel.

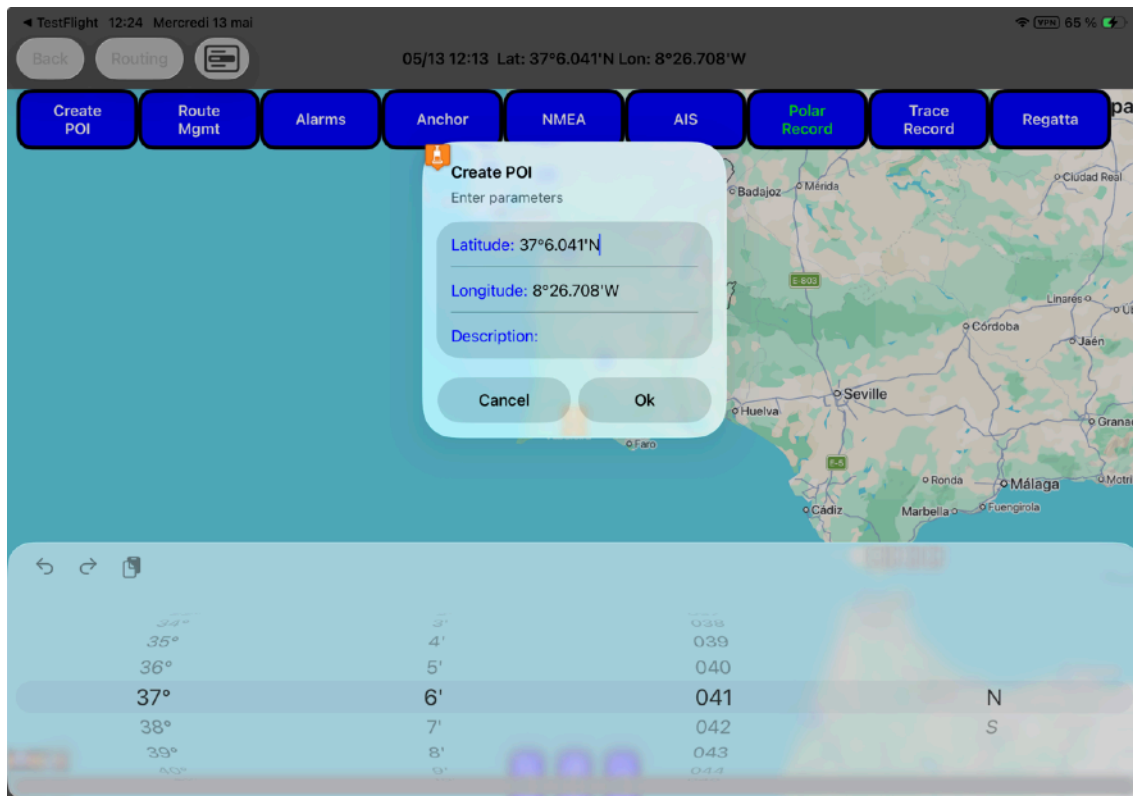


1. Navigation screen display

a. Navigation controls

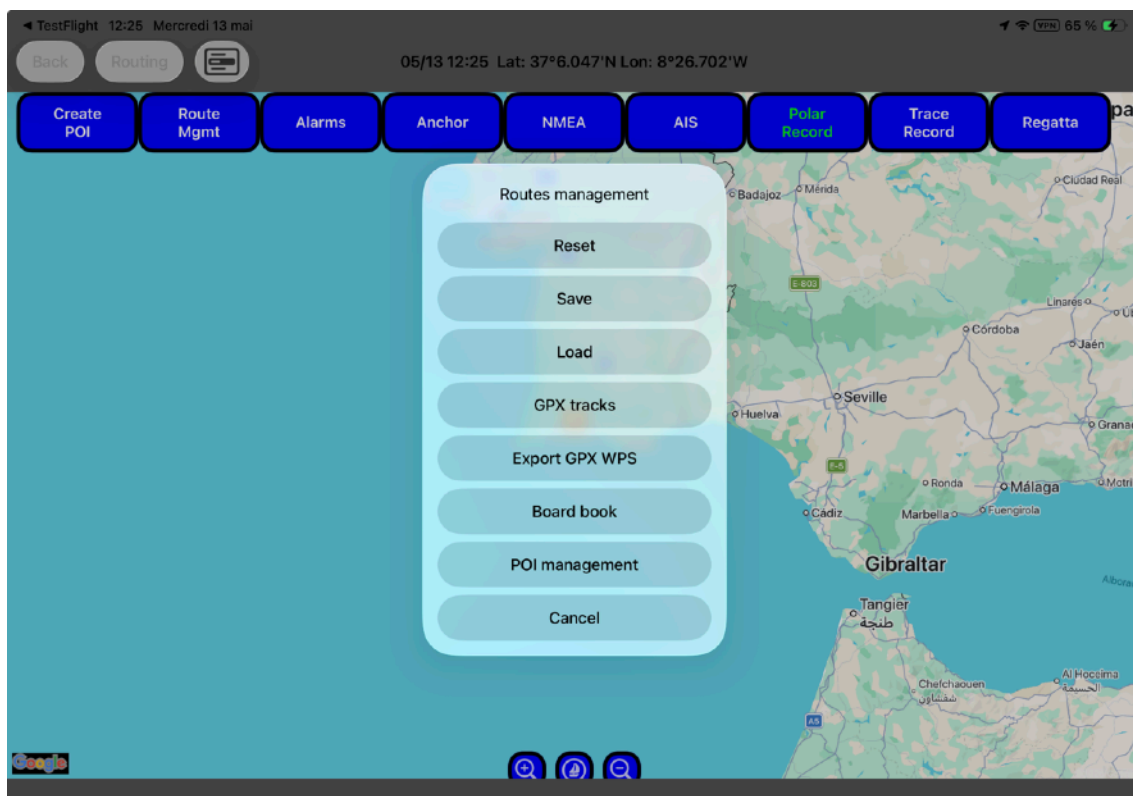


1. Create POI



You can create a POI by roughly positioning it on the map or by entering precise coordinates. Note that you can enter POIs in batches using Avalon Cloud. See the “Avalon Cloud” chapter. You can then easily add waypoints to the route. The waypoints will be anchored to the POIs.

2. Route Management (Navigation)



This screen allows you to:

- Delete a navigation route
- Save the navigation route
- Load a previously saved route
- Manage routes in GPX format (import/export)
- Export navigation waypoints in GPX format
- Access the logbook (previously saved navigation tracks)

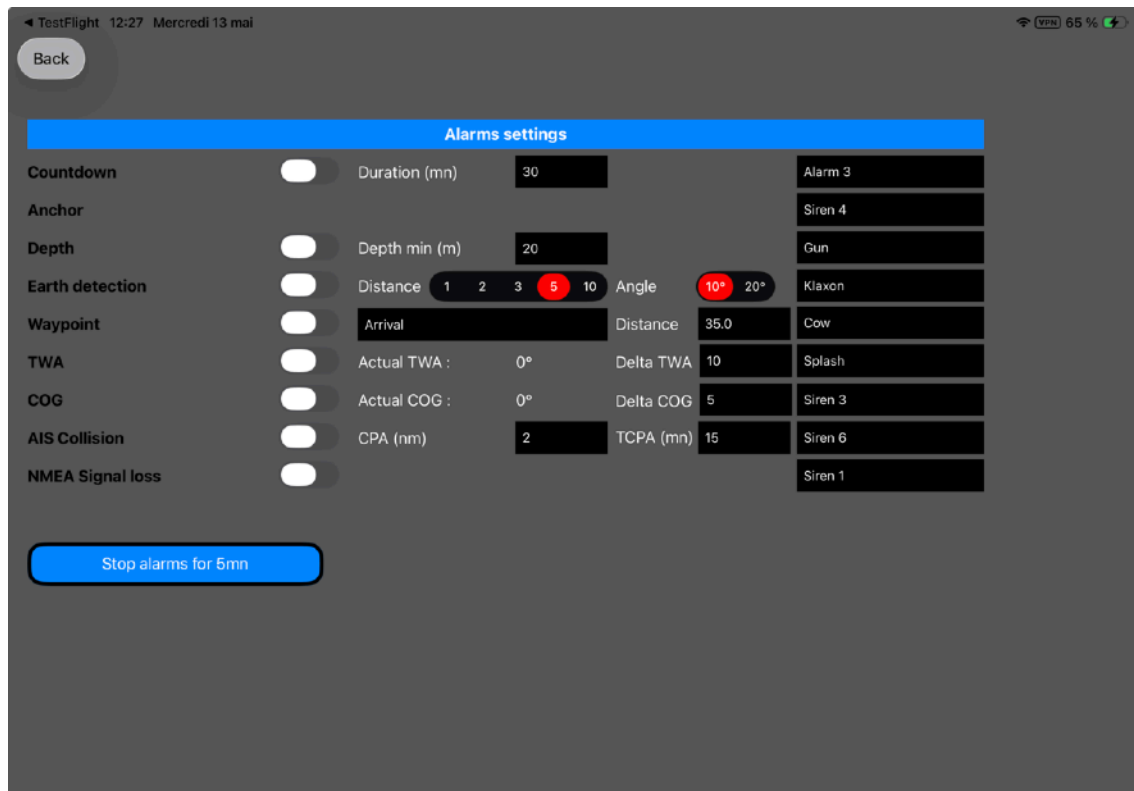
3. Alarms

We have grouped the navigation alarms under the “Alarms” icon.

However, to access the detailed AIS settings (Collision Circle, etc.), please refer to the navigation settings chapter.

The same applies to the "anchor" alarm for setting the anchor and its parameters; click on the anchor icon while navigating.

Each alarm can be assigned a different sound to help you distinguish them.

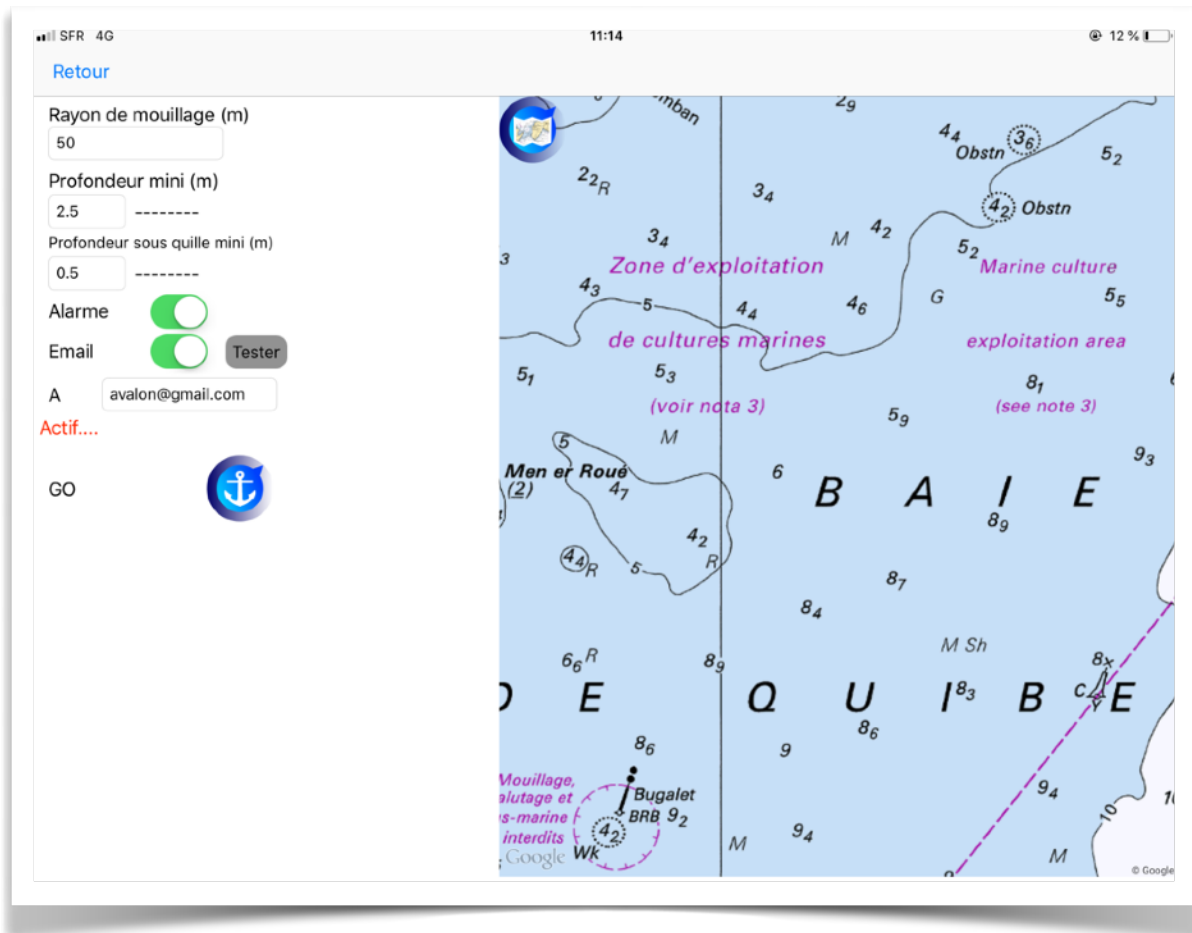


- Timer: to wake up every x minutes.
- Anchoring
- Depth: In case of shallow water beneath the boat
- Shallow water: In case of shallow water ahead of the boat up to 10 nautical miles and within an angle of 10 or 20 degrees on either side of the current course.
- Waypoint: Sounds at a distance of x nautical miles from a waypoint or the destination.
- TWA: If the true wind angle changes by more than x degrees.
- COG: When using the wind vane, this alarm will sound if the course changes by more than x degrees.
- AIS Collision: Triggers if the CPA (Closest Point of Approach) and TCPA (Time to Closest Point of Approach) are less than the desired parameters.
- NMEA Signal Loss: Avalon is no longer receiving data from the onboard computer.

4. Anchoring

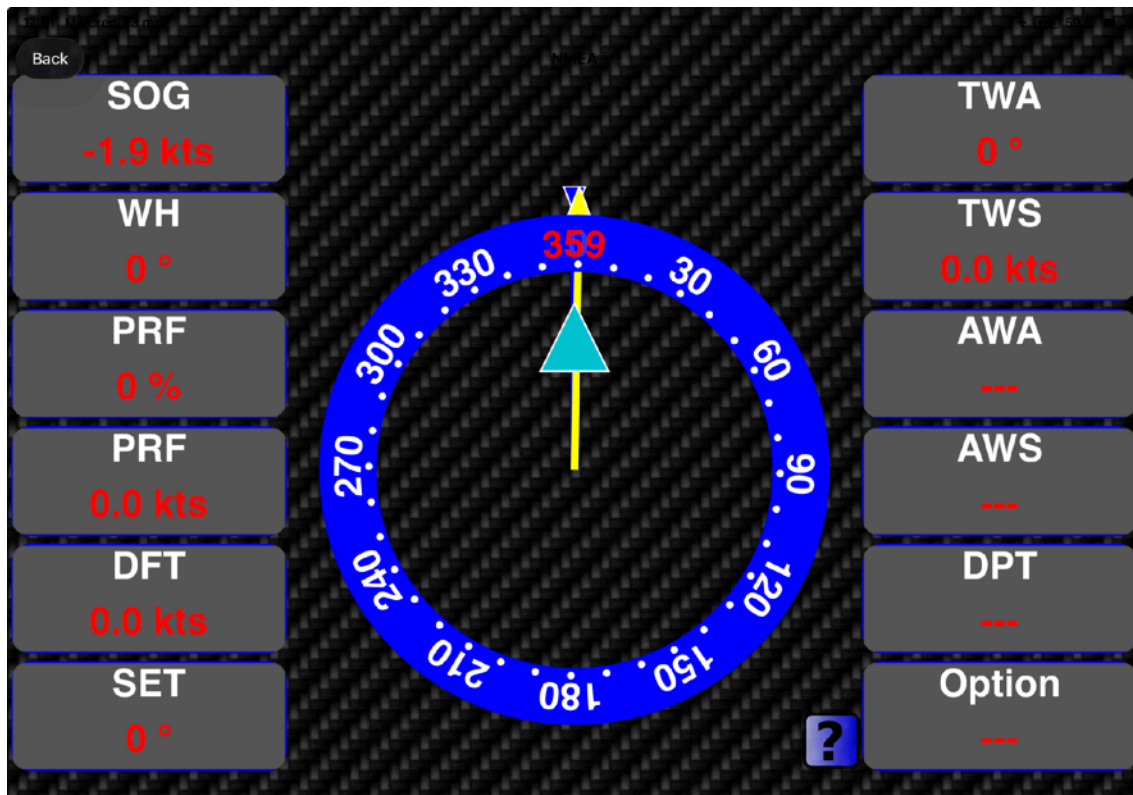
Avalon features an anchorage stability control system based on the distance to the anchor and/or the depth beneath the boat.

You must enter the anchor's position when you drop.



5. NMEA

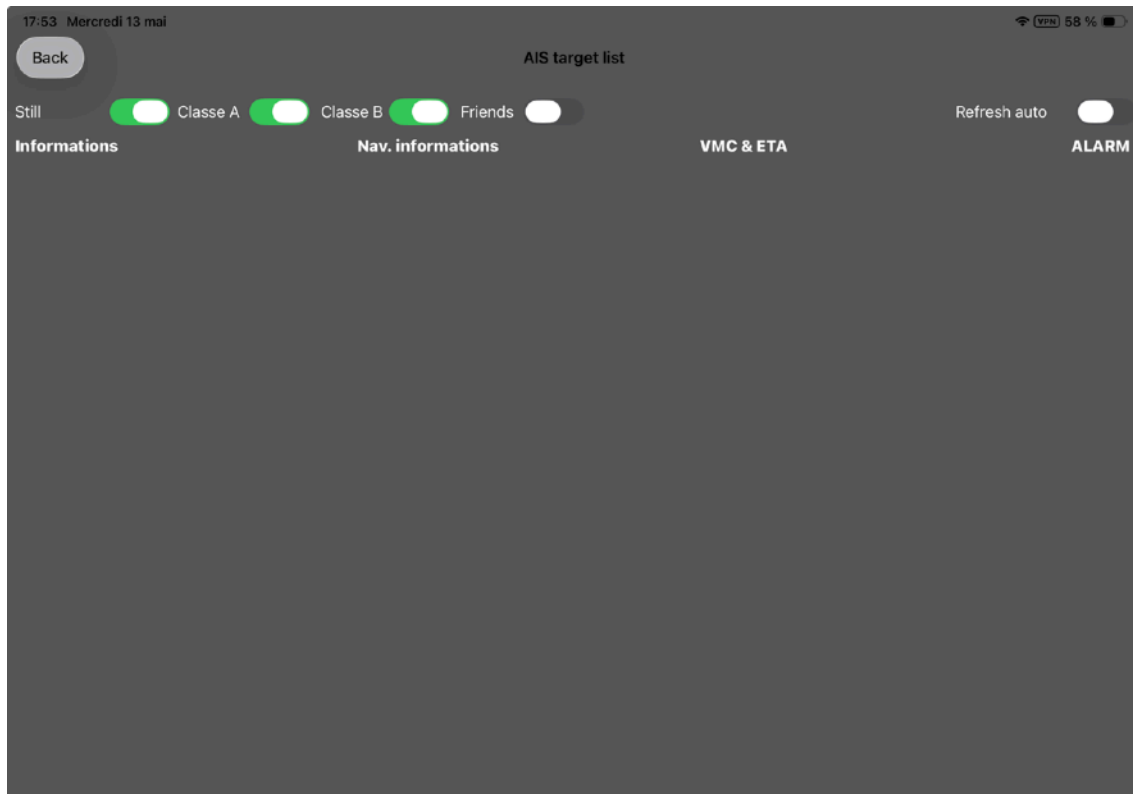
Displays a configurable screen of NMEA indicators.



- Tap on a data point to display the minimum and maximum values for that data point
- Long-click to bring up a window showing the data that can be selected.

6. AIS

Displays AIS targets, along with their approach speed toward a target: POI, buoy, etc. (useful during regattas)



7. Performance Tracking

When the NMEA is connected, starts recording performance data to refine the polars.

Red = recording in progress

You must then sync the tablet with Avalon Cloud to transfer the acquired data and then refine the boat's polars using the acquired data.

(see the section "Polar Curve Acquisition" in the chapter "Polar Curves and Sail Trimming /Polar Curve Acquisition at Sea")

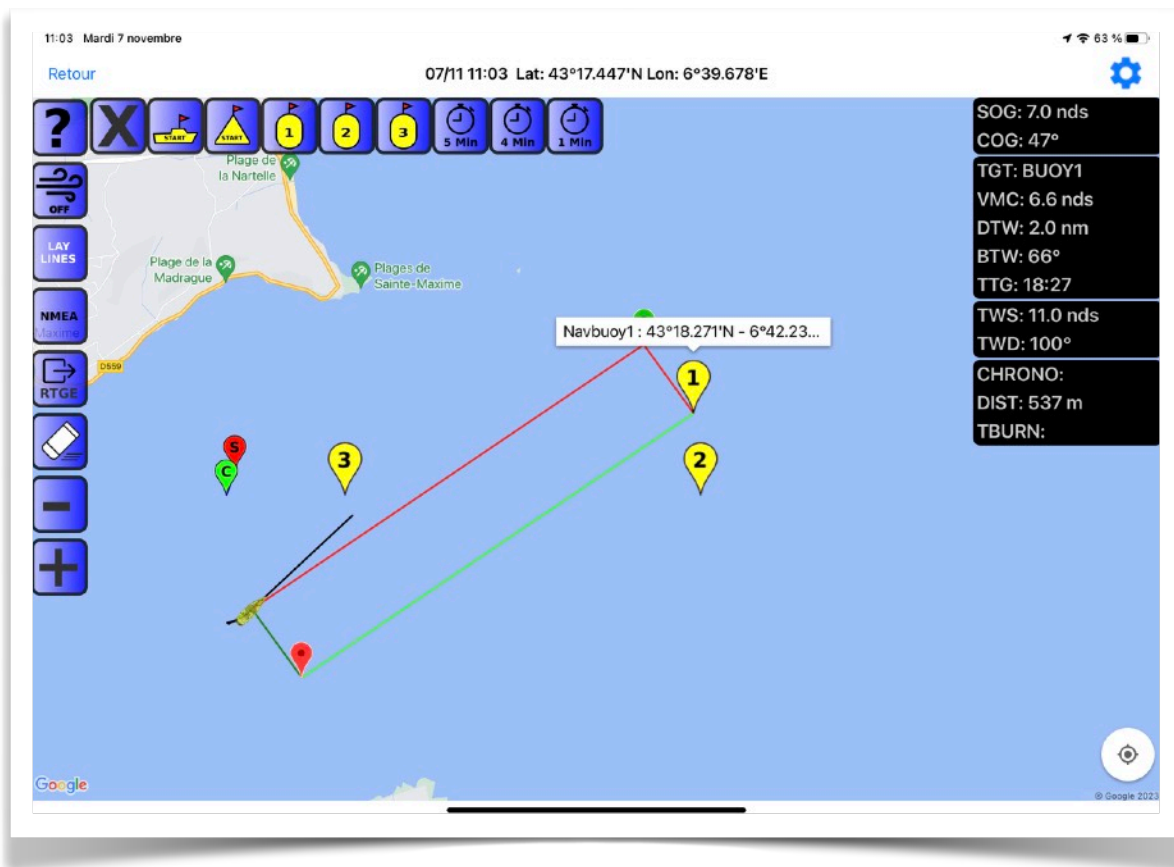
8. Record track

To record the boat's track while sailing









Red = recording in progress

9. Regatta start

(design needs to be updated to Version 8)



Meaning of icons

-  Displays the meaning of the icons
-  No wind display
-  Current wind
-  Average wind
-  Displays laylines
-  NMEA instrument screen
-  Export the track to the route
-  Clear the boat's track



Zoom out



Zoom in



Clear the race



Pass the committee boat



Top the starting buoy



Position buoy 1



Position buoy 2



Position buoy 3



Top 5 minutes



Top 4 minutes



Top 1 minute

Settings

Tap the gear icon to access the regatta screen settings:

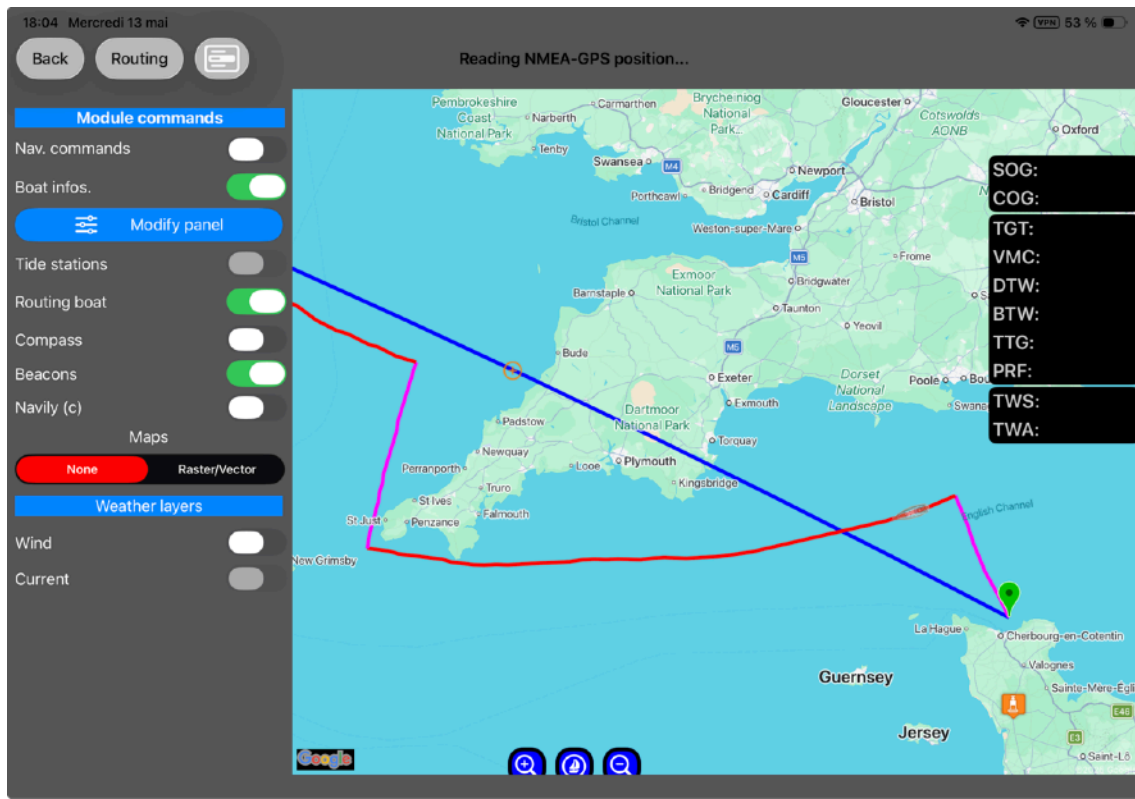
- Use NMEA: Check this box if Avalon is connected to NMEA via Wi-Fi; otherwise, set the wind (TWS and TWS) manually
- Wind averaging: displays the average wind speed over the last 5, 10, 15, 20, or 30 minutes. This helps you determine whether the wind is shifting to the left or to the right
- Offset to bow: to set the distance between the tablet and the bow of the boat to ensure the bow's position at the start.

Instructions

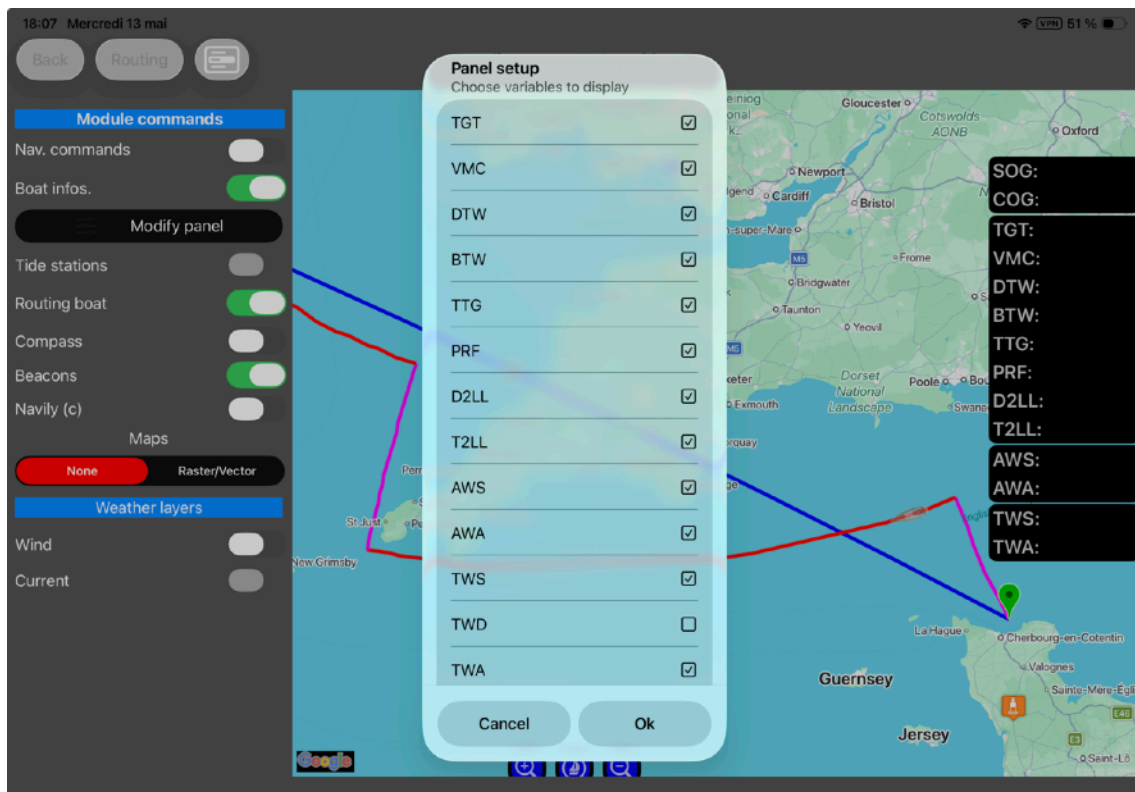
- Pass by the committee boat to record your position
- Do the same with the starting buoy to mark the starting line
- Position the course buoys using the bearing and distance relative to the committee boat
- Choose the starting tack. Comparing the average wind speed with the instantaneous wind speed can help.
- Start the 5-minute timer at the 5-minute mark. Do the same at the 4-minute mark and then at the 1-minute mark
- Monitor the projected bow position at the starting signal
- Monitor the "Time to burn" until the start signal to keep it at 0 (with a small margin, though)
- Aim for Buoy 1 and display the laylines.
- Avalon will show you the time and distance to the layline on the chosen tack.
- Have a great race!

b. Boat Info

Displays information from the onboard NMEA data logger or calculated from the tablet's GPS data).

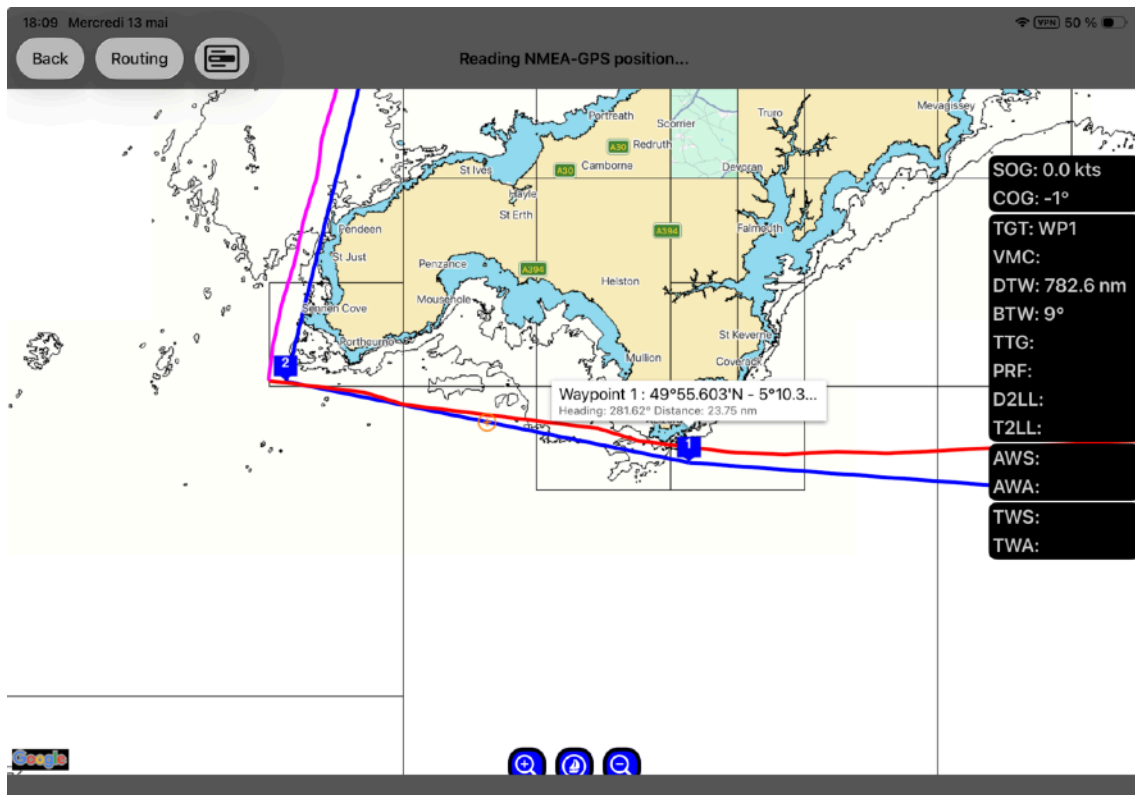


The displayed data can be configured by clicking on “Edit Info”.

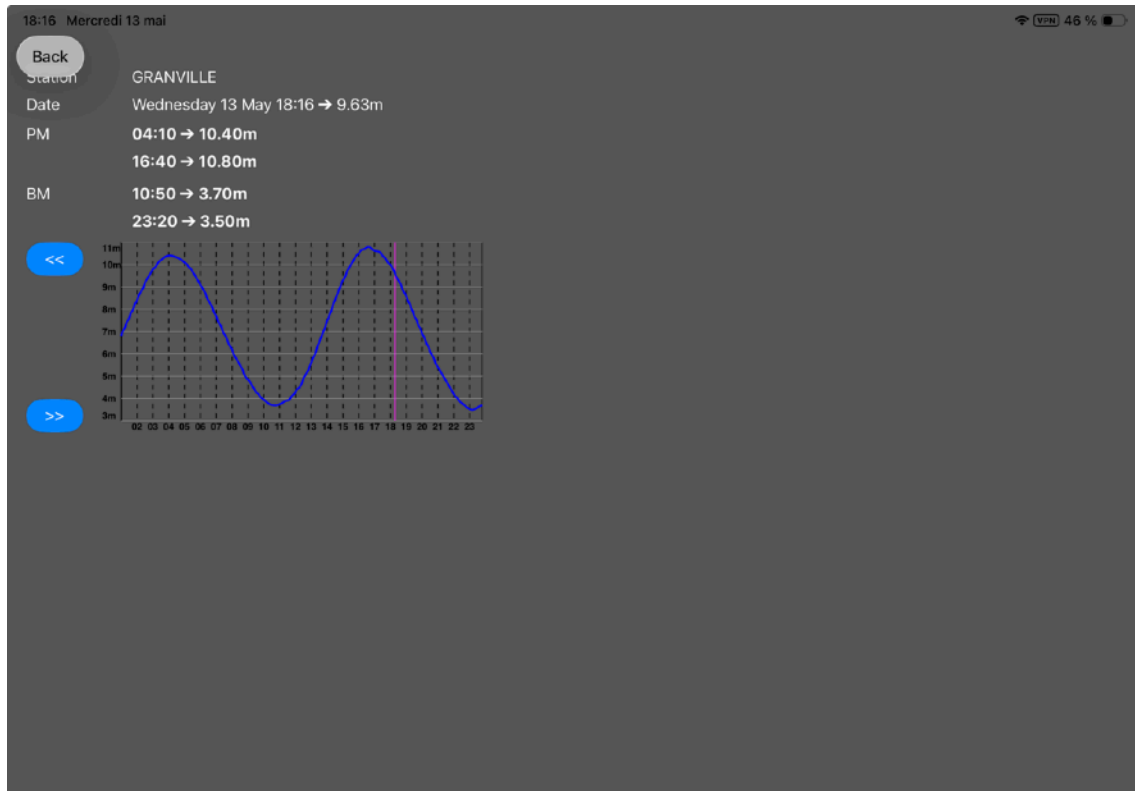
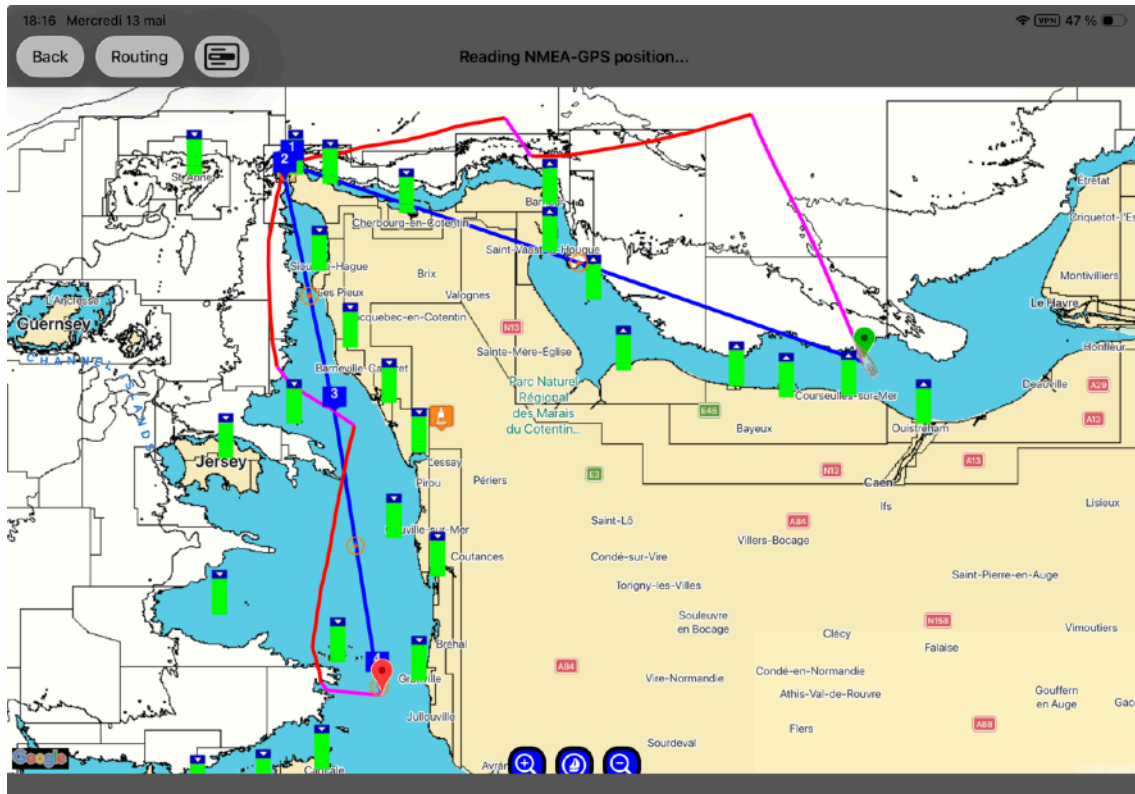


To convert the route into a navigation route, add navigation waypoints to follow the calculated route as closely as possible.

To view navigation information to a point, click on a route point, a waypoint, a POI, etc.

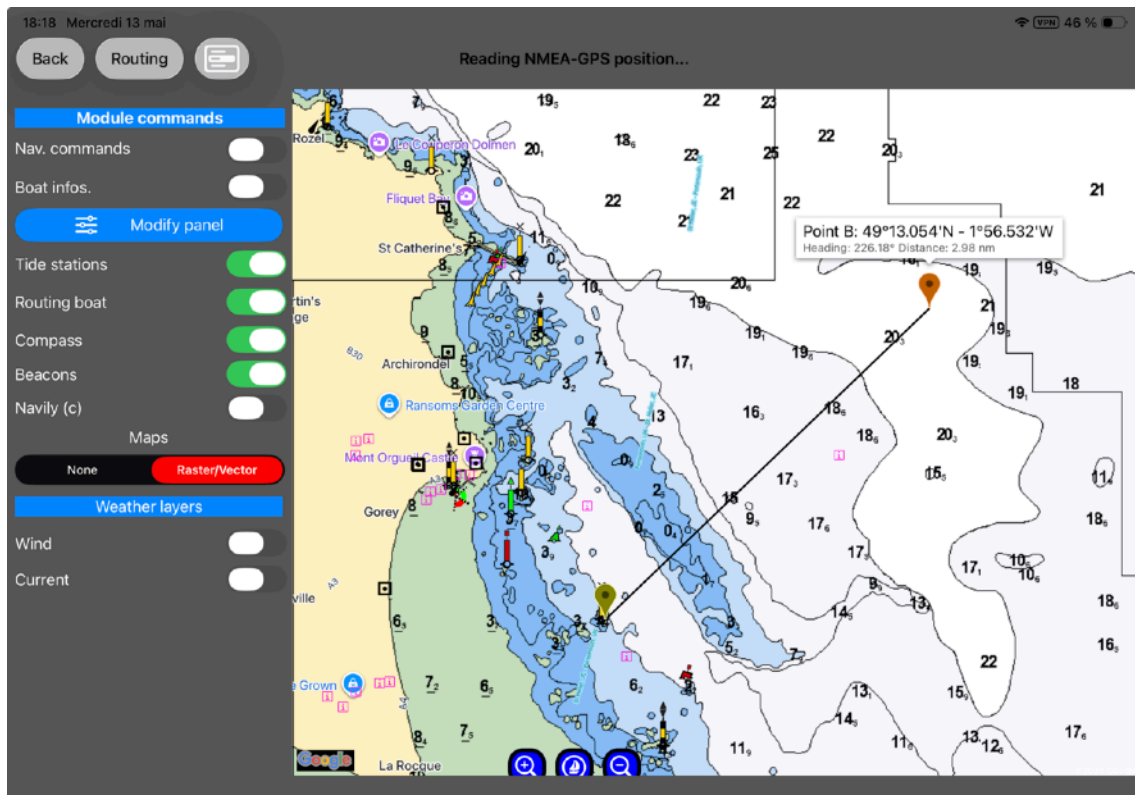


c. Tide Station



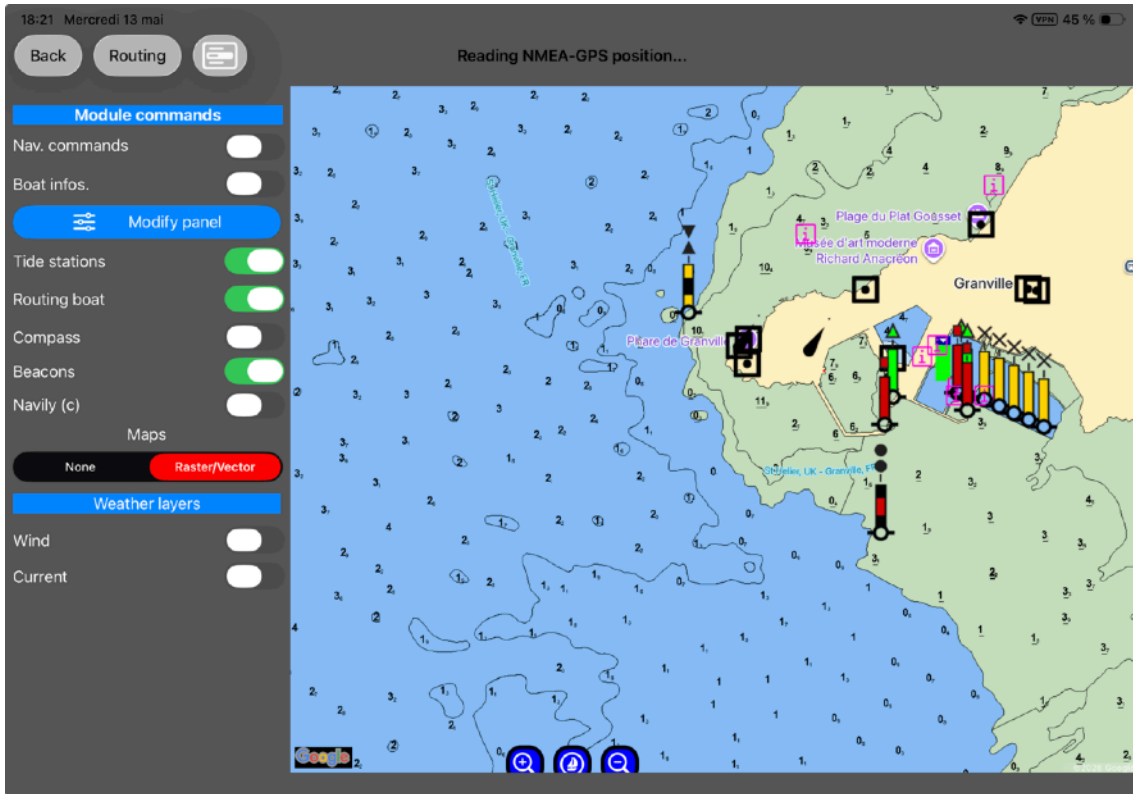
d. Compass tool

Displays a compass for measuring distance and bearing between two points. The compass is magnetized so it stays attached to the moving boat.

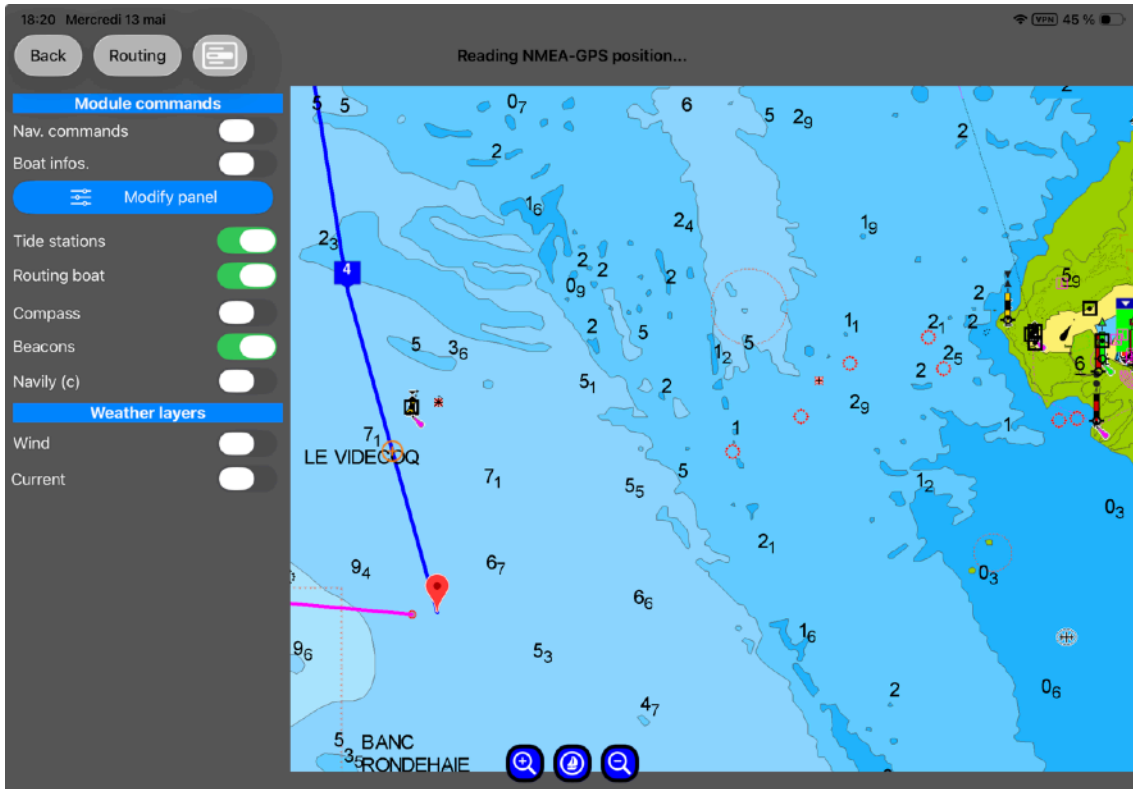


e. Maps

To display Avalon vector nautical charts, mbtiles, custom charts, etc.



The Navionics chart is automatically displayed if Navionics is selected in the home screen settings. It cannot be switched off from the navigation screen



f. Weather Display

Displays key weather forecasts (wind and current) for comparison with actual weather conditions.



2. Navigation Point Management

- Creating a navigation route from a route calculated by the routing feature: Click the "Export" icon. The departure, arrival, and routing waypoints, as well as the theoretical route, are displayed on the map. In this mode, the departure and arrival points cannot be modified.
- The blue line represents the navigation route before it is adjusted to the route calculation by adding navigation waypoints.
- Adding a "navigation waypoint": Tap the circle with a + inside it on a segment of the blue line. Make sure you have zoomed in on the blue line before tapping. Waypoints are automatically renumbered.
- Moving a navigation waypoint: Long-click on the point. The icon moves upward, and you drag the point to the desired position.
- Deleting a navigation waypoint: Tap the navigation waypoint; the waypoint information will appear. Tap the waypoint information again. A message will appear asking if you want to delete the waypoint.

F. Velocity Prediction Polars (aka « polars »)

The app comes preloaded with the polars for a standard boat (37-foot standard monohull) to help you get started with the software as easily as possible.

There are 4 methods for loading or refining your boat's polars:

1. Calculate them using our Avalon VPP custom polars calculation system
2. Use your own polars file in ".pol" or ".csv" format. If your file is in csv format, you must rename it to .pol so that it is automatically recognized and loaded into Avalon.
3. Choose a standard performance curve from our library of approximately 500 boats. We add more "on demand."
4. Refine your polars by collecting speed data while sailing.

Regardless of the type of profile used, you can adjust the efficiency and operating ranges of each sail.

1. Select a polaire from the polaire library

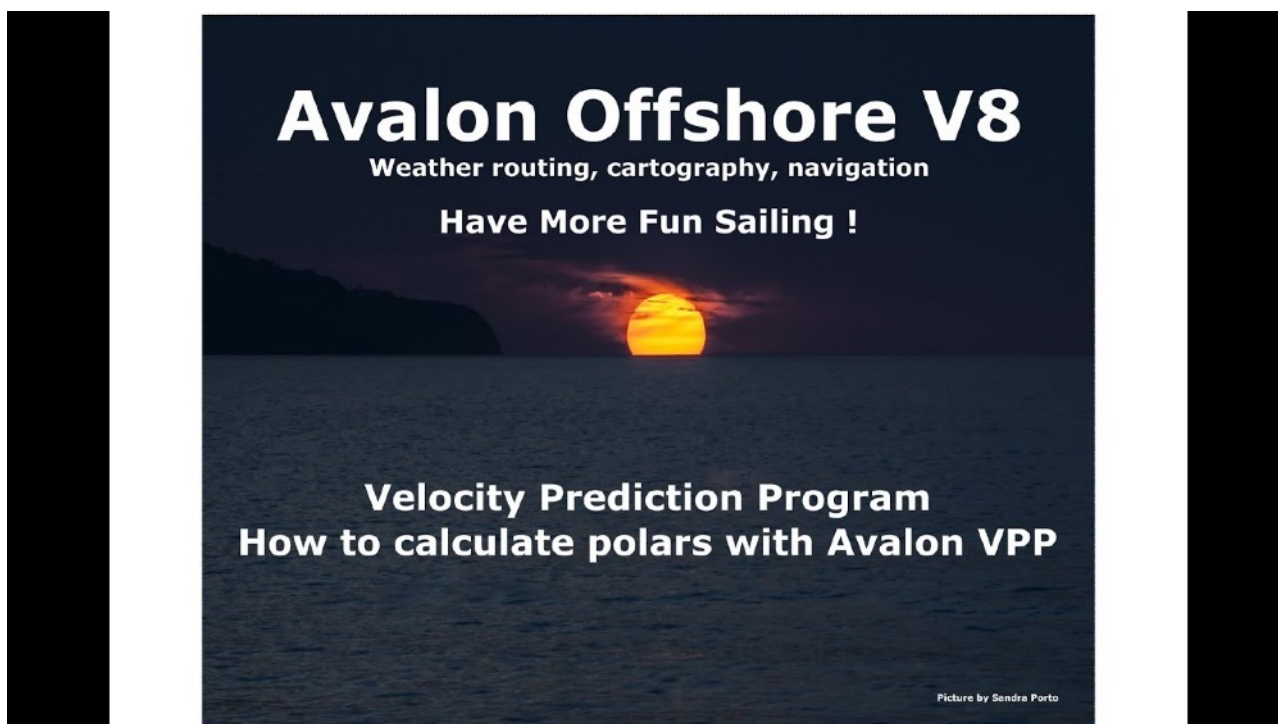
Refer to Chapter B.3: Boat Selection.

As of May 2026, Avalon offers 226 standard polars. Refer to this page to see the list of available boats and sails.

<https://www.avalon-routing.com/fr/polaires/>

2. Calculate your performance curves with Avalon VPP

A tutorial video is available on Youtube:



We recommend using our Avalon VPP performance curve calculation system to calculate your own customized performance curves, taking into account your additional load, the condition of your sails, your propeller type, the maximum heel acceptable to the crew, etc.

This solution will yield much better results than the standard polars you can find at shipyards, rating agencies, or in our polar database... because they are perfectly tailored to your sailing conditions.

Knowing your boat's speed characteristics precisely is essential for plotting a course that is as accurate as possible.

Unfortunately, the performance charts available online—whether from architects or other sources—never match the actual way you use your boat. This is because these charts are very often based on ideal conditions: new sails, an unloaded boat, a folding propeller, a specific number of crew members, and so on.

Furthermore, these “off-the-shelf” polars are not suited to the anticipated sailing conditions: regattas, weekend outings, long cruises... They must constantly be reduced (very often) or increased (very rarely).

We have therefore developed this “Avalon VPP” software, designed to provide you with sets of polars tailored to your sailing style. You can also create different sets of polars if you participate in both regattas and cruising.

The system allows you to calculate your own polars and then send them to your tablet to integrate them directly into Avalon Offshore for Android or iOS.

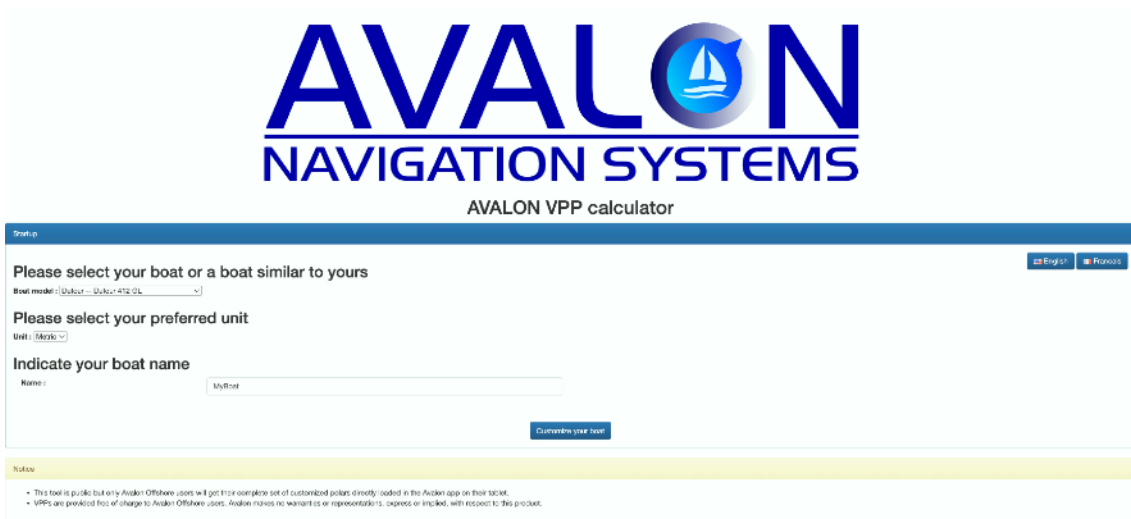
This system currently works for all monohulls: sloops, ketches, yoles, and certain schooners.

It allows you to determine speed characteristics for the following sail combinations:

- Mainsail +
 - Jib, Genoa, or Staysail
 - Symmetrical spinnaker
 - Asymmetric spinnaker
 - Code 0 / Code D
 - Optional: Mizzen top

Go to the website www.avalon-routing.com and navigate to the “Polar” section. You will then arrive at an initial screen where you must:

- Select a boat from the list provided. If you can’t find your boat, choose one that is fairly similar. You will be able to modify its specifications and then save it under your own boat’s name.
- Choose the metric or imperial system.
- Enter your boat's name, along with a marker to help you locate it if you want to create multiple sets of fleece jackets.
- Click on “Customize my polars” to continue.



Hull

You will then need to check the pre-filled information and modify it if necessary. If you do not know certain details about your boat, you can click on "default," and default values will be calculated.

The next time your boat is in dry dock, you can complete this table with the missing information, most often the rudder and keel measurements.

The more accurate the data you provide, the more precise the calculated polars will be.

To help you, diagrams showing the requested data will appear when you hover your cursor over the data entry fields.

The screenshot displays the 'AVALON VPP customization of MyBoat' interface. The 'Hull' section is active, showing a list of parameters with their current values and units. Each parameter has a 'Default' button next to it. A diagram of a boat hull is shown on the right, with a blue line indicating the LOA (Length Overall).

Parameter	Value	Unit
Lea :	12.2565	m
LeL :	11.1489	m
Light displacement :	8939.8447	kg
Additional displacement (w/o crew) :	0.0000	kg
Draft (boat) :	2.1001	m
Draft canoe hull :	0.7248	m
Beam :	4.2001	m
Waterline beam :	3.8901	m
Freeboard average :	1.2381	m
Wetted surface (canoe) :	30.1795	m ²
Maximum cross sectional area :	1.4158	m ²
Bulb length :	0.0000	m
Bulb diameter :	0.0000	m
Keel root length :	2.3415	m
Keel tip length :	2.1185	m
Keel root thickness :	0.1873	m
Keel tip thickness :	0.1338	m
Rudder span :	1.4700	m
Rudder root length :	0.8802	m
Rudder tip length :	0.5464	m
Rudder thickness :	0.0882	m
Propeller type :	Free fixed blades	
Propeller Diameter :	0.4572	m
Rudder type :	Separate	

Mainsail

AVALON VPP customization of MyBoat

Crew & Settings >

Hull >

Main sail >

Sail type: Cruising new

P:	15.8200	m	<input type="radio"/> Default
E:	4.7300	m	<input type="radio"/> Default
Area:	32.7120	m ²	<input type="radio"/> Default
Mast height above deck:	10.7386	m	<input type="radio"/> Default
Average mast diameter:	0.1364	m	<input type="radio"/> Default
Square top:	0.0000	m	<input type="radio"/> Default
Boom above sheerline:	1.4800	m	<input type="radio"/> Default

Jib / Genoa

Jib/Genoa >

Sail type: Cruising new

Type: Roller furling

I:	14.5000	m	<input type="radio"/> Default
J:	4.3000	m	
LPG:	4.2000	m	
Area:	31.7906	m ²	

Spinnaker >

Spinnaker

Ylb/Gonzo

Spinnaker

Sail type: Racing sail

I spl:	14,5000	m	<input type="radio"/> Default
BL:	14,3579	m	
SPL:	7,7400	m	<input type="radio"/> Default
SMG:	10,4180	m	
Area:	99,1591	m ²	<input type="radio"/> Default

Asymmetric

Asymmetric Spinnaker

Asymmetric

Sail type: Cruising new

I asy:	14,5000	m	<input type="radio"/> Default
ASL:	14,3579	m	
ASF:	7,7400	m	<input type="radio"/> Default
AMG:	5,8437	m	
Area:	74,5098	m ²	<input type="radio"/> Default

Code 0

Mizzen

Code 0

Code 0

Sail type: Crusing new

I Code0:	14,000	m	
ASL:	14,3579	m	
ARF:	7,7460	m	<input type="checkbox"/> Default
AMG:	5,8437	m	
Area:	74,5298	m ²	<input type="checkbox"/> Default

Mizzen

Compute Main-Jb VPP Compute Main-Spi VPP Compute Main-Ary center VPP Compute Main-Rolling genoa VPP Compute Main-Code0 VPP

Mizzen Sail

Mizzen

Sail type: Racing sail

ISP:	14,0000	m	
Py:	0,0000	m	
By:	0,0000	m	
Area:	0,0000	m ²	<input type="checkbox"/> Default
Boom above sheerline (y):	0,0000	m	<input type="checkbox"/> Default

Compute Main-Jb VPP Compute Main-Spi VPP Compute Main-Ary center VPP Compute Main-Rolling genoa VPP Compute Main-Code0 VPP

Calculating Polars

Once your sail parameters have been entered into the system, you can run the calculation. You must perform this calculation for each set of sails you have, as Avalon Offshore then uses your different sets of sails in route calculations.

Start the calculation for the first set of sails, then the second, and so on... for as many sailing configurations as you need.

Calculating polars consumes a significant amount of server resources. Allow the system approximately 15 to 20 seconds to perform the calculations and display the results.



Integrating polars into Avalon Offshore

Once the calculation is complete, you need to have the polar coordinates sent to your email. Fill in the email field and click "Receive email." »

Sailset : Main and Rolling Genoa

© Avalon navigation systems

Speed @ 10K 6 Kts
Speed @ 15K 10 Kts
Speed @ 20K 15 Kts

Receive by email

Warning, the email attached polar file could only be decrypted by AVALON OFFSHORE !

Email :

Within a few seconds, you will receive an email containing a 6-digit code that will allow you to upload these polars to Avalon Offshore.

De Moi <avalon-devt@avalon-routing.com>

Sujet Polar of : Terre Océane - Main_Jib

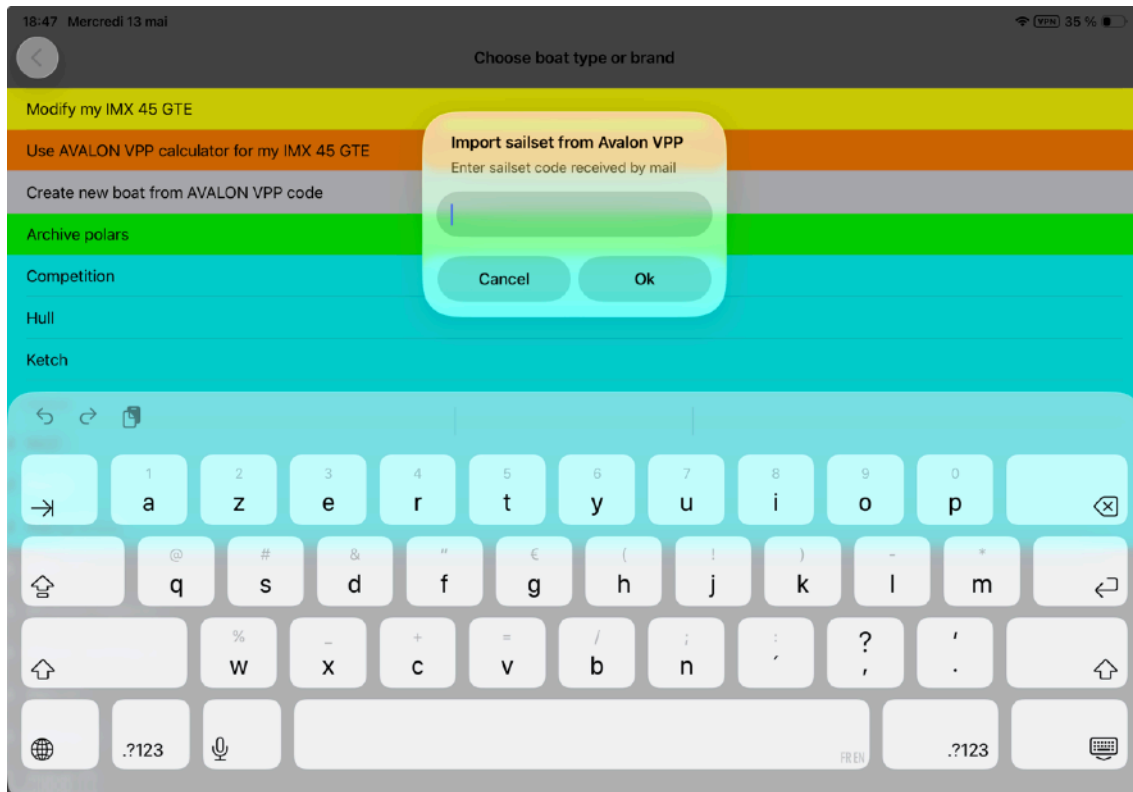
Pour Moi <avalon-mktg@avalon-routing.com>

This is the polar/vpp for your Terre Océane
For Main Jib sail set
Computed by **AVALON**
Quickly download this polar sailset from AVALON with access code :40165372

Repeat the process for each set of sails. If you have multiple headsails (genoa/jib/staysail), restart the calculation after entering the parameters for the sail to be calculated. Avalon will send you the code. Enter this code into Avalon and move on to the next headsail.

Do the same if you have multiple spinnakers, gennakers, etc.

Next, go to Avalon Offshore, then to Settings, and then to Boat Selection and Settings. Then create your boat, or add a new sail using an Avalon code.



3. Obtaining polar curves at sea

We recommend using this feature to refine your theoretical polars:

- selected from the standard polars
- Calculated with Avalon VPP
- Imported from a pol file (CSV format with .pol extension)

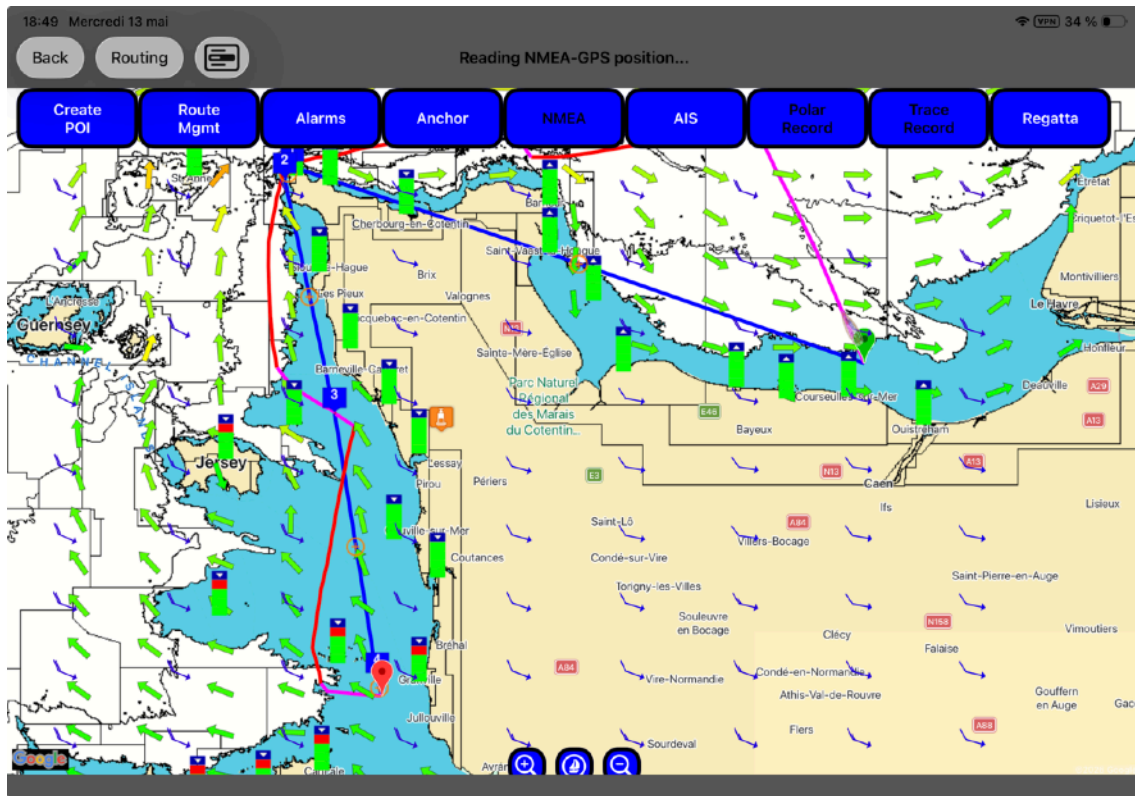
Creating polars from navigation data involves 4 steps:

1. Acquire your speed data while navigating (requires an NMEA connection and a working log)
2. Without a log, you can use GPS data (only in areas without currents).
3. Transfer the data to Avalon Cloud (see section below) by syncing the tablet
4. Compare the acquired data with the current polar curve and modify if necessary
5. Transfer the data to Avalon Offshore

It is recommended to save your current polars beforehand in the “Boat Settings” module

This saving is done from the navigation menu.
Make sure Avalon is connected to the NMEA network in the navigation settings. The NMEA icon should be white.

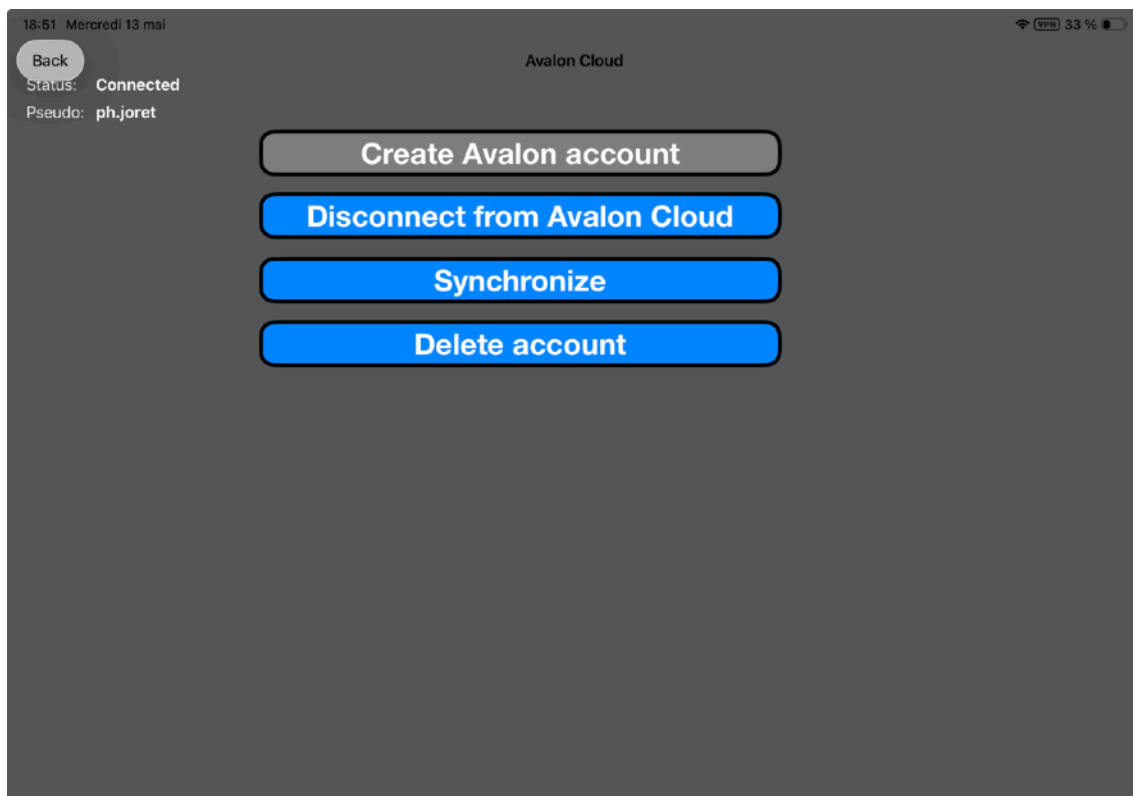
The "Polar Record" icon must be green (ready to record).



Click on "Polar Tracking." The icon turns red. ("Red is on")

To end the session and start a new sequence, for example for another sail: click on the red "Polar Tracking" icon to switch back to green Polar Tracking (on pause).

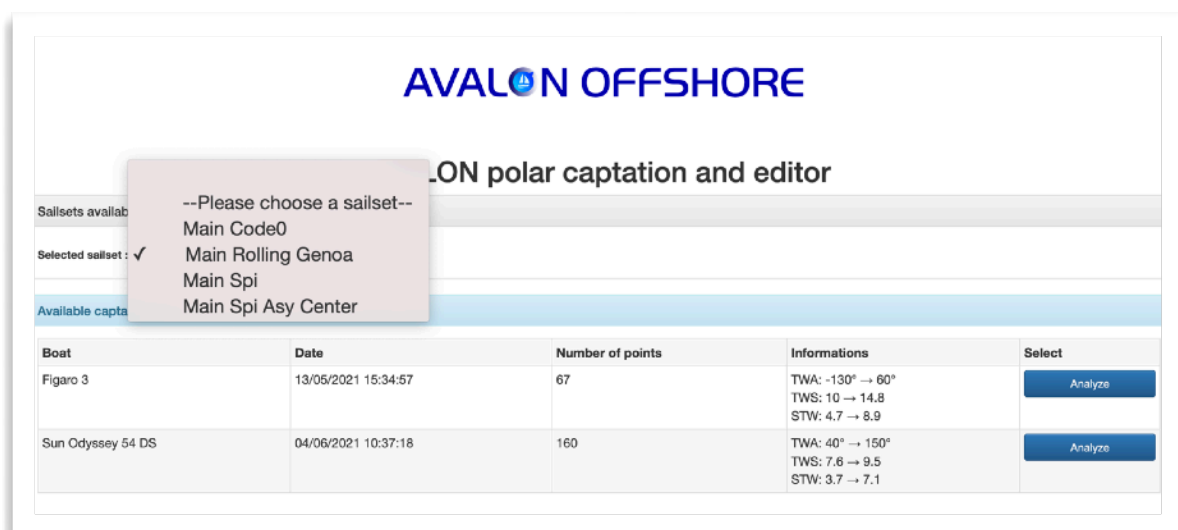
When the recordings are finished and you have a good network connection, synchronize Avalon Offshore with Avalon Cloud in the Avalon Cloud module



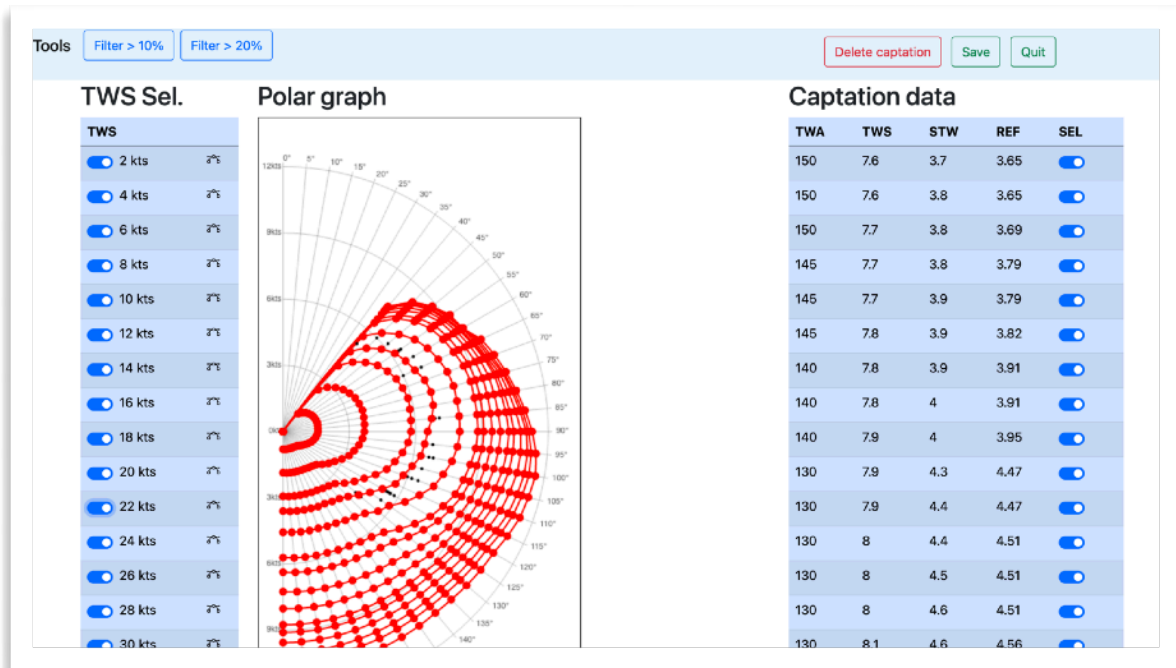
Then go to your Avalon Cloud dashboard to process the acquired data and modify your polars sail by sail to match your acquisition. Click on Polar Acquisition

Select the sail you want to modify

Then select the acquired data sequence. Filter the data if necessary.



Modify the points on the profile by dragging them to “align” with the acquired data points.



Save the modified profile.

Then transfer the modified profile by syncing Avalon Offshore with Avalon Cloud

4. Private Polars in .pol format

To create a polars file in the correct format, you must create a table in the following format in Excel or any other spreadsheet program:

Wind speeds must be in columns and wind angles in rows. You can have as many rows and columns as you like. You must start with a TWA row at 0 degrees and a TWS column at 0 knots. You can create as many rows and columns as you wish, but all cells must be filled with numerical values.

Avalon also supports the American CSV format: commas as delimiters and a decimal point for values after the comma. However, the file `trucmuche.csv` must be renamed to `trucmuche.pol` in order to be recognized and loaded into Avalon.

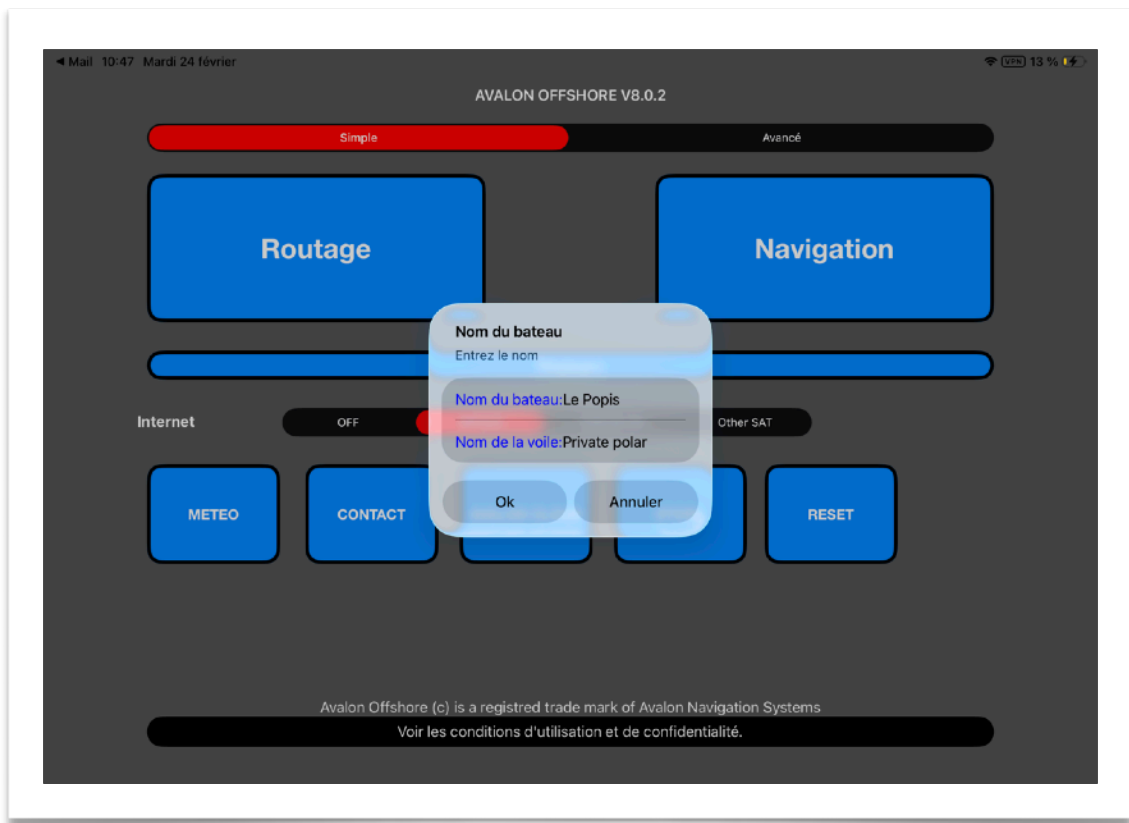
TWA/TWS	0	4	6	8	12	16 etc....	etc....	50
0								
30								
40								
45								
50								
60								
etc....								
etc....								
etc....								
180								

You must rename this CSV file to the `.pol` format before sending it to Avalon.

You can then import them into Avalon.

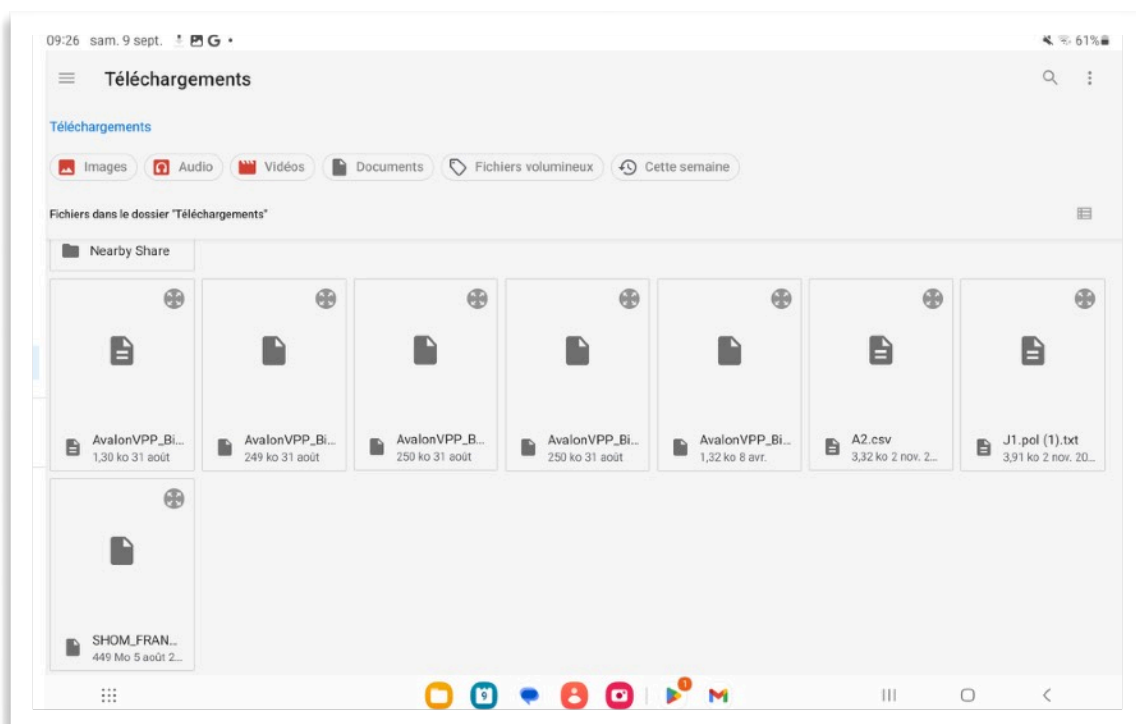
- via iTunes file transfer or email on an iOS tablet
- via Google Drive, email, or transfer to the Downloads folder on an Android tablet;

When you open Avalon, Avalon will detect the presence of a file and offer to import it into Avalon. Then select the name of the boat and the sail.



On Android, the process is slightly different. You must click on "IMPORT DOCUMENT." The file can be in .pol or .csv format.

Avalon will search your "Downloads" folder for the file to import. Confirm that the selected file is a polar chart file (since the same procedure applies to maps and GRIB1 and GRIB2 weather files). The rest of the procedure is similar to that on Apple devices.



5. SailSelect: Composite Polar -> Multi-Sail Polars

This feature allows you to convert a composite polar (a polar combining all sails) into multiple polars (one per sail).

The goal of the SailSelect program is to split a single (composite) polar chart into as many polar chart files as there are sails on the boat.

The advantage is that you can then obtain a predictive analysis of the usage of each set of sails during the regatta.

You must provide the system with:

- Your composite polar file in CSV format (decimal points and comma separators).
- A CSV file indicating the name of the sail used for each wind speed (TWS) and true wind angle (TWA).
-

You can use as many TWS and TWA values as you wish. You can use and modify the templates provided below as examples.

IMPORTANT: You can adjust your TWS and TWA values in your polar file, but the Sailselect file containing the sail names must use the same TWS and TWA values.

The TWA and TWS columns and rows are very flexible. For example, you can use variable increments: TWA in 5-degree increments from 30 to 40, then in 1-degree increments from 40 to 50, and then in 10-degree increments from 50 to 180.

Example of a composite polar

TWA\TWS	0	4	6	8	10	12	14	16	20	25	30	35	40	45	50	55	60	70
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Example of SailSelect

TWA/TWS	0	4	8	10	12	16	18	20	24	28	32	40	50	60	70
0	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
30	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
45	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
50	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
60	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
70	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
80	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
90	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
100	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
110	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
120	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
130	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
140	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
150	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
160	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
170	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu
180	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu	inconnu

Fill out the two files, then upload them to the web, and you will get a polar chart file for each sail. Then simply rename these ".csv" files to ".pol" and load them into Avalon as personal polar charts. (See the "Load personal polar charts" section above.)

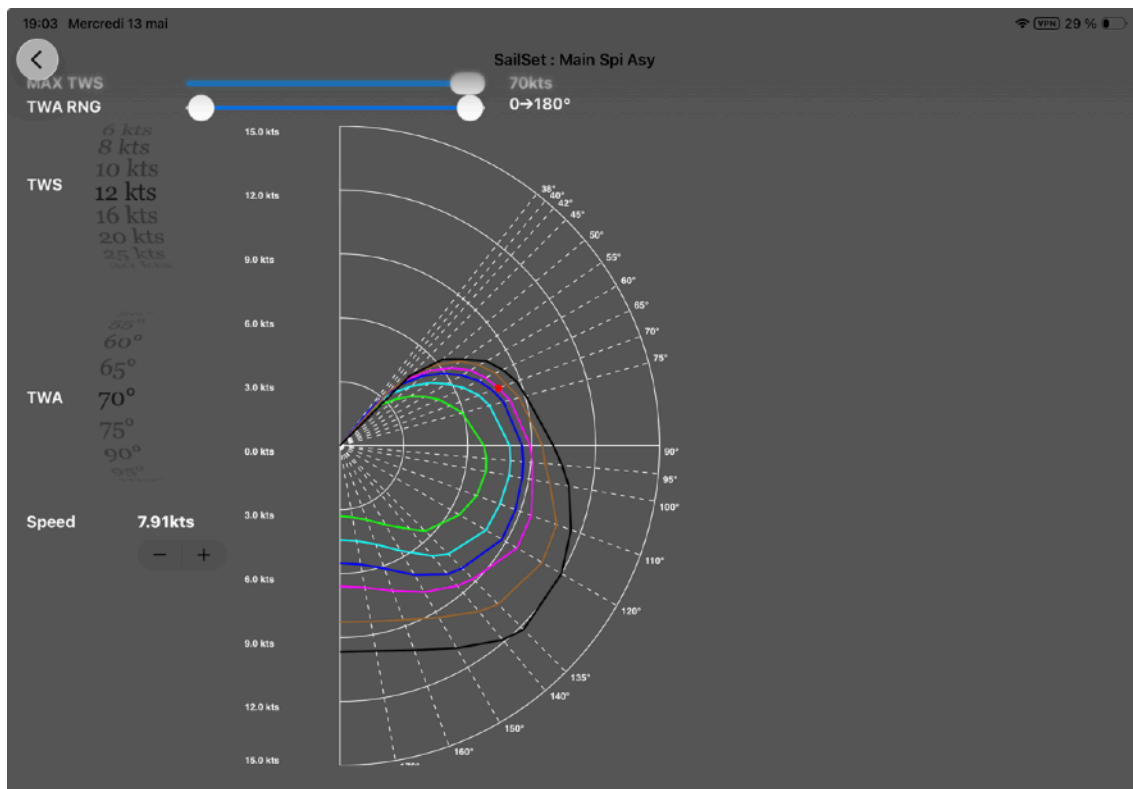
4.

5. Sail settings

Go to “Settings,” then “Boat Settings,” then “Edit My Boat.”



Click the gear icon to access a sail's details.



You can choose the maximum acceptable TWS (true wind speed) for each sail, for example 15 knots for a Code 0.

You can also choose the minimum and maximum TWA for each set of sails. Be careful, however, as imposing too many constraints on Avalon may prevent it from finding a route. In that case, you should calculate a “no-limit” route to temporarily override all constraints: wind, waves, TWA, etc.

Below, we have limited the use of the Code 0 to a maximum wind speed of 15 knots and a TWA between 70 and 150 degrees from the wind

a. Available Packs

The available packs are:

- France Mediterranean
- Western Mediterranean (including the French coast)
- Western France
- English Channel
- Portugal and Atlantic Spain
- Great Britain and Ireland
- Belgium, the Netherlands, and Eastern England
- Transatlantic Islands
- Antilles
- U.S. Northeast Coast
- Southeastern United States
- U.S. Gulf of Mexico
- USA Great Lakes
- US West Coast
- Hawaii
- Polynesia
- New Caledonia
- Indian Ocean

Details of these packages can be found here:

<https://www.avalon-routing.com/fr/guide-utilisateur-et-annexes/>

3 packages are available for a free 15-day trial:

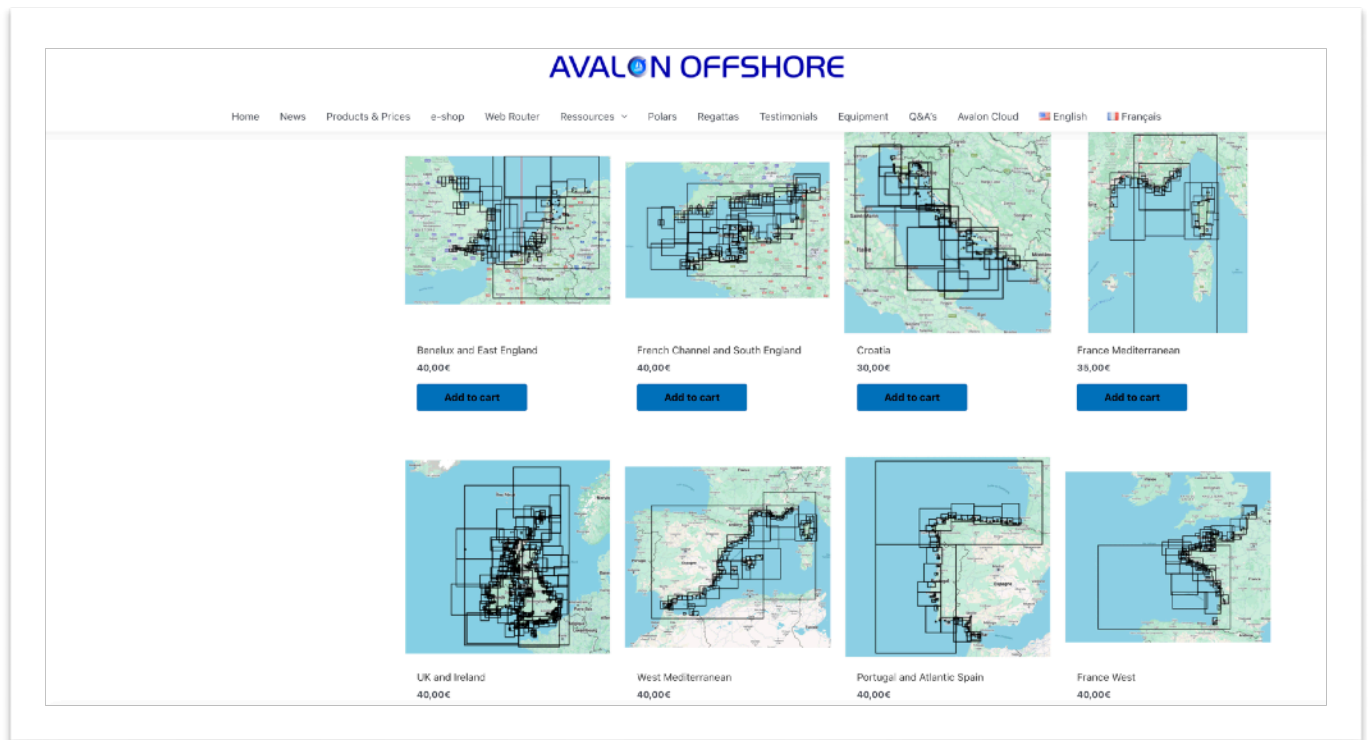
- France Mediterranean
- Western France
- Northeast USA

b. Purchase Avalon vector packs

Vector map packs are available exclusively on the Avalon online store. They are sold for a 1-year license.

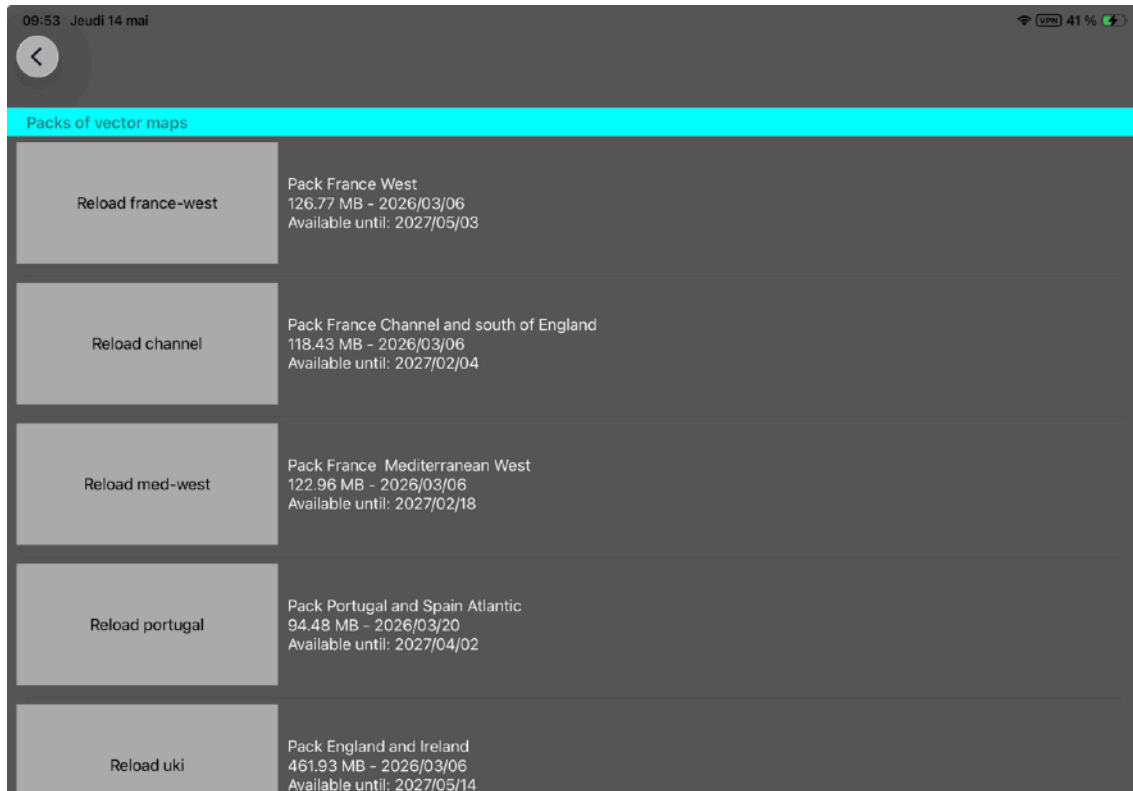
You must have an Avalon Cloud account and be logged in to that account on our website to purchase the packs.

To install the packs in the app, your tablet must also be logged into Avalon Cloud with the same username.



c. Downloading Avalon Vector Packs

- In the "Avalon Cloud" module, make sure the tablet is logged into Avalon Cloud with the same account used to purchase the pack.
- Go to Settings, then "Map Settings"
- Go to "Vector Map Packs"
- The purchased maps will be displayed. Click "Download" to install them on the tablet



The recently installed map is displayed by default. If you want to view a different map, go back to the previous screen, then select "My Maps" and check the box next to the map you want to display.

In the Routing and Navigation modules, the map selection must be set to "raster/vector" for the map to display.

Zoom in to view map details

2. Raster Mapping (public and private)

Avalon is compatible with any map in raster format: mbtiles, kap, tiff, or geotiff.

Avalon allows you to load your personal maps if they are in one of the formats listed above.

The free maps provided by certain organizations are preloaded in the app and can therefore be downloaded for free to your tablet.

The countries covered are:

- United States
- New Zealand
- Brazil
- Argentina

Raster map packs based on raster maps from SHOM, UKHO, and NOAA were discontinued in early 2025.

Packs purchased in 2024 were updated in April 2025 but will no longer be updated. Users who purchased a "lifetime" pack can reload them as often as they like from the "Reload SHOM/UKHO-derived pack" menu.

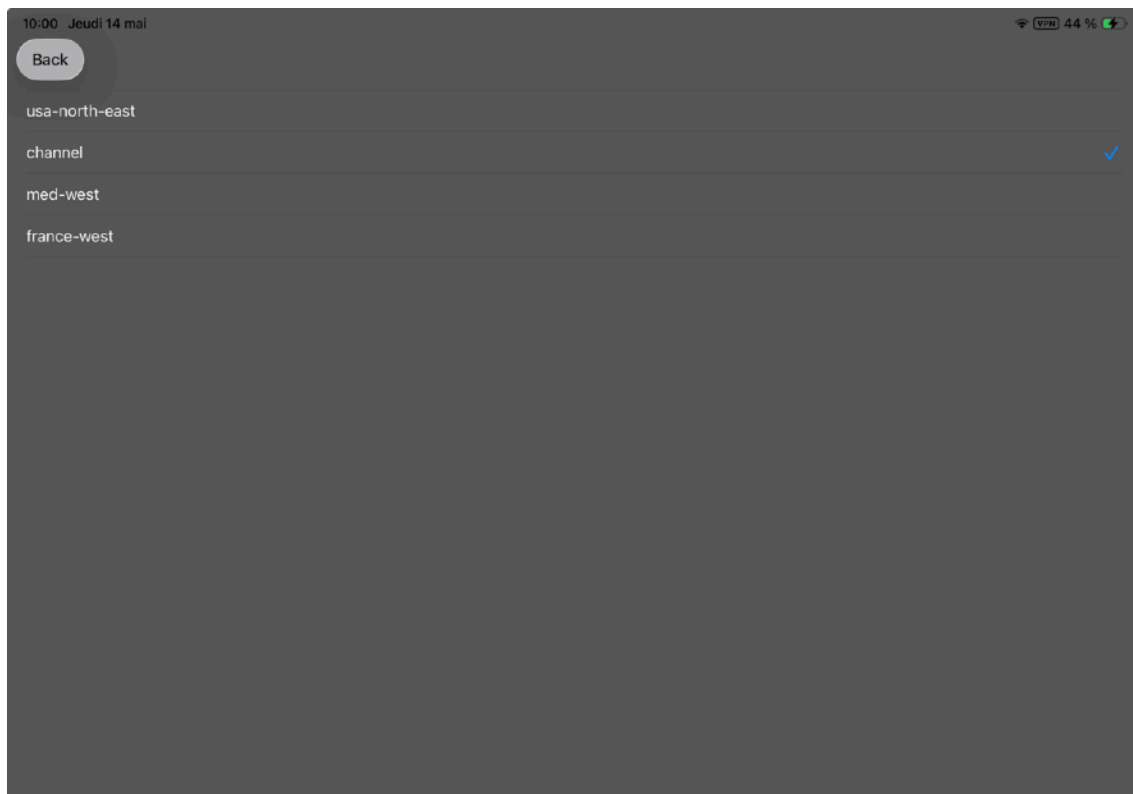
3. Mapping ©Navionics Boating

Refer to **chapter C.2** (General Settings - Navionics)

4. Managing maps downloaded to the tablet

Depending on your planned trip, you may not need to view all the maps available on your tablet. You can make certain maps “active” and others “inactive.” To do this, go to the “Settings” menu, then “Map Settings,” then “My Maps”

Check the box next to the map you want to use. You can only activate one map at a time to avoid display conflicts.



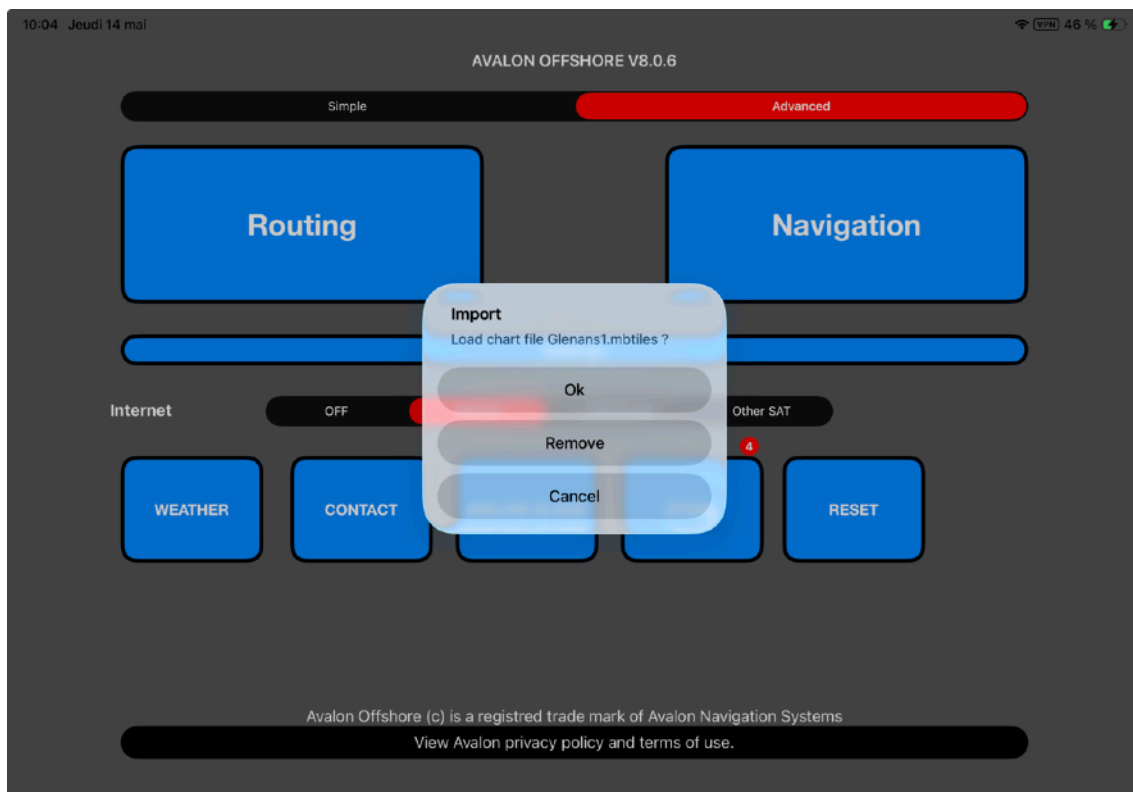
5. Uploading your personal maps

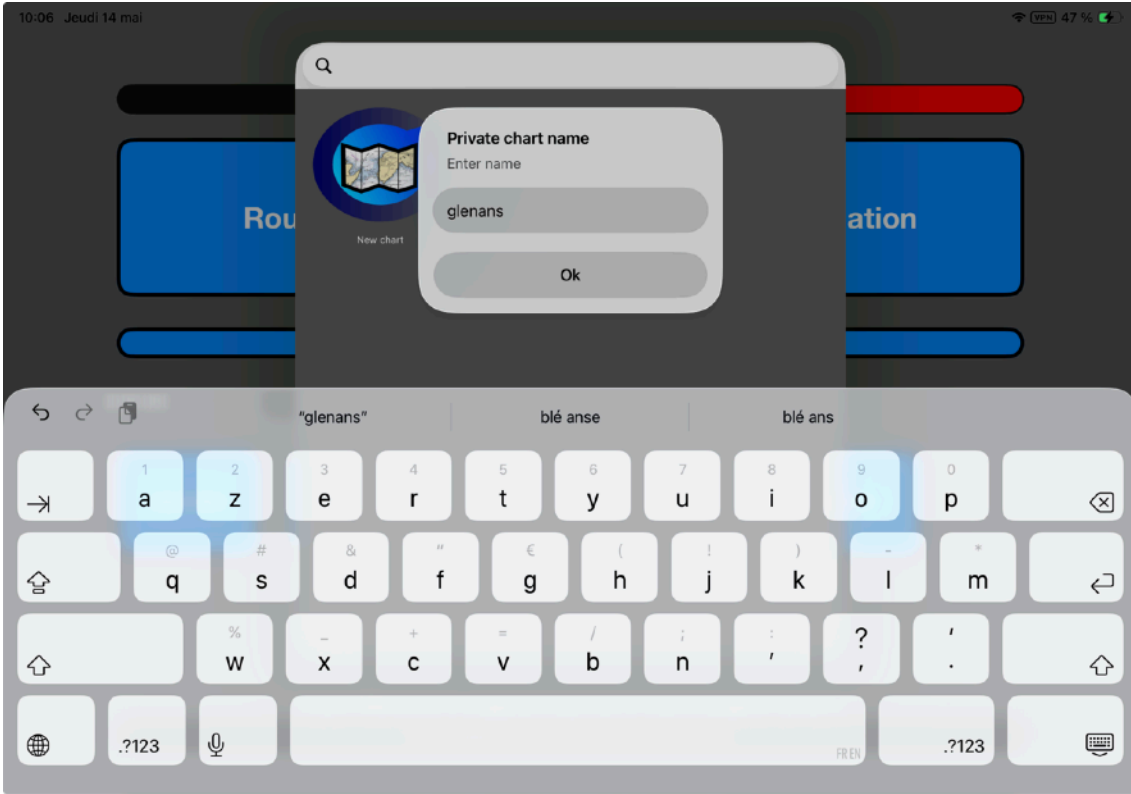
You can load your personal charts into Avalon. These charts must be in raster or mbtiles format. They can come from various sources: purchased from a hydrographic agency such as SHOM or UKHO, or downloaded from the Internet. These maps must be in ".kap", ".tif", or ".mbtiles" format.

Multiple charts can be compressed and grouped into a file in ".zip" or ".7z" format. In this case, there is a limit of 10 charts per zip or 7z file.

a. Apple

1. Avalon supports maps in the GeoTIFF, KAP, and MBTiles formats. The loading procedure is the same as for loading a GRIB or polar file.
2. Place the map in the Avalon folder using file transfer; see Chapter I. Transferring Personal Files.
3. Start Avalon
4. Go to the "Nautical Charts" menu
5. Then to "Private Charts"
6. Select "New Map"
7. Select the chart from the list of transferred charts
8. Then enter the chart name so you can find it later in the "My Charts" folder.





b. Android

Same as on Apple.

Place the map in the "Downloads" folder (also possible via email for small maps)

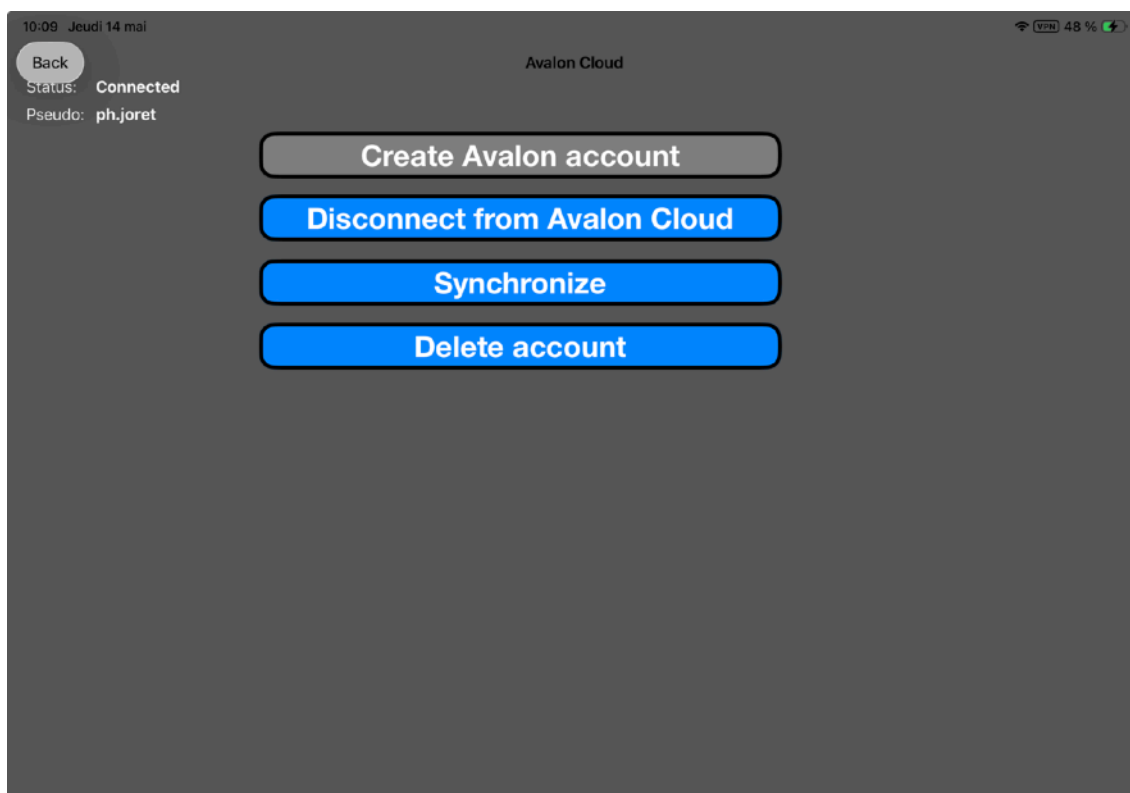
Avalon launches and asks for the map's name so you can find it later in the folder of loaded maps and then select the maps you need for the cruise.

H. Avalon Cloud

1. Registration and Synchronization

Avalon Cloud is one of Avalon Offshore's standard features that allows you to:

- Synchronize routes across multiple devices of the same type (iOS or Android). The route includes the departure point, destination, waypoints, and no-go zones.
- Synchronize your route profiles across multiple devices.
- Compare your polars with your actual navigation data and modify them as needed
- Convert a "composite" route into sail-by-sail routes (SailSelect)
- Batch-import your POIs (points of interest) so you can use them later in your route planning.

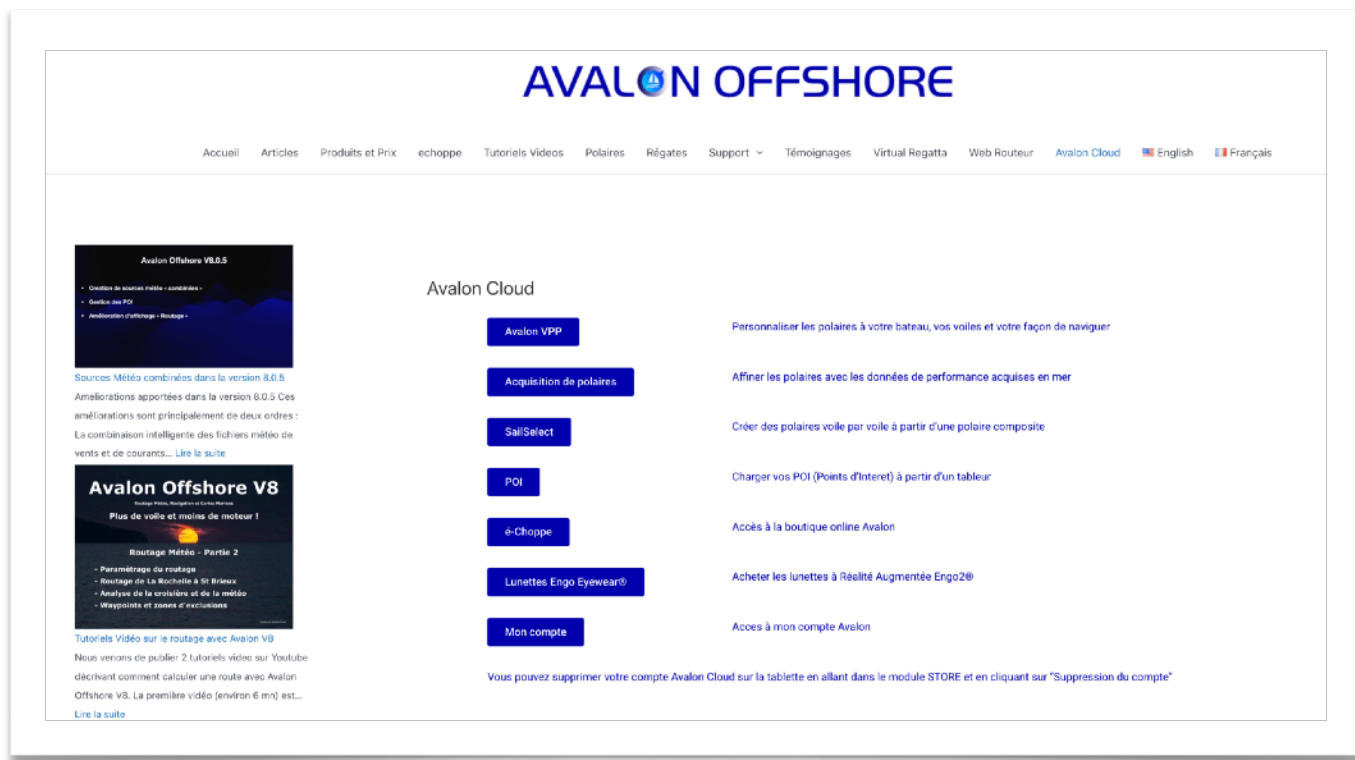


To create an Avalon Cloud account (free) and sync multiple data sets with your web space, you must first create an account on the Avalon website under the "Login" section. Starting with version 7.1, you can also create an Avalon Cloud account directly from Avalon Offshore.

It is IMPORTANT to make any purchases on the Avalon e-shop using STRICTLY the same Avalon Cloud account. If not, your purchases cannot be validated in the application.

If you created your Avalon Cloud account on your tablet, you will need to log in to the website using the same credentials.

If you created your Avalon Cloud account on the website, you will need to log in to Avalon Offshore using the same credentials. Feel free to sync to verify the connection.



Once created, go to Avalon Offshore and tap AVALON CLOUD on the app's main page

- Log in with the username and password you created on the website.
- Then sync Avalon Offshore with Avalon Cloud by clicking SYNCHRONIZE.

Synchronization between Avalon Offshore and Avalon Cloud will transfer:

- Routes
- Routes
- POIs and waypoints
- Performance data collected at sea
- Option purchases made in the Avalon e-shop: premium maps and weather.

Synchronization allows you to easily transfer your data between multiple Android and/or iOS tablets and phones.

2. Transferring speed profiles

Avalon Cloud will be very useful for transferring your speed logs between multiple tablets and phones, whether they are Apple or Google devices.

Of course, you must have created an Avalon Cloud account and ensure that the various tablets are logged into that account:

Example: To transfer the active polaire from Tablet A to Tablet B.

- Connect both tablets to the same Avalon Cloud account
- Synchronize Tablet A to transfer the active route from Tablet A to Avalon Cloud
- Synchronize Tablet B to transfer the route from Avalon Cloud to Tablet B

Note: For the transfer to occur, the date of the last modification of the profile on Tablet A must be later than the date of the profile stored on Avalon Cloud. If this is not the case, go to "Edit My Boat" on Tablet A, view a sail, then confirm to update the profile modification date.

- We recommend saving (archiving) the active polars on the original tablet
- Synchronize the original tablet with Avalon Cloud from the “Avalon Cloud” menu on the main page
- Go to the target tablet and perform a synchronization

Your polar data will now be available on both tablets and phones

3. Transferring navigation data collected at sea

After collecting performance data during your sailing trips, you must transfer it to your Avalon Cloud account on the web to refine your existing performance profiles.

- We recommend saving (archiving) the active route on the original tablet
- Synchronize the original tablet with Avalon Cloud from the “Avalon Cloud” menu on the main page.
- The data collected at sea is transferred, along with your active route profile, to the web.
- Go to the “Route Profile Acquisition” module in your web account
- Modify and save your polars (see Chapter 4.c Acquisition of Polars at Sea)
- Return to your tablet and sync again.

4. SailSelect to convert a composite polars chart into polars charts by sail

Avalon VPP allows you to calculate your speed polars sail by sail. This then allows you to directly calculate a route that always takes the best sail into account.

Some high-end PC software programs rely solely on a composite polars chart and sail usage ranges.

If this applies to you and you have your composite polars and the usage ranges for each of your sails based on wind speed (TWS) and true wind angle (TWA), you can recreate your polars sail by sail using SailSelect in your Avalon Cloud account.

(See Chapter 4.f SailSelect: Composite Polars -> Multiple Sails)

5. Import Points of Interest in batch using CSV format

If you frequently use the same cruise routes or regatta courses, you can enter them into your Avalon Cloud account by filling out a CSV file.

Once uploaded, the synchronization between your tablet and Avalon Cloud will transfer these frequently used points to Avalon Offshore.

You can do this through your yacht club or sailing club so your friends can benefit from your work by sending them the CSV file you’ve prepared. They can then upload it to their Avalon Cloud account and sync it with their tablet.

6. Transfer your no-sail zones to multiple tablets

Exclusion zones and lines can be synchronized across multiple devices, whether they are Google or Apple devices.

These exclusion zones can be local—that is, for a single route—or global, applying to multiple routes, such as traffic separation zones or wind farm areas.

I. Transferring Personal Files to Avalon

You may wish to transfer your maps, polars, or external weather files (wind GRIBs) to Avalon. The procedure for doing so is similar.

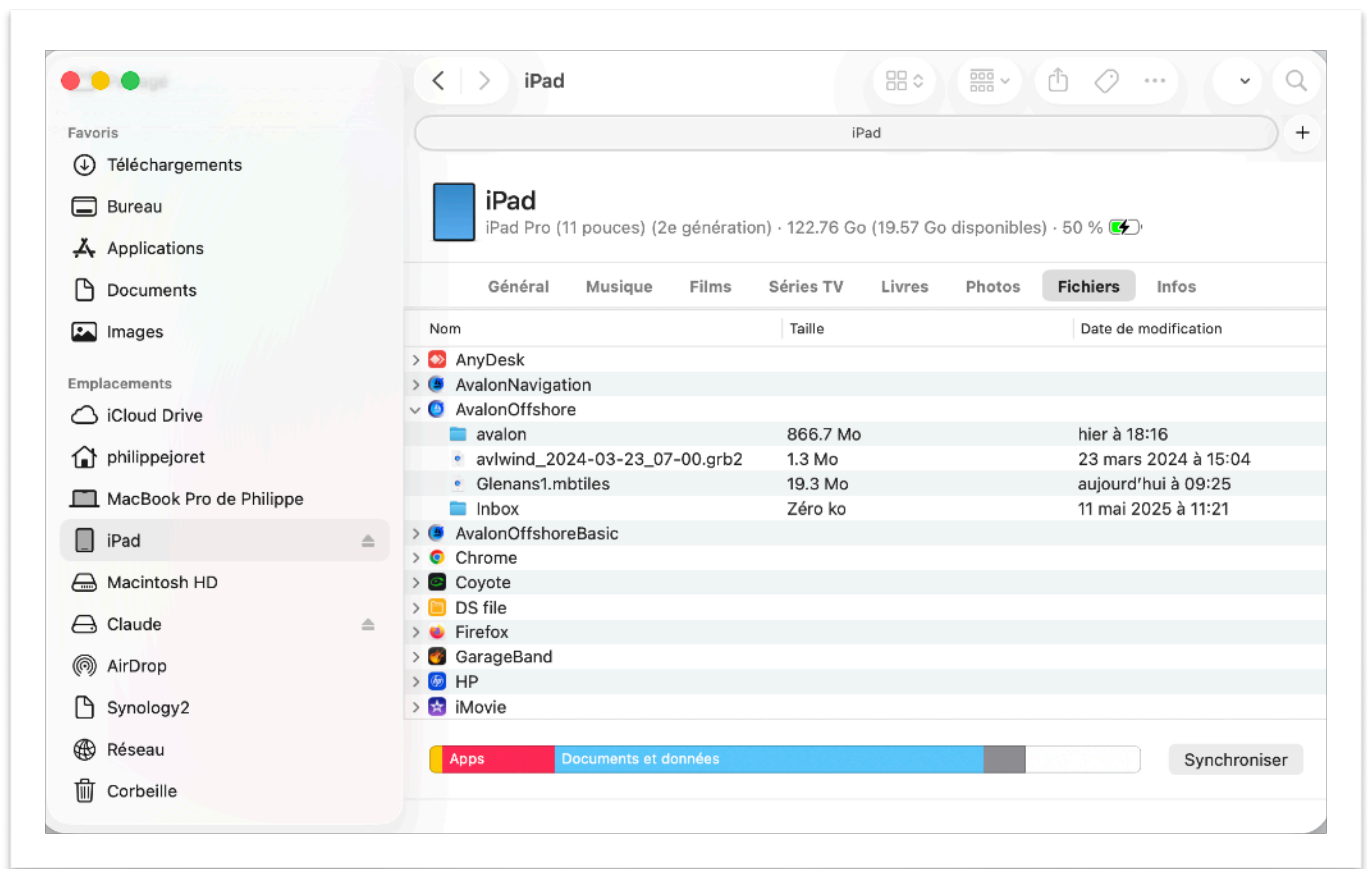
Once these files are uploaded to the app, Avalon will integrate them if they comply with the formats recognized by Avalon.

The procedure may vary depending on the platform used:

- iOS on iPad/iPhone
- iOS on macOS
- Android

1. iOS on iPad/iPhone

1. Connect your iPad/iPhone to your computer
2. Drag the file(s) into the Avalon Offshore folder on the iPad/iPhone
3. Synchronize
4. When you open Avalon, the file will be imported after any necessary processing on our server (e.g., for charts purchased directly from SHOM)



2. iOS on MacBook (M1 and later)

1. Click on "Files" in the menu, then select the file

3. Android

1. Place the file in the Downloads folder (or send via email for small files)
2. The file will be integrated into the app when Avalon Offshore opens.

J. Store

The "STORE" menu lists all your Avalon purchases and subscriptions made on the App Store or Google Play.

The Store menu notifies you of available updates.



Purchases made on the Avalon website are not included (due to potential conflicts with Apple and Google)

- LICENSE allows you to check if you are using the latest version of Avalon and, if necessary, update it if you are not.
- PREMIUM lets you check the status of your Premium annual weather subscription and subscribe if needed.
- Purchase: This option is available in the Avalon Store.
- RESET SUBSCRIPTIONS allows you to reset your Premium and Map subscriptions if you switch tablets or install Avalon on an additional tablet or phone.

K. Race Option

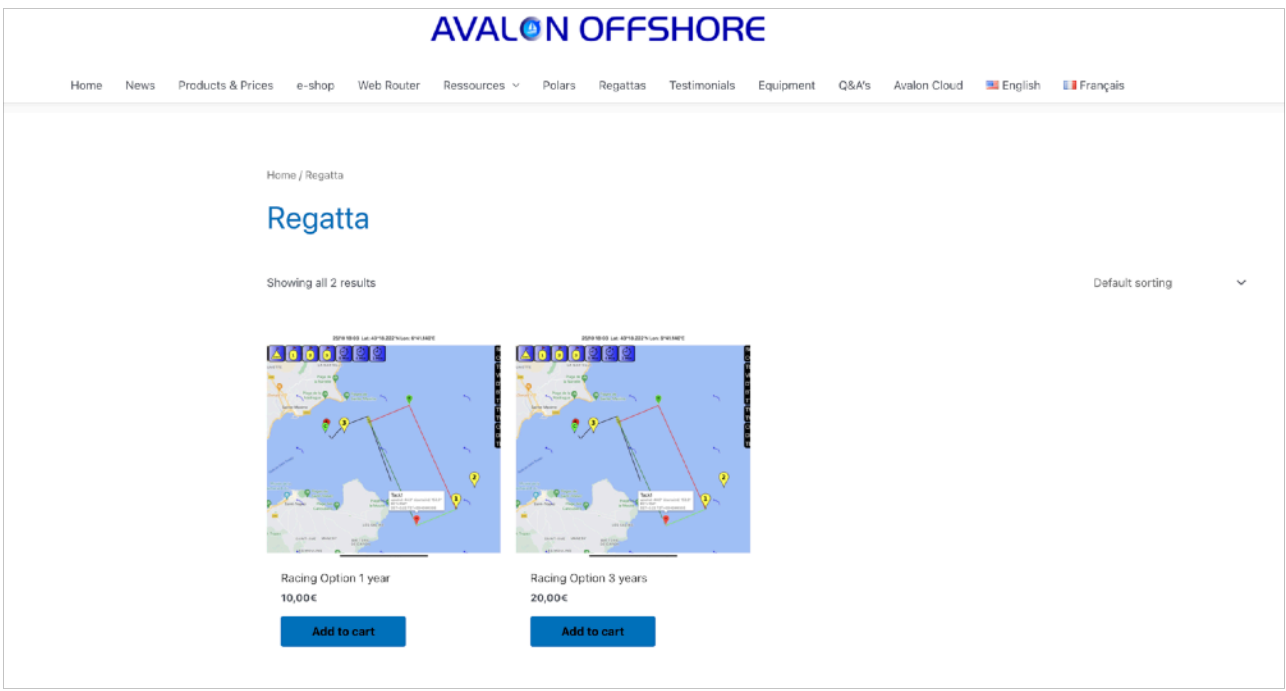
The Race option is designed for regatta sailors and recreational boaters experienced in weather routing.

It includes:

- Race start management (navigation)
- Race optimization: laylines, time and distance to laylines, Time to Burn (time to lose) before the starting signal
- Multi-scenario analysis (route planning)
 - Various weather models
 - Route comparisons
 - Sensitivity of the route to performance relative to polars
 - Sensitivity of the route to (wind strength, angle, time lag)
- The impact of sea state on the boat's polars (routing)
- The ability to shift weather data (routing)
 - In time
 - By force
 - By angle

See “Race Optimization” in the Navigation section

Race option can be purchased in the Avalon e-shop on the web.



The screenshot shows the Avalon Offshore website's Regatta product page. The header includes the company name and a navigation menu. The main content area features a breadcrumb trail, the product title 'Regatta', and a 'Showing all 2 results' indicator. Two product cards are displayed, each with a map of a racing route and an 'Add to cart' button. The first card is for 'Racing Option 1 year' at 10,00€, and the second is for 'Racing Option 3 years' at 20,00€.

L. Weather (old version)












This feature has been combined with the routing module since Version 8. However, we have kept it in the system for:

- Display weather data statically (not synchronized with the boat's movement) for a specific region.
- Allow our "legacy" users to continue using this module if they wish.

After calculating the route, we now monitor how the weather is changing relative to the boat's projected progress. This analysis is performed in the WEATHER module.

Note: To initialize the weather, you must have calculated a route at least once.

1. Meaning of the icons

	Help
	Displays wind forecasts. White = yes. Tap the icon to view the different displays.
	Displays swell forecasts. Tap 1 = total swell. Tap 2 = swell. Tap 3 = wind waves.
	Displays current forecasts. Tap the icon to view different displays.
	Displays cloud cover
	Displays rain forecasts
	Displays the temperature
	Displays thunderstorm risk
	Displays pressure and isobars
	Zoom out
	Zoom in
	Download the weather

2. Weather sources

a. Introduction

Some users may encounter issues when using Avalon. These problems are very often caused by selecting the wrong weather source.

With Avalon Offshore, there is no longer a need to load “GRIB” files as with traditional routing software. The weather data required to calculate the route is automatically downloaded based on:

- The weather sources selected in the “Weather Sources” menu
- The navigation area, determined by the departure and arrival points and any waypoints. This area can be modified by moving the corners of the navigation rectangle on the tablet.
- The cruise duration defined in the routing settings. If your approximate cruise duration is 72 hours, Avalon will only load 72 hours of weather data starting from the scheduled departure date. If the selected weather source does not have a sufficient forecast horizon, Avalon will notify you and calculate a partial route using the available wind data.

The selected wind source must therefore:

- Be broad enough to cover the navigation area.
- Make sure you have enough forecasts available, taking into account the planned duration of the cruise and the intended departure date. If you’re planning a coastal trip in France, you can use NOAA GFS two weeks before departure, then Météo France Arpège four or five days before, and switch to Arôme just before departure.
- Take the navigation area into account. For coastal navigation, a high-resolution source like Arôme or Arôme HD can be very effective. For offshore navigation, you should opt for a wind source with a larger grid, such as Arpège, CEP, NOAA GFS, etc., because coastal effects will no longer impact the route.

The different types of weather sources are:

- Winds and gusts (with satellite transmission)
- Currents (tidal and oceanic)
- Waves (swell and wind waves)
- General weather
 - Pressure
 - Rainfall
 - Temperature
 - Thunderstorm indicator
 - Cloud cover
- Isobaric curves (wide coverage), with satellite transmission option

Avalon offers the option to **automatically select** weather sources in the calculation settings based on:

- The navigation area, defined by the departure, arrival, and waypoints.
- The estimated duration of the cruise.
- The planned departure date.

Below are tables to help you select the weather model best suited to your sailing area and desired forecast horizon, if you prefer to choose your weather models manually rather than using the automatic selection.

For a complete list of weather models, including their coverage, forecast horizon, resolution, and production times, please refer to our reference document “Weather Sources”

<https://www.avalon-routing.com/fr/guide-utilisateur-et-annexes/>

For example, Great Circle, Skiron, Météo Consult, etc.

Note: Each weather model provider has its own way of encoding data. Avalon has been tested with NOAA, Skiron, Météo Circle, and Great Circle GRIB files. If you encounter problems loading an external GRIB file, you can contact us by sending us the GRIB file in question, and we will modify our GRIB reader accordingly.

Transfer your file via email, file transfer, or AirDrop on Apple to the Avalon directory.

On Android, via email, Google Drive, or the Downloads folder.

If the file is attached to an email, opening that email will allow you to copy the file into Avalon. If the file is in the Avalon folder (iOS) or in the Downloads folder, the file will be integrated into Avalon when you open the app.

Below is an example of how to load a GRIB weather file from MétéoConsult®.

On Android, you need to place the file in the “downloads” folder, send it via email, or transfer it from a cloud storage service.

Next, you need to tell Avalon what type of file it is: Polar Weather GRIB or MBTiles Map.

2. Weather Module Settings

The old “Weather Source Selection” module is now available in the Weather module settings

It is also in these settings that you choose which weather data to download. With a strong network connection (Wi-Fi or 4G), we recommend selecting everything.

With a satellite connection, we recommend downloading only wind data and isobaric curves (max 72 hours and standard accuracy).

The areas covered by the isobaric curves are:

- North Atlantic
- Western Europe (in line with Arpège and Icon)
- South Atlantic
- Indian
- North Pacific
- Central Pacific
- South Pacific

The downloaded isobaric zone is automatically selected based on the waypoints.

To download the isobaric zone or reload the weather data, click the "down arrow" icon in the weather module.

The data selected in the weather module settings will be downloaded.

If you want to view the map without the weather map, tap "Weather Map Off" at the top right of the screen.

If you are in "Iridium Go" or "Other Sat" mode, Avalon will show you the amount of data to be downloaded.

If you are on land without Iridium Go, select “Other Sat” to see the data volume.

In the above case, we are downloading isobars for the entire North Atlantic over 72 hours, totaling 53 KB, which takes 5 minutes to download with an Iridium Go.

The volume of isobaric data for the North Atlantic over 72 hours with a 3-hour interval may vary depending on the weather conditions, which affect the number of isobars to be downloaded. On average, it takes 50 KB, or 5 minutes of Iridium Go connection time, to download all isobars for 72 hours in 3-hour intervals.

Once the download is complete, double-click the wind icon (in the weather menu) to simultaneously display:

- The boat's position
- Winds
- Beaufort scale zones
- The isobars (note: unlike the winds, which are interpolated, the isobar curves are fixed in 3-hour intervals)

You can refresh all the weather data for the navigation area without having to recalculate a route. To do this, simply click the "down arrow" icon at the bottom left of the screen.

The downloaded area will cover at least the rectangle defined on the screen.

The scroll arrow in the top-left corner allows you to scroll through the weather data along with the boat's predicted position.

By clicking the "wind" icon multiple times, you can view different wind displays

- Tap 1: Wind vanes only
- Tap 2: "Windy" style view (on iOS only)
- Tap 3: Wind vanes, Beaufort scale, and isobars (over a very large area).

By selecting the icon on the left side of the screen, you will display the weather chart for:

- Winds, Beaufort scale, and isobars
- Currents
- Precipitation
- Pressure and isobars
- Temperature
- Cloud cover
- Waves
- Thunderstorm areas

For example, view of pressure and isobars below

Starting with version 5.5.2, the weather menu has been improved to better display swell and wind waves in terms of height and direction. This visualization also allows you to know in advance the direction of the swell at your anchorage and thus choose the right anchorage accordingly.

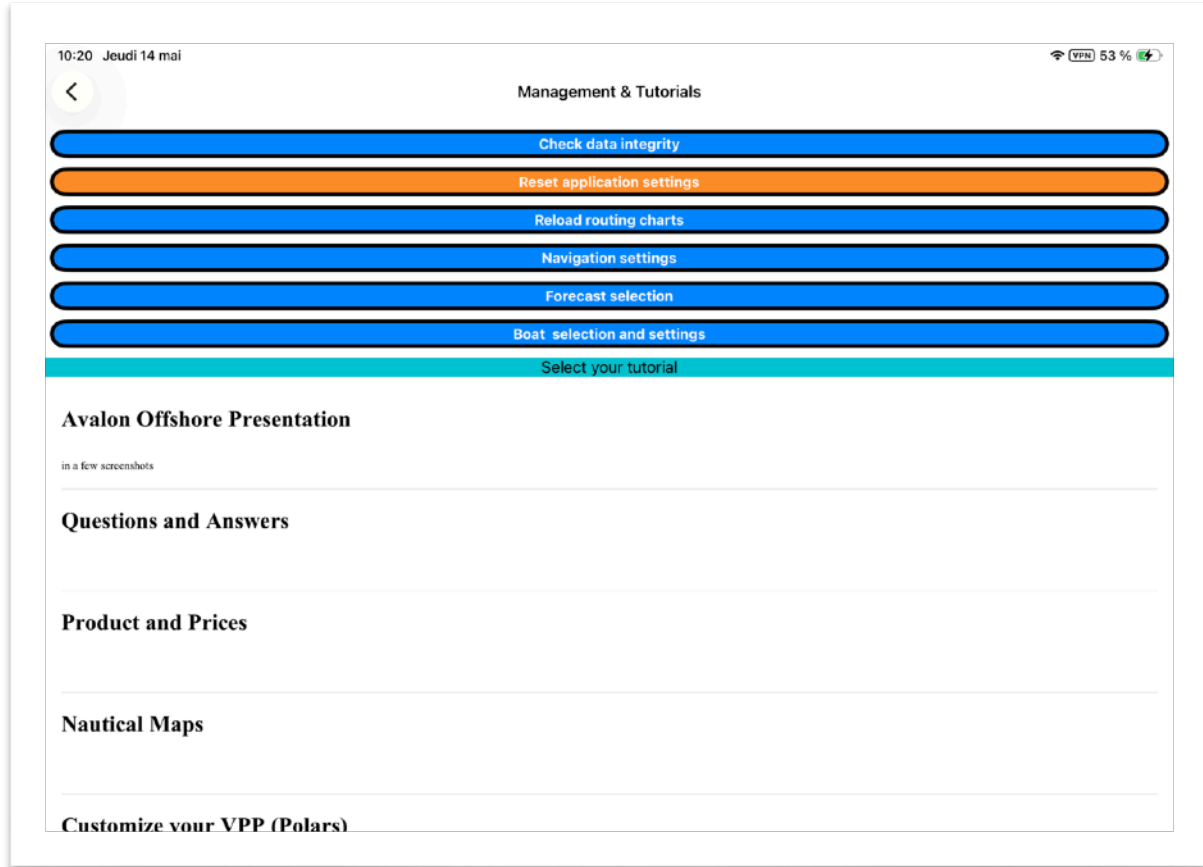
To change the view, tap the "swell" icon



By tapping repeatedly, you can display the total wave, the swell, or the wind wave (direction and strength).

M. Reset the app

Allows you to reset the application's settings and database without having to completely reinstall it.



- **Check app integrity:** Performs a general check of the app.
- **Reset the application:** Restores the application to its original state without having to reinstall it
- **Reload routing maps:** Forces the download of previously installed internal maps. This is done automatically in the routing module.
- **Navigation settings:** In case of errors in Wi-Fi/NMEA settings, etc., this function allows you to re-enter the Navigation module without having to reinstall the app
- **Weather model selection:** Resets the weather models.
- **Boat selection and settings:** Directly access the boat settings.