4. Select the location for the subsequent waypoints, required to complete your route.
5. When your route is complete press and hold the **OK** button and then select **Finish build** from the context menu.

   The finish route build notification is displayed.
6. From the notification you can either:
   - Select **Follow** to immediately start following the route, or
   - Select **Follow in reverse** to follow the route in reverse waypoint order, or
   - Select **Route plan** to view the route plan menu, or
   - Select **Exit** to return to the chart app.

Note:

You can press the **Back** button at anytime during route building to remove the last waypoint you placed.

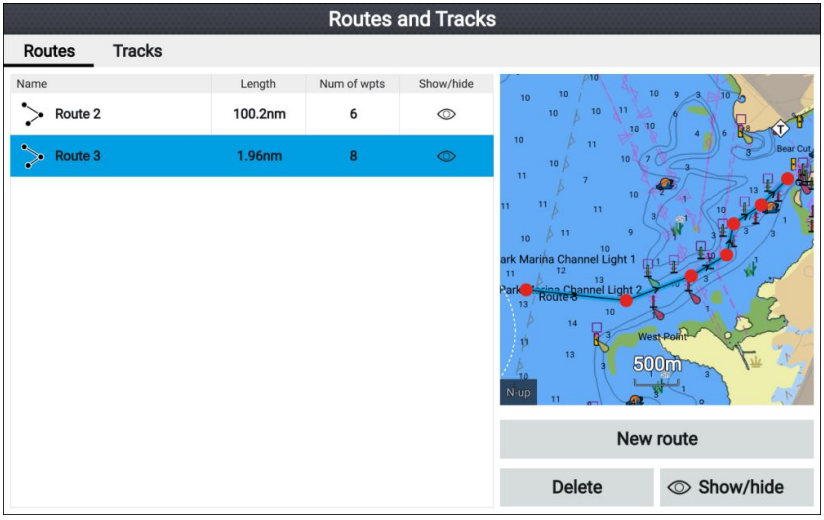
Route management

Routes are managed using the routes and tracks menu.

The **Routes & Tracks** menu can be accessed from the Homescreen and from the Chart app: **Homescreen** > **Routes & Tracks**, or **Chart app** > **Menu** > **Routes & Tracks** .

When the routes and tracks menu is opened the routes menu is displayed by default.

Routes menu

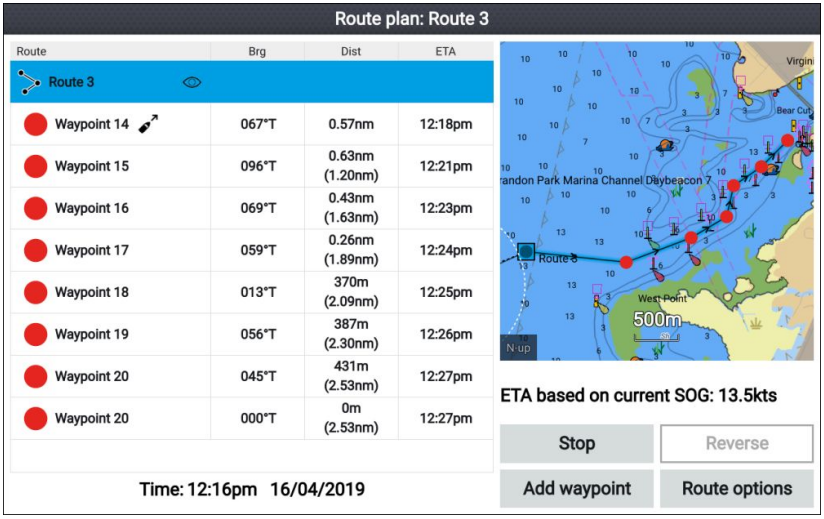


From the route menu you can **Delete** routes, create a **New route** using existing waypoints or **Show/hide** routes.

To view the route plan, select a route and choose **View route plan** from the pop-over menu.

Route plan

The route plan displays a list of all waypoints in the route and includes a LiveView pane showing the route's location.



From the route plan you can:

- navigate the route by selecting **Follow**
- change the route direction by selecting **Reverse**
- add an existing waypoint to the route by selecting **Add waypoint**
- change route options, such as route name, route color, route hide or delete the route by selecting the relevant option from the **Route options** pop-over menu.

Note: Route names can be any combination of letters, numbers, symbols and special characters and can include up to 16 characters. Route names must be unique.

By selecting a waypoint from the route plan you can use the pop-over menu to:

- change the position of the waypoint in the route by selecting **Move up** or **Move down**.
- remove the waypoint from the route by selecting **Remove from route**.
- delete the waypoint by selecting **Delete waypoint**.

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- edit the waypoint details by selecting **Edit waypoint**.
- start to follow the route from the selected waypoints by selecting **Follow from here**.

4.3 Tracks

Tracks are used to record where you have been. Tracks are made up of track points that are created at regular time or distance intervals.

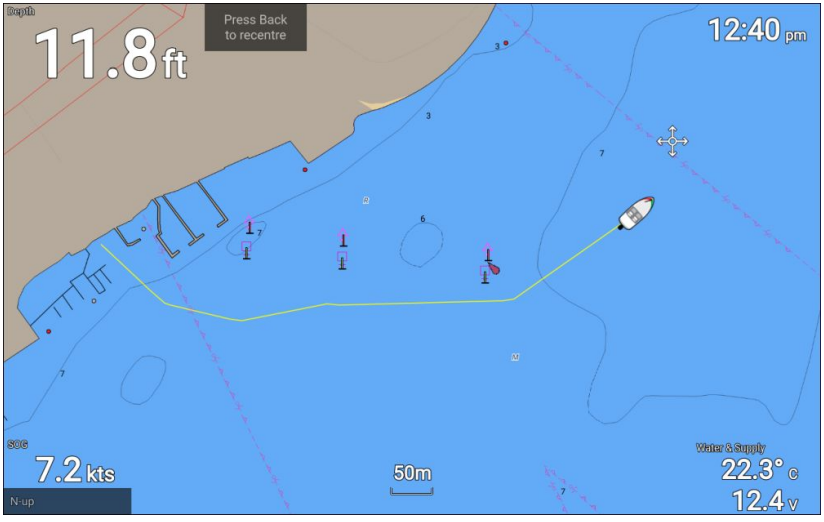
You can store up to 15 tracks on your display, each track can contain up to 10,000 points.

Tracks can be converted into routes so that they can be followed.

Tracks can be imported and exported from the display. For more information, refer to: **User data import and export p.37**

Creating a track

You can record your vessel's voyage using Tracks. Once a Track is saved it can be converted to a route so that the same passage may be followed again at a later date.



With the chart app displayed:

1. If required, press the **Back** button to enter motion mode.
2. Press the **OK** button.
   The boat details pop-over menu is displayed.
3. Select **Start track**.
   Your vessel's voyage will now be recorded.

4. When your voyage is complete, select **Stop track** from the boat details pop-over menu.

You can also start a new track recording at anytime from the Routes & Tracks menu: accessible from the homescreen: **Homescreen** > **Route & Tracks** and from the chart app menu:**Menu** > **Routes & Tracks**.

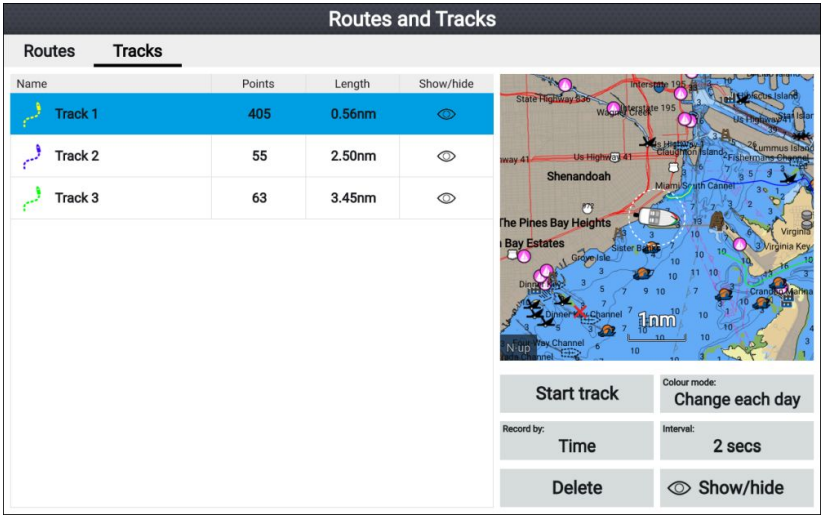
Track management

Tracks are managed using the tracks menu.

The **Routes & Tracks** menu can be accessed from the Homescreen and from the Chart app: **Homescreen** > **Routes & Tracks**, or **Chart app** > **Menu** > **Routes & Tracks** .

When the routes and tracks menu is opened the routes menu is displayed by default. Select the **Tracks** tab to display the tracks menu.

Track menu



From the tracks menu you can:

- Start or Stop tracks recording.
- Change track recording settings.
- Delete tracks.
- Show or hide tracks.

By selecting a track from the list you can use the pop-over menu to:

- edit the track name.

Note: Track names can be any combination of letters, numbers, symbols and special characters and can include up to 16 characters. Track names must be unique.

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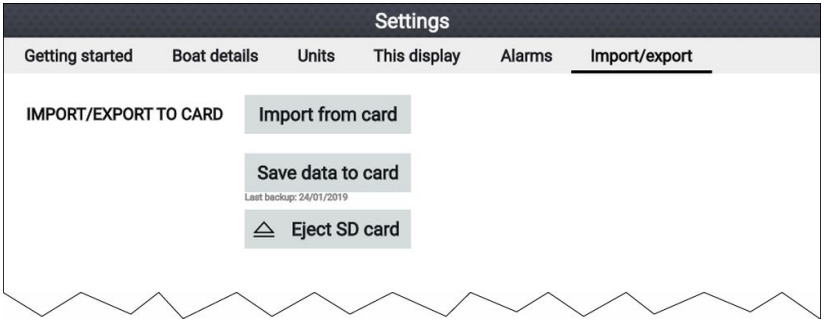
- change the line color the track uses.
- Convert the track into a route.
- Delete the track.

4.4 User data import and export

User data (i.e.: Waypoint, Routes and Tracks) can be imported and exported from your display. User data is saved in the common .gpx file format.

The Import/export menu can be accessed from the homescreen settings menu **Homescreen** > **Settings** > **Import/export**.



Saving user data

You can backup your user data (waypoints, routes and tracks) to a MicroSD card.

1. Insert a memory card into your display's card reader.
2. Select **Save data to card** from the Import/export menu: **Homescreen** > **My data** > **Import/export**.

   A pop-over menu is displayed.
3. Select the desired option:
   - **Save all data** to save (export) all waypoints, routes and tracks.
   - **Save waypoints** to save (export) all waypoints.
   - **Save routes** to save (export) all routes.
   - **Save tracks** to save (export) all tracks.
4. Select **Save** to save the user data using the default filename. Alternatively:
   i. Use the onscreen keyboard to enter your own filename and then select **Save**.
5. Select **OK** to return to the Import/export menu, or select **Eject card** to safely remove the memory card.

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The user data file is saved to the '\Raymarine\My Data\' directory of your memory card in gpx format.

Importing user data

You can import user data (i.e.: GPX format Waypoints, Routes and Tracks) to your display.

1. Insert the MicroSD card that contains your user data files into the memory card reader on your display.
2. Select **Import from card** from the Import/export menu: (**Homescreen** > **Settings** > **Import/export** > **Import from card**).
3. Navigate to your User data file (.gpx).
4. Select the relevant GPX file.

   Your user data has now been imported.
5. Select **OK**.

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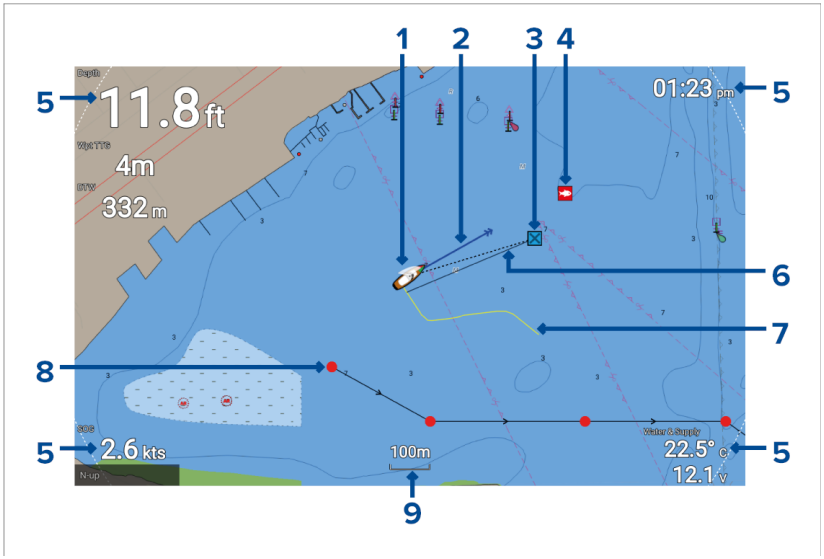
Chapter 5: Chart app

5.1 Chart app overview

The chart app displays a representation of your vessel in relation to land masses and other charted objects, which enables you to plan and navigate to your desired destination. The chart app requires a GNSS (GPS) position fix in order to display your vessel at the correct location on a world map.

For each instance of the chart app you can select which electronic cartography you want to use. The selection will persist over a power cycle.



1	**Vessel icon** This icon represents your vessel, only displayed when a GNSS (GPS) position fix is available. The icon is replaced with a Black dot if no heading or COG data is available).
2	**COG line** If Course Over Ground (COG) data is available, you can display a COG vector for your vessel.
3	**Destination waypoint** During a go to, this is the current destination waypoint.
4	**Waypoint** Use waypoints to mark specific locations or points of interest.

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5	**Databoxes** Databoxes display key information that is available on your system. You can configure which data is shown in each databox or the databoxes can be hidden.
6	**Destination line** During a go to, a dashed line connects your vessel to the destination point.
7	**Track** You can record the passage your vessel takes using Tracks.
8	**Route** You can plan your route in advance by creating a Route using waypoints to mark each route leg.
9	**Chart range** Identifies the scale for the displayed chart range.

Chart app controls

The chart app has 2 control modes, motion mode and cursor mode. The behavior of some controls are dependent upon control mode.

Motion mode

Motion mode is the default mode when the chart app is opened. In motion mode the vessel icon remains centered onscreen and the chart area automatically pans as progress is made.

Controls behavior:

- Pressing the **OK** button opens the vessel context menu.
- Pressing any button on the **Directional pad** will switch to Cursor mode.
- Pressing the **Waypoint** button will place a waypoint at your vessel's current location.
- Pressing the **Plus** or **Minus** buttons will range in and range out respectively, centered around your vessel .

Cursor mode

In cursor mode the chart area remains static and the vessel icon moves in the direction of travel.

Controls behavior:

- Pressing the **OK** button opens the context menu for the area or charted object directly under the cursor's position.
- Pressing any button on the **Directional pad** moves the cursor in the respective direction, when the cursor reaches the edge of the app window the chart area will pan in that direction.

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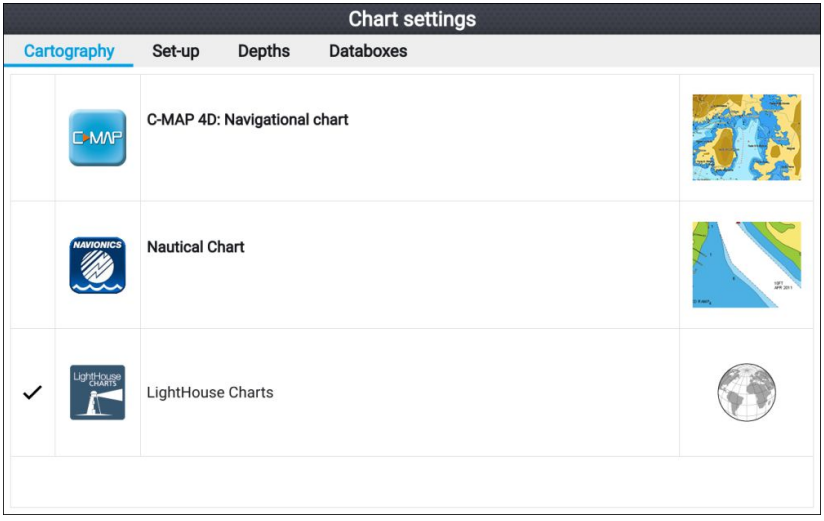
- Pressing the **Waypoint** button will place a waypoint at the cursor's location.
- Pressing the **Plus** or **Minus** buttons will range in and range out respectively, centered around the cursor position.
- Pressing the **Back** button will re-center the vessel icon and switch back to Motion mode.

Selecting a chart card

You can use LightHouse™ charts and compatible Navionics and C-MAP electronic charts. The electronic chart cards must be inserted into your display's MicroSD card reader.



From the chart app:

1. Press the **Menu** button.
2. Select the **Settings** icon.

   *Pressing the Directional pad's **Up** button once the menu opens will move to the bottom of the menu and highlight the settings icon.*

3. Select the cartography that you want to use from the Cartography tab.

The menu will close and the chart app will display your chosen cartography.

Chart modes

The chart app provides preset modes that can be used to quickly set up the chart app for your intended use.

To change chart mode select the required mode from the app menu.

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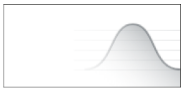
SIMPLE
Simple mode suppresses chart detail to provide a clearer, simpler view for general orientation. In simple mode only navigation-related menu options are available. Changes made to settings are not saved in simple mode.

DETAILED
Detailed mode is the default mode. Full chart details and menu options are available. Changes made to settings are saved.

FISHING
Fishing mode optimizes the chart app for fishing. If supported by your cartography, fishing mode also displays more detailed contour lines. Full menu options are available. Changes made to settings are saved.

RUNNING
Running mode optimizes the chart app for fast running. In running mode, chart detail is suppressed and full vessel offset is applied providing a clearer view ahead, ideal for faster running conditions. Full menu options are available. The Chart app can be configured to enter running mode automatically when vessel speed exceeds 10 knots. Changes made to settings are saved.



TIDES
In Tides mode, tide and current station icons are replaced with graphics representing tide and current conditions. Animation controls are displayed that enable playback of Tide and Current predictions over a 24 hour period.
Tides mode also suppresses chart detail, to enhance the tide and current graphics and enables set and drift vector graphics around your own vessel.

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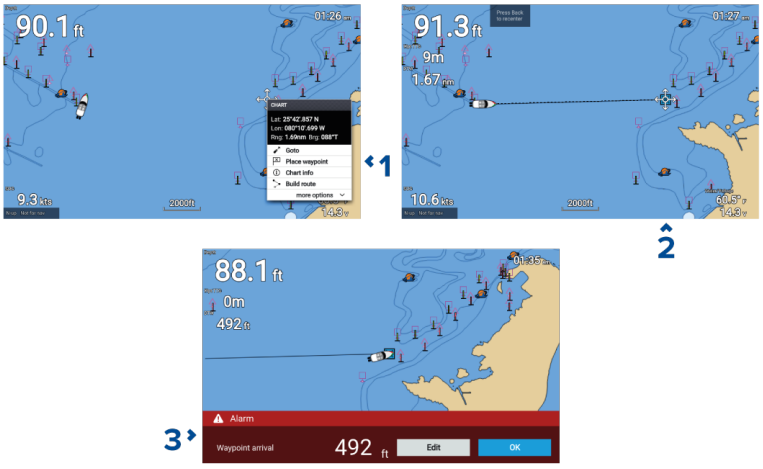
Navigation

Navigating to a waypoint or point of interest

You can perform a “Goto” to a Waypoint or to a specific location.



1. Select the waypoint or point of interest and select **Goto** from the context menu.

   *You can stop the **Goto** at any time by selecting Stop from the context menu, or by selecting another **Goto**.*

   The chart app will begin active navigation.
2. Navigate your vessel to the destination point, using the chart app as a guide.
3. Select **OK** to accept the waypoint arrival alarm, which is triggered when you reach a specified distance from the waypoint.

You can also perform a Goto from the **Go** menu: **Menu** > **Go** .

Adjusting the waypoint arrival alarm

The waypoint arrival alarm is enabled by default. The waypoint arrival alarm creates a virtual circle, of the specified radius, around the destination point. When your vessel reaches the virtual circle the alarm is triggered.

From the homescreen:

1. Select **Settings**.
2. Select the **Alarms** tab.
3. Select the **Arrival radius:** setting field.
4. Adjust the distance to the desired value.
5. Press the **Back** button to return to the alarms menu.

Note:

The waypoint arrival alarm can be disabled or enabled using the **Waypoint arrival:** toggle switch.

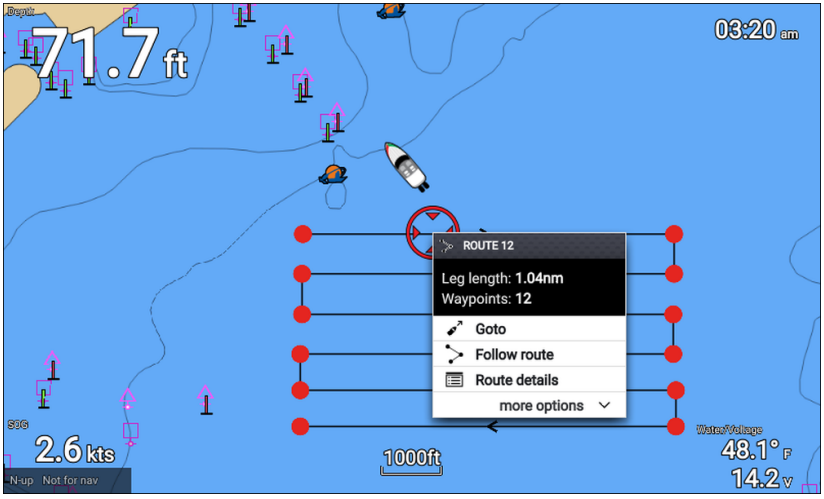
Restarting cross track error (XTE)

A cross track error (XTE) occurs when your actual route diverges from your original planned route. Restarting XTE plots a new course directly from your current position to your destination, rather than continuing to follow the original planned route.

1. Select **Restart XTE** from the **Navigation** menu: **Menu** > **Navigation** > **Restart XTE**.

Following a Route

Follow the steps below to navigate a saved route.



From the chart app, with the route displayed onscreen:

1. Select a route leg.

   The route context menu is displayed.
2. Select **Follow route** to follow the route from start to finish.

Alternatively you can select Follow route from the route pop-over menu, accessed from the Routes menu. **Menu** > **Routes & Tracks** > **Routes** > **<Route name>** > **Follow**.

For more information on routes and route management refer to: 4.2 **Routes**

Following a route from a specified waypoint

You can start following a route from any waypoint in that route.

From the chart app, with the route displayed onscreen:

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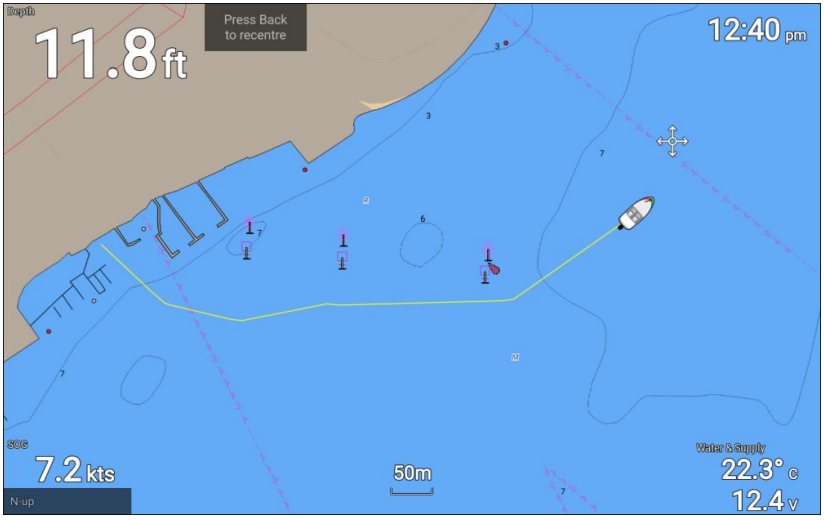
1. Select the waypoint that you want to start following your route from.
   The route context menu is displayed.
2. Select **more options**
3. Select **Follow from here**.

Creating a track

You can record your vessel's voyage using Tracks. Once a Track is saved it can be converted to a route so that the same passage may be followed again at a later date.



With the chart app displayed:

1. If required, press the **Back** button to enter motion mode.
2. Press the **OK** button.
   The boat details pop-over menu is displayed.
3. Select **Start track**.
   Your vessel's voyage will now be recorded.
4. When your voyage is complete, select **Stop track** from the boat details pop-over menu.

You can also start a new track recording at anytime from the Routes & Tracks menu: accessible from the homescreen: **Homescreen** > **Route & Tracks** and from the chart app menu:**Menu** > **Routes & Tracks**.

Automatic Identification System (AIS) support

With compatible AIS hardware connected to your display AIS targets can be tracked.

AIS equipped Vessels that are transmitting their position, and are within range of your vessel, will be represented in the Chart app using AIS target icons.

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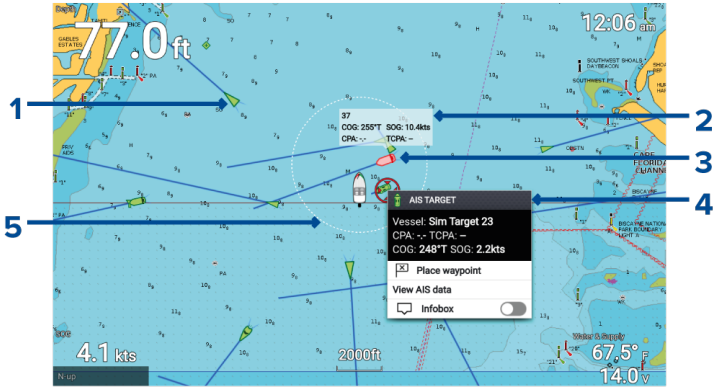
Note:

A maximum of 100 AIS targets can be tracked simultaneously. If there are more than 100 AIS targets within range of your vessel the closest 100 targets will be displayed.



1. **AIS target icon** — Example of an AIS target icon.
2. **AIS Infobox** — Information can be displayed for each target individually.
3. **Dangerous AIS target icon** — Example of an AIS target icon that is dangerous.
4. **AIS context menu** — The AIS context menu is displayed when an AIS target is selected.
5. **Safe distance ring** — A ring can be displayed which represents the dangerous target **Safe distance**.

RealBathy™

You can create precise personal bathymetric charts in real time using Raymarine's RealBathy™ feature.

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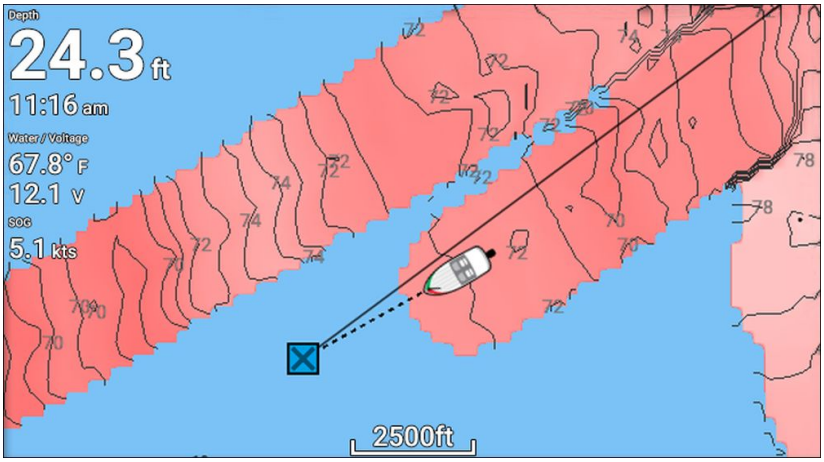

Note:

RealBathy™ requires compatible LightHouse™ NC2 charts and a MicroSD card with sufficient free space to record depth and bathymetry data.

When using RealBathy™, new contour lines are drawn in real time on the screen based on your transducer's depth readings. Color shading is used to reflect depth, with darkest shade signifying the shallowest area. The sonar data is recorded to the inserted memory card.

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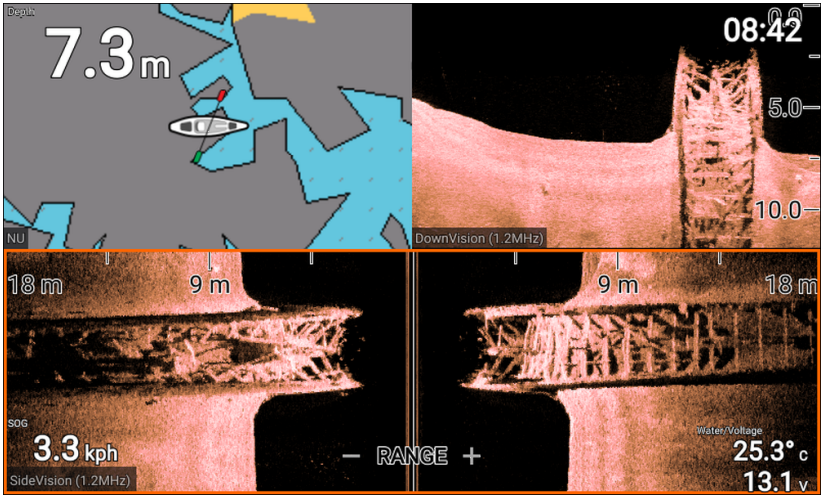
Chapter 6: Fishfinder app

6.1 Fishfinder app overview

The Fishfinder app displays a visualization of the echoes received from the transducer connected to your display and builds an underwater scrolling view of bottom structure and targets that pass under your transducer. Fishfinder channels are available that represent the different sonar technologies that are available depending on your display variant and connected transducer.

Example — Element HV display



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