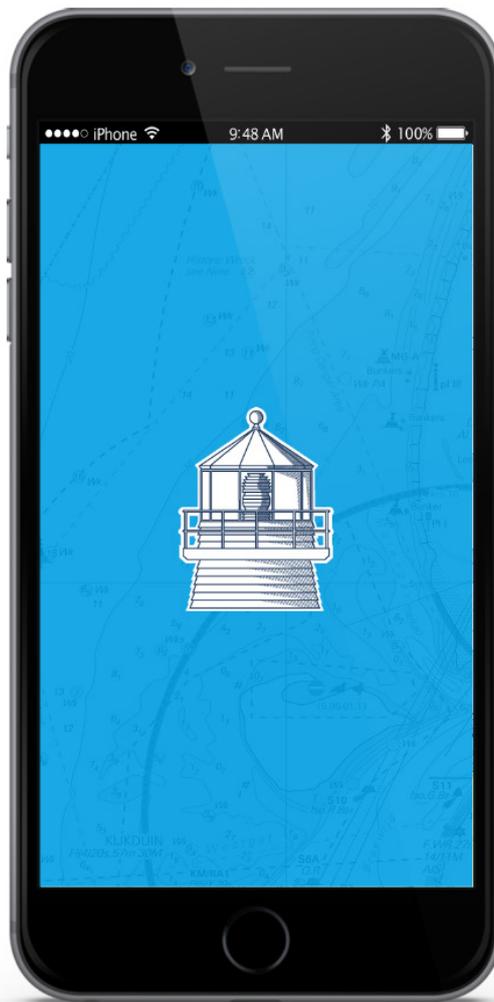


# User Manual

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## NV Charts App



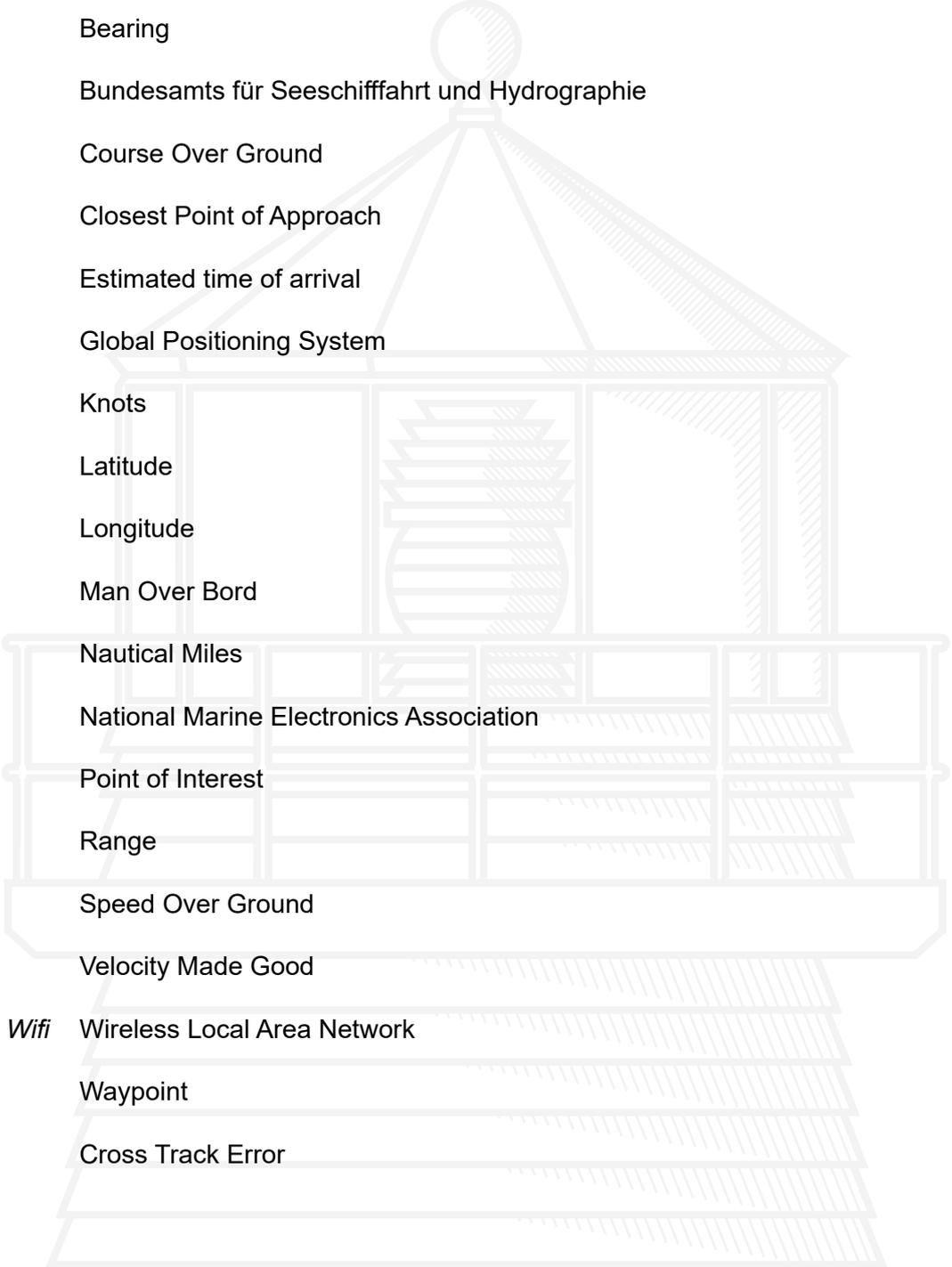
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## List of abbreviations



<i>AIS</i>	Automatic Identification System
<i>AIVDO</i>	AIS Own position Sentence
<i>BRG</i>	Bearing
<i>BSH</i>	Bundesamts für Seeschifffahrt und Hydrographie
<i>COG</i>	Course Over Ground
<i>CPA</i>	Closest Point of Approach
<i>ETA</i>	Estimated time of arrival
<i>GPS</i>	Global Positioning System
<i>kt</i>	Knots
<i>LAT</i>	Latitude
<i>LON</i>	Longitude
<i>MOB</i>	Man Over Bord
<i>nm</i>	Nautical Miles
<i>NMEA</i>	National Marine Electronics Association
<i>POI</i>	Point of Interest
<i>RNG</i>	Range
<i>SOG</i>	Speed Over Ground
<i>VMG</i>	Velocity Made Good
<i>WLAN / Wifi</i>	Wireless Local Area Network
<i>WP</i>	Waypoint
<i>XTE</i>	Cross Track Error

# 1. Introduction

Ahoy, water sports enthusiasts!

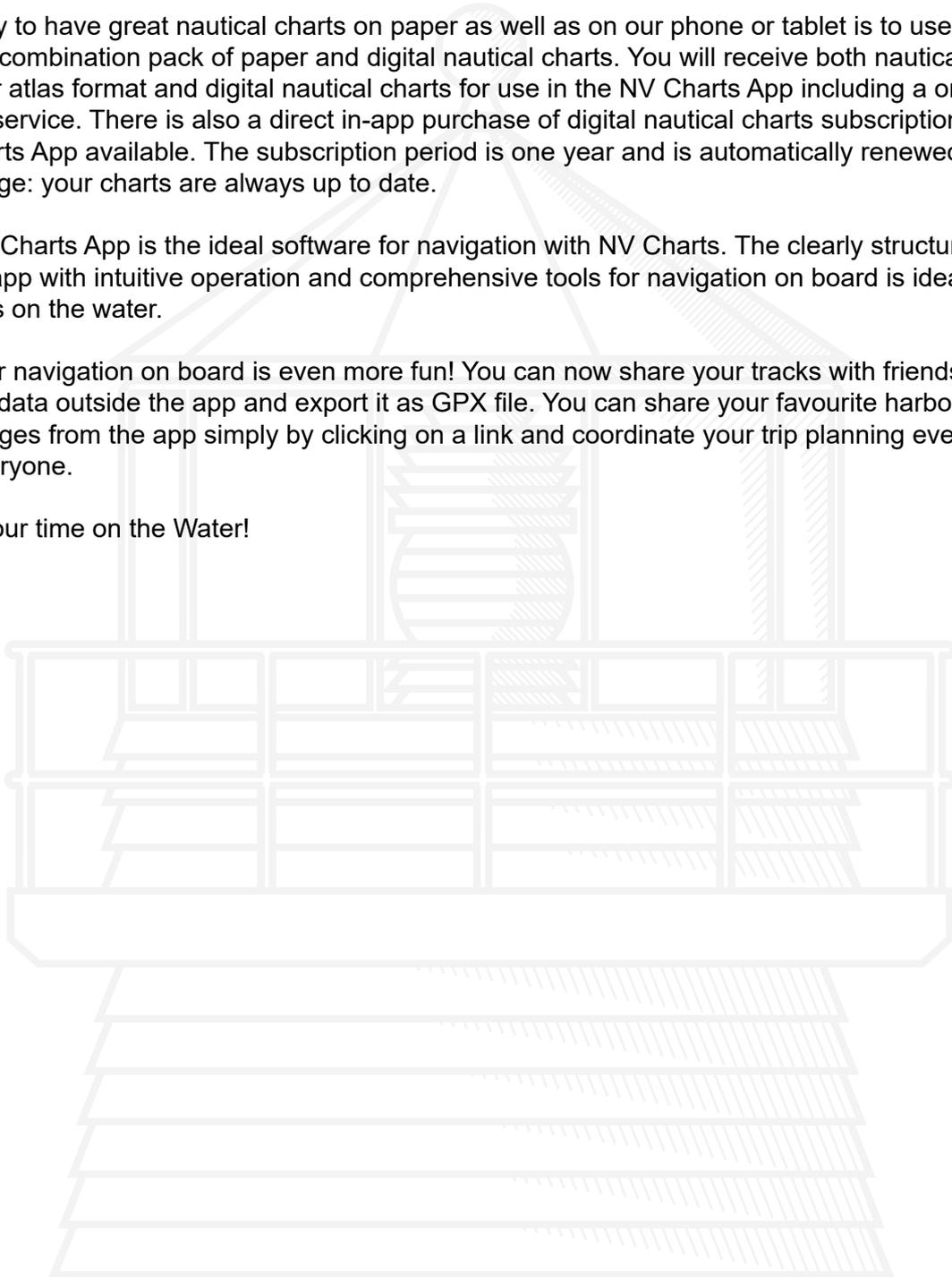
This manual is intended to give you an easy start with the NV Charts App and to serve as a manual as well as a reference book for any questions that may arise.

One way to have great nautical charts on paper as well as on our phone or tablet is to use our popular combination pack of paper and digital nautical charts. You will receive both nautical charts in clever atlas format and digital nautical charts for use in the NV Charts App including a one year update service. There is also a direct in-app purchase of digital nautical charts subscriptions in the NV Charts App available. The subscription period is one year and is automatically renewed. The advantage: your charts are always up to date.

The NV Charts App is the ideal software for navigation with NV Charts. The clearly structured navigation app with intuitive operation and comprehensive tools for navigation on board is ideal for all activities on the water.

Together navigation on board is even more fun! You can now share your tracks with friends or use the data outside the app and export it as GPX file. You can share your favourite harbours and anchorages from the app simply by clicking on a link and coordinate your trip planning even better with everyone.

Enjoy your time on the Water!



## 2. Requirements / Installation

To install the app make sure that the device is compatible with the NV Charts App. The NV Charts App is available for mobile devices as well as for desktop PCs or laptops. For optimal use, it is recommended to use it with GPS and at least 4 GB RAM.

For a list of hardware specifications and requirements consult our online resources :

<https://eu.nvcharts.com/support/?faqdetail=31>

### Installation steps

1. Tap on the following link or enter the following lines directly into the address field of your browser: <https://www.nvcharts.com/app/>
2. Tap on „Download App“..
3. Choose the download that suits your device from the options and tap the appropriate button for your system.
4. **iOS:** Tap on „Load“ in the App Store.

**Android:** Tap on „Install“ in the Play Store App.

**Windows:** Click on „Save file“ and open the saved file afterwards with a double click. Then follow the displayed instructions.

**OS X:** Follow the displayed instructions.

If you have completed the installation, you can open the app by tapping (double-click on the computer) on the app icon  and thus start the app.

## 3. First start of the app

Upon first start of the NV Chart App a few steps are required to get started. First, there is a user account required. This user account is used to associate any purchased offline charts to or to store your personal routes and tracks and sync these to other devices.

### 3.1 Login

If you already have a NV Charts App account, tap on „Login“ ([see Fig.1](#)).

Then enter your e-mail address and password in the fields provided and tick the box if you have read and accepted the terms of use and privacy policy. **!**



Only if you have read and accepted both the terms of use and the privacy policy you can use the NV Charts App.

Then tap the „Login“ button. You can now start using the NV Charts App.

If you have entered your password incorrectly and cannot remember your correct password, tap the „Reset Password“ link below the login button and you will be taken to a new page. At this point you will need to enter your email address again and request a new password by tapping the „Retrieve“ button. You will then receive an email to the previously entered email address with instructions on how to proceed.

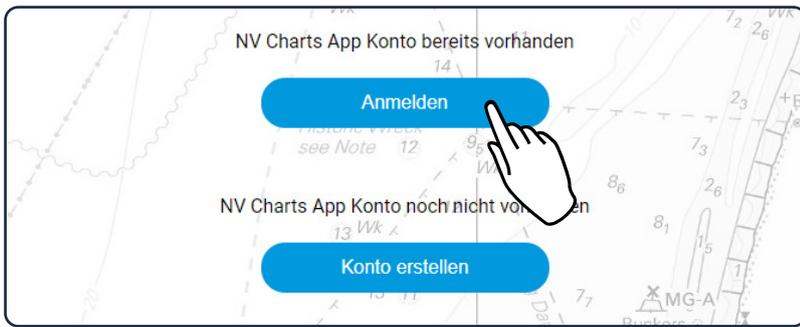


Fig.1:  
Login with existing account

### 3.2 Create an account

If you do not have a NV Charts App account, you can tap on „Create account“ to create a new account. Then enter your email address in the field provided and choose a password that you will have to repeat. Once you have read and accepted the Terms of Use and Privacy Policy ([see Fig.2](#)) **!**, check the box and then tap the „Create Account“ button.

**!** Only if you have read and accepted both the terms of use and the privacy policy you can use the NV Charts App.

You can now start using the NV Charts App. At the same time you will receive an email with a confirmation link to the previously entered email address. Please confirm this link within seven days to continue using the app to its full extent.



Fig.2:  
Accept terms of use and privacy policy

### 3.3 Start screen

The following figure ([see Fig.3](#)) shows the start screen in navigation mode and describes the functions available here.

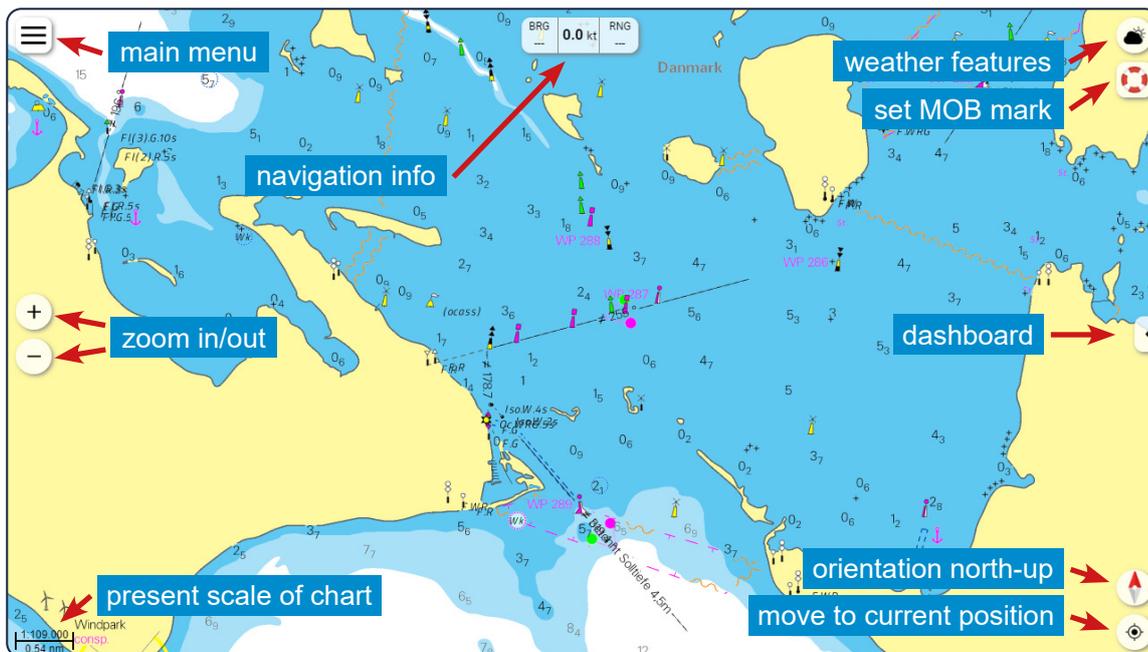


Fig.3:  
Start screen in navigation mode

## 4. Functions overview

The main functions of the app are listed below. You will find a more detailed explanation of the individual functions in the rest of this manual. Please refer to the table of contents to find out exactly where the corresponding explanations can be found.

- Search
- Plan your route
- Check route
- Navigation along a route
- Coordinate input of waypoints
- Track recording with logbook entry
- manual logbook entry
- Expert mode with advanced displays
- Real-time current prediction display
- Real-time wind prediction display
- Man overboard function
- Enhanced lighthouse display
- Tidal curve
- Information on each map location
- Switch between raster charts, vector charts, satellite image and AR view displays
- Show vector charts
- Chart adjustment to the ship's draft and the air draft
- Feedback function & report something about the chart

- Add a POI
- Navigation to a POI
- interact with POI's
- Create marker
- Navigation to marker
- Create bearing
- Anchor alarm (also in standby mode)
- In-App purchase of charts
- Managing purchased charts

## 5. Chart interactions

Aktion	Mobile Device	Desktop-PC/Laptop
Close menu	<ul style="list-style-type: none"> <li>• Single tap in the chart display</li> <li>• Swipe the menu to the left</li> </ul>	<ul style="list-style-type: none"> <li>• Single tap in the chart</li> </ul>
Zooming into the chart	<ul style="list-style-type: none"> <li>• Pinch gesture with two fingers</li> <li>• double tap in the chart</li> <li>• Using the plus icon on the left screen side</li> </ul>	<ul style="list-style-type: none"> <li>• Mouse wheel turning</li> <li>• Double click in the chart</li> <li>• Using the plus icon on the left screen side</li> </ul>
Zooming out of the chart	<ul style="list-style-type: none"> <li>• Pinch gesture with two fingers</li> <li>• Using the minus icon on the left screen side</li> </ul>	<ul style="list-style-type: none"> <li>• Mouse wheel turning</li> <li>• Using the minus icon on the left screen side</li> </ul>
Open "At location" information	<ul style="list-style-type: none"> <li>• Long tap on the chart</li> </ul>	<ul style="list-style-type: none"> <li>• Long tap on the chart</li> </ul>
Open POI	<ul style="list-style-type: none"> <li>• Single tap on a POI icon</li> </ul>	<ul style="list-style-type: none"> <li>• Click on a POI icon</li> </ul>
Pan chart	<ul style="list-style-type: none"> <li>• Hold and drag the chart</li> </ul>	<ul style="list-style-type: none"> <li>• Hold and drag the chart</li> </ul>
Quick Menu for Route/Mark/Bearing/POI	<ul style="list-style-type: none"> <li>• Long tap in the charts and selection of desired function</li> </ul>	<ul style="list-style-type: none"> <li>• Long tap in the charts and selection of desired function</li> </ul>

Tab.1:  
Chart interactions

## 6. Raster charts, vector charts, Satellite images and AR view

### 6.1 Vector and Raster Chart View

The Layer button in the bottom right of the screen can be used to switch between raster charts, vector charts, satellite imagery and AR view.

Raster and vector charts are different chart formats, and in regions where both formats are available, it is possible to switch between the formats. See Maps ([see 18.5 Vector and Rastercharts](#)) for a more detailed description of this topic.

## 6.2 Satellite View

With the satellite overlay, even the most remote regions can be explored from above and an even more detailed impression of your anchorage provided. In regions with available vector charts, such as the North Sea and the western Baltic Sea, the contours from vector data are even merged directly with the image data. This creates an even more detailed representation of the situation on site.

## 6.3 Argumented reality view

Orientation is essential to navigate safely on the water. With the new version of the NV Charts App 2021, there is now the option on phones to use the device's camera to project data from the surrounding area directly into the camera image in real time. In this way, ports, anchorages, navigational warnings and points-of-interest (POI) information from the digital nautical charts as well as available AIS signals can be displayed in the augmented reality view (AR view). The function uses the NV Charts chart data available offline and calculates the direction and orientation based on the compass and GPS sensor of the devices and projects the information in the AR view in the NV Chart App.

The AR function is mainly dependent on a compass that is calibrated as well as possible. To calibrate the compass, you can rotate the phone around all axes and, if GPS reception is good, you can also move steadily (i.e. preferably on board). In this way, the phone links the magnetic direction to true north. The devices are very sensitive to all magnetic objects in the vicinity (e.g. magnetic latches on a phone case, or steel hull).

## 7. Weather

To open the weather menu, tap the weather icon in the upper right corner . You need a Internet connection for the weather function to update the forecast data available for three days in the future.

### 7.1 Currents

By tapping on the current symbol,  the ocean currents in the area of the selected chart section are displayed. The arrows describe the direction of the current, the colouring of the water and the displayed nodes determine the speed of the current. The speed is indicated by the colour scale on the left-hand side of the screen ([see Fig.4](#)).

### 7.2 Wind

By tapping on the current symbol, Wind-Symbol , the current wind data in the area of the selected map section are displayed. The arrows indicate the direction in which the wind is blowing, the colour of the water and the lines on the arrows determine the wind force. You can also read the strength of the wind in the colour scale on the left side of the screen ([see Fig.4](#)).

The speed is indicated by the colour scale on the left-hand side of the screen. The following table ([see Tab.2](#)) gives you an overview of the different wind forces.

Bft	Kn	m/sec	Bft	Kn	m/sec	Bft	Kn	m/sec
0	< 1	0 - 0,2	5	16 - 21	8,0 - 10,7	10	48 - 55	24,5 - 28,4
1	1 - 3	0,3 - 1,5	6	22 - 27	10,8 - 13,8	11	56 - 63	28,5 - 32,6
2	4 - 6	1,6 - 3,3	7	28 - 33	13,9 - 17,1	12	> 64	> 32,7
3	7 - 10	3,4 - 5,4	8	34 - 40	17,2 - 20,7			
4	11 - 15	5,5 - 7,9	9	41 - 47	20,8 - 24,4			

Tab.2:  
Wind forces

### 7.3 Wind and Current Display Setup

Using the menu at the top of the screen, you can select the exact day and time for the current/wind display.

To do this, tap on the arrow buttons to the right and left of the current date display to move forward or backward step by step. Alternatively, you can select the desired date directly from the list which opens by tapping on the drop-down menu (see Fig.4).

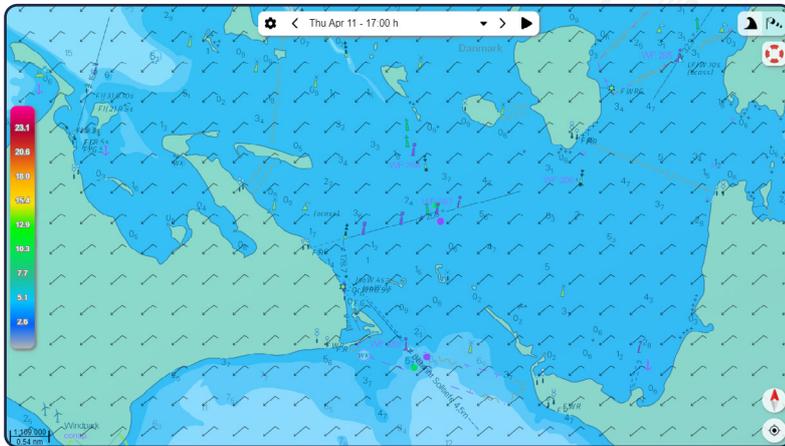


Fig.4:  
Winddarstellung  
Datumsliste öffnen

By tapping on the play symbol ▶ you can display currents and wind interactively and in real time. You can end the interactive view by tapping on the stop symbol ■ that appears. Tap on the settings symbol ⚙ opens an extended menu on the left side of the screen for both the current and wind display.

Under “Area” you can define the area in which the current/wind data should be displayed. Leave the settings here on “load automatically”, so that the data are always displayed on the currently selected map section.

If the slider at “Automatically update” is active, the data is continuously adjusted and changed accordingly.. !

! We recommend that you only set this function to inactive when you have power on device or if your device has problems with the display.

If the slider at “Show colours” is active, the map is coloured according to the intensity when the current/wind display is activated. Set this slider to inactive by tapping it to have only the arrows displayed on the map.

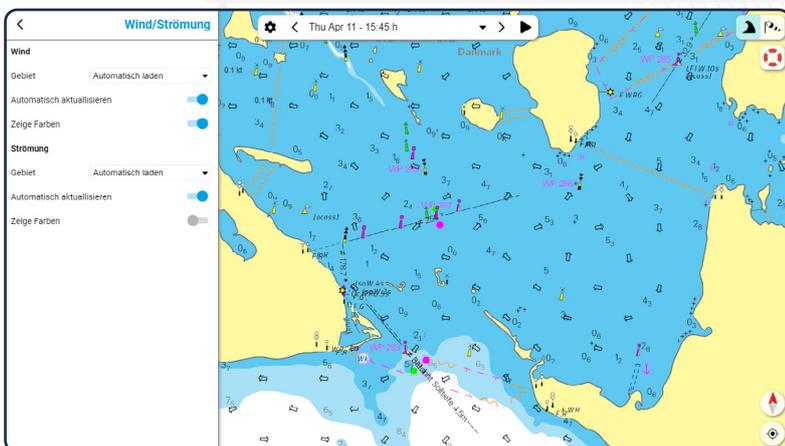


Fig.5:  
Menu Wind/Strömung -  
„Show Colours“ deactivated

## 8. Man over Board (MOB)

If a person has gone overboard, you can tap the MOB icon  in the upper right corner of the start screen. A MOB marker will automatically appear at your current ship position.

In addition, a navigation to the set MOB mark is started. If you are currently navigating to another position on the map, this navigation will be stopped automatically.

If you have accidentally set the MOB marker or if the person to be rescued is safe again, you can delete the marker by stopping navigation by pressing the “Stop navigation” button at the bottom of your screen and confirming the warning message that appears with “Yes” ([see Fig.6](#)).



Fig.6:  
Stoppen der MOB Route bestätigen

If an AIS SART distress transmitter signal is received while an AIS device is connected, a MOB route to the receiving position is automatically suggested and the current route is stopped.

## 9. Location & Chart orientation

Tippen Sie auf die Kompassnadel , um die Karte nach Norden auszurichten. Tippen Sie auf das Standort-Symbol  unter der Kompassnadel, um in der Karte zu Ihrer aktuellen Position zu springen.

## 10. Dashboard

If you are in the offline map mode (“Show online maps” is deactivated - ([see 18 Charts](#))) you have the possibility to fold in and out an information panel by using the arrow on the right side of the screen.

The panel provides you with various information about your ship’s position or the current wind conditions and additionally shows a list of all existing AIS targets.

If you have activated the expert mode in the settings ([see 23.2 App Settings](#)), a bar with the current XTE (Cross Tracking Error) is displayed additionally.

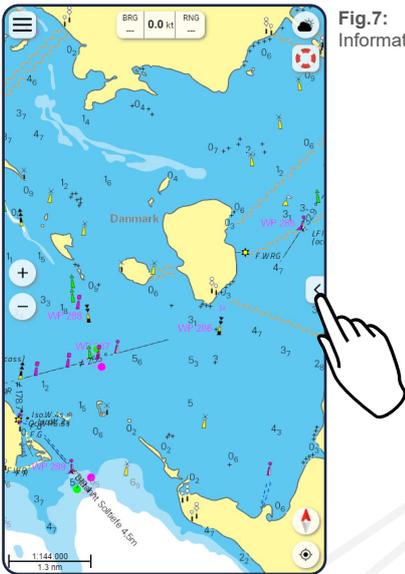


Fig.7:  
Informationstafel öffnen

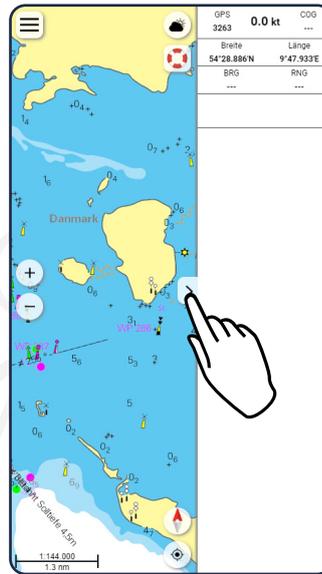


Fig.8:  
Informationstafel schließen

## 10.1 Velocity Made Good

In expert mode, the Velocity Made Good is also displayed in the dashboard when the route is started. The value describes the velocity made good in the direction of the next waypoint.

## 11. Search function

In the main menu, you will find a search bar at the top above the menu items (see Fig.9). Tap in this field and then enter what you want to search for. You can search for places, harbours, anchorages, restaurants or other Points of Interest (POIs).

While you are entering your search term, the corresponding search results are displayed below the bar. Tap on one of these results and you will be taken to the corresponding location on the map.

Tap on the x in order to delete the search term used and to enter another one if necessary.

As long as no entry has been made, a number of common queries are listed as quick entries.



Fig.9:  
Suchfunktion

## 12. Message Center

Oben Links werden Verfügbare Nachrichten in der Nachrichten-Zentrale angezeigt. Zusätzlich werden kurzzeitige Meldungen, die den Nutzer Informieren, dass hier noch ein kurzer Moment Geduld erforderlich sein kann, oben rechts direkt im Bildschirm angezeigt. Dieses sind beispielsweise die Nachrichten zum Synchronisierung oder POI Update.

Andere Nachrichten wie verfügbare Updates werden in der Nachrichten-Zentrale angezeigt.

## 13. Routes

### 13.1 Route list

Tap on the „Routes“ tab in the main menu to get to your route list. At this point, all routes that you have already created are listed.

Tap on the visibility icon  in front of a route to hide it on the chart (see Fig.10). The corresponding route will be greyed out in the list and the visibility symbol will be crossed out (see Fig.10).

Tap the crossed-out symbol again to display the route on the map.

Tap on one of the listed routes to jump directly to it on the map and open the Edit menu at the same time ([see 13.3 Route editing](#)).

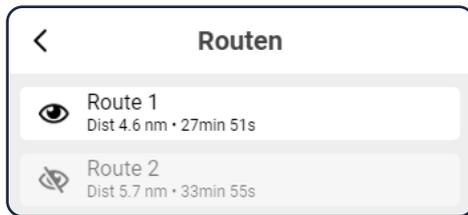


Fig.10:  
Ein- sowie ausgeblendete Route

## 13.2 Create new route

It is possible to create a route manually or automatically or to use both variants in combination.

### 13.2.1 Create manual route

To create a new route, open the quick menu by holding down on the map. The menu will open in the appropriate place and you can choose to create a new marker, route, bearing or POI at that location ([see Fig. 11](#)).

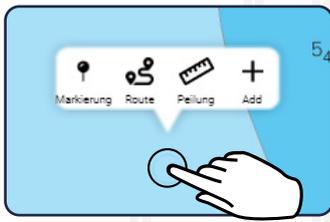


Fig.11:  
Long press and hold opens quick menu to create a marker, route, bearing or POI

Select „Route“ and the first waypoint is created at the previously selected location. Use the „Auto Route Off“ switch at the bottom of the screen to disable automatic route creation, allowing you to add waypoints manually and individually. **!**

**!** You can also complete a manual route automatically in sections. To do this, simply switch the auto-routing back on for a section, and the route-points are automatically connected along the route network. As soon as you want to continue manually again, you can deactivate the Auto Routing ([see 13.2.2 Auto-Routing](#)) and the waypoints will be connected directly.

To set the next waypoint, tap and hold for about one second at the desired location on the map. A blue bar will appear, showing you how long you have to hold it down until the waypoint is created ([see Fig.12](#)). Continue by adding more waypoints in the same way.

You can undo the setting of the last waypoint by clicking the „Back“ button below. When you are satisfied with your route, tap the Done button at the bottom of your screen.

**!** The routes can also be transferred from paper to the app (or vice versa). For this purpose, each WP can be positioned with coordinates read from the map. Enter the coordinates in the properties of the WPs. Separated by spaces, degrees min.dec or degrees min.sec can be entered.

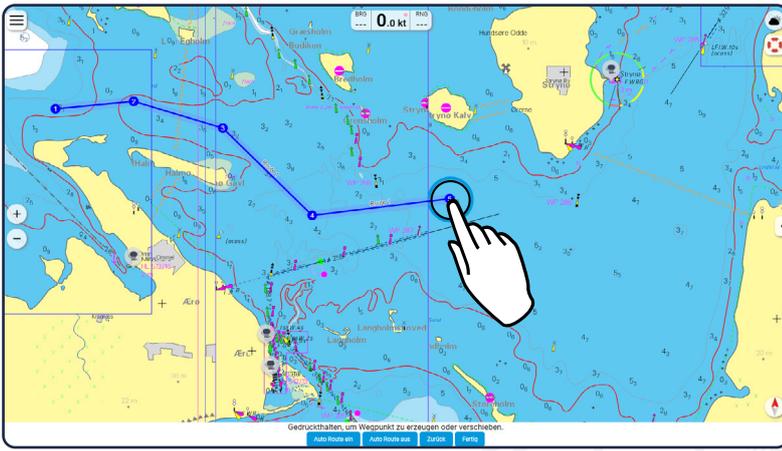


Fig.12:  
Long press and hold to create a new waypoint

### 13.2.2 Auto-Routing

There are 2 possibilities for automatic route creation:

1. via the direct link in a POI
2. via automatic completion between waypoints entered the chart

In the first option, the route is searched for from the current position directly to the POI over the shortest distance. The starting point can be moved later with long press and hold as described above. You can also add intermediate waypoints by holding down and dragging them to the side.

In the second option, a first waypoint is created first and then further waypoints are added. The segments are routed with the shortest way. With back the last action can be cancelled.

In both cases the set ship values for mast height, width, length and draught up to 10 m ([see 23.1 Boat and App](#)) are taken into account. The route calculation also considers usual traffic routes and restrictions due to traffic separation areas. In order to correct routes manually in a targeted manner, the function of manually creating a partial route from a certain waypoint is useful. To do this, press a WP and deactivate „Autoroute from WP“ in the WP's properties. Proceed in the same way as for creating a route manual ([see 13.2.1 Create manual route](#)). As soon as further waypoints are to be automatically connected again, „Autoroute from WP“ can be reactivated. It may happen that a part of the route cannot be created automatically. These route sections are shown dashed.

It should be explicitly mentioned that the auto-routing function can not replace route planning and trip preparations on board. It is, just like the app as a whole, a navigation aid to supplement the navigation on board. Once you have created the route, we recommend that you follow it carefully at a higher zoom level and check for obstacles and other possible dangers. Use paper and digital charts together to make navigation safer and clearer for everyone on board. We also recommend safe navigation in terms of wind and current. For example, greater distance from the coast can be useful in onshore winds.

Transfer the route to your current NV Charts nautical charts for the region. This is of course for safety reasons, but it is also a good opportunity to check the route again in detail and discuss it with everyone on board. At the same time, you can practice all practical navigation methods.



The routes can also be transferred from paper to the app (or vice versa). For this purpose, each WP can be positioned with coordinates read from the map. Enter the coordinates in the properties of the WPs. Separated by spaces, degrees min.dec or degrees min.sec can be entered.

## Autorouting in tidal regions

In tidal regions, the planning of the trip is significantly influenced by the tides. Water levels and currents make it even more difficult to create routes automatically. For this purpose, the water depth at mean high tide is assumed for the calculation and the water depth at Lowest Astronomical Tide (LAT) is also specified in the route details. So it is assumed that you cross a shallow area at high tide, at the same time the water depth at low tide is also listed.

In order to make a more precise route planning, taking into account the water levels and all other factors. Your assessment as a skipper is absolutely necessary. As an aid, each route segment is displayed with distances from start to the respective waypoint and segment distances (in brackets) (see Fig.13). Now use the tide display of the NV Charts App or the tide table to calculate the optimal route schedule. In areas of the German and Dutch North Sea the tide table is already printed in the current NV Charts paper charts and is therefore available in paper and digital form. Be careful on the water and refresh your knowledge in this area regularly. In our webshop you will also find more detailed and good literature on this topic: [Hansenautic Webshop](#)



Fig.13:  
Display of route segments with distances from start to the particular WP and each segment distances (in brackets).

## Auto-Routing in Inland Waters

On inland waters, it should be mentioned that the depth information usually refers to maximum allowed depths or average water levels. It may therefore be necessary to check current water levels and to consider them in the route planning.

The widths and heights of bridges and locks and allowed dimensions are also taken into account by the auto-routing system.

In the settings for the safety margin for mast height and draft, this can usually be set somewhat lower in inland areas than would perhaps be more usual in other sea areas. This way you can set how many routes are excluded from auto-routing due to the safety distances.

## 13.3 Route editing

To edit your route, either select it from the route view or tap the route directly on the map (see Fig.14). In both cases, an edit options will open on the left side of the screen and three edit buttons directly on the route. In the upright view on mobile phones the menu opens at the bottom of the screen and can be opened in full screen by tapping the menu icon. 

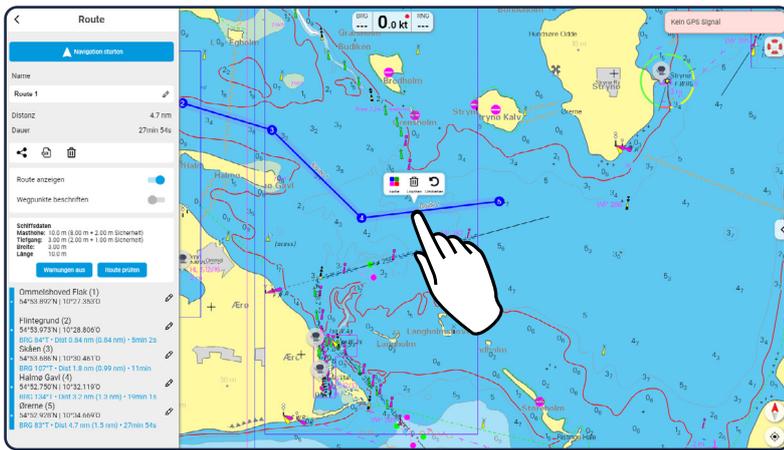


Fig.14: Open editing options for a route

### 13.3.1 Editing Menu

In the edit menu you can start navigation along the route ([see 13.5 Start navigation](#)), change the name of the route - tap the edit icon next to the name - and you will see the distance of the route and the travel time from the first to the last waypoint. !



The duration displayed in the Edit View is calculated based on the speed settings you entered in the settings for your boat. ([siehe 20.1 Fahrmodus und App](#)). The duration may vary depending on your actual speed. If you have started navigation, the duration is continuously calculated and adjusted ([see 13.5 Start navigation](#)).

Furthermore, you can use switch to determine whether the route should be displayed on the chart and whether the individual waypoints of the route should be labelled. You can also delete  your route or check it for obstacles/hazards ([see 13.4 Route check](#)). With the Sync Icon  you can start the synchronization to have the data available on other devices with the same username. With the share icon  you can share the route with others as a link and also or download it as a GPX/NOB/KML file.

At the bottom of the editing view you will see all the waypoints you have created and the distance between each waypoint. At this point you have the opportunity to adjust the names and the position of the waypoints again. To do this, tap the edit icon  next to the respective waypoint and enter the appropriate data. The arrow in the upper left corner will take you back to the editing menu.

### 13.3.2 Interaktionen with the route

Using the three buttons directly on the route, you can change the colour  of the route, reverse the direction  or delete  the route.

To add more waypoints to your route, you have two options:

If you want to add one or more new points at the end, tap the first or last waypoint on your route and then tap the “Append”  button -. You can now add further points as described in ([see 13.2 Create new route](#)) and then confirm with “Done”.

If you want to create a waypoint between two existing points, tap on the route section and long press about one second. A blue circle appears. If it is completely filled, you can create the new waypoint on the map by moving it. This function also prevents accidental moving of a route. If you want to move one of the waypoints to another location, tap on the point and long tap. Then you can move the waypoint in all directions while holding and moving.

To remove a waypoint, simply tap the point and then tap the delete button .

## 13.4 Route check

**The route check is only available with vector charts.**

You can check your route for obstacles and/or danger spots using the “Check route” button. For an exact check it is necessary to enter the correct information about your boat in the settings under [\(see 23.1 Boat and App\)](#), as this data is used for the route check.

To check your route, open the editing menu as described in [\(see 13.3.1 Editing Menu\)](#) and then tap the “Check route” button. **!** If an obstacle is detected along the route, it will be indicated by a red highlighted marker along the route [\(see Fig.15\)](#).

The distance to the route in which is searched is based on your default XTD Settings [\(see XTE \(Cross track Error\)\)](#). In expert mode a custom XTE can be set for each segment using the orange bars on the side of the route segment.



The process of the check can take a few seconds depending on the length/position of the route.

You can hide the red warnings again by tapping the “Warnings off” button. To display the warnings again, check the route again.

If you have adjusted or changed your route after checking it, you will need to tap the appropriate button again to check it again.

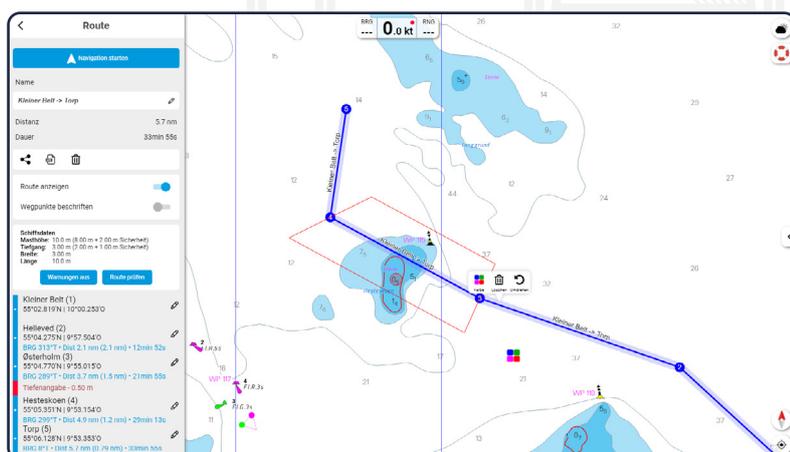
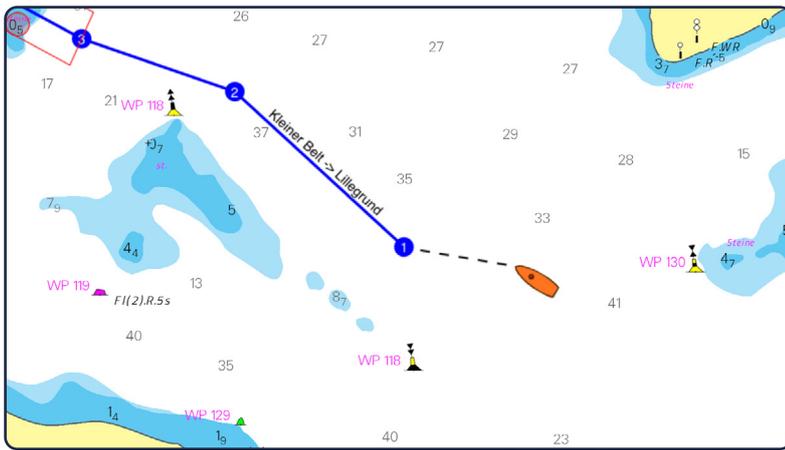


Fig.15:  
Display of a checked route

## 13.5 Start navigation

Tap the “Start Navigation” button to start navigating along the route. The editing menu closes and a bar appears at the bottom of your device showing the remaining distance and duration until the route is completed as well as the range to the next waypoint. At the top of your device, in addition to the speed, the direction (BRG) and the course over ground (COG) to the next waypoint are displayed. A dashed line from your boat to the first waypoint on your route is also displayed [\(see Fig.16\)](#).

To stop navigation again, tap the “Stop Navigation” button at the bottom.



**Fig.16:**  
Navigation to first waypoint started

## 14. Community Layer / Point of Interest

Together, navigation on board is even more fun! With the NV Charts App you now have the possibility to become part of the chart community yourself. You can now add your favourite harbours and anchorages with pictures and share them with the community. Other users can react directly with comments. The continuously edited content can be downloaded directly to be available offline. This makes the NV Charts app uniquely well integrated navigation and planing on board.

### 14.1 POI-View

The Points of Interest (POI for short) describe places on the chart that may be of interest to the sailor or motorboat driver. These include harbours, marinas and anchorages as well as restaurants, sailmakers or even places of interest.

The POIs are shown on the map using grey symbols (e.g.   ) and can be opened by simply tapping on the respective icon.

The POI view opens on the left-hand side of your device (on mobile phones, the window at the bottom of the screen opens and can be opened in full screen by tapping the right arrow symbol). Depending on whether you have tapped on a harbour, anchorage or similar, different information about the corresponding location will be displayed.

At the bottom of the POI view you will always be shown when it was last edited and whether the last editing was checked by the nautical editors of our team at NV Charts.

### 14.2 Edit a POI

You have the possibility to actively participate in the app and the NV Charts Community Layer and to add or edit ports and anchorages yourself and share your experiences with the community. To do this, you can press and hold down on the map and add a new entry with “+” or at the bottom of the POI view you can edit an existing POI with the “Edit this POI” buttons.

By tapping on the corresponding button, you can access the edit menu. Depending on the type of POI, you now have the option at this point to edit all the information that will be displayed later. For example, you can add a berth description for a harbour if none is available yet, or update the navigation information or contact details.

Once you have customized the information to your liking, exit the edit view by tapping the save button at the bottom.

You can see under the POI when the last editing took place and whether this was verified by the nautical editors of NV Charts.

Your contribution will certainly help us all on the water enormously. The changes can be made by any user and we will then provide editorial support and assistance. So please contact us directly if you are unsure about an entry or have any questions.

### 14.3 Create a new POI

Press and hold on the map to open the quick menu (see Fig.17) in the appropriate place and use the plus (add) symbol to create a new POI.



Fig.17:  
Press and hold on the map to open the quick menu to create routes, markers bearings or POI.

A new window opens and you can select the type of POI you want to add. Click on the appropriate button and you will be taken to a further view to provide more detailed information or upload pictures. !



The first time you upload a POI or image, we will ask you to confirm that you own all rights to the images and text and that we are allowed to use them and we will assume the same for your future uploads as well. If something was not quite right, you can write us and we will correct it accordingly.

Depending on the type of POI, you now have various options for entering information in the corresponding fields or selecting it using buttons. The “Next” button always takes you to the next editing page or “Save” finally completes the editing and the POI is created. !



If you have created or edited the text for a POI or taken a picture for a POI added, your user name, ship name and date of editing will be visible to other users and will help others to see how up-to-date the information is and will provide the source of the wonderful image.

### 14.4 Rate and comment a POI

To give a rating, click on the chosen number of stars above the comment field (see Fig.18). Afterwards you can enter something in the comment field. If you only want to give a rating without comment, leave this field empty and press the send icon.



Fig.18:  
Create rating and comment

To send your rating and, if applicable, your comment, press the blue arrow on the right side of the comment field. >. Your rating/comment now appears below the comment field. It will take up to 24h for the POI comment to appear in the offline version of the POI used when a internet connection is unavailable.

### 14.5 Navigate to a POI

By tapping the “Create Route” button and a route selected POI is automatically created (see 13.2.2 Auto-Routing) and the route view for this route opens. To start navigation to the POI, tap the “Start Navigation” button.

The editing menu closes and the automatically generated route to the POI is displayed. In addition, a bar will appear at the bottom of your device to show you the remaining distance and duration until the route is completed and the distance to the next waypoint.

At the upper edge of your device - in addition to the speed - the direction (BRG) and again the course over ground (COG) to the next waypoint is displayed.

To stop navigation again, tap the “Stop navigation” button at the bottom.  
Starting and stopping routes is saved as an automatic entry in the current track recording.

## 14.6 Add a photo

To add a photo to the POI, tap the camera icon   at the top of the POI view. You will now have the option of either taking a new photo or selecting a picture directly from your device gallery.



To use this function, you must allow the app to access your camera. You must also grant a use permission for NV Charts to use the images and that you have rights of use to these. This authorization can be revoked at any time by sending an e-mail to support@nvcharts.com.

Once you have selected a photo, it will appear first in the POI view. If you add more pictures if you like.

## 14.7 Picture gallery

If at least one photo has been added to the POI, it will be previewed at the top of the POI view. Tap on this preview picture to open the picture gallery (see Fig.19). At this point the pictures already added are displayed in large format and you can move through the gallery by wiping to the right or left (only on mobile devices) or by tapping the arrows on the right and left edge of the picture.

Using the magnifying glass icon or the 2-finger zoom gesture (only on mobile devices) you can zoom in or out on an image. Tap the cross in the upper right corner to close the image gallery again and return to the marker editing menu.

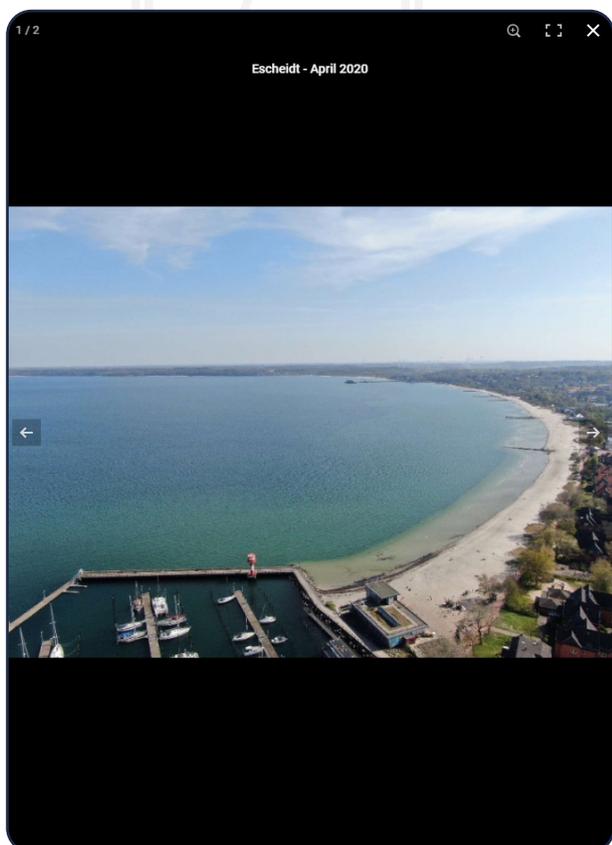


Fig.19:  
Picture gallery of a POI.

## 14.8 Notifications about POIs

Show others what it looks like where you are on board and upload a picture to a POI near you. The NV Charts app allows you to display messages on the lock screen of the device to stay informed about navigation alerts and POIs even in the background.

The setting can be adjusted in the operating system settings under Privacy according to personal preference.



On iOS devices, notifications can only be deactivated generally, while on Android systems, a distinction can be made between the type of notification. If the notifications are disabled on iOS, the anchor alarm is also affected and anchor alerts are not displayed in the background.

## 15. Marker

Setting markers allows you to personally mark certain locations on the map for you. In this way you can, for example, graphically mark particularly beautiful anchorages or even very good fishing spots and thus find them again quickly and easily when you get there some other time.

### 15.1 Marker details

Tap the Markers tab in the main menu to go to your markers view. At this point you will see a list of all the markers you have already created. ([see 15.2 Create a marker](#)).

Tap on the visibility symbol  in front of each marker to hide it on the map ([see Fig.20](#)). The corresponding marker in the list will then be greyed out and the visibility symbol will be crossed out ([see Fig.20](#)). Tap the crossed-out symbol again to display the marker on the map.

Tap on one of the listed markers to jump directly to the respective marker on the map and at the same time open the edit menu for this marker



Fig.20:  
Show and hide marker

### 15.2 Create a marker

Press and hold on the map to open the quick menu ([see Fig.21](#)) in the appropriate place and use the Marker icon to create a new marker.



Fig.21:  
Lange Gedrückthalten, um Markierung, Route, Peilung oder POI zu erstellen

### 15.3 Edit a marker

To edit your marker, either select it from the marker view or tap the marker directly on the map. In both cases, an edit menu will open on the left side of the screen and two edit buttons will open

directly at the marker (see Fig.22). On mobile phones the menu opens at the bottom of the screen and can be opened in full screen by tapping the menu symbol ☰.

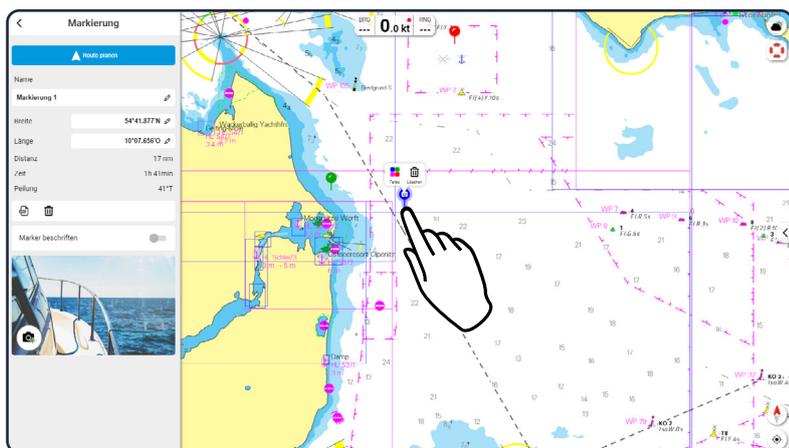


Fig.22: Editing details of a marker.

### 15.3.1 Editing menu

In the edit menu you can start navigation to the marker (see Fig.22), change the name and the exact position of the marker - tap the edit symbol ✎. You will be shown the distance and the travel time to the marker.

The marker can also be transferred from paper to the app (or vice versa). For this purpose, each marker can be positioned with coordinates read from the map. Enter the coordinates in the properties of the marker. Separated by spaces, degrees min.dec or degrees min.sec can be entered. You can also delete 🗑 the marker or add pictures to your marker (see 15.5 Add Photos to marker). With the Sync Icon 🔄 you can start the synchronization to have the data available on other devices with the same username. With the share icon 📎 you can share the route with others as a link and also or download it as a GPX/NOB/KML file.

### 15.3.2 Interactions with the marker

If you want to move a set marker to another location, click on the corresponding marker and hold the click again for about one second. A blue bar appears, indicating the point at which you can move the marker.

To remove a marker, briefly tap on it and press the delete button that opens up 🗑. You can also change the colour of the marker if you tap on it and 🎨.

## 15.4 Navigation to Marker

Tap the "Plan route" button to automatically create a route to the selected marker (see 13.2.2 Auto-Routing) and open the route view for this route. To start navigation to the marker, tap the "Start Navigation" button.

The editing menu closes and the automatically generated route to the marker is displayed. In addition, a bar will appear at the bottom of your device to show you the remaining distance and duration until the route is completed. At the top edge of your device - in addition to the speed - the direction (BRG) and once again the distance (RNG) to the marker is displayed.

To stop navigation again, tap the "Stop navigation" button at the bottom.

Starting and stopping routes is saved as an automatic entry in the current track recording.

## 15.5 Add Photos to marker

If you want to add a photo to your tag, tap the camera icon 📷 (see Fig.22). ! . You will now have the option of either taking a new photo or selecting a picture directly from the gallery of your device.



To use this function, you must allow the app to access your camera. You must also grant us a usage permission. This permission can be revoked at any time by sending an e-mail to [support@nvcharts.com](mailto:support@nvcharts.com).

Once you have selected a photo, it will appear at the bottom of the editing menu. If you add more pictures, they will be arranged next to each other.

Once you have added an image to your marker, the icon of your marker will have a camera icon in the chart display.

## 15.6 Image gallery

If you have added at least one photo to your marker, it will be previewed in the lower part of the edit menu. Tap on this preview image to open the image gallery (see Fig.23). At this point the already added pictures are displayed in large size and you can move through the gallery by wiping to the right or left (only on mobile devices) or by tapping on the arrows on the right and left edge of the picture.

You can remove a photo from the gallery by clicking on the delete icon  in the upper left corner of the gallery. Tap the cross in the upper right corner to close the image gallery again and return to the marker editing menu.

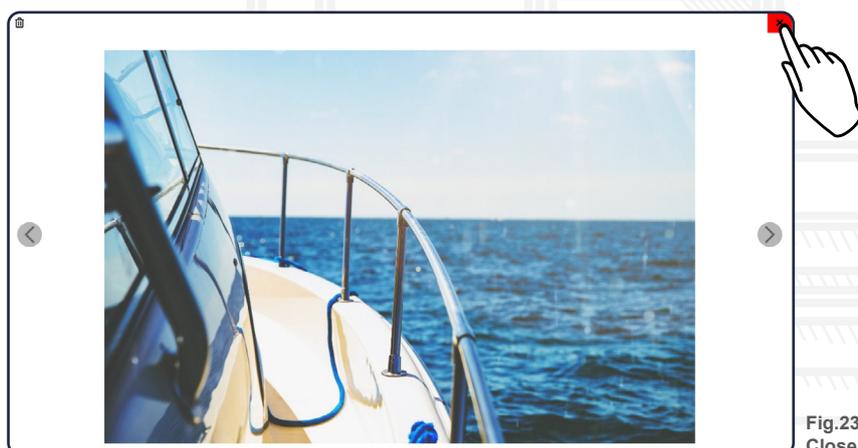


Fig.23:  
Close image gallery

## 16. Bearing

To create a bearing, tap the map for about one second. A small quick menu will open in the appropriate place and you can choose to create a new marker, route, bearing or POI at that location (see Fig.17).

Once you have selected the bearing using the above menu, it will appear on the map with start and end points. Above the bearing, the direction is displayed, below it the length and the time to travel for the section.

Two dashed lines help you to align the bearing on the map.

You can adjust the position and length of the bearing by holding down and simultaneously moving the start and end point.

If you want to delete the bearing, tap the button at the lower end of the screen (see Fig.24). If the delete button is not displayed, you must first select the bearing again by tapping it.

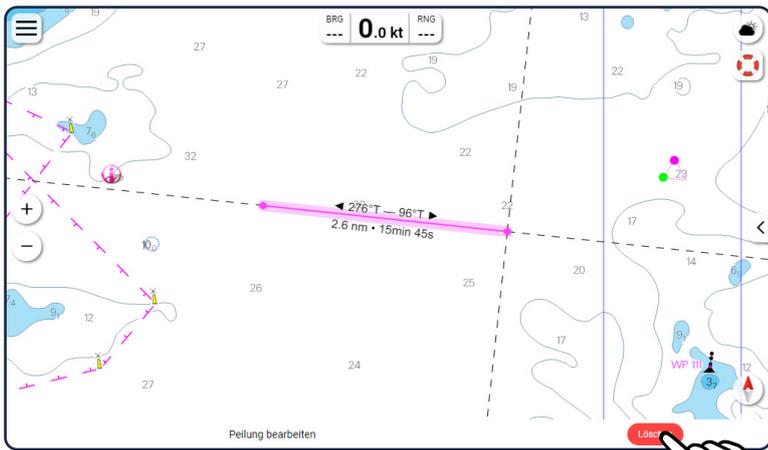


Fig.24:  
Delete selected bearing

## 17. Anchoralarm

Tap on the “Anchor Alarm” tab in the main menu to open the corresponding editing menu for it. You will automatically be directed to your current location and an alarm circle will appear with your location as the centre point (see Fig.25).

You can activate the alarm using the slider. If it is active, the alarm circle is permanently displayed on the map. If the alarm is deactivated again, the circle will disappear from the map as soon as you close the edit menu.

By tapping on the “Set on location” button, you can jump directly to your ship on the map and the anchor alarm is displayed with the ship as the centre point.

You can define the radius of the alarm limit in two ways: Either you enter the size of the radius manually in the editing menu in the upper left corner or you hold the orange circle on the alarm for about one second and then drag the circle larger or smaller (see Fig.25).

You can move the alarm by holding down the blue circle in the middle of the alarm for about one second. If your ship is the exact centre of the alarm, you will only see the blue circle schematically under the ship, but you can still select it.



The anchor alarm works as soon as the app is started but also runs in the background if but the device is locked or another app is active. For background use, the messages for the NV Charts app must be allowed in the operating system.

During installation, you will be asked if the app is allowed to send messages to you.

Agree at this point or go later to the privacy settings of your operating system to allow messages for the NV Charts app at a later point.

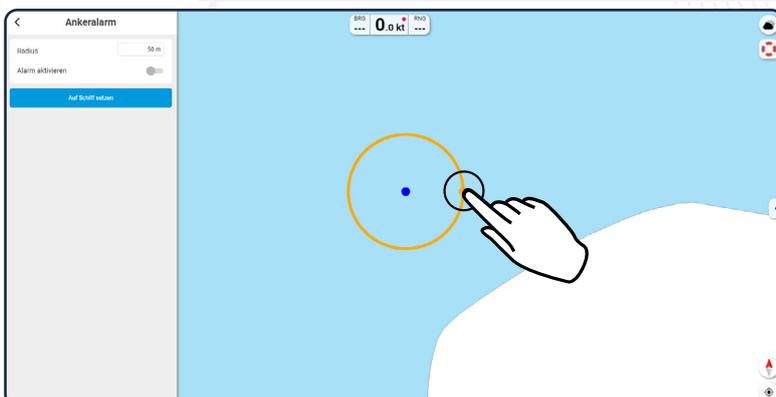


Fig.25:  
Hold down and pull to enlarge/reduce the radius

## 18. Charts

One way to have great nautical charts both on paper and on our phone or tablet is to use our popular combination pack of paper and digital nautical charts, which includes both charts in clever atlas format and digital nautical marine boating charts/maps for use in the NV Charts App, including a one-year update service. This is of course the safer option for your navigation solution. However, you can also purchase digital boating charts as a subscription directly in the NV Charts App. You can purchase digital charts as a subscription directly in the app. The subscription duration is one year and is automatically extended. The advantage: your boating charts are always up to date in the app.

If it is not yet clear where the journey is going to take you, free online charts can be displayed for all NV Charts nautical chart areas in the app, or in your browser.

### 18.1 Online Charts

Enjoy the NV Charts App even without purchased charts online for planning a trip or exploring a new sea area. When using the online charts, you will always have all chart areas displayed in the app, but you will not be able to navigate with these charts. Your location is only shown as an approximate position in the form of a blue circle and not as a ship and the arrow for opening the information dashboard is not shown. Route navigation cannot be started using online charts. At the top of the screen, you will see a notice that the online maps are activated. As soon as you have purchased the offline charts, you can start navigating on board. All community layer information with ports, anchorages, navigation hints, photos, shops and places of interest are displayed directly online in the NV Charts App and information can also be added or commented.

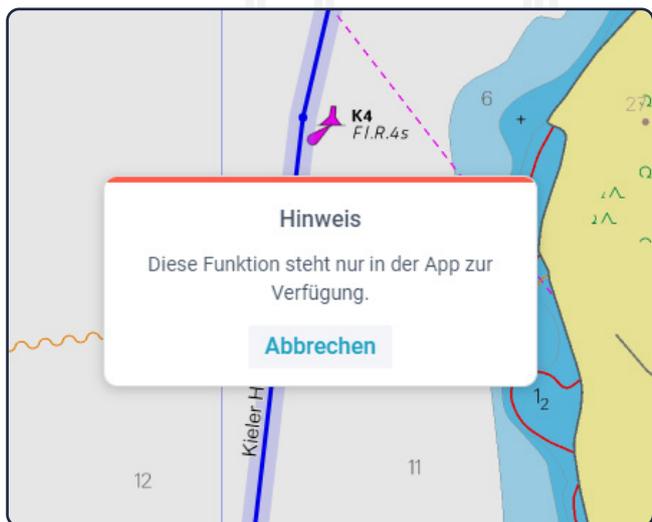


Fig.26:  
Navigation functions are only available with offline maps.

**Open the Chart menu by tapping on the Charts tab in the main menu.**

**Use the slider to select whether you want to display online charts . An Internet connection is required to use this online mode.**

If the function is deactivated, only the maps you have already purchased will be displayed and all other areas will be shown as grey areas or with a base map. Furthermore you have the possibility to access the information panel and your location is shown as an orange ship on the map and you can start a route navigation or set the chart to center on your boats location.

If you start a route navigation, the app automatically switches to offline mode and you will only get a detailed map if you have already purchased and nautical charts for the corresponding region **and downloaded them on your device.**

Open the Chart Menu by tapping on the “Charts” tab in the main menu.

## 18.2 Add Charts with product id

By tapping on the „Add charts with product id“ tab, you can access a new screen. Here you can enter the 16-digit product ID of your chart and unlock your card this way. [\(see Fig.27\)](#)

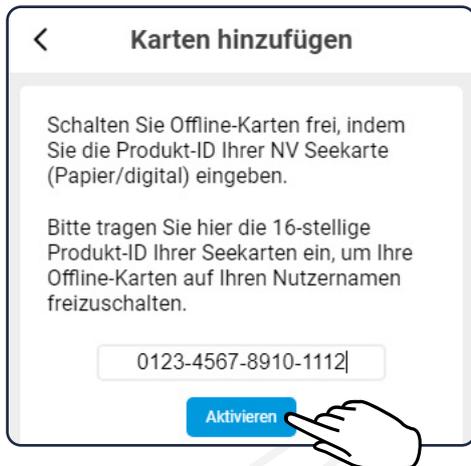


Fig.27:  
Add charts (the product ID is only an example here)

Once you have entered the code in the corresponding field, tap on “Activate”. If the entry is incorrect, a note will appear and you can re-enter the product ID. If the entry is correct, the corresponding map will be displayed again as an image and you can activate it by tapping the “Install” button. You will then automatically be taken to the “My Charts” menu with the option to download the charts on your device. [\(see 18.4 My Charts\)](#).

## 18.3 Buy offline charts

The tab “Buy offline charts” takes you to a selection page where you can choose between a digital subscription or paper & digital charts. !



With the digital subscription you will receive the maps for one year, in exclusively digital form, available directly in of the NV Charts App. The subscription is automatically renewed, but can also be cancelled at any time. Select Paper & Digital if you want to use the charts as a combination pack with paper and digital charts available through the NV Chart online shop.

### 18.3.1 Digital subscription (only on mobile devices)

If you have selected “Digital Subscription”, you will see all available nautical chart subscriptions as frames in the chart and in a list view (for mobile phones, select the frame below).

You can select the charts either by tapping on the corresponding frame or directly from the list. Only one chart can be selected at a time.

If you want to change your selection, either tap on another frame or go back using the arrow in the top left corner and select another map from the list.

If you have selected a region from the list, it will be displayed again with a picture and a short info text. You can buy the region by clicking on the “Subscribe” button, which also shows the price of  the respective chart region again.

A system-specific window will then open and you will have to confirm the purchase again.

You can renew and manage the digital subscription is operating system dependent and can be adjusted at any time. The region is then valid until the end of the current billing period.

You can manage your subscriptions under **iOS** in Settings > iTunes & App Store > Press Apple ID > Show Apple ID > Manage Subscriptions

On **Android**, open the Play Store > Menu > Subscriptions > Manage

### 18.3.2 Paper & Digital

If you have selected “Paper & Digital”, you will see all the nautical charts as frames in the chart (on mobile phones, select the frame below) and in a list view.

You can select the charts either by tapping on the corresponding frame or directly from the list.

Once you have selected a chart from the list, your browser will open and you will automatically be directed to the corresponding product in the [NV Charts Onlineshop](#). The webshop uses a different login than your NV Charts App account, so you might have to create a new account in the webshop.

### 18.4 My Charts

In “My charts” all charts that you have already added (see 17.2 Adding charts) are displayed in a list view. The list is arranged alphabetically, with updated charts always at the top of the list and already loaded charts are displayed before unloaded charts. If a new chart is available, there is an orange hint link under the corresponding chart. By tapping on this link you can go directly to the respective chart in the [NV Charts Onlineshop](#).

#### 18.4.1 Download Charts

To display an added chart in the app, you need to download or download it. You do this by tapping on the downward pointing download arrow  to the right of the corresponding chart. Below the arrow you will always see the file size and thus the required device memory of the chart to be loaded.

If you have started the download by tapping on the arrow, the text below the arrow symbol changes to “Load...” and the progress of the download is displayed in a bar at the top of the screen ([see Fig.28](#)).

When the chart has finished loading, the arrow turns completely blue and points upwards. In addition, the loaded chart jumps up in the list, so that all charts already loaded are always displayed at the top.

Tap the delete arrow, which is now coloured blue, again to release the memory space that the loaded chart occupies on your device. **!**



The chart is not deleted from your account but only removed from the device and can be downloaded again at any time.

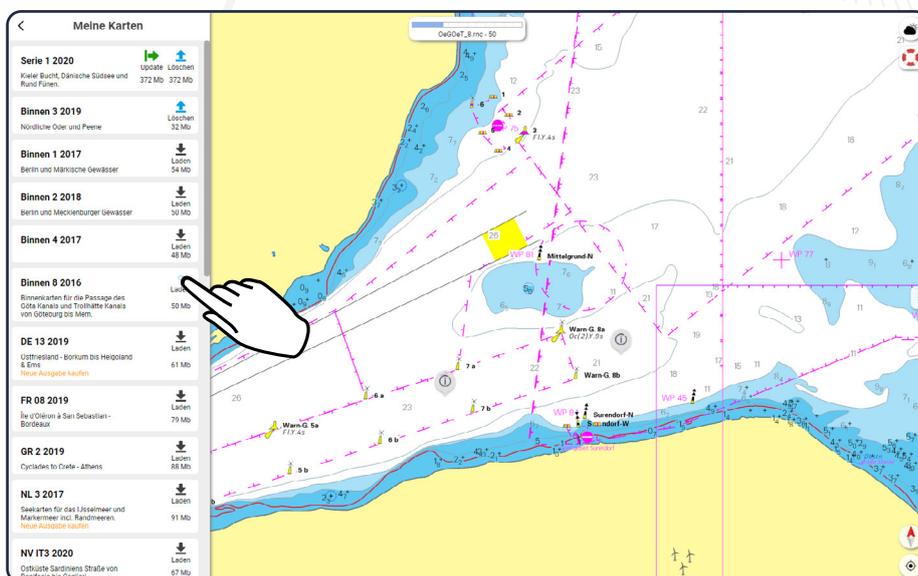


Fig.28:  
Display of charts in the My Charts menu

## 18.4.2 Updating Charts

Charts for which an update is available are always displayed at the top of the list. In addition to the delete arrow , a green update arrow pointing to the right  is displayed at the right edge of the corresponding charts. By tapping on this arrow you can update the respective chart. The amount of memory required for the update is usually lower than the download of a full set of charts.



You can view the current chart correction status of the individual series as follows:  
Charts > My Charts > Select Chart Product  
The state of correction is shown below the image of the product.

## 18.5 Vector and Rastercharts

Raster or vector charts are different ways of displaying cartographic content and nautical charts. With vector charts, if long tap on an object in the chart, additional information is displayed at this position. In the raster maps this information has already been placed manually by our cartography experts - optimized for print and raster screen quality.

In the computer-calculated representation in the vector charts all objects are always displayed pixel-free, but the placement of fonts is only possible to a limited extent and additional information must often be called up by pressing on the charts.

In the raster charts this information, optimized for certain scales, is already placed and attached to adjusted the available data. This intuitively prevents the charts from being used in a zoom factor that is too high. With vector maps, on the other hand, this can provide misleading accuracy in overzoomed charts.

An advantage of raster charts is for many people the similarity to the paper chart on the chart table -

the representation in the app can be easily transferred to the paper representation and helps in the orientation between both systems.

There are thus two types of representation with different advantages and disadvantages. According to your own experience and personal preference the vector maps can be set in the map settings on or

can be switched off, if both variants are available for the corresponding region.

Many skippers, with different experiences and ships, prefer either the pixel-free display and smoother transitions of different data sets of vector charts or the representation of raster charts with precision placed fonts and symbols at the respective scales with great similarity to the charts on the chart table. For anyone navigating, what counts is what they are most comfortable with with.

## 18.6 Chart Settings

Please refer to [\(see 23.5 Chart Settings\)](#).

# 19. Logbook and Track recording

In the NV Charts App, a distinction is made between completed tracks stored in your logbook and a active recording. By tapping logbook in the main menu you can access your logbook with your completed tracks.

With the button "Start new recording" in the main menu you start a new recording.

Interval and further settings can be made under [\(see 23.1 Boat and App\)](#) Tap on the flashing "Show Track" button to display the current recording, add further remarks or stop the recording.

Then use the back arrow in the top left corner to go back to the logbook where all saved recordings are now displayed as a list within the sub folders (trips) for each year. You can also store a track in a custom folder in the detailed track view.

The logbook function in the NV Charts App does not, of course, meet the requirements of a mandatory logbook on board, but is rather a complementary tool.

## 19.1 Logbook Trips

A trip is automatically created for each year. Here you also have the possibility to change the name of the trip or to make the trip available to others with a link. By tapping on a trip you can access the tracks. There you can select a desired track to switch to the detailed view of the respective track (see Fig.29) zu wechseln. Here you can change the name of the activity, delete  the recording, show it on the chart  or add or delete “+” entries . (The “show on charts” symbol also calculates a new preview of the track)

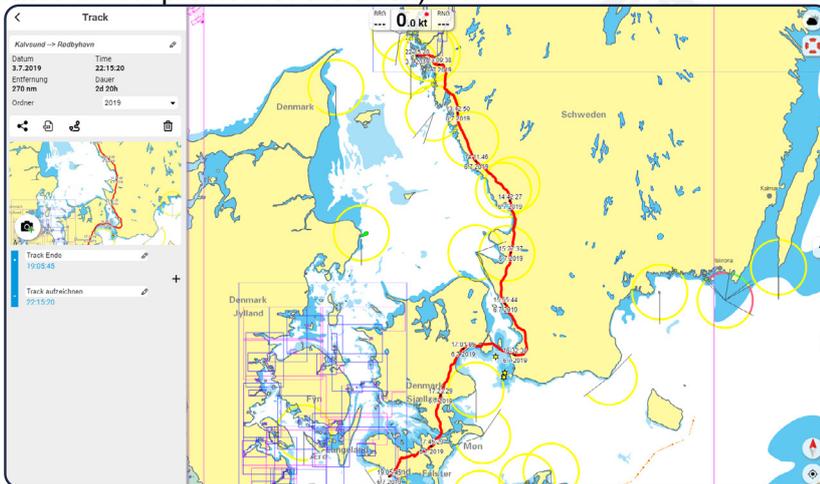


Fig.29:  
Presentation of a track

With the Folder setting, recordings can be moved to other trip folders or a new trip folder can be created. In addition, you can add photos to your recording (see 19.3 Add Photos to track), or share the recording with others using a link or download it as a GPX/NOB/KML file.

## 19.2 Record a new track

Tap the “Record new track” button to start a new recording. If only “Show Track” is shown in the menu, a recording is already running and can be stopped in the detail view of this running recording. The current date and time are automatically created as the start of a new recording and you can switch from the logbook view to the detailed view of the new recording.

Stop the recording by tapping the “Stop track” button at the bottom. The current time is created as the end point of the recording and with the plus symbol + you can add further manual entries between the start and end point. When waypoints are reached in an active navigation, this is automatically recorded in the recording. But maybe you have personal notes like “sails set” or “change of watch” to add to the track.

## 19.3 Add Photos to track

To add a photo to your track, tap the camera icon .  in the Edit menu. You will now have the option of either taking a new photo or selecting a picture directly from the gallery of your device.

 To use this function, you must allow the app to access your camera.

If you have selected a photo, it will appear under the name of the recording instead of the track view that was previously created automatically. You can change the picture again by tapping on the camera symbol and then selecting a new photo.

## 19.4 Image Gallery

If you have added at least one photo to your recording, you will see an image preview under the activity name. Tap on this preview picture to open the picture gallery. At this point, the already added pictures are displayed in large size and you can move through the gallery by wiping to the right or left (only on mobile devices) or by tapping on the arrows on the right and left edge of the picture (see Fig.30).

The delete icon  in the upper left corner of the image gallery allows you to remove the displayed photo.

Tap the cross in the upper right corner to close the image gallery again and return to the marker editing menu.

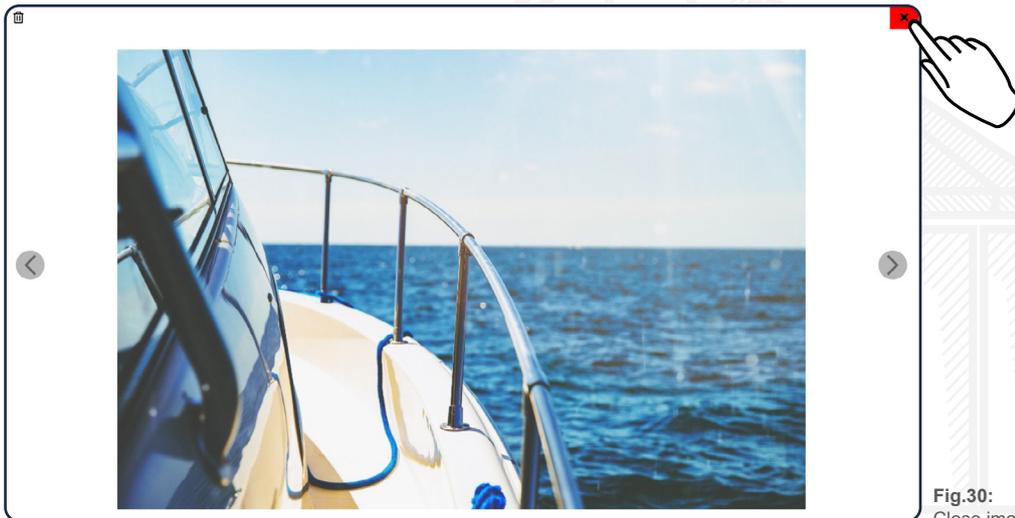


Fig.30:  
Close image gallery

## 20. At Location

**This function is only available for vector maps!**

You have the possibility to mark any position, beacon or buoys on the charts by holding down the button for a long time and thus obtain information about these locations. In addition to the small quick menu for creating a marker, route, bearing or POI (see Fig.17). You have the possibility to mark any position, beacon or buoys on the charts by holding down the button for a long time and thus obtain information about these locations. In addition to the small menu for creating a marker, route, bearing or POI (see Figure 11), an information window opens on the left of the screen (in the upright view on mobile phones, the window opens at the bottom of the screen and can be opened in full screen by tapping on the upward pointing icon) and you can view the various pieces of information by tapping on the corresponding headings.

The selected location is indicated by a flashing blue circle on the charts.

Briefly tapping on the charts closes the information window again and the circle disappears.

**The following POI function is available for both raster and vector charts.**

You can also select various point of interest (POI) objects on the charts by briefly tapping them to open data on the corresponding locations. The following objects, for example, are clickable: (see [15 Community-Layer / Point of Interest](#))



Navigation information for the area



Harbour or anchorage information



Photos and information about a place

## 20.1 Report something about a location to us

If you have discovered an error or have a comment about the charts shown, there is the possibility that you send us a message including the location that you selects.

To do so, open the information window as described above and tap the “Report information” button located at the bottom of the window. You will be taken to a new page with a large input field in which you can enter your description. Please describe the issue as accurately as possible.

If you are finished and satisfied with your information, tap the “Send” button and you will receive a copy of your message by e-mail. This is a great way of helping us improving the charts and making This is a great help to us improving the charts and making your boating experience even better. Your report is greatly appreciated and our editorial staff will investigate your descriptions further. In case of questions related our editorial staff might come back to you with questions following up this matter.

## 21. Enhanced lighthouse rendering

Tap on a lighthouse chart symbol in the chart for about one second to not only open the information window about it, but also to have the individual sectors on the map displayed visually. This way you can also see the identification of the individual light sectors.

You can deselect the enhanced lighthouse rendering with a long tap at another location on the chart.

## 22. Tide informationen

If there is tidal information available for certain places on the chart, a rhombus  will be displayed at the corresponding position on the nautical chart. If you zoom into the charts, these rhombuses will be filled according to the current tide level. **!**



If the upper part of the rhombus is coloured,  there is high tide at the current time, if the lower part of the rhombus is coloured,  there is low tide at the corresponding place.

By tapping on the rhombus, a tidal curve opens at the top of your screen, showing the water level changes of several consecutive tides ([see Fig.31](#)). You can close the graph by tapping on the chart again.

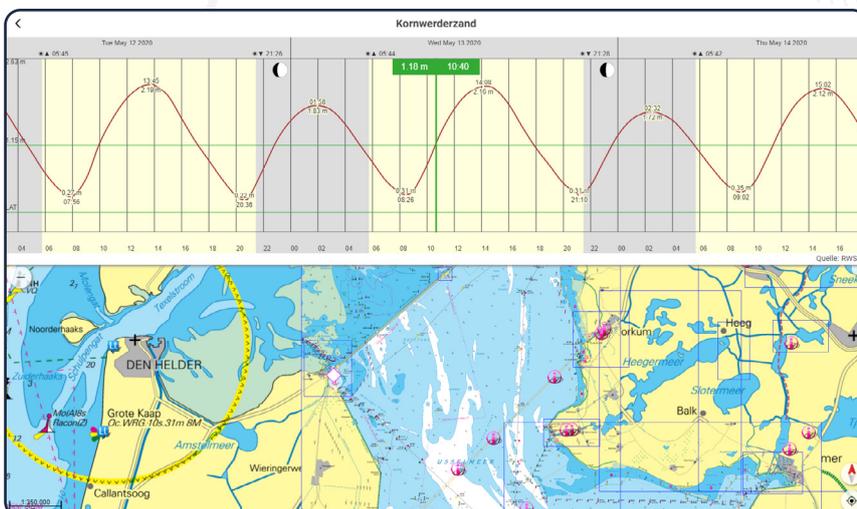


Fig.31:  
Tidal curve display example

## 23. Settings

In Main Menu > Settings you can access the settings of the app. You will find separate menus for the different subject areas.

### 23.1 Boat and App

The boot-related settings are automatically synchronized between your devices. A change on one device will be transferred to your other devices after the app has been restarted on this other device.



All boot related settings require a restart of the app to take effect. Close the app with the Task Manager (swipe in the screen from the bottom of the screen / use the button next to the home button on Android) and wipe the app to the side.

#### Boatname

Enter the name of your vessel here. This name will also be displayed to other users of the NV Charts App.

#### Speed

Enter the speed of your vessel here. The entered speed is used to calculate the duration of a route, which is displayed in the editing menu before navigation along this route is started ([see 13.3 Route editing](#)).

#### Boat Draft

Enter the draft of your vessel at this point. When checking a route or using the auto route function ([see 13 Routes](#)), shallows are detected on the basis of the entered value and displayed accordingly as an obstacle/hazard.

#### Boat Draft Safety

Enter the additional safety margin for the draft value above.

When checking a route or using the auto route function ([see 13 Routes](#)), shallows are detected on the basis of the entered value for the draft + this safety value.

#### Boat Airdraft

Enter the maximum height of your ship here. When checking a route or using the auto route function ([see 13 Routes](#)), the entered value is used to detect height obstacles

#### Boat Airdraft Safety

Enter the additional safety margin for the airdraft value above.

When checking a route or using the auto route function ([see 13 Routes](#)), height restrictions are detected on the basis of the entered value for the airdraft + this safety value.

In inland waters the settings for the safety margin for mast height and draft, this can usually be set somewhat lower than what would perhaps be more usual in other sea areas. This way you can define how many routes are excluded from auto-routing due to the safety distances.

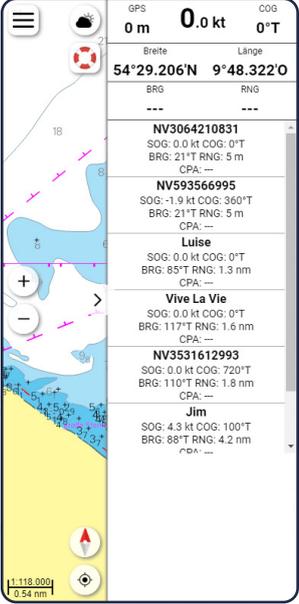
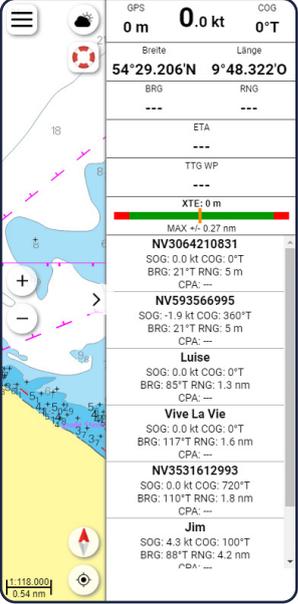
### 23.2 App Settings

#### Night mode

Use the slider to select whether night mode should be activated. If it is active, mainly dark colors are used in the app, so that you are not blinded by the screen of your device in the dark. In addition you can use the device display brightness regulation to adjust the display at night..

## Expert mode

Use the slider to select whether the expert mode should be activated. The following table provides a graphical comparison of the differences between normal mode and expert mode:

Normaler Modus	Expertenmodus
 <p data-bbox="416 663 533 685">Route display</p>	 <p data-bbox="1023 663 1219 685">Route display with XTE</p>
 <p data-bbox="408 1444 564 1467">Dashboard display</p>	 <p data-bbox="1015 1444 1251 1467">Dashboard display with XTE</p>

Tab.3  
Normal mode and expert mode in comparison

## Soft Scroll

This function allows you to scroll smoothly and without edges to zoom in and out of the charts. For the best possible use of the NV Charts App, this function should remain switched on. However, this does require more Hardware resources and if the device is not displaying the charts smoothly, this option can be deactivated to aid a faster zooming.

## Lower res

With this setting the display performance can be reduced on devices with lower working and graphics memory capacity to speed up the display.

## Auto routing

With this setting, autorouting can always be deactivated.

## App Language

Use a drop-down menu to select whether you want to use the app in English, French or German.

## 23.3 Units

### Speed

Use a drop-down menu to select the unit in which speeds should be displayed.

### Depth units (vector)

Use a drop-down menu to select the unit in which the depths should be displayed on your vector maps.

### Distance Units

Use a drop-down menu to select the unit in which distances should be displayed.

### Coordinate display

Use a drop-down menu to select the unit in which coordinates are to be displayed.

## 23.4 Trackline

### Heading line

Use a drop-down menu to select how far the heading line of your course should be displayed.

### Show tracks for

Use a drop-down menu to select how long the past track you have travelled should be displayed on the charts.

### Time interval

Use a drop-down menu to select the time interval at which the points for your track line should be recorded.

### Distance interval

Use a drop-down menu to select the distance between the points for your track line should be recorded.

### Max without pos

Use a drop-down menu to select the distance at which the track is split into two separate tracks, if you close the app or did not have gps for a longer time. This is useful split the track from your car travel from home to the boat.

### Label track

Use the slider to select whether your track recording should be labeled.

### XTE (Cross track Error)

Use a drop-down menu to select the default cross track error used when route planing in expert mode. In expert mode the XTE is also displayed for each route segment in the dashboard. In the expert mode the XTE value can be adjusted for each route segment with the orange lines parallel to the segment when editing the route.

## 23.5 Chart Settings

### Show vector charts

Use the slider to select whether you want to display vector charts.

### Chartframes raster

Use the slider to select whether you want to hide the frames of the raster charts.

### Chartframes vektor

Use the slider to select whether you want to hide the frames of the vector charts.

### On click navinfo

Use the slider to select whether the information markers ⓘ should be shown or hidden.

### North up

Align the charts so that North is always at the top.

### Look ahead

Align the charts so that your ship is closer to the edge of the display of the chart, so that you will always see more in the direction of travel. The chart is still aligned north up.

### Course up

Align the charts so that your course is always pointing to the top of the display.

### Follow route

Align the charts so that your active route is always pointing to the top of the display.

### Fontsize (Vector)

Use a pop-up menu to select the size of the font on your vector charts.

### Symbolsize (Vector)

Use a pop-up menu to select the size of the symbols on your vector charts.

### Safety contour

Use a drop-down menu to select which contour line should be highlighted in red.

### Safety depth

Use a drop-down menu to select the safety depth. All depths below your selection are highlighted in black on the charts.

### AR view range

Use a drop-down menu to select the distance that determines the radius at which objects are displayed in the AR view. Depending on the sea area, this value may vary.

### Hide roads

Use the slider to select whether roads should be shown or hidden on the vector charts.

### Hide cities

Use the slider to select whether cities should be shown or hidden on the vector charts.

### Hide warning areas

Use the slider to select whether warning areas should be shown or hidden on the vector charts.

### Hide military areas

Use the slider to select whether military (practice) areas should be shown or hidden on the vector charts.

## 23.6 GPS/AIS

Here you can make settings for the GPS position source and the connection of AIS devices and set the display of AIS data.

The NV Charts App uses NMEA 0183 via Wlan (or USB for Mac and Windows). When using Wlan NMEA data the TCP Protocol is supported but not the UDP Protocol. Most Wlan routers can be configured accordingly.

### Position from

Use a drop-down menu to select how your position is to be determined. The Internal GPS describes the integrated GPS of your device. Normally, you can use this selection on any mobile device. Make sure that the NV Charts App has location service permissions set to always. If you are using an External GPS this would need to be connected to your device additionally - for example via Bluetooth or USB or Wifi. However, for iOS external Bluetooth GPS devices need to use the internal GPS setting as well, as they are handled by the operation system like internal sensors. For AIS devices which are also actively transmitting External GPS is the usual setting to use the NMEA GPS position of the AIS device in the NV Charts App. For some AIS devices it is necessary to use the AIVDO setting. On iOS devices the background track recording is not available due to system constraints and if you want to record the track when the app is in standby, you would need to use the internal GPS sensor.

With Android, battery optimizations are made by the operating system. Here the GPS is often switched off for apps. Deactivate the optimization for NV Charts App in the operating system settings. Go to Android Settings > Battery > Battery optimization > Show all apps > deactivate optimization for NV Charts App.

Make sure you have a good GPS reception. You would need to have an accuracy of <50m for the NV Charts App to accept the position and not flag it as "No GPS".

### Windows / Mac external GPS devices

To connect an external GPS via USB under Windows or Mac, first find the connected device in the menu GPS RMC Port top left. ([see Fig.32](#))

If a device is connected, it should already be listed there. If you see multiple devices, connect the GPS again to see which port the GPS is using. Now set the baud rate of the device. **You can also use the Auto function to automatically find a connected GPS device.**

**After scanning, select the found device in the list.**

With Windows 10, many devices that are already automatically recognized by the operating system as GPS. In this case the GPS is not necessarily listed here but is like an internal sensor for the NV Charts App. Just set the position source to Internal in NV Charts App without any further settings required.

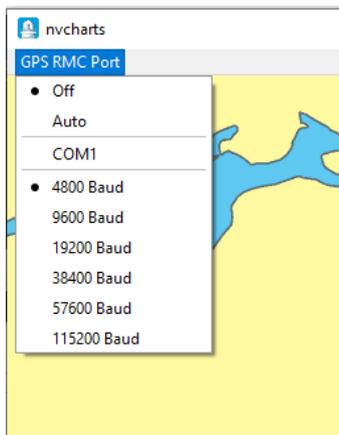


Fig.32:  
Windows / Mac external GPS menu

### Background tracking

Use the slider to select whether your activities should be recorded in the background. Note: Background recording in iOS is only possible with Internal GPS.

### Show AIS Class A

Use the slider to select whether AIS class A targets should be displayed. These are mainly ships of commercial shipping.

### Show AIS Class B

Use the slider to select whether AIS class B targets should be displayed. These are mainly leisure vessels.

### AIS headingline

Use a drop-down menu to select how far ahead the AIS targets heading should be displayed.

### AIS track

Use a drop down menu to select for how long the tracks of the AIS targets should be displayed.

### AIS label 1

Use a pop-up menu to select which AIS label should be displayed above a target.

### AIS label 2

Use a pop-up menu to select which AIS label should be displayed below a target.

### CPA Warning

Closest Point of Approach describes the probably smallest distance to an AIS target. Ships that come closer than this threshold are highlighted in red in the AIS list and chart display.

### Choose wifi router

Select which of the below connections you want to use. You can enter the corresponding IP addresses or port numbers of the connections in the following fields. After you have entered the respective data, tap the "Connect" button. If you have a NMEA router on board, the documentation should provide you a IP address and a port to connect to. Make sure to set the router to TCP mode.

### Establish UDP connection:

To establish a connection with UPD protocol, this function must usually first be activated on the AIS router. The app must then also be in the same subnet as the router. This should usually happen automatically. Now enter the broadcast UPD port of the router and press Connect.

## 23.7 Weather

Weather and current data can be displayed for many, but not all, regions in the NV Charts App. The Wind prediction is based on the NOAA GFS model and provides wind direction and speed for the next 3 days. Current data is based on different prediction models for each region and also provides a forecast for the next 3 days. Resolution and time intervals are varying from region to region depending on the available data.

### Wind and Currents

With the selection “Area” you can define in which area the current/wind data should be displayed. Leave the settings here on “load automatically” so that the data is always displayed is up to date. If the slider at “Automatically update” is active, the data will be updated if a internet connection is available and the currents from the area are chosen to be displayed using the weather icon ☁️ in the upper right corner. The loaded areas are saved with the forecast in the areas for the next three days. You can also load different areas to have the data for several regions available offline.



We recommend that you only set this function to inactive if you want to save power or internet volume on the device or if your device shows display problems.

If the slider at “Show colors” is active, the area is colored depending on the speed of the wind / currents. Set this slider to inactive by tapping it to display only the node details in the charts.

## 23.8 Privacy

### Live-Position

Use the slider to select whether the “live position” should be activated. If the slider is active, your position and ship name will be shared in real time with other users of the NV Charts App add can help to see if a friend is in the area or what speed and direction someone is going.

### Synchronisierung mit anderen Geräten

Use the slider to select whether to enable synchronization with your other devices. If you use the NV Charts app on several devices - for example, at home on your PC and on the tablet on board - synchronisation is useful so that your created routes, markers etc. as well as your already activated charts are also displayed on all devices. If synchronization is disabled, your data will only be displayed on the device you are using. **If you need to deinstall the app please note that, if this function is disabled, tracks and routes can not be restored on the device.**

With the automatic synchronization, tracks, routes, markers, POIs and boat settings are synchronized once a day when the app is first started. In addition, data is synchronized when a track is ended and when tracks, markers or routes are shared. If the save data function is active, automatic synchronization is disabled. With the Sync icon 🔄 or the button in the Data Management menu you can start the synchronization manually in the editing menus of routes, markers and tracks. This may be necessary on Windows or Mac devices, because the app does not go into standby mode and therefore the next synchronization would only take place after a restart of the app. If the save data function is active, automatic synchronization is disabled.

### Update Point of Interests (POI)

Manually activate POIs now. With this function the POIs are updated like port information in the

offline version. If the Save Data function is active, this is no longer done automatically and should therefore be done manually on a regular basis.

### **Data saver**

The data saver function can be used to synchronize data less frequently. Normally tracks, routes, markers, POIs and boat settings are synchronized once a day when the app is started for the first time. In addition, when you stop a track, the data is synchronized and when you share tracks, markers or routes. If the save data function is active, automatic synchronization is disabled. With the sync icon  you can start the synchronization manually in the edit menus of routes, markers and tracks to have the data available on other devices with the same username.

### **Update purchases**

If purchases are not displayed in App, this function can be used to request Apple / Google confirmation again and the purchases should be available again after the confirmations have been received.

## **24. Feedback**

By tapping on the menu item “Feedback” you have the possibility to send us a message directly. You will be taken to a new window with an input field. Now you can write your message to us and send it to us by clicking on the “Send” button. Using the feedback button will also include some system information and will help us assisting with any issues. You will then receive a copy of your message by e-mail. In case you did not receive a copy of the email, please make sure to also check your spam folder and to verify if the email you entered in ([see 27 My Profile](#)) is correct.

You can use the feedback function if you have noticed problems using the app, if you have suggestions for improvement or of course if you have noticed something particularly positive.

If you noticed something in the charts that you would like us to know, please try using the report at location function, which will provide us with the coordinates that you are referring to as well. ([see 20.1 Report something about a location to us](#))

Your feedback will of course be of great help to improve the NV Charts App and make your experience on the water even better.

## **25. Help**

The “Help” tab takes you to a gallery where you can download this manual. In addition, you can view various pictures and videos that should help you to use the NV Charts App.

## **26. About this App**

The menu item “About this app” will take you to the terms of use, the privacy policy and the licenses, which you can access and read again by tapping on the corresponding tab. In addition, the help menu will be displayed again and the current version and the number of the last update of the NV Charts App will be shown in this menu.

## **27. My Profile**

Tap on the field with your user name and e-mail address at the bottom of the main menu to view or change your profile.

### **Change your profile image**

Tap the camera icon  and select whether you want to take a new photo or select one directly from on your device.

### **Edit username**

Tap on the edit icon  behind your user name to edit your username. This username is displayed to other users if you comment something or upload a image for a POI.

### **Change email**

Tap „Change email“ and then tap the edit icon behind your email address to edit it. You will then need to enter your password again and tap the „Change email“ button to confirm your change. You will now receive an e-mail with a confirmation link to the address you entered previously.

### **Change password**

Tap on “Change Password”.

Enter your old password and then your newly chosen password in the fields provided. You will then have to repeat the password again. You can then confirm your change by tapping on the “Change password” button.

After the change, you will be logged out of the NV Charts App on all your devices and can log in again with your new password.

## **28. Troubleshooting**

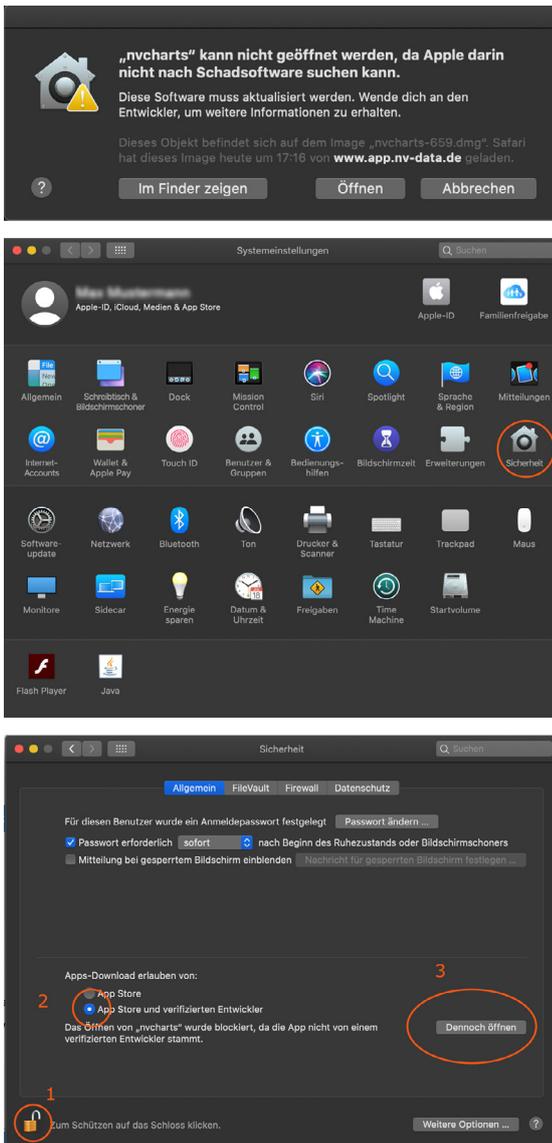
Some common problems may be solved quickly by yourself, and many answers can also be found quickly by searching our FAQ section on our website [nvcharts.com](http://nvcharts.com). Please feel free to get in contact with us (e-mail: [support@nvcharts.com](mailto:support@nvcharts.com)) if you have not yet found what you were looking for or if there is something we could add or if there is something else we can assist with.

### **28.1 Free RAM Memory**

It is possible that there are too many apps open on the device at the same time and therefore not enough memory is available. Please try to close all apps with the task manager (swipe in the screen from the bottom of the screen / use the button next to the home button on Android) and also try restarting the device and then also reopen only the NV Charts App. This should make more memory accessible to the NV App.

### **28.2 Installation Mac OSX Safetychecks**

To complete the app installation on Mac and start the app it may be necessary to confirm an exception in the app security settings. Please go to your settings under Security -> General Apps -> Allow download from -> Appstore & verified publishers. There set and confirm both checkmarks.



### 28.3 Windows Mac menu size scaling

On some Windows devices the NV Charts App menus are displayed quite large. This is due to the scaling settings of the operating system. Sometimes this can be intentional, e.g. to display fonts larger. You can adjust the setting under Control Panel > Display > Scaling and Arrangement > set to 100%. In addition there is a Menu in the top left allowing users to manually adjust the Zoom of the user interface on Windows and Mac devices.

### 28.4 Android battery optimisations

It may be possible that the hardware resources are reduced by the operating system to increase battery life. Using Android, the operating system may reduce the CPU power and GPS availability of the device for the NV Charts App to save battery. This can lead to a significant slowdown in the NV Charts app. Try to go to Android Settings > Battery > Battery optimization > Show all apps > deactivate optimization for NV Charts App