MaxSea TimeZero App v2

MaxSea App User Guide

2015-05-27

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MaxSea TimeZero App overview

MaxSea TimeZero is the ultimate App for marine navigation. More than 95000 customers around the world already trust TimeZero!

MaxSea TimeZero is a marine navigation App specially designed for coastal sailors with the most cutting-edge and useful tools & data needed.

Thanks to the outstanding TimeZero technology and PhotoFusion feature, MaxSea's marine chart App has a powerful 3D chart engine allowing you to scroll, zoom and rotate the MapMedia Raster charts in no time.

Robust Technology & Data

- 2D/3D chart engine display
- Complete navigation functions in full 2D/3D
- Patented PhotoFusion technology
- MapMedia Raster mm3d charts

Basic Features

- Your position on the chart
- Course (COG)
- Speed (SOG)
- Real-time weather and weather trends
- Tides and tidal currents

WHAT'S INSIDE?

- Plot your position in real-time on the most accurate Raster marine charts thanks to the built-in geolocation features of your iPad (GPS and/or WiFi);
- Easily create waypoints and routes;
- Keep as much as 50 routes and display them easily at any time;
- Overlay complete tidal information (tide heights and tidal currents) directly on the chart;
- Thanks to PhotoFusion, overlay satellite photos to gain perfect understanding of the coastline;
- Configure your NavData panel to keep on screen the specific instrument readings that are most useful to you on screen: COG, SOG, Pos, Accu., CTS, NEXT, TTG, DTW, XTE, VMC, ETA, TTA, DTA, Weather;

- Navigate instantly to a waypoint (Go-To tool);
- Choose the chart orientation (Course-Up or North-Up), instantly go back to your vessel (Center On vessel) and switch from 2D to a 3D full view in just one click;
- Undo/Redo feature, don't worry about making mistakes;
- Share your position and comments on Facebook
- The ultimate App for marine navigation.

Important Notice: Continued use of the GPS running in the background can dramatically decrease battery life.

What's New in Version 2.0

- Improved User Interface with the latest Apple technology (iOS8)
- Advanced features add-ons are available in the App-store such as the TimeZero AIS Module and Radar Module that allow you to display AIS targets and Radar together either by overlaying the data on the chart or as a traditional dedicated radar display
- Share your position with other TimeZero friends, send invitations to new friends, display and manage all your friends positions.

First Launch

The first time you launch the MaxSea TimeZero App a message will inform you that you must create a TimeZero account in order to access the free demo chart.

Tap **Continue...** to register for an account and purchase any charts and modules.

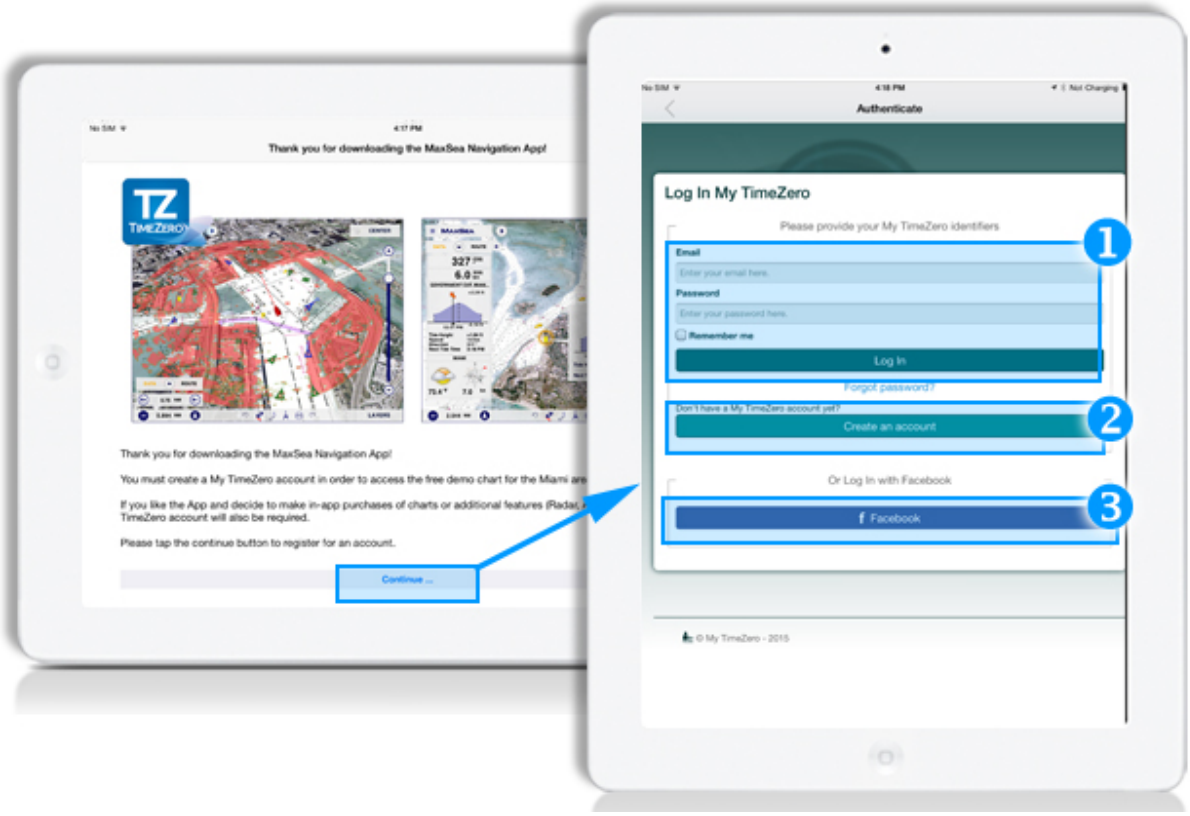


Fig. 1: Log In with My TimeZero Account

- If you already have a My TimeZero account enter your email address and password (Fig.1 -1)
- Log in My TimeZero with your Facebook account (Fig.1 -3)
- Otherwise create your new My TimeZero account (Fig.1 -2)

How to create a My TimeZero account

1. Tap the **Create an Account** button to display the registration form (Fig.1 - 2)
2. Fill out the form by tapping each field and enter your email address, your password and your password confirmation
3. Next, enter your first name, last name and country
4. Tap **Get Started** to confirm and you will receive an email to activate your account.

Activate your My TimeZero account

1. Tap the Activate your Account link in the automatic email you received
2. Then enter your email and password to sign into your My TimeZero App account (Fig.1 - 1)

Log In with your Facebook account

1. Tap the Facebook button to access the Facebook connection page (Fig.1 - 3)
2. Enter your email address or your phone number and your Facebook password
3. Tap **Log In** to use the TimeZero App with your Facebook account

General User Interface

Fig.1: The different parts of the interface

The Header

1. The **Parameters button** *(Fig. 1 n°1)* shows the various options for configuring the App.
2. The status bar *(Fig. 1 n°2)*, appears in the top of the screen when a notification or an alert (in the color dark blue) is triggered and when you're using tools such as the divider or the "activate route" function.
3. The Center button *(Fig. 1 n°3)* instantly centers the chart display on the boat. Once a tool is activated (e.g. divider, route tool, etc.) the button displays as "Terminate..." Tapping this button will end the current action.

The Chart Slide Bar

4. This feature, as well as the + and – buttons *(Fig. 1 n°4)*, allows you to change the scale of the chart. You can also "pinch" the tablet screen to zoom in and out.

The Toolbar

5. The **Layers Selection button** *(Fig. 1 n°5)* allows the selection of additional items to be overlaid on the chart: e.g. satellite photos, tides, routes and the marks that you have saved, etc.

6. The **Navbar** *(Fig. 1 n°6)* includes a list of tools such as Track on/off, Activate/Deactivate the route, the ruler to calculate distances and the More (...) Menu to access additional functionalities.

7. The **Undo-Redo buttons** *(Fig. 1 n°7)* allow the user to cancel an action.

8. The **Chart Scale** *(Fig. 1 n°8)* indicates the scale of the chart display in distance. This display also contains buttons that allow you to switch between 2D and 3D display and between NorthUp and HeadUp. You can show or hide the **Chart Slide Bar** by tapping the chart scale value.

Data Information

9. The **NavData** *(Fig. 1 n°9)*: all navigation data is displayed here, either as text or as a graphic. The user can show or hide NavData and configure the data so that it is displayed according to your preferences.

10. The "**ToolTip**" *(Fig. 1 n°10)***:** by tapping an object on the chart, the user displays the most important information related to this object. A menu also appears with a list of actions that can be carried out on the selected object.

Use the following on-screen actions to adjust the chart view

· Pan around the chart by placing one finger on the screen and dragging in the desired direction.

· The MaxSea TimeZero App uses the standard “pinch” functionality to zoom in/out and to pan across the chart. To do so, place two fingers on the screen and pull them apart or towards each other in the area of interest.

· The “two-finger rotate” on screen allows you to move and change the chart orientation view.

· The “two-finger tilt” on screen moves from left to right or from top to bottom and allows you to adjust the 3D view’s level of tilt in order to change the chart perspective.

· Tap anywhere on the chart to display the context menus.

· When you perform a long tap on a chart object, you enable the Move function.

· When you perform a dual finger long tap on the chart, you enable the Configurable functions such as Camera function, Screen Capture or adding Events.

How to buy and restore Charts and App-Modules

When you are connected to the Internet, tap on the button. Then choose "**Store**" to view the list of charts and Plus Packs that are available for purchase online.

To purchase a Chart or a Module, tap on the button displaying the price. Apple will then ask you to validate your order.

Products that you have purchased will then be freely available on demand in your App. If a module has been purchased, advanced functions will appear in your TimeZero App depending on the corresponding module.

How to restore your purchases

If you upgrade or if you have to re-install your iPad App, tap on "**Restore purchase**" to restore all the products you have previously bought.

***Notes**:*

1. *If you did not yet purchase any chart, the App starts in demo mode; when you purchase a chart, the App will automatically switch to the navigation mode by using your GPS device. Meanwhile you can activate or deactivate the demo at any time by selecting corresponding option in the General Parameters.*
2. *If you purchase either the Radar or AIS Module you will need to configure the Wi-Fi connection in your iPad s Wi-Fi settings*

Managing charts in the iPad

How to download charts on your iPad

To improve the display speed and to have all your charts stored in your iPad cache memory at any time (even if Internet connection is not available):

Tap on the button and select "**Manage Chart**".

***Note**:*

1. *The cells that are **grayed-out in a dark gray color** show you that charts do not currently exist or have not been purchased.*
2. *Charts that have been purchased are also displayed in grayed-out cells, but this time in **a light gray color** if they are not stored in the cache.*
3. *Cells that are **not grayed-out** are charts that have already been copied to the iPad local cache memory.*

How to download one or more cells at a time

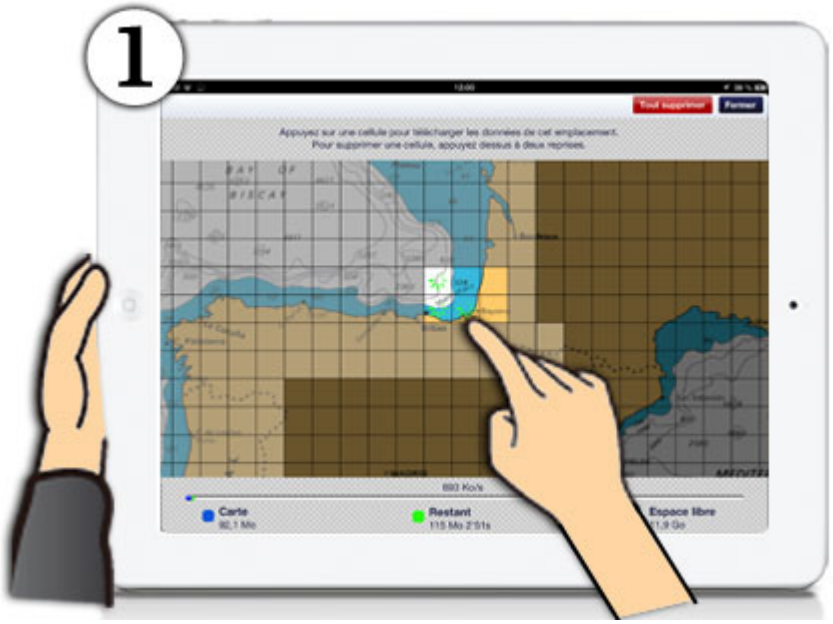


Fig.1 - Tap the cells of each individual chart area that you want to store in the iPad local cache memory.

***Note**: A progress bar at the bottom of your screen will display the remaining percentage until storage is complete, as well the free memory space currently available.*

How to delete cells from the iPad memory

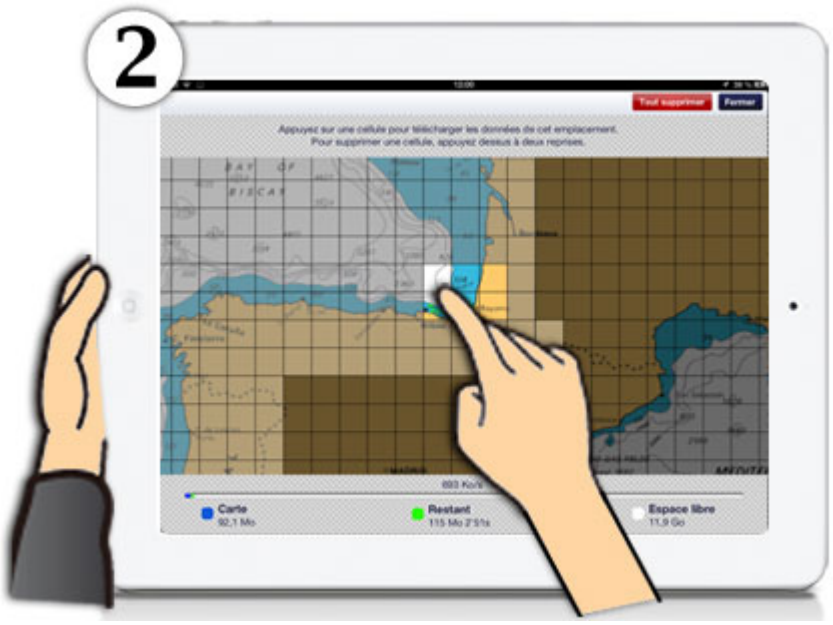


Fig. 2 - Tap on a downloaded cell (not a grayed-out one) to activate the delete function. The cell will then be filled with a red color and a blinking trash icon will appear.

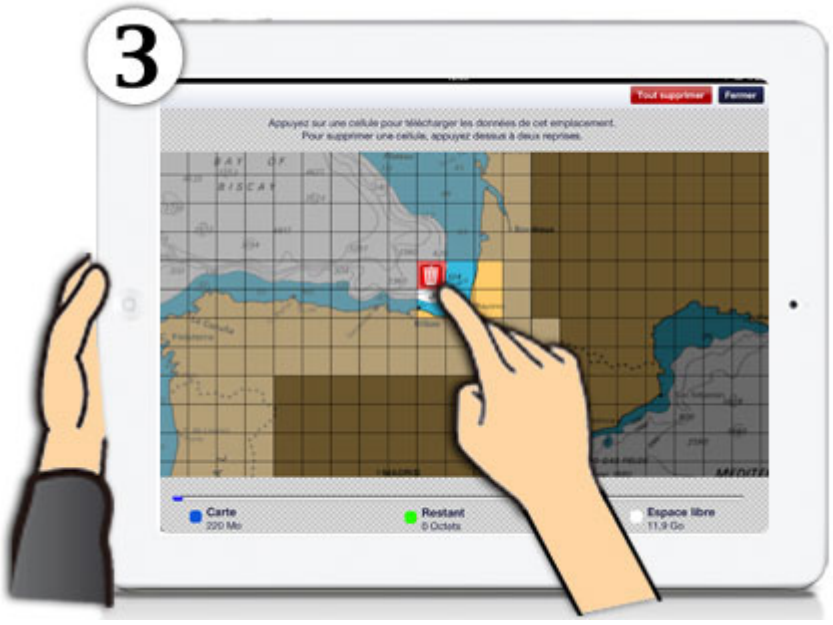


Fig. 3 - Tap the cell (that has been filled in red) a second time to delete it from the iPad memory.

How to remove all cells from the iPad memory

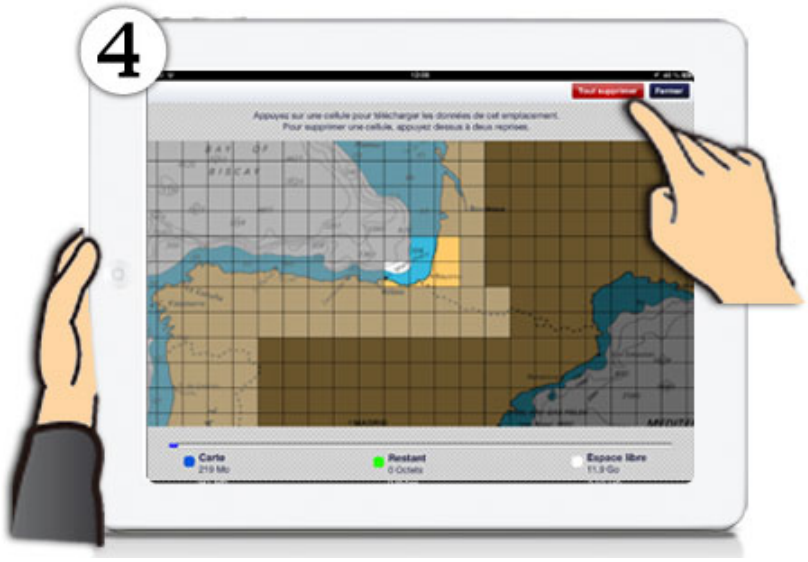


Fig. 4 - Tap the **"Delete All"** button, then confirm that you wish to remove all cells stored in the iPad memory.

Setting up External Instruments in the iPad

However, if you have a "Wi-Fi only" iPad model (without an integrated GPS receiver), you can either purchase a Bluetooth GPS (compatible with the Apple core Location Service) or use an external NMEA 0183 GPS connected to the Wi-Fi network.
However, if you have purchased either the AIS module and/or Radar module, you also need to use the Wi-Fi network.

How can I use external instruments (GPS, AIS, etc.)?

The NMEA 0183 Wi-Fi multiplexer creates its own wireless network access point. The iPad must be set up to join the NMEA 0183 Wi-Fi multiplexer wireless network.

How to configure a Wi-Fi connection

Switch On the device and run the iOS **Settings** menu. Select a Wi-Fi group and switch the Wi-Fi option “ON”. Connect the AIS equipment to the Wi-Fi transmitter and apply power to both devices.

How to set up a Wi-Fi connection in the MaxSea App

1. Tap the Parameters button and **Initial Setup**
2. Tap **GPS source** and select **Wi-Fi External Source** to get additional AIS-GPS data on your boat's position.
3. Tap **Connect to a Wi-Fi Router** and choose the type of connection:
   - If the Wi-Fi multiplexer is set to output NMEA 0183 sentences over Wi-Fi using the UDP protocol, you only need to enter the UDP port number in the MaxSea TimeZero App.
   - If the WI-FI multiplexer is using the TCP protocol, you need to enter the TCP port number and the IP address of the Wi-Fi multiplexer in the MaxSea TimeZero App.

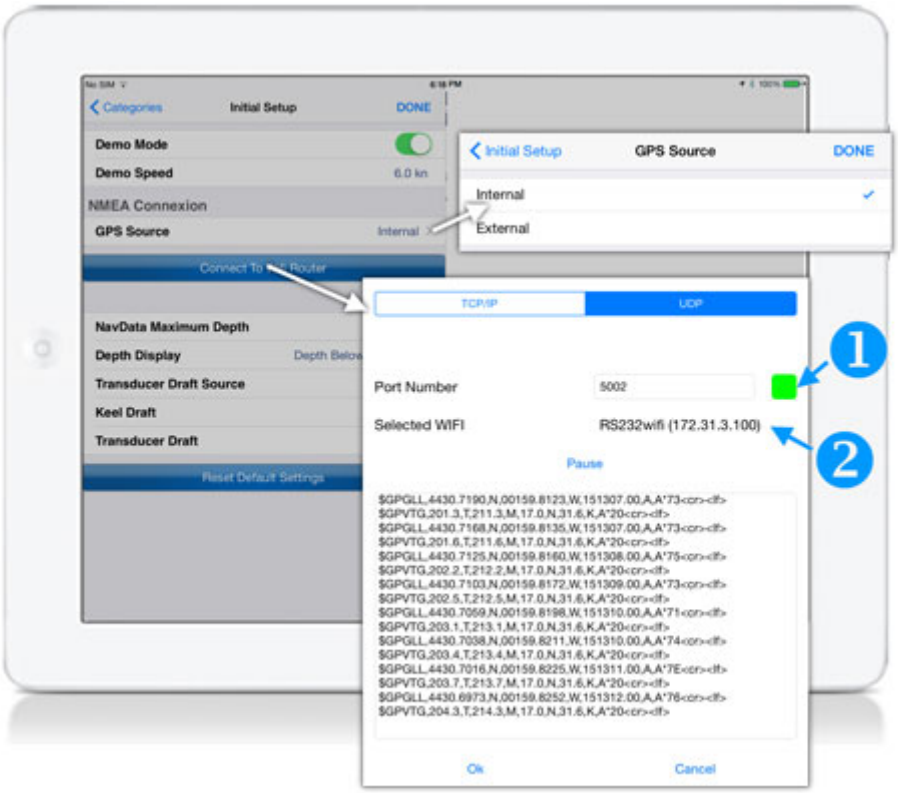
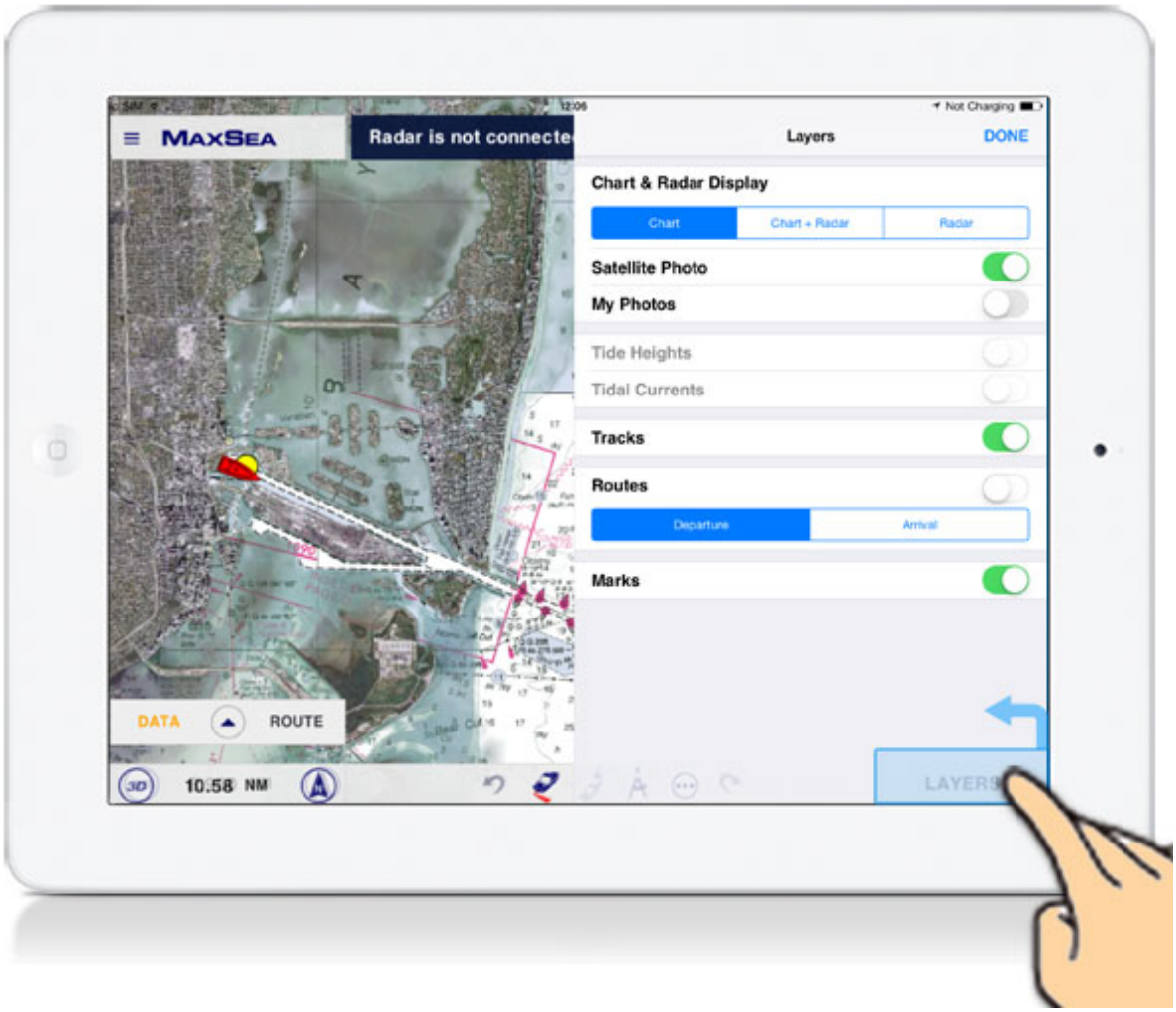


Fig. 1 Setting up Parameters

4. When the connection is ON:
   - A green button is displayed (Fig1 -1) and the detected material name with its host address (Fig.1 - 2) appears below.
   - You should see NMEA0183 sentences flowing in the window below, tap Stop to disable scrolling data and tap OK to validate the connection.

Layer Tab



Tap The **Layers** button in the bottom left corner of the screen to display the layers data in the chart view:

- Tap on **Chart** to display only the Chart view, tap on **Chart + Radar** to display the chart view and the radar overlaying both together and tap on **Radar** to display only the Radar view (*).
- Tap on the Satellite Photo check-box to show/hide PhotoFusion in the chart view.
- Tap on the My Photos check-box to show/hide Pictures and Screenshots on the chart (only compatible with iOS8)
- Tap on the **My Friends** check-box to show/hide your friends position on the chart.
- Tap on the **Tide Heights** check-box to show/hide the tide icons on the chart.
- Tap on the **Tidal Currents** check-box to show/hide tidal current arrow icons on the chart.

· Tap on the **Tracks** check-box to show/hide recorded track lines on the chart.

· Tap on the **Routes** check-box to show/hide all recorded routes' departure or arrival point on the chart.

· Tap on the **Marks** check-box to show/hide marks and events that have been created on the chart.

· Tap on the **AIS Targets**(*) check-box to show/hide all AIS targets on the chart that are transmitted by the AIS receiver

***Note** all options marked with an asterisk (*) depend on modules that were purchased and configured in your App TimeZero.*

The NavBar tools

The NavBar provides access to a series of tools to make usage as simple as possible:

The **Track On/Off** tool enables track recording. When the track is being recorded, the "**Track**" button turns orange. The active track is displayed on the chart as a line trailing behind the boat icon indicating the actual track of the vessel through the water. When you tap on the track line behind the boat, a context menu is displayed which allows you to modify the color of the track or even delete the whole track or just a section of it.

The **Activate/Deactivate Route** tool allows you to activate a route that has already been created on the chart. The "Route" button is grayed out unless a route already exists. Tap on the chart at the starting point to display the context menu where you can choose to create a "**New Route**" Terminate the route by tapping the "**End Route**" button, and tap the "**Route**" tool to activate it.

Note: you can also activate a quick route by selecting the "Go to" option.

The **Ruler** tool allows you to measure distances and bearings between two points on the chart. Tap on a chosen position to start a measurement and drag the Ruler to the end position. Values will also appear in a bar at the bottom of the screen. You can adjust the start or the end point by selecting and dragging them to new positions on the chart.

Tap on the "**END**" button in the top right-corner of the screen to terminate and to erase ruler points. Tapping anywhere on the chart also cancels the Ruler mode.

Note: When Navigation mode is selected and GPS is active, the "**Ruler**" tool allows you to measure the range, bearing, SOG (Speed Over Ground) and the TTG (Time To Go) from the boat location to a chosen location on the chart.

The **More (...)** menu allows you to choose advanced options:

1. Tapping on the "**Facebook**" option allows connection with Facebook so that you will be able to post your position and a screenshot of your software at your current position. You can even add comments to your Facebook wall the in MaxSea App.

***Note**: if a link with Facebook has not yet been established, the app will prompt you to create one.*
***Note**: at the end of the post there is some text that will become visible on your Facebook post as a direct link to the AppStore to download the Nobeltec App.*
***Note**: the screenshot from that moment is added to the customer's Facebook post.*

2. Tap on the "**Event**" option to create an event at the boat's position to mark its current position with a specific icon.

3. Tap on the "**Camera**" option to activate the Camera and take a geo-localized picture from the App (only compatible with iOS8).

***Note**: if the Function Gesture has been configured, the dual finger long tap will activate the actual shortcut either to create an Event function to mark the current position of the boat or to activate the camera unction.*

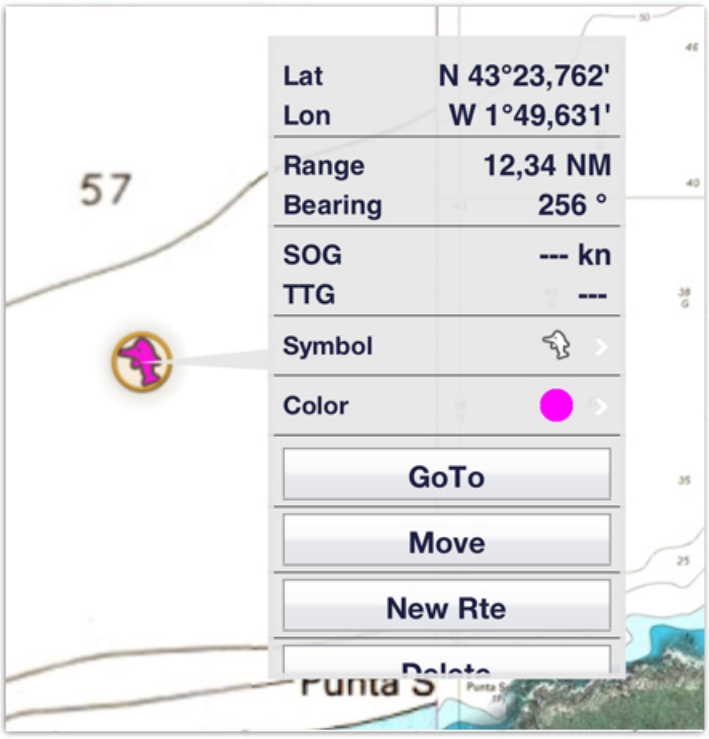
4. Tap on the "**Store**" option to buy a new chart or to restore your purchase if you have to re-install your App.

5. Tap on the "**Manage Chart**" option to download and save your charts on your iPad or to delete the unused charts from your iPad to free up some the memory space.

6. Tap on the "**Invite a New Friend**" option to invite TimeZero friends to join me and share our position in My TimeZero App.

***Note**: An Internet connection is required. If you are not logged in to your "My TimeZero" account, the App will prompt you to sign in.*

ToolTip and Context Menu



The ToolTip provides quick and useful information

Tap an object or any point on the chart, to display the most important information related to this object. A menu also appears at the bottom of your screen with a list of actions that can be carried out on this object.

Note: the ToolTip displays information above the object (coordinates, Range, Bearing, SOG and TTG if the App is in Navigation mode). The main context menu items are displayed at the bottom.

The context menu

The context menu provides a list of specific actions, depending on the object that has been selected on the chart.

1. By Tapping anywhere on the chart the context menu allows you to:

   · Create a **Mark** at the chosen location

   · Create an **Event** to mark the current position of the boat with a specific icon (four available events can be configured)

   · Create a quick route by choosing **GoTo** and selecting the destination (the Route button then becomes activated).

   · Create a **New Route** by tapping each waypoint on the chart. When you reach the final point, tap the **End Route** button to terminate the route.

***Note**: the new route icon is grayed-out if an active route already exists. If the "Demo mode" is selected, the "Move Boat" item is added to the context menu and allows you to change the boat position in order to simulate a route before sailing.*

2. By Tapping an object that you have created on the chart (mark, event, route, track, etc.), the following actions may be added to the context menu depending on the object that you selected:

   · Modify the **Symbol** of the icon being used for the mark and the event selected on the chart

   · Modify the object's **Color** (mark, event, track, route)

   · **Activate** the route**,** departure from the starting point.

   · **Activ.** (the route) **from Here**, departure starts from a selected leg in the route.

   · **Hide** a Route, it will then be replaced by a specific icon on the chart (departure point when hidden: or arrival point when hidden:).

   · **Reverse** the route.

   · **Insert** a waypoint in the route by tapping the leg where you want to add it and then drag the new waypoint to a chosen position on the chart.

   · **Extend** the route to add waypoints at the end of the route.

   · **Delete** object (available for all objects)

***Note**: each list of actions in the context menu depends on the object that has been selected on the chart.*

App Parameters

Tap the **MaxSea** button in the top left-hand corner of the screen to display the App Parameters menu. This menu organizes a number of items which allow you to configure and manage the following functions:

1. **Ship & Track** options allow you to configure your customized ship predictor vectors or the recorded track display information.

2. The **Routes** option allows you to configure settings related to the appearance and behavior of your routes.

3. The **Marks** option allows you to configure the default parameters such as symbols and the color and size of marks and events.

4. The **Radar**(*) option allows you to adjust the display of the echo radar image in your app: tap on the Auto Rain check-box to automatically suppress the reflected echoes from rain or tap the Rain Adjust cursor and move it along the progress bar to suppress the reflected echoes from rain with more precision, tap Echo color and choose a color between Multicolor/green/yellow, tap on the Radar Overlay Transparency cursor and move it from left to right to increase the transparency of the echo radar overlay on the chart.

5. The **Targets** (*) option allows you to adjust the targets displayed on the chart: tap on the Display Target IDs check-box to display under AIS symbol its name on the chart. You can hide all targets that are far from your boat around a chosen distance. you can also configure the target's COG and SOG line predictor displayed on the chart, tap on the **Target COG/SOG predictor** to choose if the calculation of the line predictor varies in length according to a time or to a distance value, then tap on the **COG/SOG predictor length** to fix the distance value and tap on the **COG/SOG predictor Time to set** the time value.

6. The **Plotter** option lets you configure the App display: show/hide the chart slide bar on the screen, adjust the level of transparency (NavData, PhotoFusion, tide icons etc.) and the 3D display (3D tilt).

7. The **Import/Export** options allow you to exchange data between all TimeZero systems (Apps, NavNet, TZTouch system and the MaxSea TimeZero software)

8. The **Units** option allows you to set up the data units: **Depth** (Foot/Meter/Fathom/Passi/Braza), **Range** (long: Nautical Mile/Kilometer/Mile and short: Foot/Meter/Yard) **Coordinates** (in different formats such as DDD°.MM.mmmm' / DDD°.MM.mmm' / DDD°.MM.mm' / DDD°.MM'.SS.ss" / DDD.dddddd°), etc.

9. The **General** options let the user adjust the App User Interface display such as the function Gesture, the user's boat length, size of the boat icon, etc. You can also switch the App from Navigation to Demo mode.

10. The **Initial Setup** option allows you to switch the App from Navigation to Demo mode and to set up the boat speed. Set up the instrument's Wi-Fi connection such as the GPS, AIS system and Radar. You can set up the **NavData Maximum Depth** that is the maximum scale displayed in the Graphic NavData. The **Depth Display** allows you to choose to display the depth below the Waterline or below Keel. You can also select the **Transducer Draft Source** by choosing between auto or hardware or manual then enter values that will be used in the manual mode for the depth of the Keel Draft and the Transducer Draft.

11. The **About** option displays useful information about your App such as Tips, License and App version, the Chart Memory space used, as well as the tracks, routes and marks stored in your App. You can also send feedbacks to the support and the trouble shooting log. You can obtain a report that resume how many route, mark, track point and memory actually used.

Notes:
1- Tap the "Done" button to validate your selections. Tap "Reset Default Settings" to go back to the original default settings.
2 - All options marked with an asterisk (*) depend to modules that were purchased and configured in your App TimeZero.

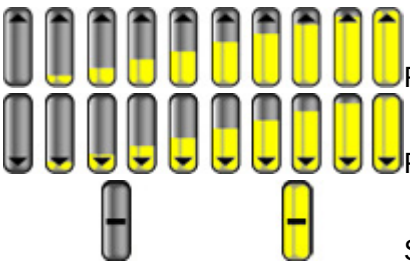
Tide Heights and Tidal Currents

Displaying Tide Height Icons in the chart view

The App can display the tide level for thousands of tide stations around the world.

To show and hide the tide height stations on the chart, tap the layer tab and check or uncheck the **Tide heights** box.

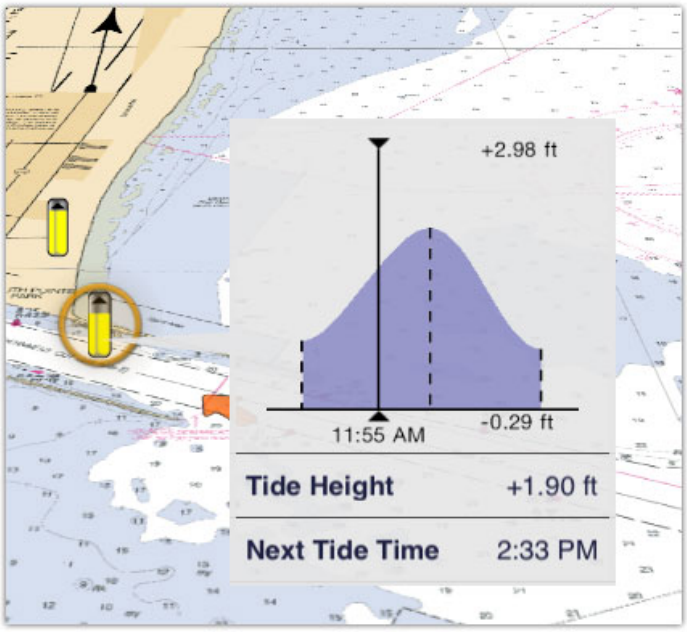
The Tide Icons graphically display a preview of the Tide Height status:


Rising Tide (from low to high)

Failing Tide (from low to high)

Slack

The Tide Graph, Tide Height and Next Tide Time can be viewed by tapping a tide icon on the chart.
The Tide graph displayed on the top of the context menu indicates the actual Tide Height status and shows you the level from the previous and next Tide height.



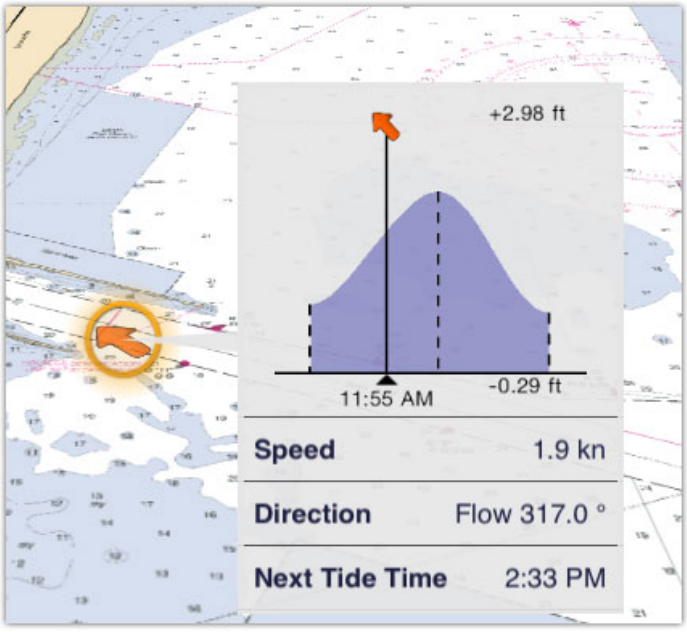
Displaying Tidal Current Arrows in the chart view

The App can display the tidal current set and drift for thousands of locations around the USA and Europe.

To show or hide the tidal current arrows on the chart, tap the layer tab and check or uncheck the **Tidal Currents** box.

The Tidal Current Arrow Icons graphically display the direction and strength of the tide based on color (from yellow for lower speed to red for higher speeds).

Tap any arrow on the chart to display the context menu which will show you the speed and direction values of the tidal current. The tidal current arrow is added to the regular tide graph for the actual time.



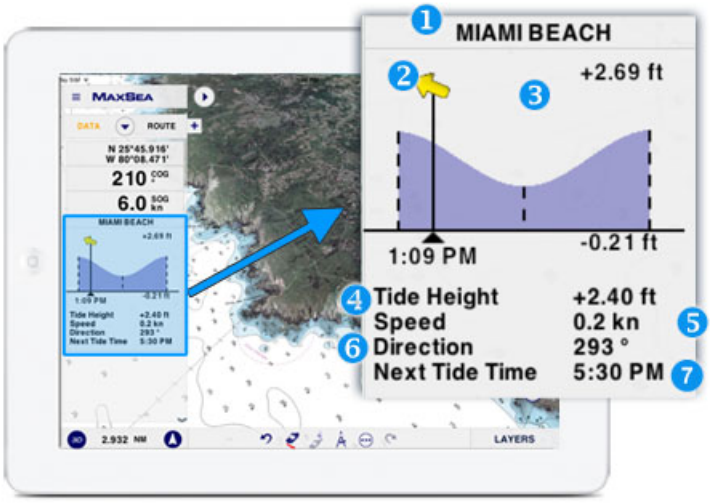
***Note**: The tide heights and tidal currents are only available to display in the App if you have purchased charts. If no chart has been purchased, the corresponding boxes in the layer tab are grayed-out and therefore not available.*

Displaying the Tide Graph NavData

Displaying the tide Graph NavData will always give you the information of the nearest Tide and Currents station from your boat.

1. Access the NavData by tapping the button in the bottom-left corner if it is not already being displayed.

2. If the Tide Graph NavData is not already displayed on screen, tap anywhere in the NavData panel, and then choose "**Tide Graph**" in the list to add and display the Tide Graph NavData.



1. Name of the nearest tidal station reference.
2. The tidal current arrow added to the graph for the actual time.
3. The regular tide graph for the actual hour.
4. The tide height value.
5. The speed value of the tidal current.
6. The direction value of the tidal current.
7. The time value of the next tide.

Moving objects

You can enable the Move function by long tapping an object on the chart. When the object is surrounded with a flashing orange circle, drag it to its new position on the chart. Terminate your action by tapping the End Move button in the top-right corner of the screen.
The move function can be activated to a mark or waypoint, etc.

NavData management

1. Access the NavData by tapping the button in the bottom-left corner if it is not already being displayed.

2. If the Weather NavData is not already displayed on screen, tap anywhere in the NavData panel, and then choose "**Weather**" in the list to add and display the Weather NavData.

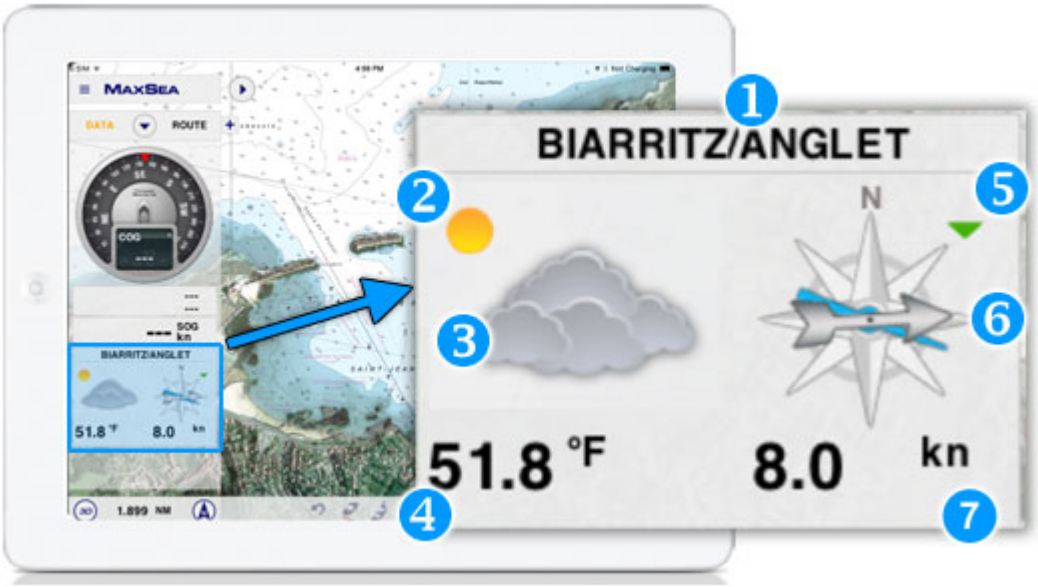
Tap the "**Arrow**" button in the NavData header to close the NavData panel. Tap the "Plus" button to show a list of specific NavData data types to display either in the Data or the Route panel.
Organise your display by moving each NavData container in the panel by tapping the NavData box and dragging it up or down in the panel to a chosen position.
Tap a NavData container to choose to "**Remove**" it from the panel or to switch from it from text to graphical display when the "**Graphic**" item is available (the Course Over Ground and the Speed Over Ground can be displayed either as text or graphics).

***Note**: by default the new NavData box is added to the bottom of the panel. If there is not enough space in the panel, it will be added to the top of the panel and the previous box will be removed.*

Weather NavData

Weather data such as cloudiness, air temperature, wind direction and strength are critical for safe and secure navigation.
This is why the App provides weather NavData where you can get information such as weather forecast that indicates rain / cloud cover, air temperature, wind direction and speed for the hour to come, as well as general tendencies for the following hours.

Note: *Weather forecast and trend files are received from the nearest weather station reference via an active Internet connection. The Weather NavData is grayed-out if your Internet connection has been lost for 20 minutes or more.*



1. Name of the nearest weather station reference.

2. In our example, the future trend is improving (sun).

3. The gray-colored cloud shows the cloudy forecast for the hour to come.

4. Expected air temperature.

5. The wind strength tendency is displayed in the upper-right corner (see legend below).

6. The wind forecast for the hour to come is graphically displayed:

   · The arrow varies according to wind changes (the arrow is not displayed for strong variations)

   · The blue line indicates the average wind direction

7. The average wind speed is displayed on the bottom right. If significant gusts are expected, the maximum wind speed will be displayed in red.

Benchmark legend for wind tendencies:

The wind strength is decreasing

The wind strength is increasing

Strong gusts are expected

The wind will remain constant

Camera Integration

Pictures and screenshots can be taken from the App and geo-referenced on the chart according to the boat's position (or in the center of the screen if the GPS is not in use/not available). They are recorded in a specific layer that can be displayed/hidden from the tab corner and in the iPad photo albums under the name "TimeZero" as well.

Important: the Camera function is only compatible with iOS8

Taking a photo with the Camera function:

Tap on the **More** menu to activate the **Camera** function or use the dual finger long tap if the gesture function has been configured on Camera Before.

Fig.1: iPad Camera

-

- **Take a photo**: Aim your iPad and tap (Fig.1 - 2):
- **Switch between the front and back cameras**: Tap at the bottom of the screen (Fig.1 - 3):
- **Go Back to the MaxSea TimeZero App:** Tap Cancel at the bottom of the screen (Fig.1 - 1)

Moving and sharing the pictures from the TimeZero App

Fig.2: photo contextual menu

- Images can be moved in the same way as a Mark in the App (from using the context menu or from applying a long tap on the icon to activate the moving function (Fig.2 - 3).)
- Images can be shared on Facebook (from the "Plus ..." menu or from using the context menu (Fig2 - 4).)
- Images can be deleted in the same way as a Mark in the App (from using the context menu (Fig.2 - 2).)

- Tap the picture on the top of the Context Menu (Fig2 - 1) to maximize it. Tap anywhere in the picture to go back to the App.

Note: you can use the dual finger long tap anywhere on the chart to easily take picture or screenshot. To do this go to the MaxSea General parameters, tap the "Function Gesture" and choose either Camera or Screen Capture.

The Remove Photo function is only available from iOS8.

How to restore deleted pictures

All photos and screenshots that have been deleted from the TimeZero app are not definitively removed from your iPad. They were sent to the "Recently Deleted" album and are still available so you can restore them at any time.

How to access your iPad TimeZero photo album

Tap the Photos icon on the iPad desktop and tap Albums in the title bar, then select **Recently Deleted** album.

Tap on a photo label (Fig.3 - 1) to select the photo to be restored then tap on **Recover** and tap again on the **Recover Photo** to confirm (Fig.3 _ 2.)
Repeat the same action to restore one by one each photo you wish. All photos and screenshots are simultaneously restored in TimeZero App.

***Note**: to remove definitively photos from your iPad, select the photo and tap Delete on the bottom left corner (Fig.3 - 3). You are cautioned that this action is irreversible.*

Exchanging Data

Routes and Marks can now be imported/exported by using the iTunes file exchange feature under .TZD format. This allows the user to exchange data between ALL TimeZero systems (Apps, NavNet TZTouch system and **MaxSea TimeZero**/ software **from version 2 upwards**).

***Note**: you can also share your TimeZero Data with a NavNet TZtouch system by following the instructions below. It is possible to share Data between an iPad and PC and between a PC and the NavNet TZtouch using an SD-Card (read more about this in the related NavNet TZtouch manual).*

Transferring data using iTunes

Before transferring TimeZero Data from your PC to your iPad or from your iPad to your PC, please make sure that you have downloaded and installed the latest version of iTunes on your computer.

Connect your iPad via USB to the PC and then launch the iTunes application.

1. Click on the iPad device icon in the header bar.

2. Then click the Apps tab and scroll down to file sharing. All Apps that can share files with your PC are listed in the Apps column.

3. Click on **MaxSea** in the **Apps** column.

4. Click **Add** and a Windows file explorer dialog box will appear.

5. Browse to the folder where you have saved the TZD file and select it.

6. Click **Open** to add it to the MaxSea documents.

Exporting data from the MaxSea TimeZero software

1. Start up the MaxSea software installed on your PC.

2. Click on the software logo and select the **Import/Export** option.

3. Select the **Export** function and check the **TimeZero Data** option to export all your data.

4. Click **Open** to add it to the MaxSea documents.

***Note**: The .TZD file exported from the MaxSea TimeZero App is only compatible with the MaxSea TimeZero software from version v2 upwards.*

Importing Data from iTunes and File Sharing to your TimeZero App

Once the **.TZD** file is available in the iTunes File Sharing, open your TimeZero App to import the TimeZero Data.

There are two import functions in the Import/Export of the App Parameters list: Add or Replace Data.

1. By tapping the **Import (Replace)** button, the existing data in TimeZero is simultaneously erased and replaced with the new data imported from iTunes file sharing.

2. By tapping the **Import (Add)** button, all data imported from the iTunes file sharing will be copied and added to the existing data in your TimeZero App.

***Note**: When importing a .TZD file, if it exceeds the iPad capacity, a warning will indicate the amount of data that can be imported. Reminder: A maximum of 1,000 marks and 50 routes (maximum 200 points each) can be imported.*

Exporting Data from the TimeZero App

1. Tap the App Parameters button, select "Import/Export" and tap the "Export" button.

2. The data file is automatically sent to the MaxSea documents of iTunes file sharing (always named as following: *IPad Export_YearMonthDay_HourMinutesSeconds.tzd*.

***Note**: The .TZD file exported from the MaxSea TimeZero App is only compatible with the MaxSea TimeZero software from version v2 upwards.*

Share your position and track your friends positions

Share your position with other TimeZero users you are friends with, and follow them in your TimeZero App. This function is only available if you have a "My TimeZero" account and you are connected to the Internet.

Creating a My TimeZero Account can be done on other devices (tablet, PC or mobile), as well as on your iPad, **but Internet connection is always required.**

How to share your location with friends

1. Connect to your TimeZero account: tap , then tap **My TimeZero,**
2. Tap **Sign In** to Connect to your TimeZero via a Wi-Fi or a 3G network,
3. Fill out your email address and password, then **Log In**
4. Fill out a personal **Nickname** to be easily recognized by your friends

***Note**: if the Nickname is not set up by the user, the TimeZero App will display your full name below the "My Friend" icon on the chart*

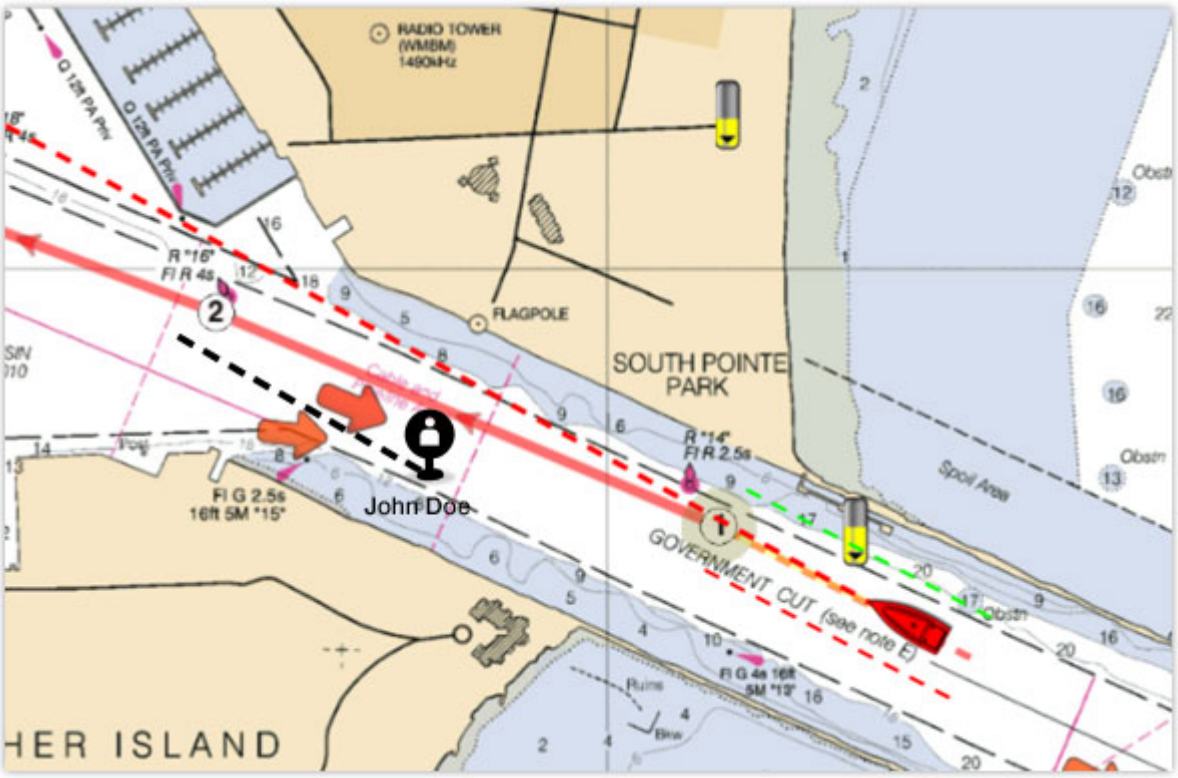
How to invite a new friend

1. Ensure that you are connected to your TimeZero account: tap , tap **My TimeZero**, tap **Sign In**, fill out your email address and password, then **Log In**
2. Tap the More button then tap **Invite a new friend**
3. Fill out your friend's email address and tap **Invitation** to send your invitation
4. This email address will be temporarily added to the **You have** I**nvited Friends** list
5. When the invitation has been accepted the email address will be moved to the **Manage your Friends** list

***Note**: a message will be displayed to indicate that you are not connected to Internet or that the email address is already in your friends list.*

How to follow your friends on the chart

1. Ensure that you are connected to your TimeZero account: tap , tap **My TimeZero**, tap **Sign In**, fill out your email address and password, then **Log In**
2. Display your Friends that have been localized on the chart: tap the Layer button in the right bottom corner, then **My friends**
3. All **My friends** who are connected via Internet in 3G will be displayed on the chart
4. The latest active position of your friend is represented by a green icon, this means that the latest position was received less than one hour ago.



5. When it has been more than one hour since the latest position signal was received, the icon color becomes dark grey and its opacity decreases day by day until it finally disappears on the seventh day.

6. The position, as well as COG & SOG of your friends is sent by the App in addition to the friend information (nickname, first name, last name and email address). The COG vector is displayed in green dashes on the chart that indicate the direction of each movement relative to the ground position where your friends are localized. The length of the COG vector varies according to the SOG speed received and helps you to predict your friend's position at a certain time in the future.
7. Display the tool tip for more information: tap to display the tooltip that gives you the most information:
   - The nickname or first + last name
   - The position such as latitude and longitude
   - The current COG (Course Over Ground) value
   - The SOG (Speed Over Ground) value
   - The latest active connection date

How to manage your friends

1. Ensure that you are connected to your TimeZero account: tap , tap **My TimeZero**, tap **Sign In**, fill out your email address and password, then **Log In**
2. Tap **Manage My Friends** to open the **Manage** page on the **Share My TimeZero** website in the Safari browser

3. The "Share My TimeZero" website allows all TimeZero users to manage all their friends:
   - Tap **Add a friend** and fill out the email address that you wish to add to your TimeZero friends list
   - Tap **Send**, and the email address will be temporarily added to the list of friends that you have invited before they have received confirmation. When the invitation is confirmed, the email address will be removed from this list and automatically added to your Friends list.
   - Confirm the invitation that you have received: tap in the Incoming Invitation list .

     The email address of the new friend is added to your Friends list. Tap to decline the invitation.
   - Remove Friends from your friends list: tap in the **Managing your friends** list
4. Press the home button to close Safari and return to your TimeZero App.

***Note**: internet connection and a TimeZero account are required to manage your friends (add, remove and confirm invitations). Manage and display your friends in any browser that is connected to the Internet, regardless of the device used (Tablet, PC or Mobile).*

Displaying AIS targets in the TimeZero App

Important: This feature will be available only if you have purchased the AIS module on the App-Store and configured the Wi-Fi connection on your iPad.

This module allows you to display all AIS targets that are transmitted from the AIS receiver or transponder within the TimeZero App. The AIS data needs to be sent wirelessly to the iPad using NMEA0183 sentences.

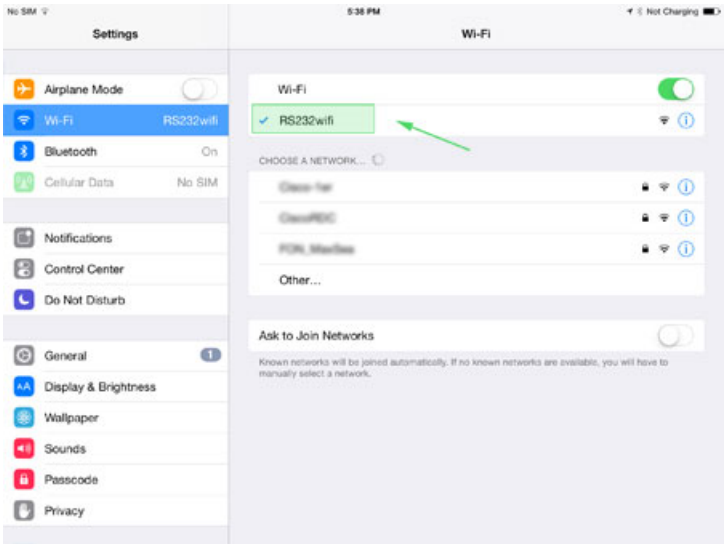
To get AIS data in the TimeZero App you just need three things:

- A GPS to receive data about your own boat's position;
- AIS transmitter or receiver;
- Wi-Fi transmitter.

Then the iPad must be set up to join the NMEA 0183 Wi-Fi multiplexer wireless network.

How to configure a Wi-Fi connection

Switch On the device and run the iOS **Settings** menu. Select a Wi-Fi group and switch the Wi-Fi option **ON**. Connect the AIS equipment to the Wi-Fi transmitter and apply power to both devices.



Select the corresponding Wi-Fi AIS transmitter from the list (**RS232wifi** in the example above).

How to set up the AIS connection in the TimeZero App

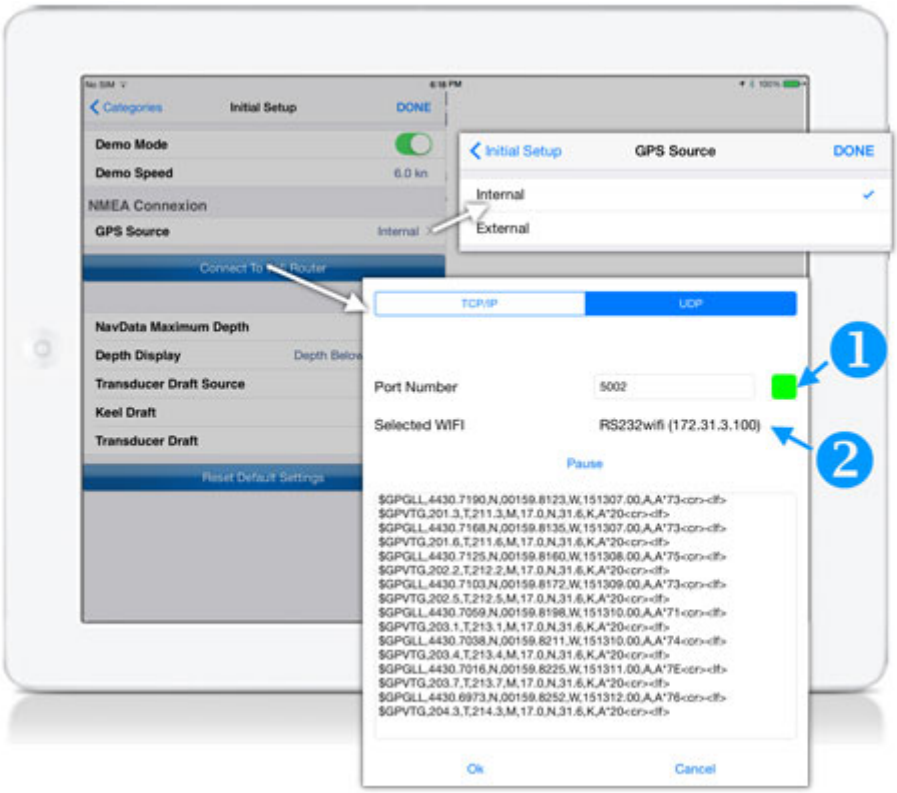


Fig. 1 setting up parameters

1. Run MaxSea TimeZero App, tap on the Parameters button then tap **Initial Setup** (ensure that the Demo mode is OFF)
2. Tap **GPS source** and select **Wi-Fi External Source** to get additional AIS-GPS data on your own boat's position.
3. Tap **Connect to Wi-Fi Router** and choose the type of connection either TCP/IP or UDP:
   - Tap TCP/IP and enter the host address and the Port com number
   - Tap UDP and enter the Port com number
4. When the connection is ON:
   - A green button is displayed (Fig1 -1) and the detected material name with its host address (Fig.1 - 2) appears below.
   - You should see NMEA0183 sentences flowing in the window below, tap Stop to disable scrolling data and tap OK to validate the connection.

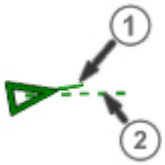
How to set up the AIS targets function

Tap on the **Parameters** button, then tap **Targets** to configure the targets AIS on the chart:

- Tap **Display Target IDs** check-box to display target names below the target symbols
- Tap **Hide AIS Targets farther than...** and select a distance around your boat that will help remove clutter of targets symbols displayed on your screen
- Tap **Target COG/SOG predictor** allows you to select if the target vector predictor varies in length according to a Time or fixed by a Distance value.
- Tap **COG/SOG predictor Length** allows you to set the distance value used for calculation
- **T**ap **COG/SOG predictor Time** allows you to set the Time value used for calculation

How to display AIS targets on the chart

Tap the **Layers** button and tap the **AIS targets** check-box



Display of the target heading vector if received from equipment (1) and the target COG (Course Over Ground) (2)

AIS Target Icons:

AIS Class A symbols are small triangles colored by default in blue

AIS Blue Force symbols are small triangles fully colored in blue

AIS class B symbols are small triangles colored by default in green

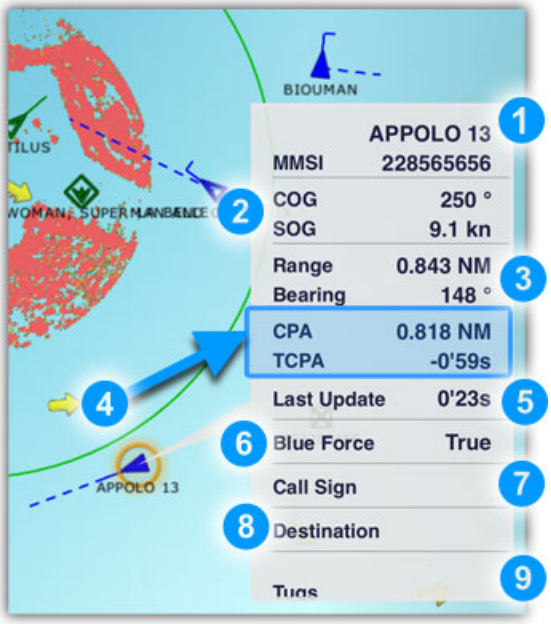
AIS SAR (Search And Rescue) symbol for Aircraft

AIS SAR symbol for Base Station Icon

AIS SART (Personal Man Over Board Transponder)

How to get more information about a selected target displayed on the chart

Tap the AIS target symbol on the chart to select it and display the tooltip that gives all useful information from the selected target:



Legend description:

1. Name and identifying number (MMSI) of the target
2. Direction and speed of the target (COG et SOG)
3. Information about target position depending to your own position such as range and distance
4. Break alarm condition (CPA/TCPA or Proximity) are always automatically activated.
5. Last updated time
6. Target type (the selected target in the example is a blue force AIS target)
7. Radio call sign
8. Destination
9. Boat's category (Tug)

FURUNO DRS4W 1st Watch Radar

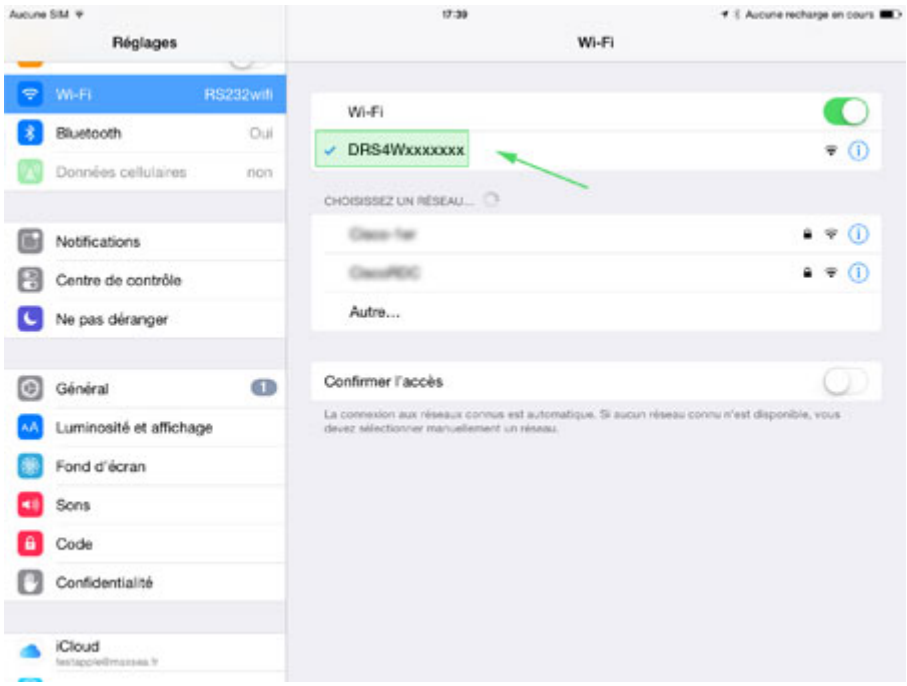
Important: This feature will only be available if you have purchased the Radar Module in the App Store and configured the Wi-Fi connection on your iPad.

This module will let boaters connect their FURUNO Radar (DRS4W) with the TimeZero App so that users will be able to overlay the radar image across the App's navigational chart in real-time. To use the Radar (DRS4W), you will need to purchase and download the Radar module from the App Store.

The DRS4W Radar creates its own wireless network access point. The iPad must be setup to join the Radar's wireless network.

How to configure a Wi-Fi connection

Switch On the device and run the iOS **Settings** menu. Select a Wi-Fi group and switch the Wi-Fi option ON. Connect the Radar equipment to the Wi-Fi transmitter and apply power to both devices.



Select the corresponding Wi-Fi Radar DRS4W transmitter from the list (**DRS4Wxxxxxxx** in the example above).

Note: *all DRS4W Radars create a network with an identifier (SSID) starting with "DRS4Wxxxxxxx". The wireless network is protected using a password (WPA2-Personal) which is unique to each DRS4W Radar and cannot be changed.*

How to set up the DRS4W Radar connection in the TimeZero App

By default the TimeZero App is setup on the internet and with the Internal GPS source on your iPad. However, you can use external instruments (GPS, Heading, etc.) and the DRS4W together at the same time to locate and precisely align the Radar echoes on the chart around your position. This means that

you need a Wi-Fi Multiplexer connected to the DRS4W network and that you should be able to program the SSID and Password of the DRS4W into the Wi-Fi multiplexer.
Then, go to the Initial setup in the MaxSea TimeZero App Parameters:
Tap the MaxSea Parameters button then **Installation** (ensure that the **Demo** mode is unchecked).

- Tap the **GPS Source** option and select **External** to precisely receive the correct position of the boat
- Then tap the **Connect To Wi-Fi Router** button to access your Radar Status connection
- Tap **TCP/IP**, then enter the Radar's IP address and the COM *number port (note that the Radar has a fixed IP)*

***Note**: when the connection is ON a green button is displayed and the detected material name with its host address appears below.*

How to display the Radar in real time

Radar mainly functions as an anti-collision aid. It also provides information about the whereabouts of neighboring vessels, coastal outlines, etc.

TimeZero App allows you to display Radar echoes either in a traditional dedicated Radar display or as a direct overlay on the chart.

The dedicated full Radar display

To display the dedicated Radar full display: tap **Layers** on the bottom right and choose **Radar**.

The Radar Overlay

The Radar echoes can be displayed over the charts if the iPad is connected to the GPS or to a Heading sensor. The radar overlay helps you navigate the chart better and the chart brings context to what can often be a confusing display of radar blobs.
To enable the radar overlay: tap "**Layers**" then "**Charts + Radar**".
This will display the radar echo over the charts as it shown in the picture below:

Adjusting the Radar Range

Tap the radar

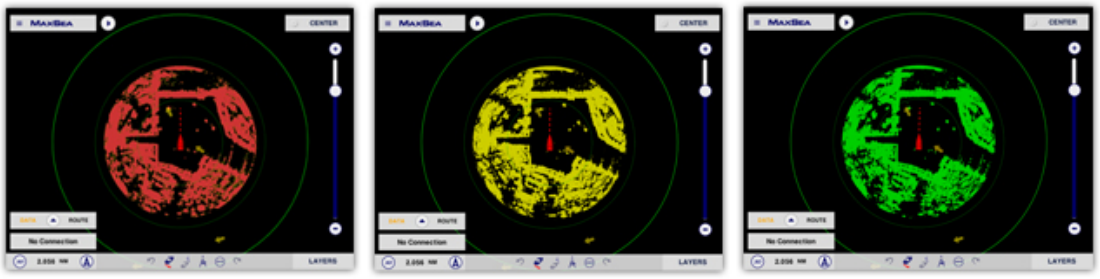
"Range +" or

"Range -" buttons located on the left bottom corner in the Radar Toolbar to increase or lower the radar range respectively.

Radar Controls

Tap the MaxSea parameters button, then choose **Radar:**

1. The Rain control, suppresses the reflected echoes from rain, hail and snow to clear the display. The Rain can be setup in automatic mode, to do so, tap **Auto-Rain**.
2. The Rain can be also set up in a manual mode, to do so, tap the **Rain Adjust** cursor and move it along the progress bar to adjust the control so that the clutter just disappears; too much Rain action may shrink or erase the echoes from legitimate targets.
3. Tap **Echo color** to change the color of the echo picture by choosing between three colors: multi-color or green or yellow

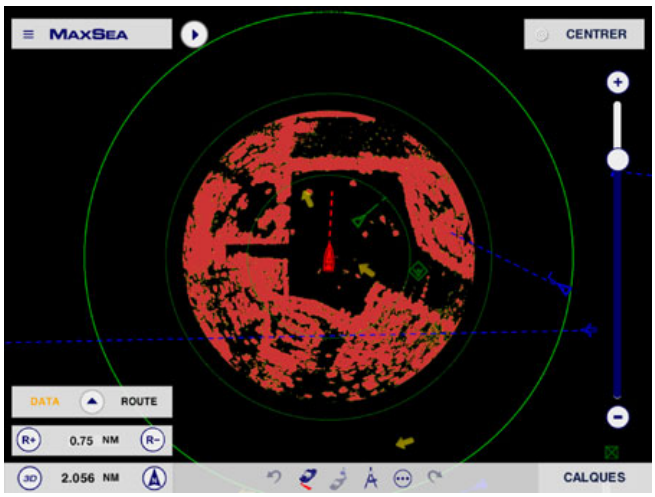


4. Tap the **Radar Overlay Transparency** cursor and move it along the progress bar to adjust the overall intensity of echo transparency on the chart (this does not affect the Radar Work Space).

5.

AIS targets displayed with the Radar

If the AIS Module has been purchased and the connection has been properly configured with the radar. The App Radar Module manages the TCP/IP connection with the iPad and supports all the NMEA data in real-time and displays AIS targets in radar surveillance zones regardless of the display Mode:



AIS targets displayed in the Radar full display

AIS targets and Radar overlay are displayed together on the chart