

# Exploring OpenCPN Subjects

- FIND THE MANUAL: not always obvious
- ADD CHARTS: need to see where you are
- CHART GROUPS: a bit of housekeeping/organizing
- PROGRAM SETTINGS (GPS, Vector Charts, Language/Fonts)
- ROUTES: create, save, change and display
- LOCK WAYPOINTS: avoid 'finger farts'
- TRACKS: create, save and display
- ANCHORAGES: save and display
- LAYERS: create and display
- PLUGINS: enhancements that add to the experience

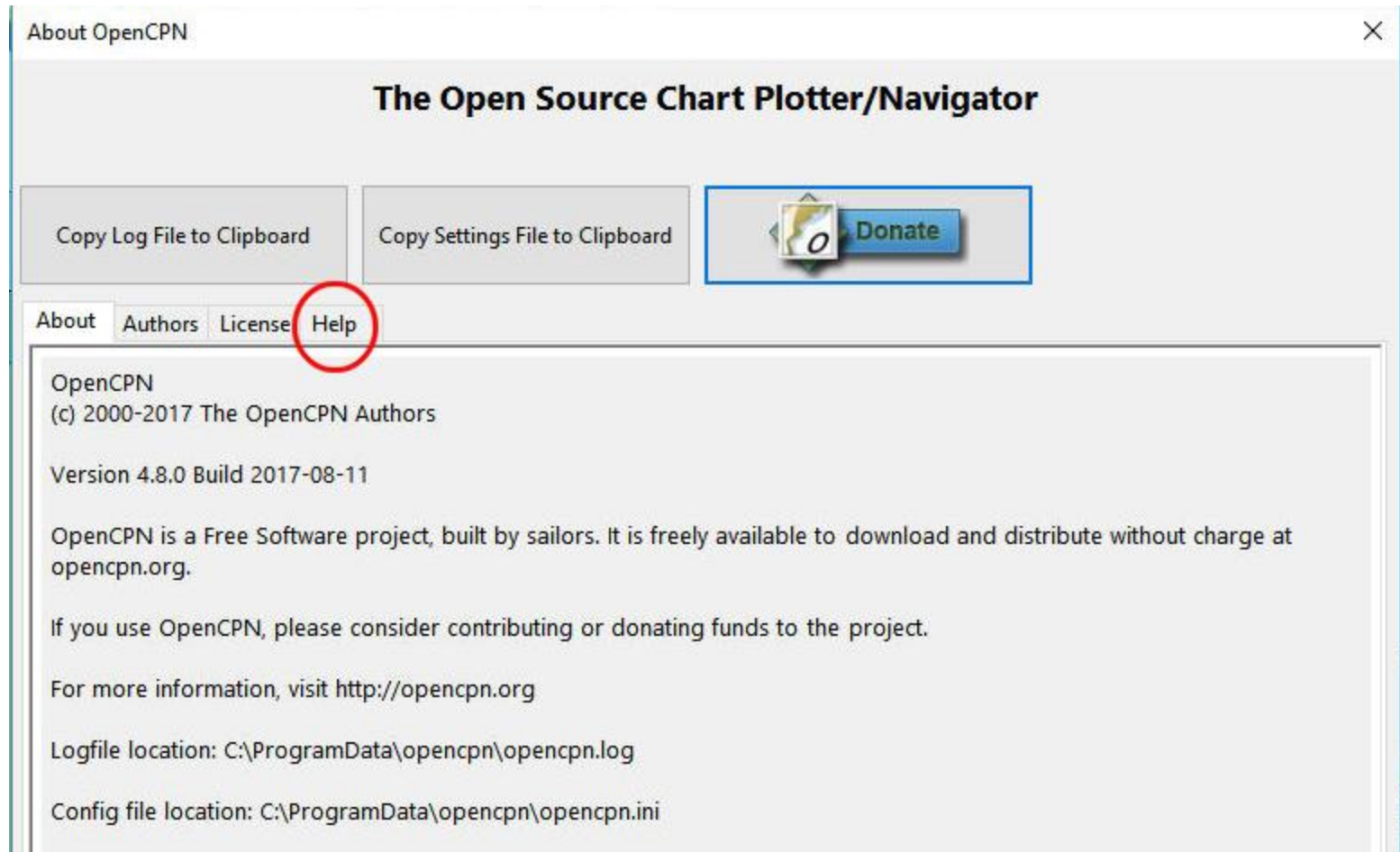
# FIND THE MANUAL

On the Tool Bar click on the 'Book' icon with the '?' mark.



# FIND THE MANUAL

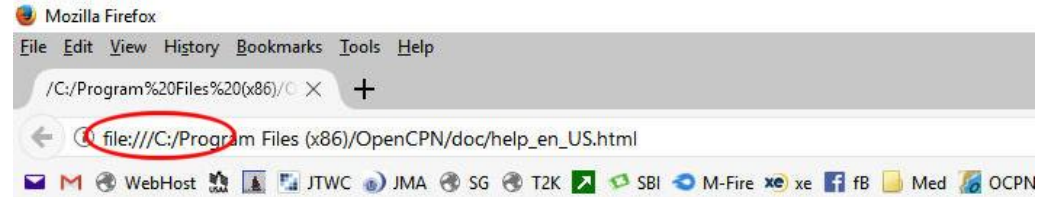
Click on the 'Help' tab.



# FIND THE MANUAL

The Embedded User Manual opens within your computer browser (Firefox, Internet Explorer, etc)

Note that you do not need to be online. The browser is running from within the computer.

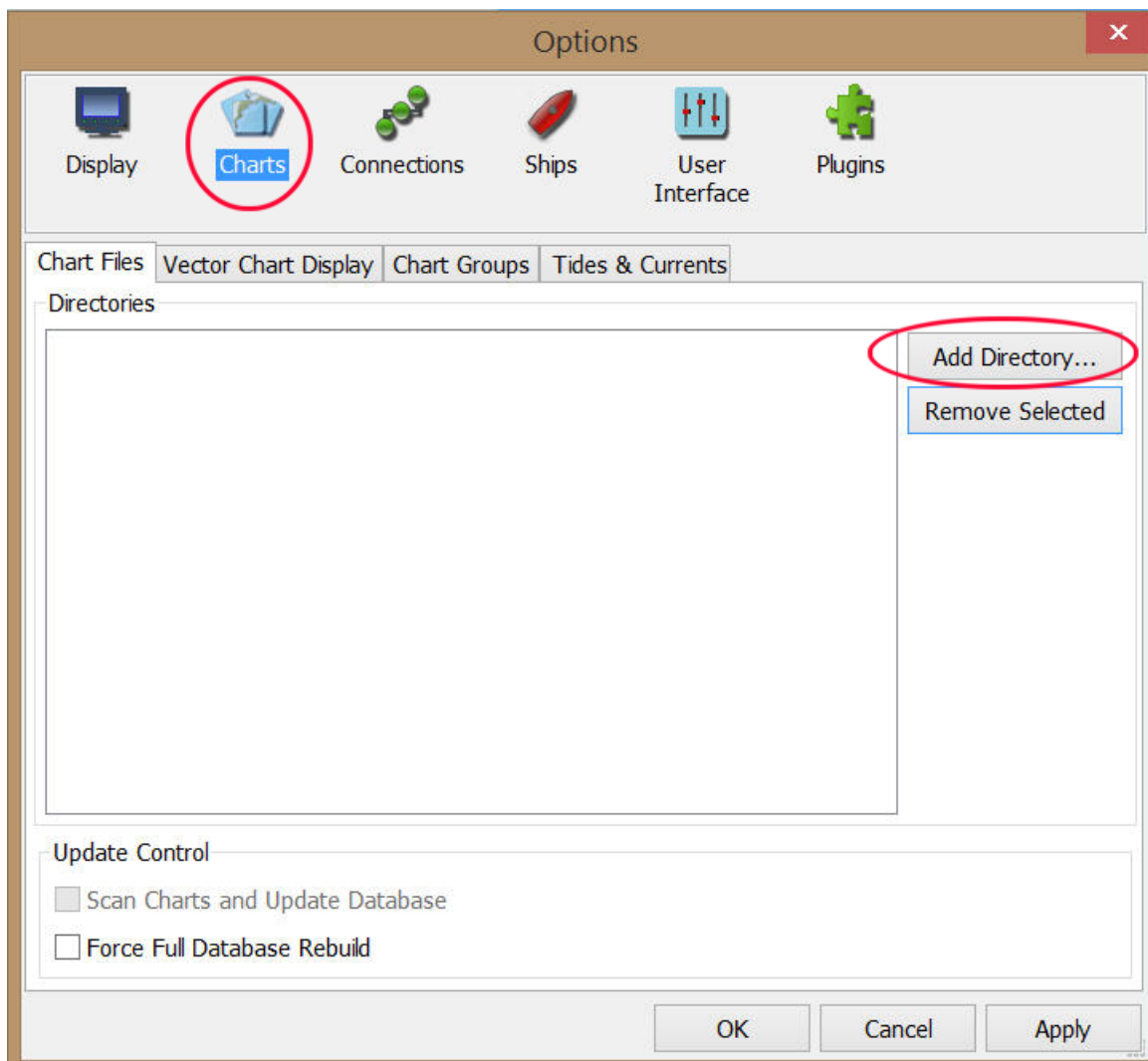


## OpenCPN Embedded User Manual

### Table of Contents

- [Getting Started](#)
  - [OpenCPN Installation](#)
    - [Windows](#)
    - [Ubuntu PPA](#)
    - [Linux](#)
    - [Fedora](#)
    - [Mac OS X](#)
    - [Orange Pi](#)
    - [Dedicated Marine OS](#)
    - [Raspberry Pi 2/3](#)
    - [Release History](#)
  - [OpenCPN First Use](#)
  - [GPS Setup](#)
  - [Chart Installation](#)

# ADD CHARTS



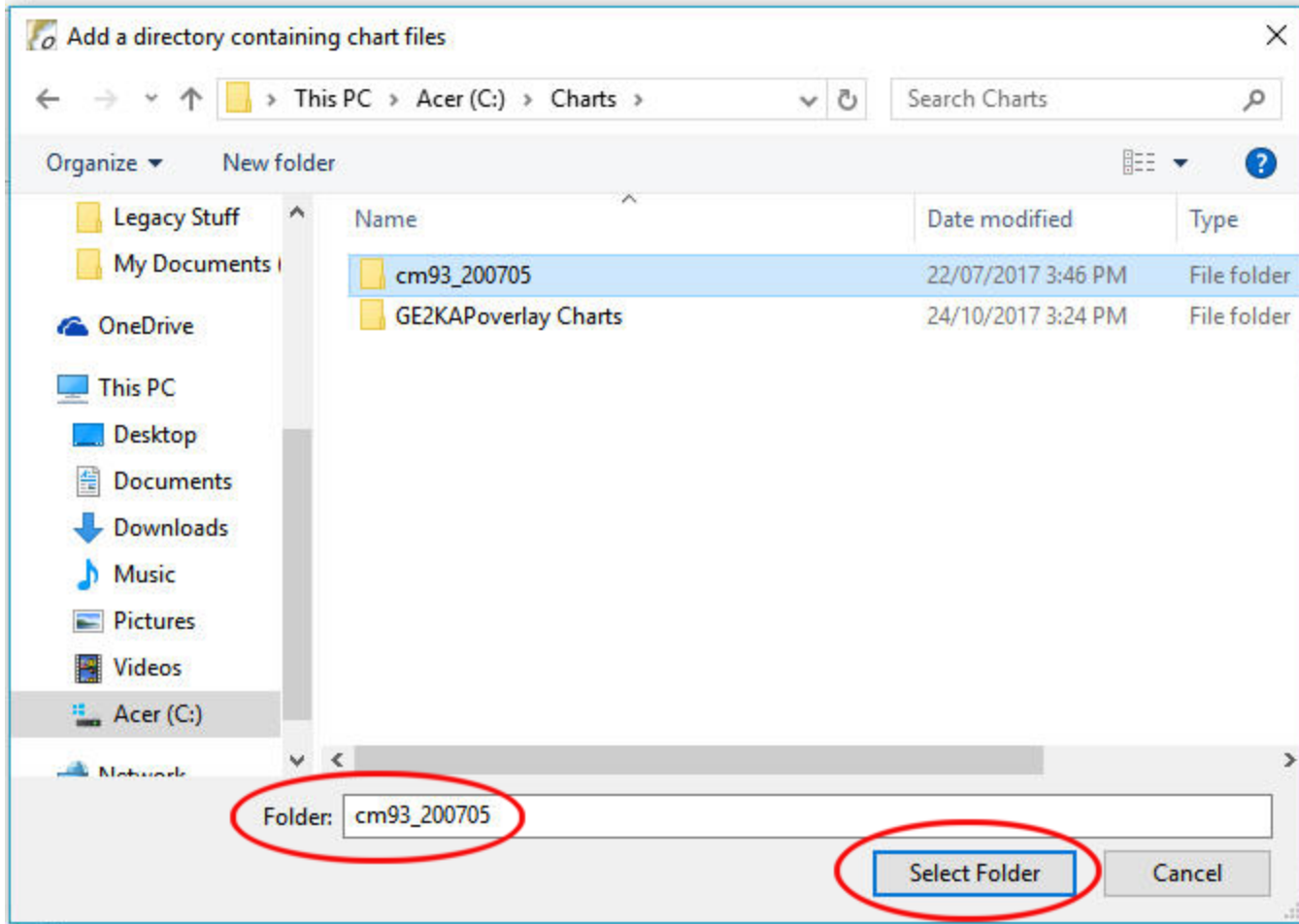
On the Tool Bar click on 'Options' (the 'wrench') to display this page

Click on 'Charts'.

Click on 'Add Directory ...'

# ADD CHARTS

Navigate to where you have charts stored on your computer. Select the chart folder you want to add (in this case the cm93 vector charts). Click on 'Select Folder'

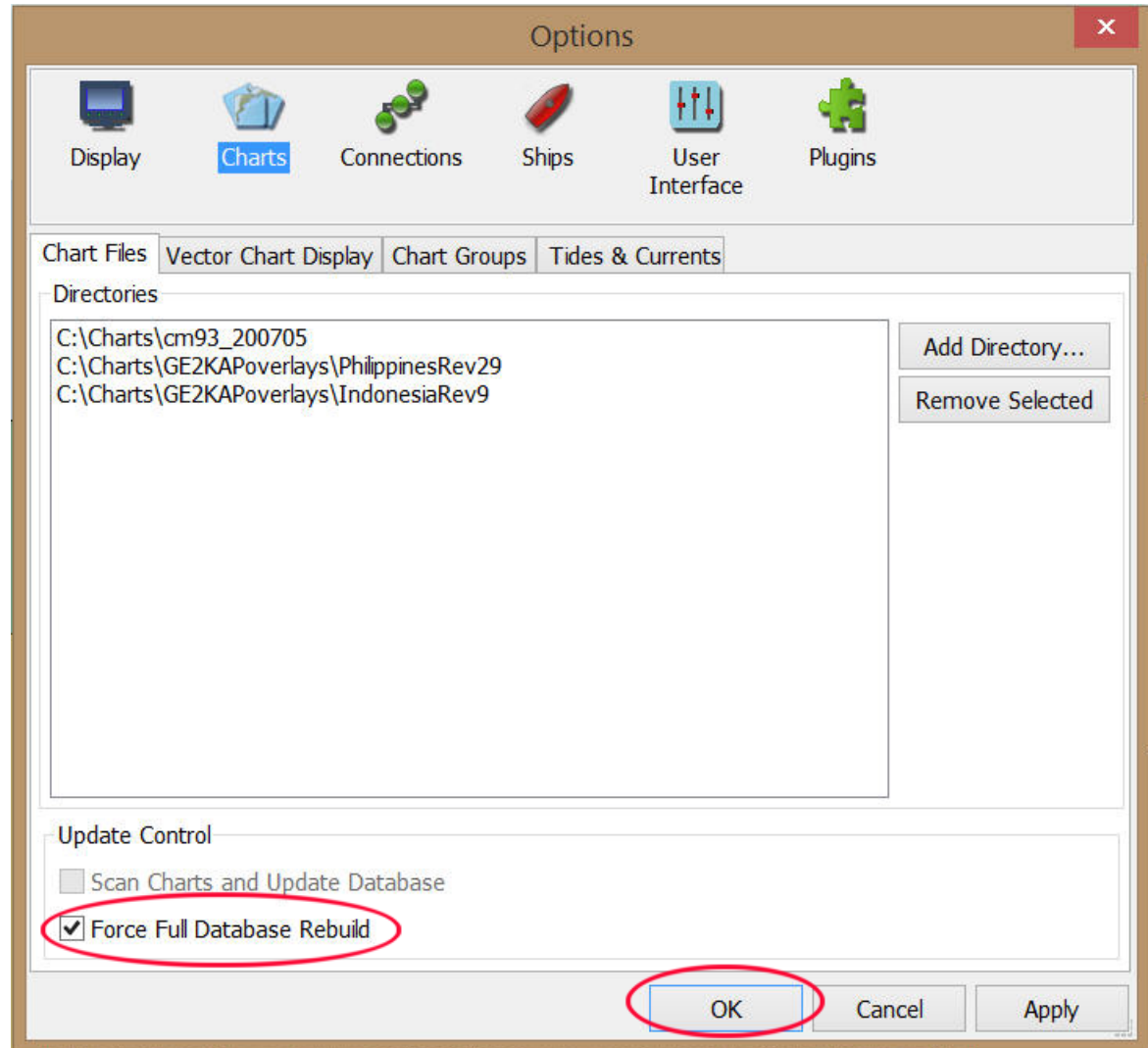


# ADD CHARTS

Select the other charts you want to add. In this case I have selected GE2KAP overlay charts of the Philippines and of Indonesia.

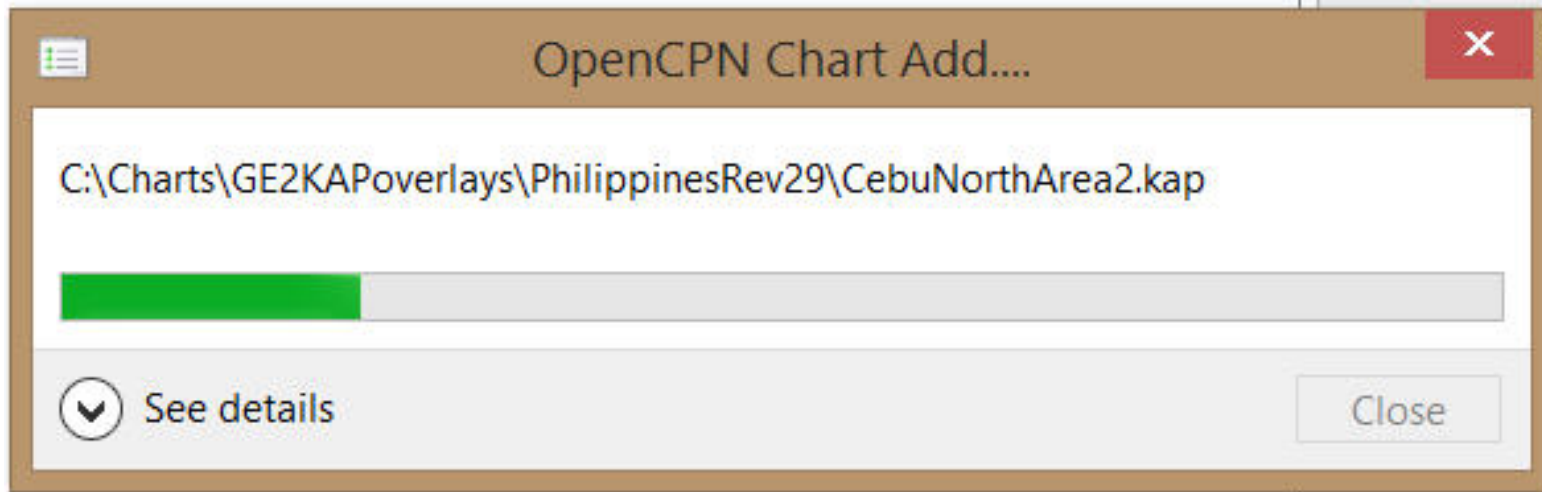
Check the box 'Force Full Database Rebuild' and click 'OK' which closes the screen.

(Checking 'Apply' leaves this screen open)



# ADD CHARTS

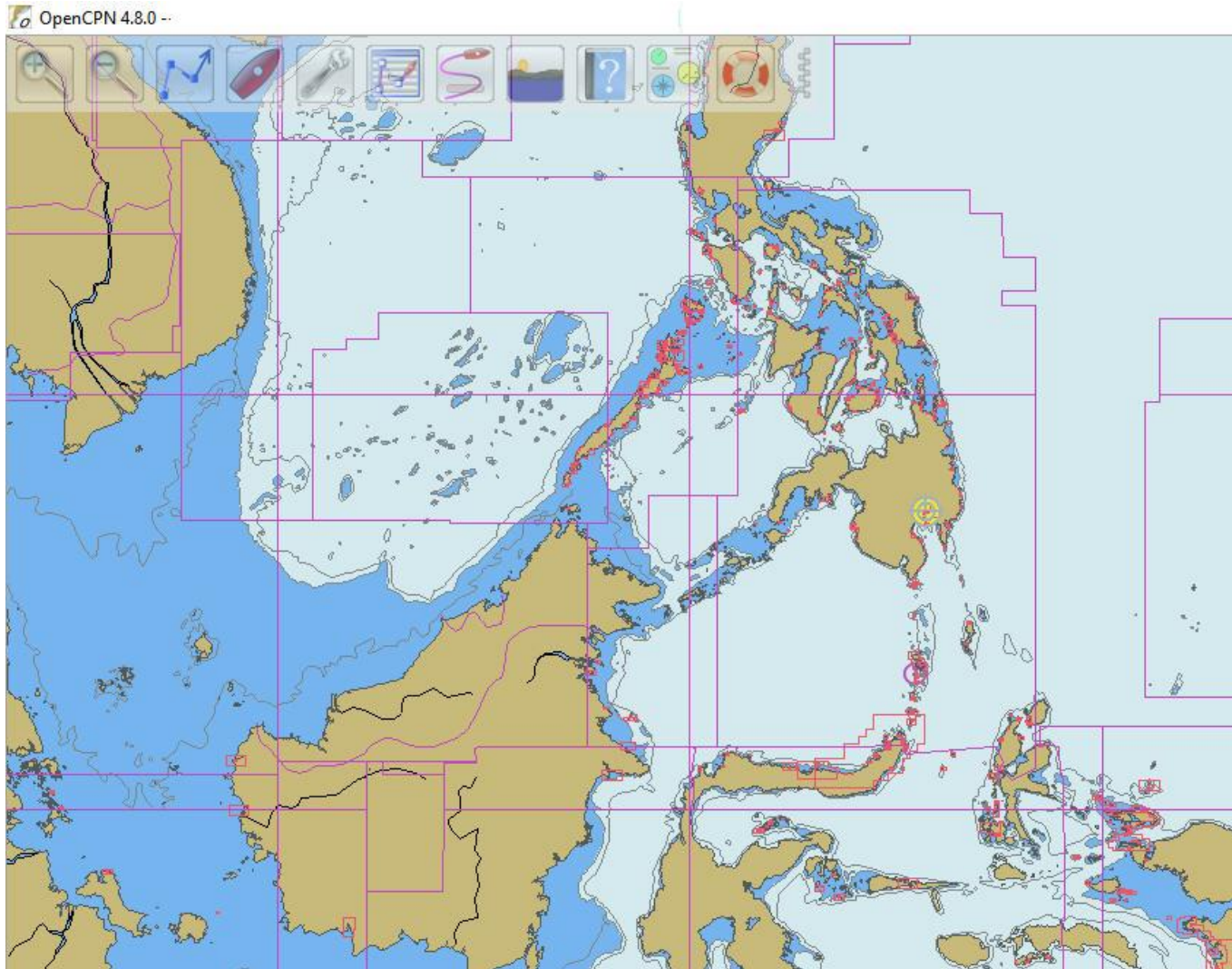
Wait while the database is updated.





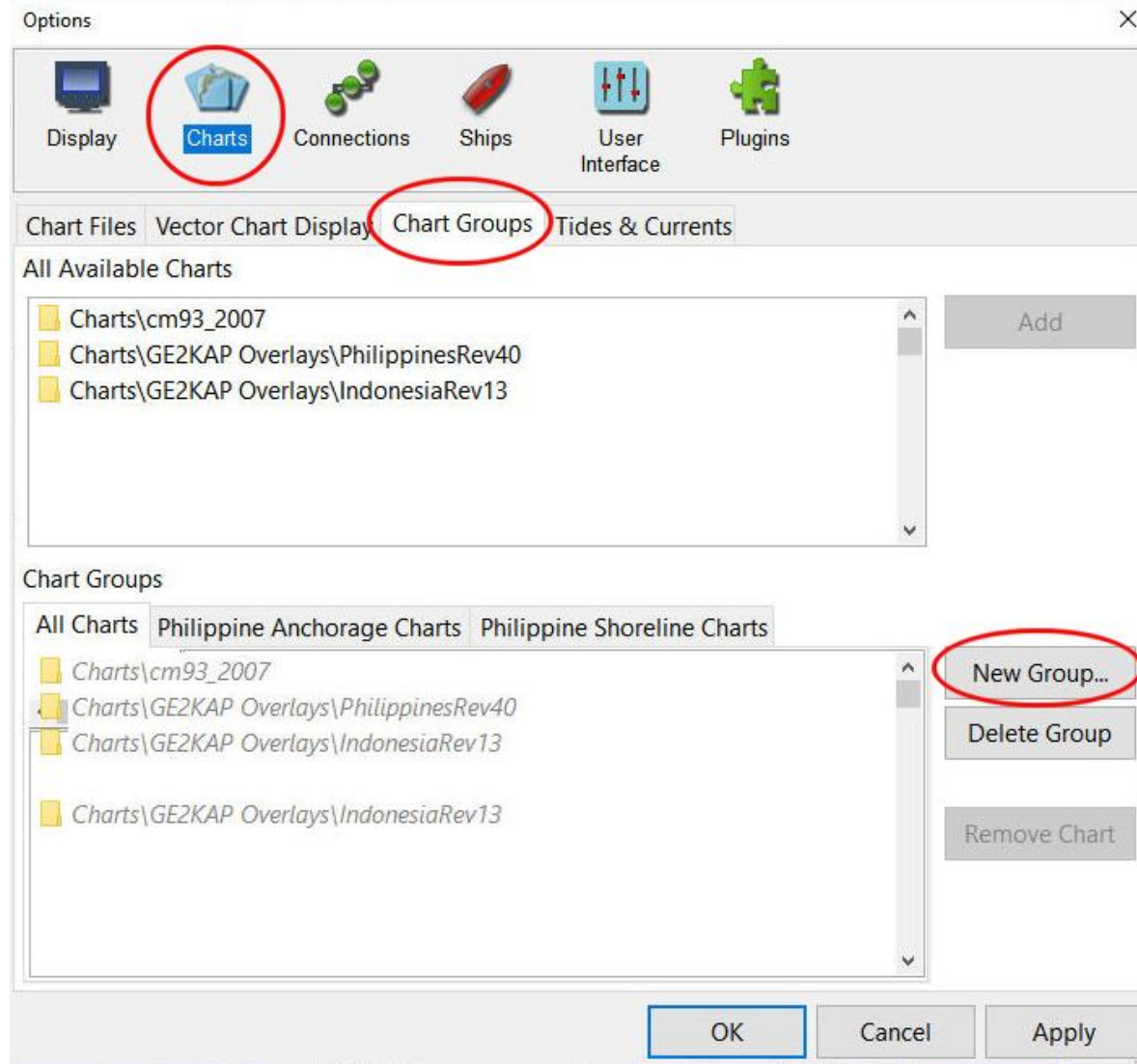
# ADD CHARTS

The overlay charts are shown by the small red outlines. To avoid slowing down the computer it is good to have 'Chart Groups'



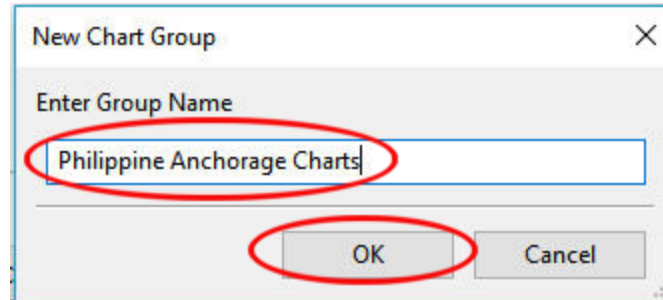
# CHART GROUPS

On the 'Options/Charts/Chart Groups' page, click on 'New Group ...'



# CHART GROUPS

Enter a name for the group and click 'OK'

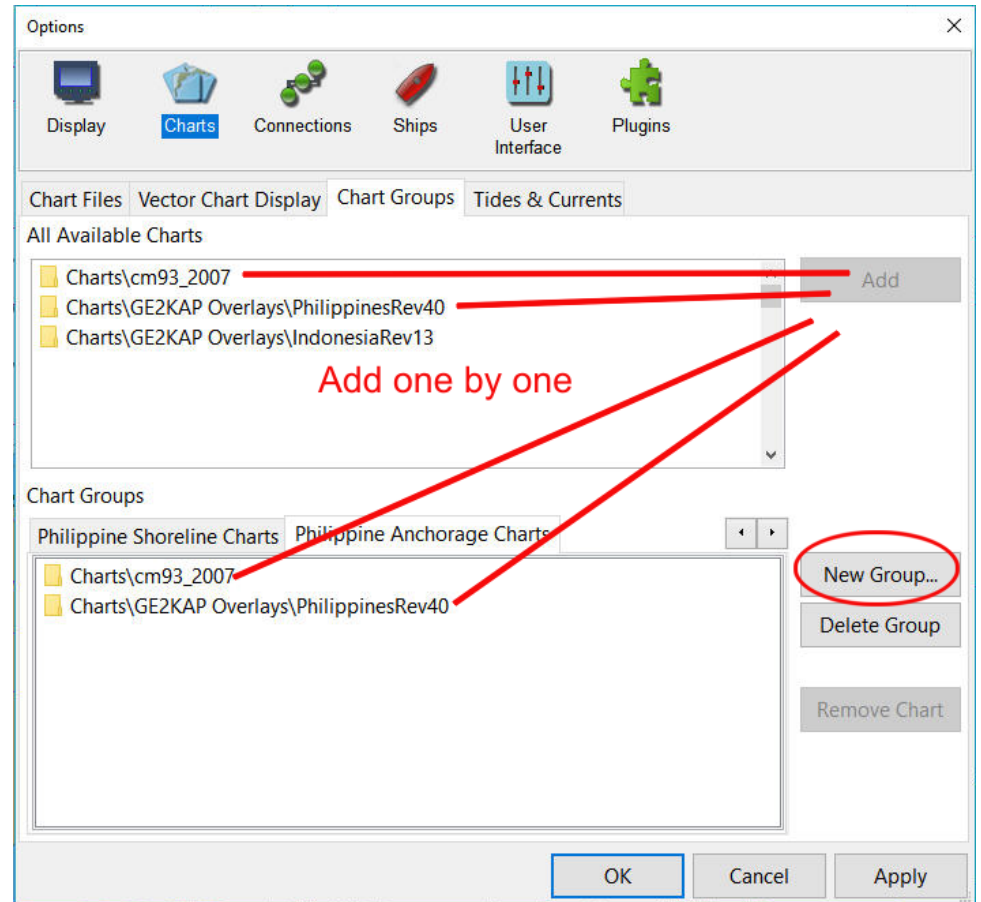


Highlight the charts to be added to this group, one by one, and click on 'Add'.

I recommend adding the cm93 charts to each group.

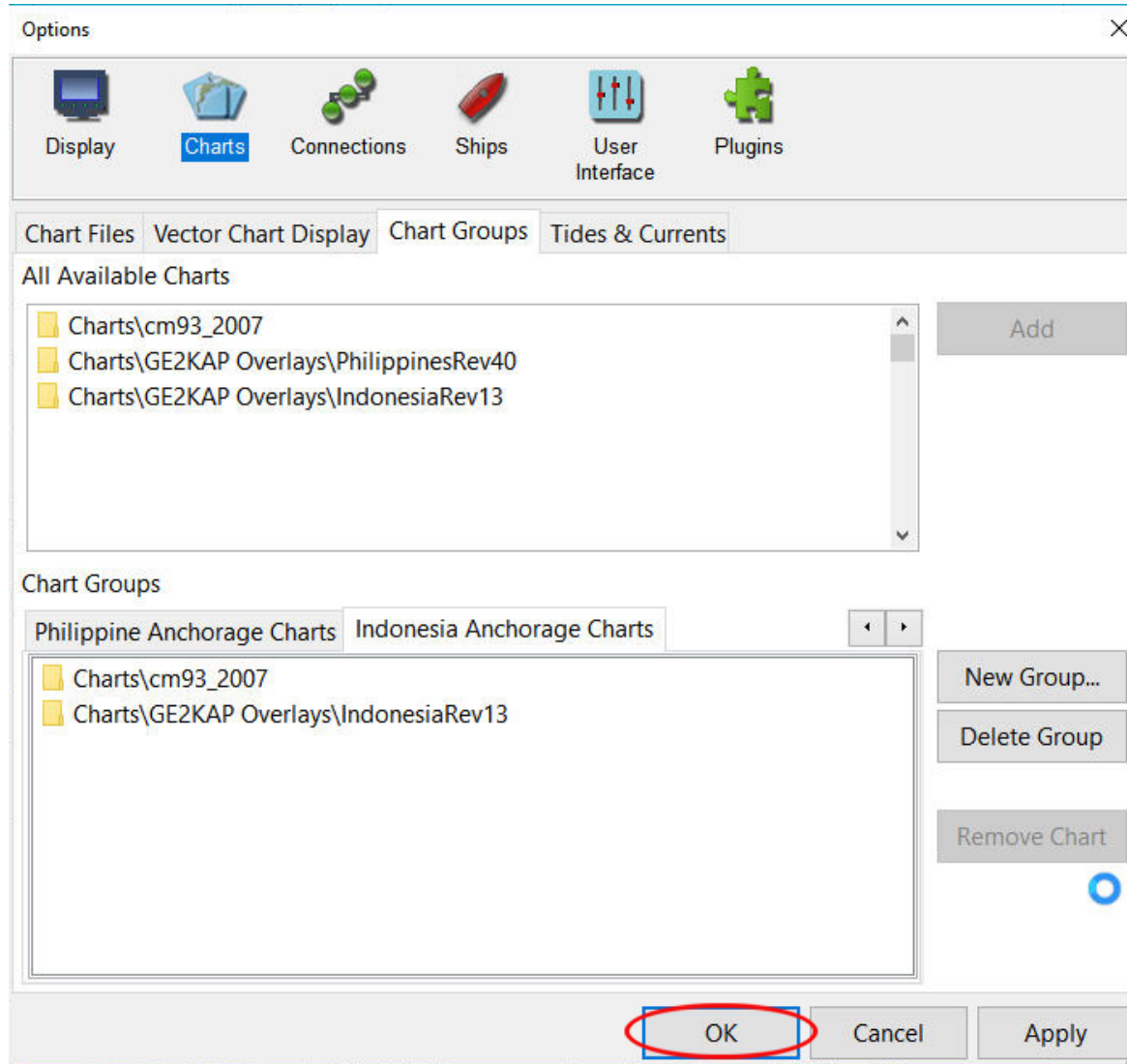
The selected charts appear in the group.

For the next group click on 'New Group ..'



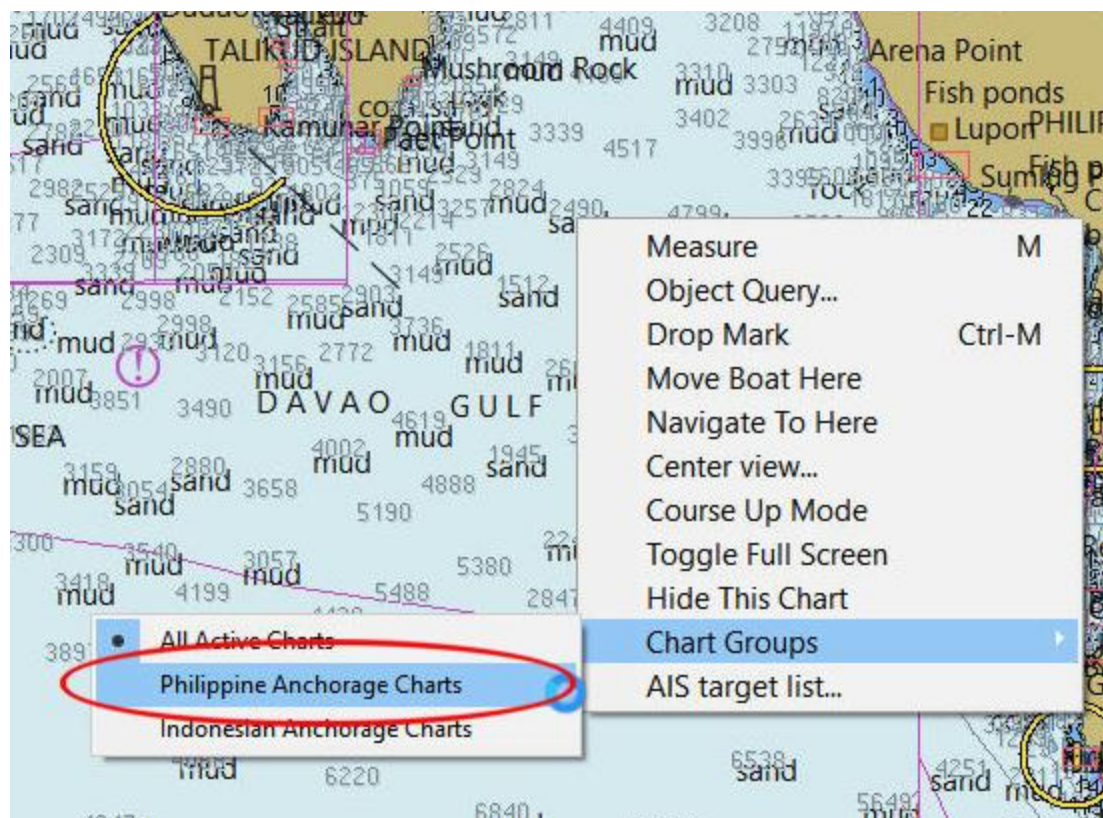
# CHART GROUPS

Here the second group for Indonesia charts has been created. Click on 'OK'



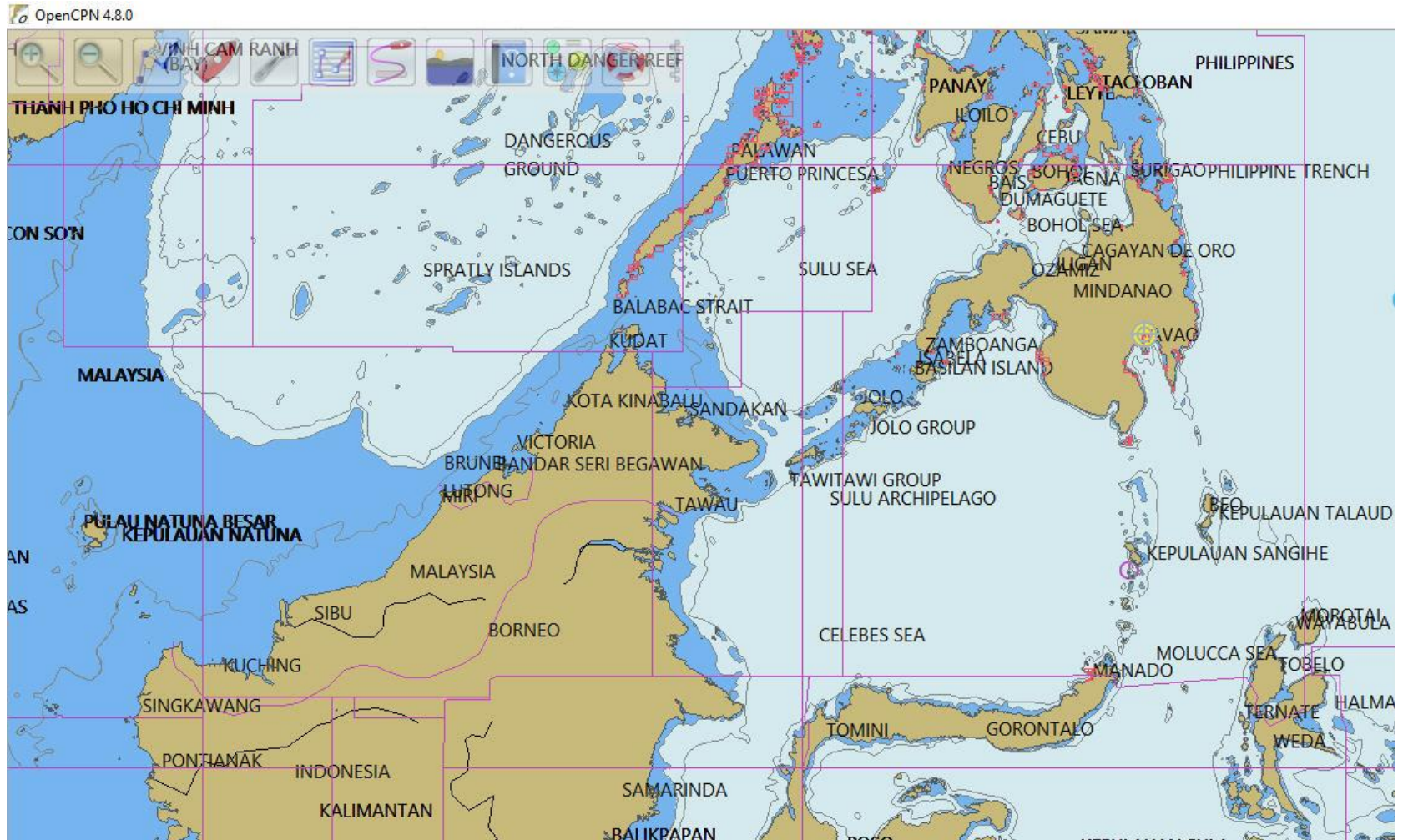
# CHART GROUPS

To display a desired chart group, right-click on the OpenCPN screen and click on 'Chart Groups' then click on the one you want to be displayed e.g. Philippine Anchorage Charts.



# CHART GROUPS

The Indonesian charts are not displayed. They will not be moved to slow down the computer but are available at any time for display.



# CHART GROUPS

## Shortcuts

A convenient feature to switch between chart groups is to use the number keys as shortcuts to the chart groups.

'0' displays all active charts.

'1' displays the first chart group that was created.

'2' displays the second chart group that was created.

'etc'

# PROGRAM SETTINGS

## GPS

### GPS Installation & Connection

When OpenCPN is first installed, there are no connections to a device to provide position, course and speed information to the program. To obtain this needed information for use underway it is necessary to obtain a GPS signal from an external device such as a fixed or handheld GPS or some other device such as an AIS receiver or transceiver which has the data available.



# PROGRAM SETTINGS

## GPS

A COM Port is usually used though other connections such as Bluetooth and network connections can be used as well. I will describe using an external 'hockey puck' USB GPS which is reasonably priced and does an excellent job as long as it has a view of the sky and not inhibited by the vessel construction (such as metal whereas FRG is OK)

# PROGRAM SETTINGS

## GPS

For this example I've picked the Globalsat BU-353S4.



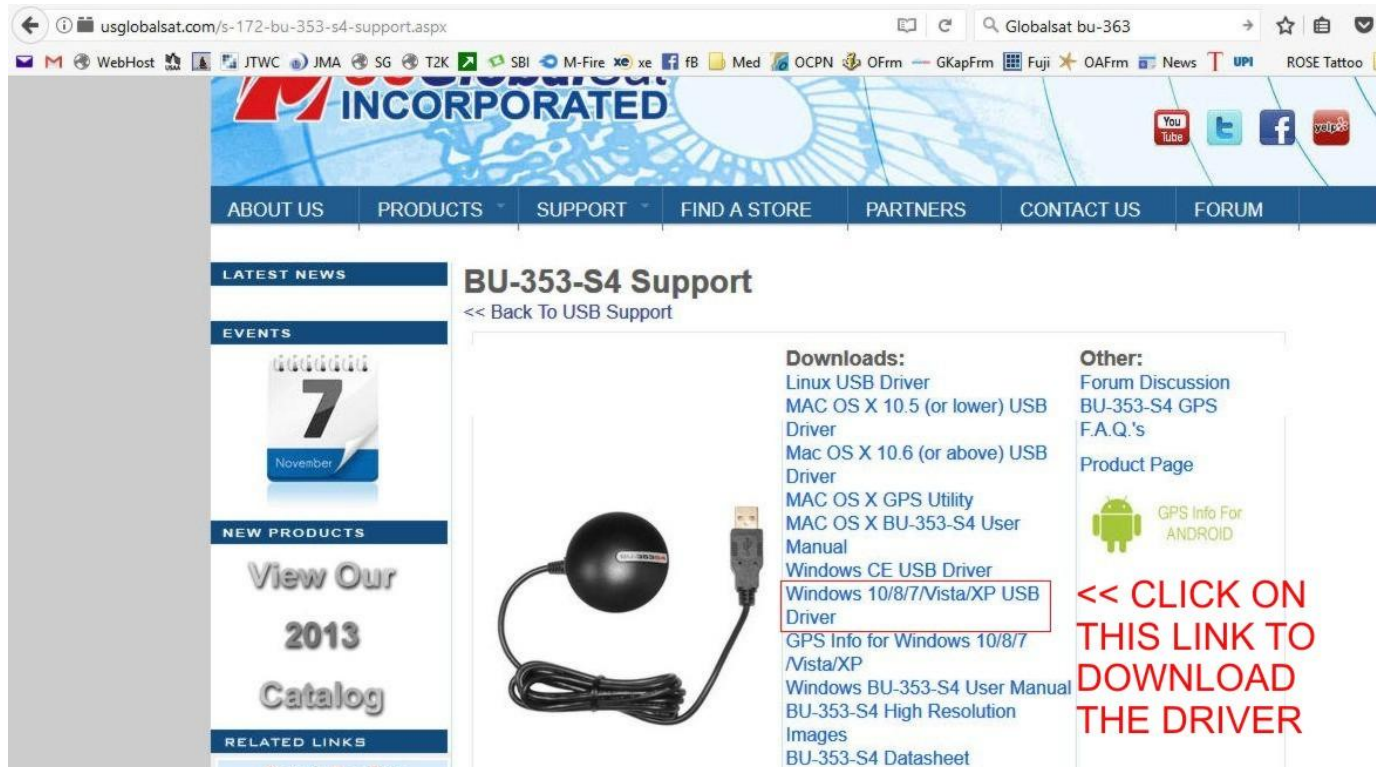
Although an optical disk with drivers comes with the GPS, I recommend you download the latest driver from the GPS support website, in this case:

<http://usglobalsat.com/s-172-bu-353-s4-support.aspx>

# PROGRAM SETTINGS

## GPS

From this website you can download the latest driver for several operating systems. In this example I am using Windows 10.



The screenshot shows the website [usglobalsat.com/s-172-bu-353-s4-support.aspx](http://usglobalsat.com/s-172-bu-353-s4-support.aspx). The page title is "BU-353-S4 Support" with a link to "<< Back To USB Support".

**Downloads:**

- Linux USB Driver
- MAC OS X 10.5 (or lower) USB Driver
- Mac OS X 10.6 (or above) USB Driver
- MAC OS X GPS Utility
- MAC OS X BU-353-S4 User Manual
- Windows CE USB Driver
- Windows 10/8/7/Vista/XP USB Driver**
- GPS Info for Windows 10/8/7/Vista/XP
- Windows BU-353-S4 User Manual
- BU-353-S4 High Resolution Images
- BU-353-S4 Datasheet

**Other:**

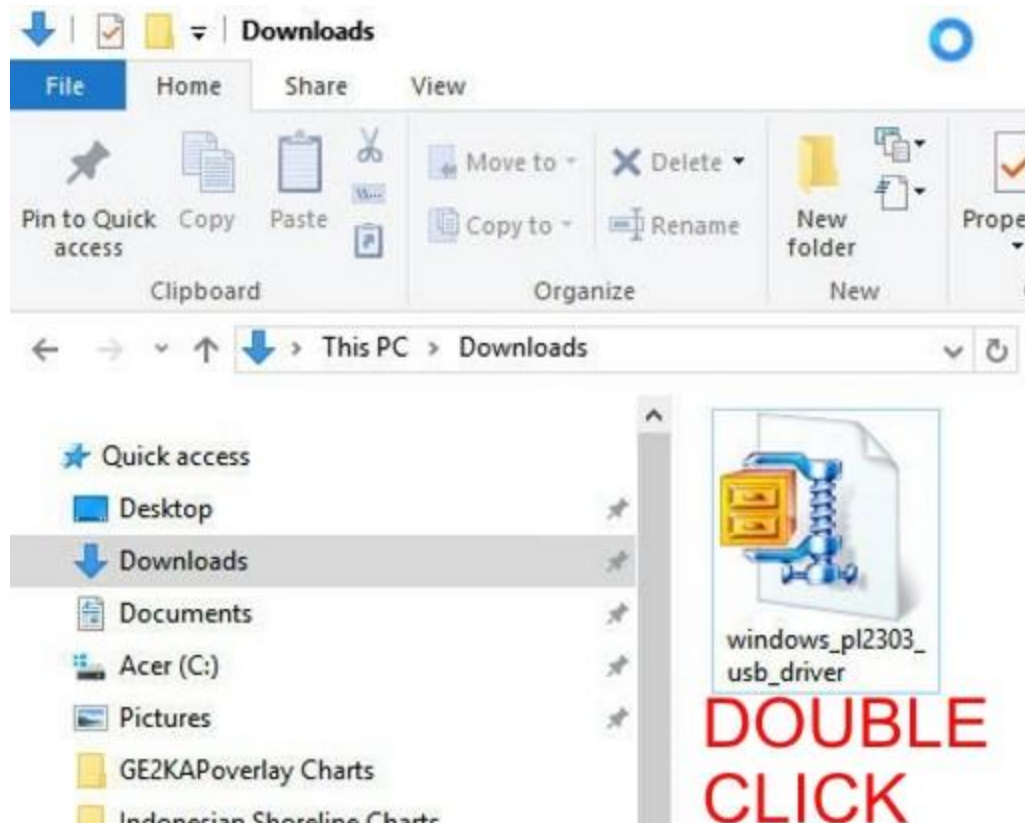
- Forum Discussion
- BU-353-S4 GPS F.A.Q.'s
- Product Page
- GPS Info For ANDROID

**<< CLICK ON THIS LINK TO DOWNLOAD THE DRIVER**

# PROGRAM SETTINGS

## GPS

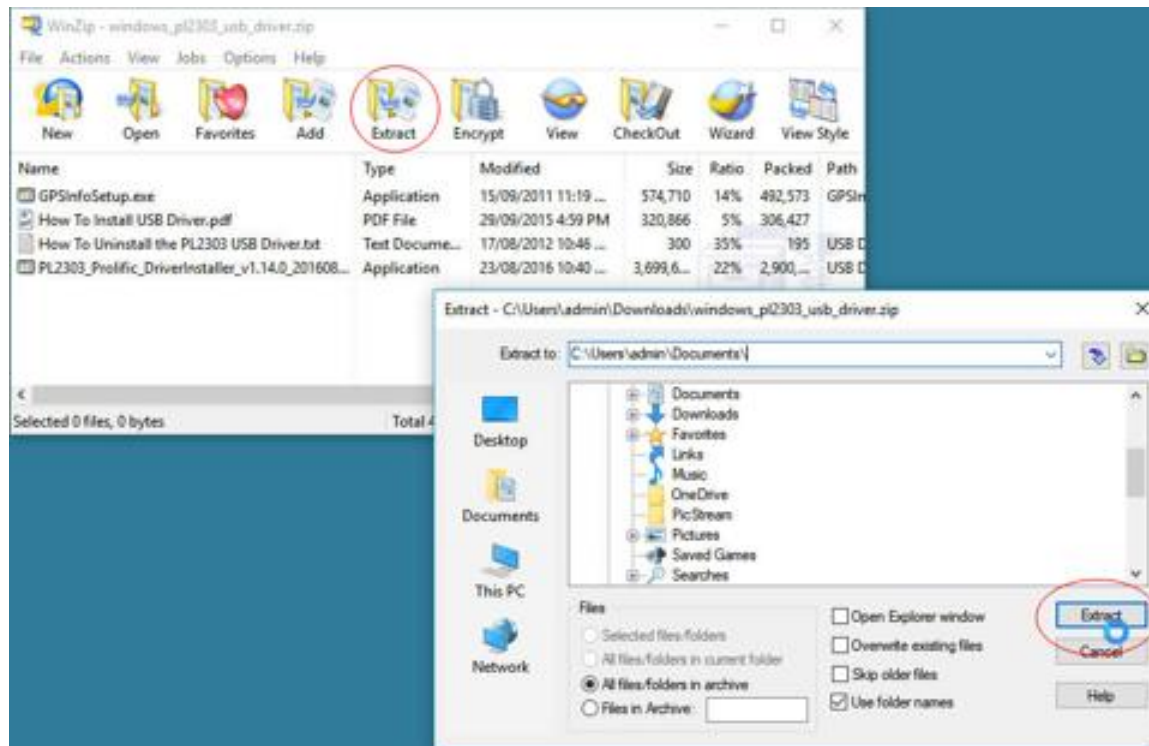
Navigate to the Downloads folder on the computer and double-click on the downloaded compressed file.



# PROGRAM SETTINGS

## GPS

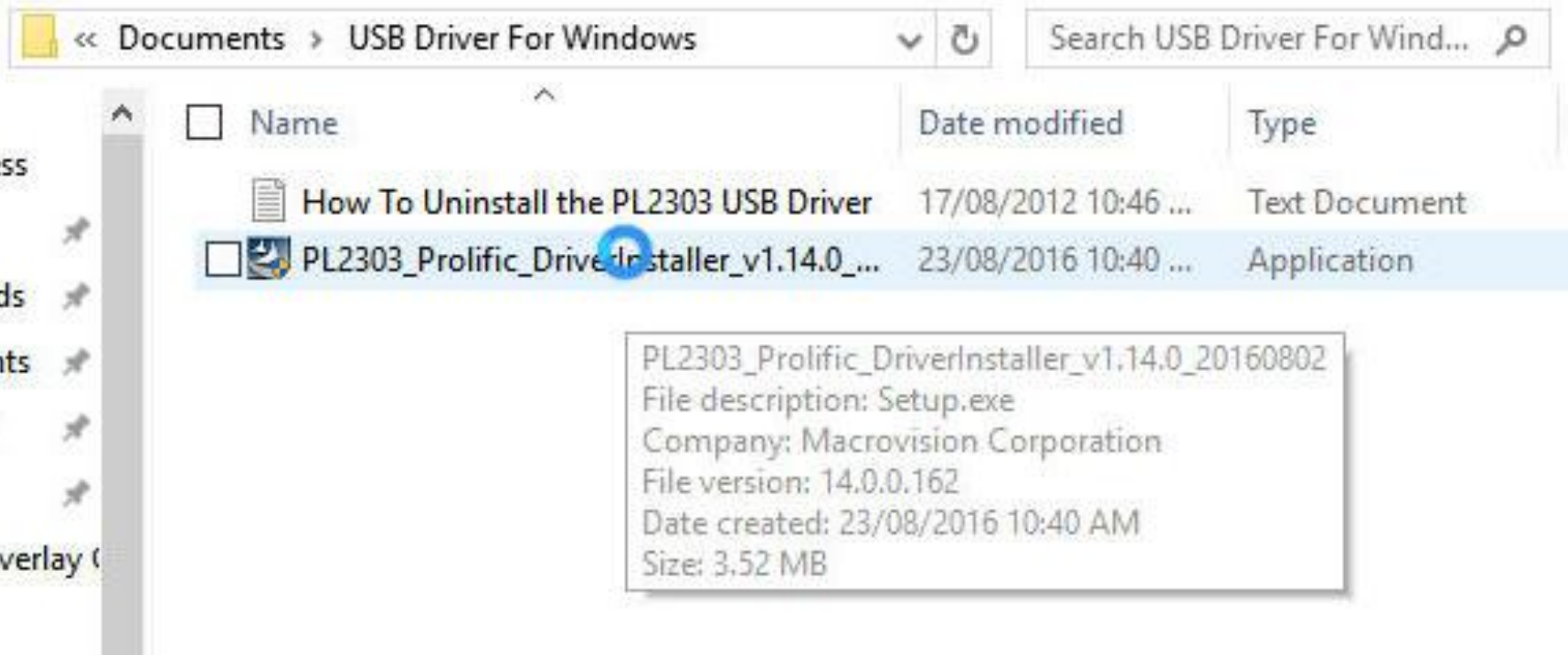
Uncompress and save to a convenient location. In this case I have extracted to the Documents folder on the computer. The folder name is 'USB Driver For Windows'



# PROGRAM SETTINGS

## GPS

Navigate to where it was saved, open the folder and launch the installer (double-click). Follow the prompts to the 'Finish' and the driver will be installed



# **PROGRAM SETTINGS**

## **GPS**

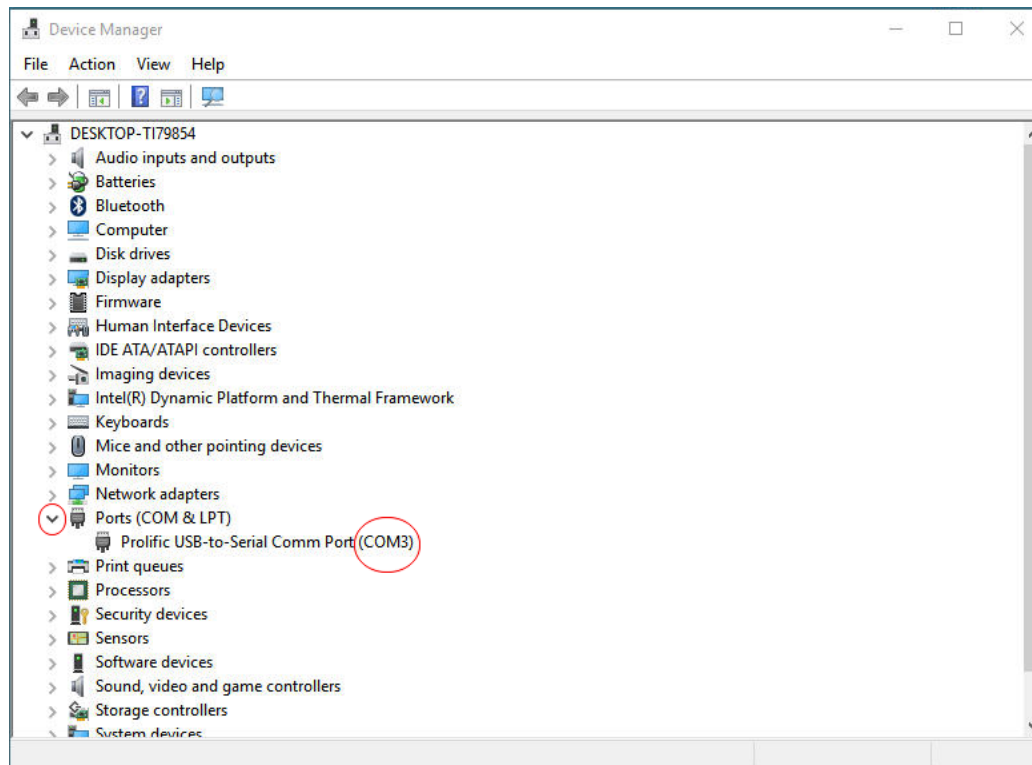
### **FINDING THE COM PORT NUMBER**

The computer has the driver ready to be associated with the COM ports on the machine. When you insert the GPS into a USB port, a COM Port number will be assigned by the computer. You will need to know this number when linking the GPS to OpenCPN.

# PROGRAM SETTINGS

## GPS

Insert the GPS into any USB port. Go to the **Device Manager** on the computer. Click on the '>' to the left of the entry 'Ports (COM & LPT)'. Note the GPS in this USB port is assigned 'COM3'





# PROGRAM SETTINGS

## GPS

### *How do I know if the GPS is ON?*

Your USB GPS must be plugged into your laptop's USB port to get power. If your PC is on and the COM port was configured properly, the GPS receiver is on and receiving the streaming GPS data. In addition the Globalsat USB GPS has a built-in LED status indicator that shows the following:

#### ***LED OFF:***

GPS receiver is off (no power).

#### ***LED ON***

(solid): No fix, searching for GPS signals.

#### ***LED FLASHING:***

Position fix established and GPS signals are being received.

# **PROGRAM SETTINGS**

## **GPS**

### **OpenCPN CONNECTION**

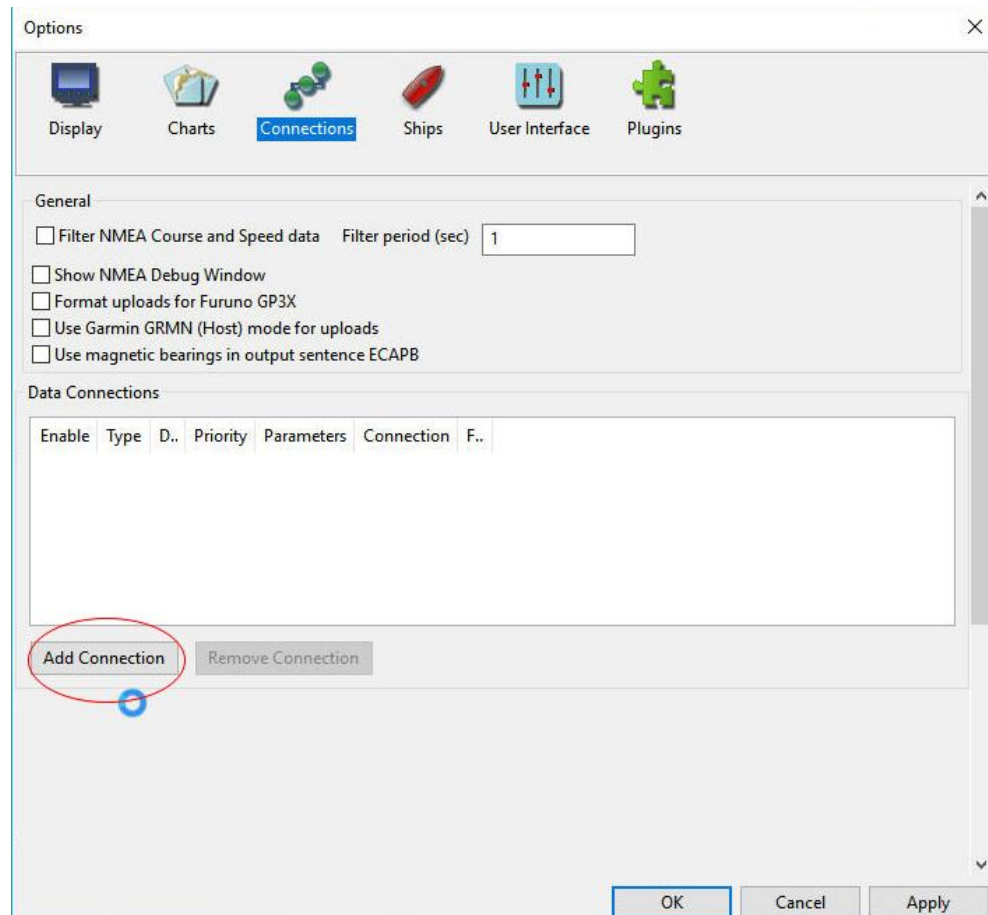
With the GPS installed in the computer's USB and receiving a position (Red LED is blinking) it's now time to connect it to OpenCPN

# PROGRAM SETTINGS

## GPS

Launch OpenCPN

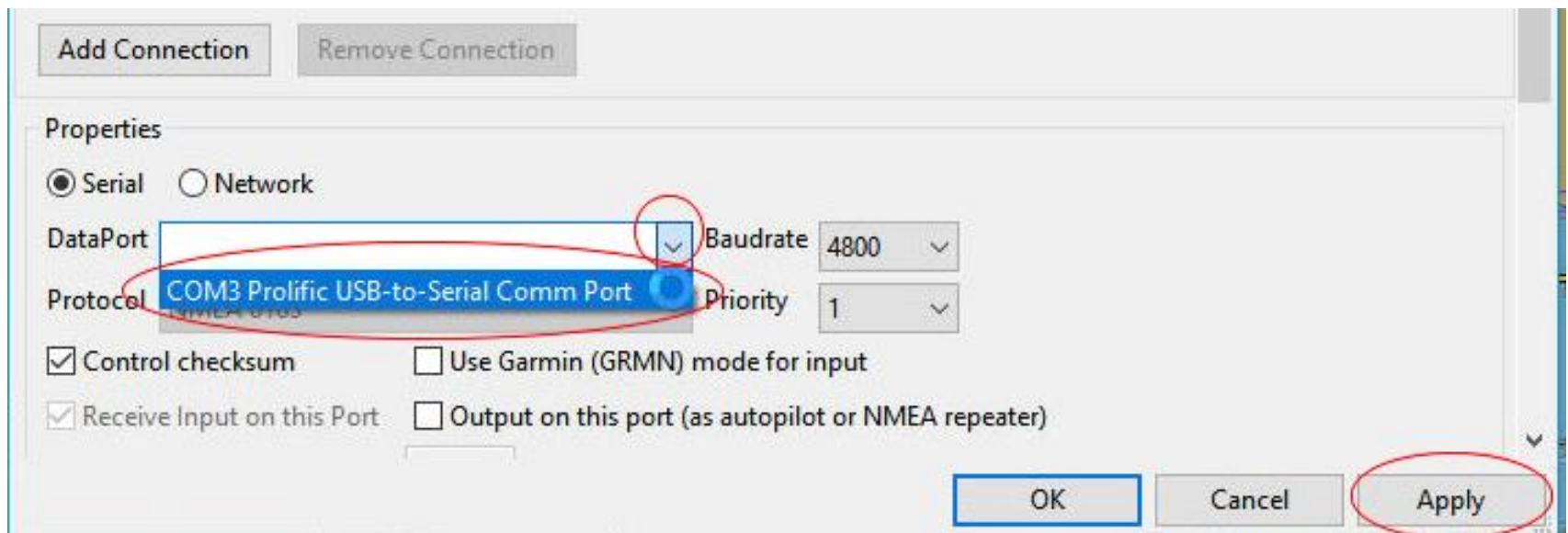
In Options/Connections click on 'Add Connection'



# PROGRAM SETTINGS

## GPS

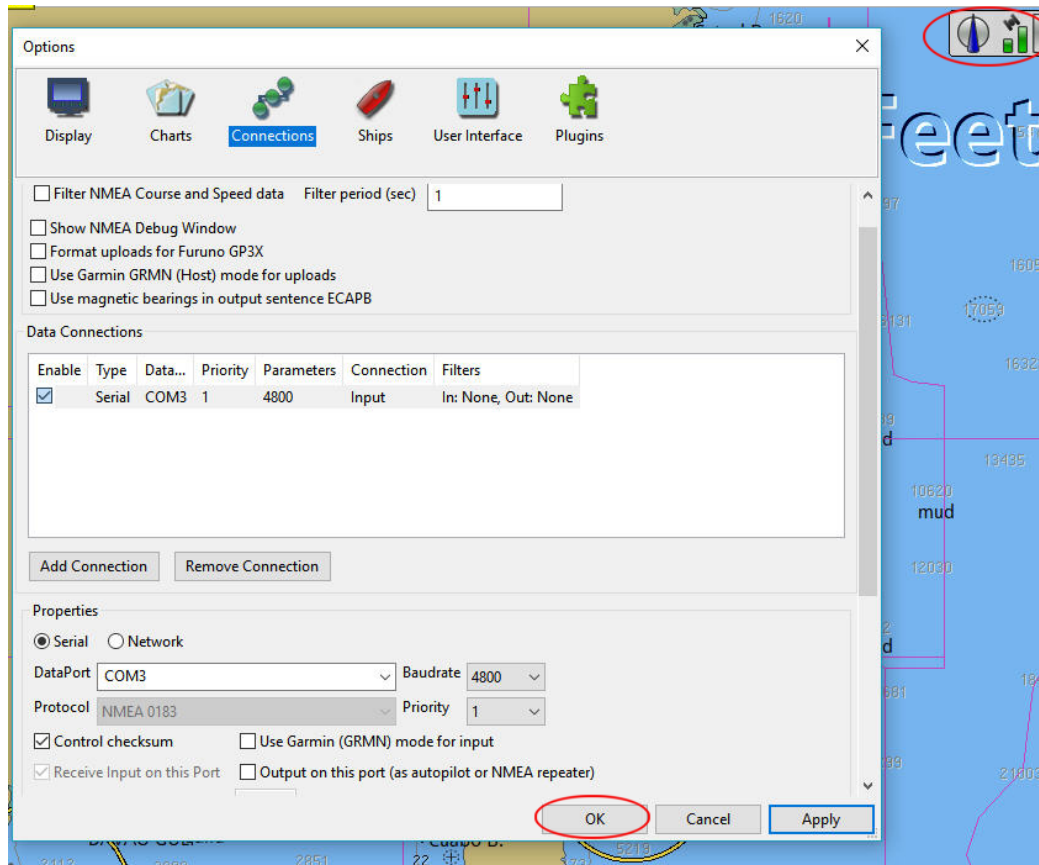
Click on the elevator to reveal the installed GPS at COM3. Success! Click on the highlighted text then click on 'Apply'



# PROGRAM SETTINGS

## GPS

The Options screen shows that COM3 has been enabled and the green bars in the upper right hand corner show a position has been received



# PROGRAM SETTINGS

## GPS

As a further check you can select the 'Show NMEA Debug Window' box. The incoming NMEA data will scroll up the DeBug window.

The image shows two overlapping windows from a software application. On the left is the 'NMEA Debug Window' which displays a list of NMEA sentences received from a serial port (COM3). The sentences include \$GPRMC, \$GPGGA, \$GPGSA, and \$GPGSV. Below the list is a 'Filter' input field and a 'Legend' section with color-coded boxes for message types: Message accepted (green), Input message filtered, output message filtered and dropped (orange), Input Message filtered and dropped (purple), Output Message (blue), and Information Message or Message with errors (red).

On the right is the 'Options' dialog box. It has a title bar with a close button and a toolbar with icons for Display, Charts, Connections (selected), Ships, User Interface, and Plugins. Below the toolbar are several checkboxes: 'Filter NMEA Course and Speed data' (unchecked), 'Show NMEA Debug Window' (checked and circled in red), 'Format uploads for Furuno GP3X' (unchecked), 'Use Garmin GRMN (Host) mode for uploads' (unchecked), and 'Use magnetic bearings in output sentence ECAPB' (unchecked). A 'Filter period (sec)' field is set to '1'. At the bottom is a 'Data Connections' table.

Enable	Type	Data...	Priority	Parameters	Connection	Filters
<input checked="" type="checkbox"/>	Serial	COM3	1	4800	Input	In: None, Out: None

# PROGRAM SETTINGS

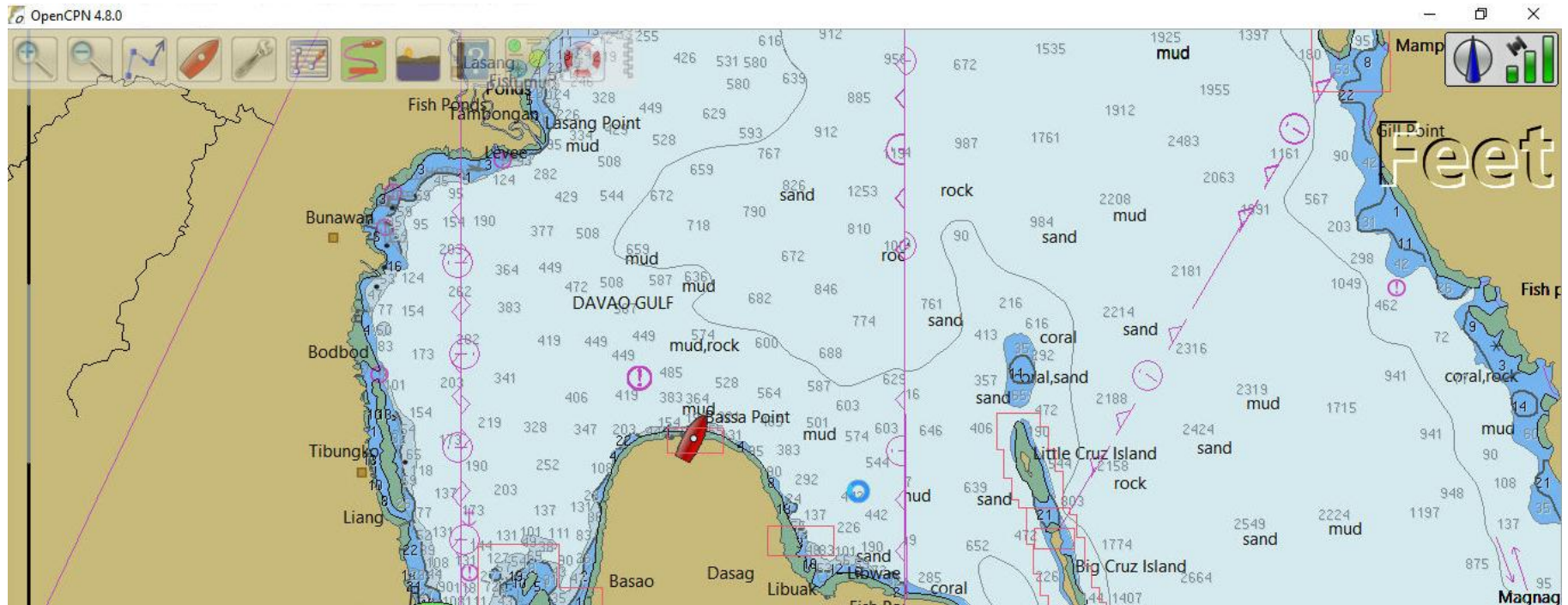
## GPS

Uncheck the 'Show NMEA Debug Window' box and click on 'OK' to return to the main OpenCPN screen. If the boat position is not shown and position information is OK (green bars), click on the red boat in the Tool Bar (Auto Follow) to center the boat on the screen.

# PROGRAM SETTINGS

## GPS

On the OpenCPN screen the GPS will be seen as green bars in the upper right hand corner and the boat icon will be red in color.





# PROGRAM SETTINGS

## GPS

### CHANGE GPS COM PORT NUMBER

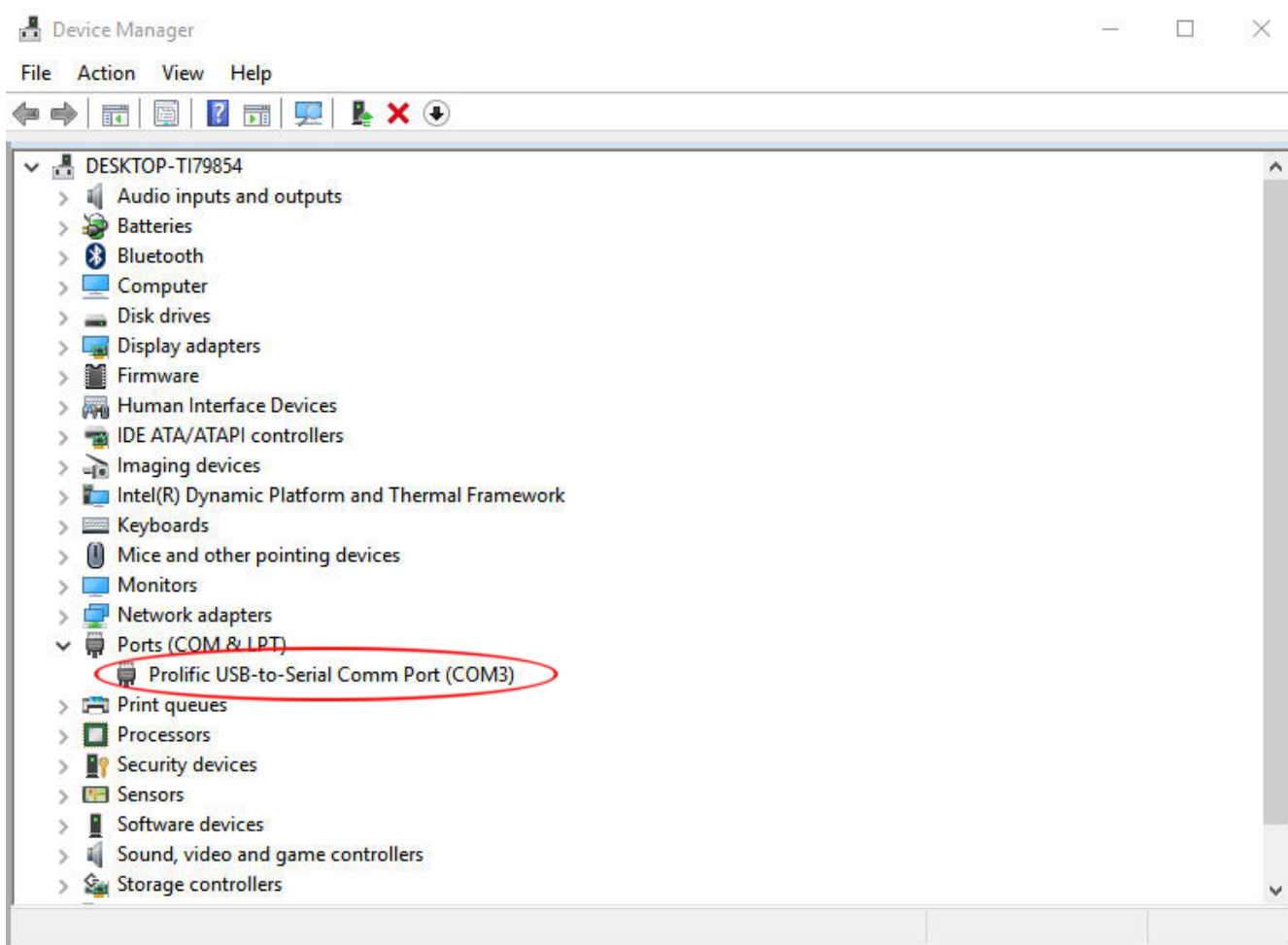
When the GPS is inserted into a USB port the computer assigns a COM port number based on some internal rules. With multiple USB ports the number can be different for each port used.

If, for convenience, you want a particular COM port number to be assigned and/or all USB ports to have the same number the **Device Manager** is used to make these assignments.

# PROGRAM SETTINGS

## GPS

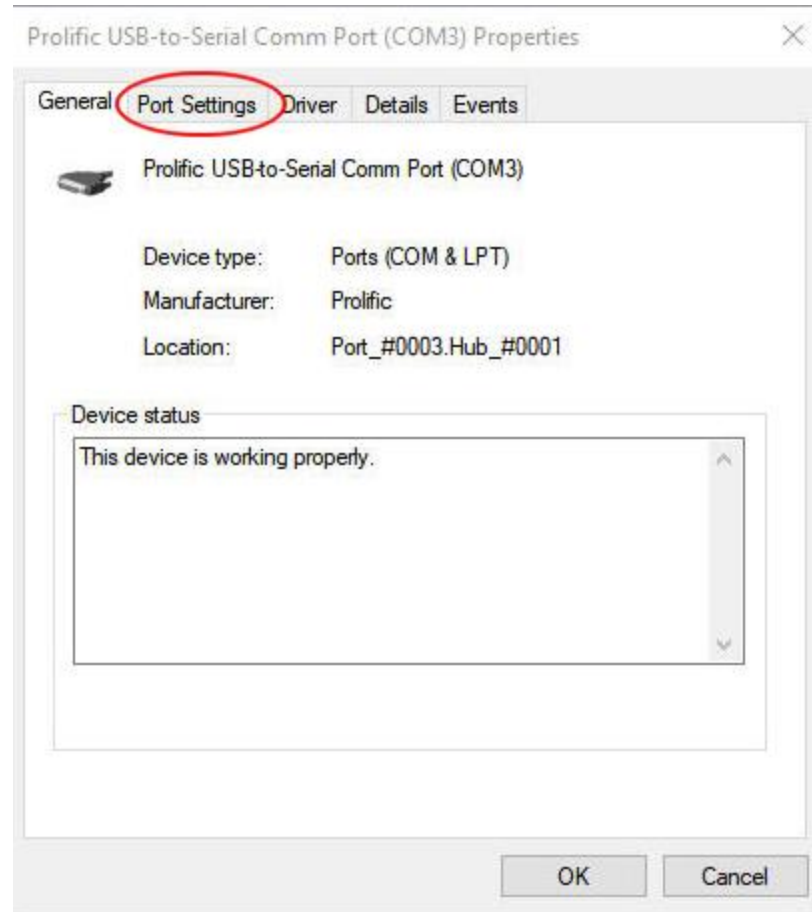
Display the COM port assignment and right-click on it.



# PROGRAM SETTINGS

## GPS

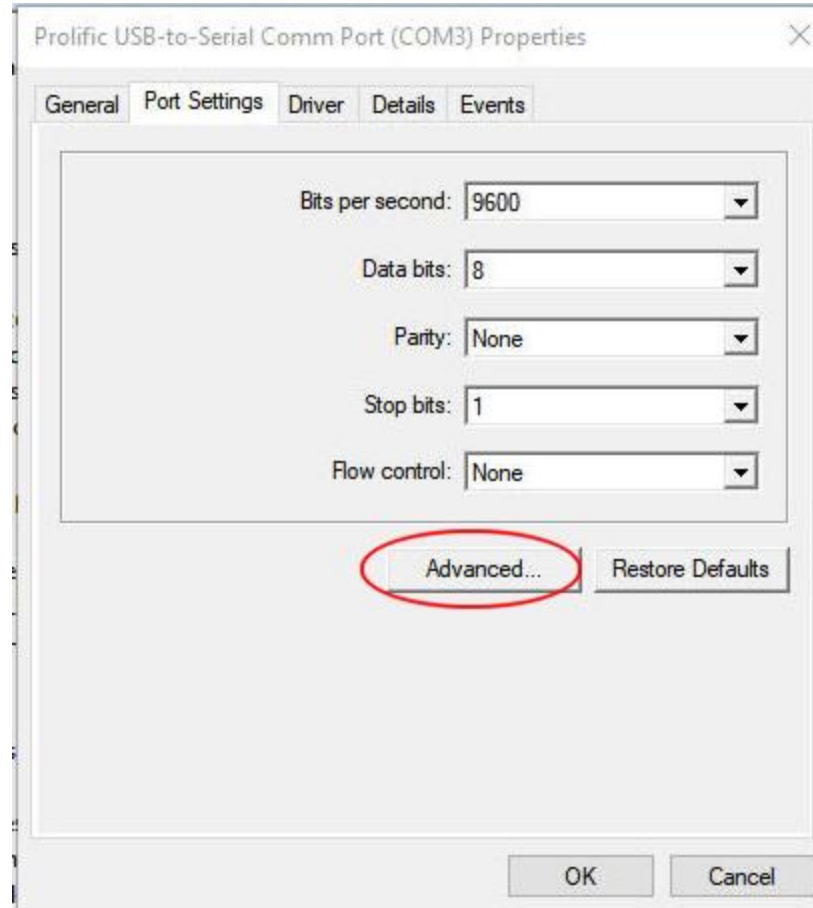
Click on the 'Port Settings' tab.



# PROGRAM SETTINGS

## GPS

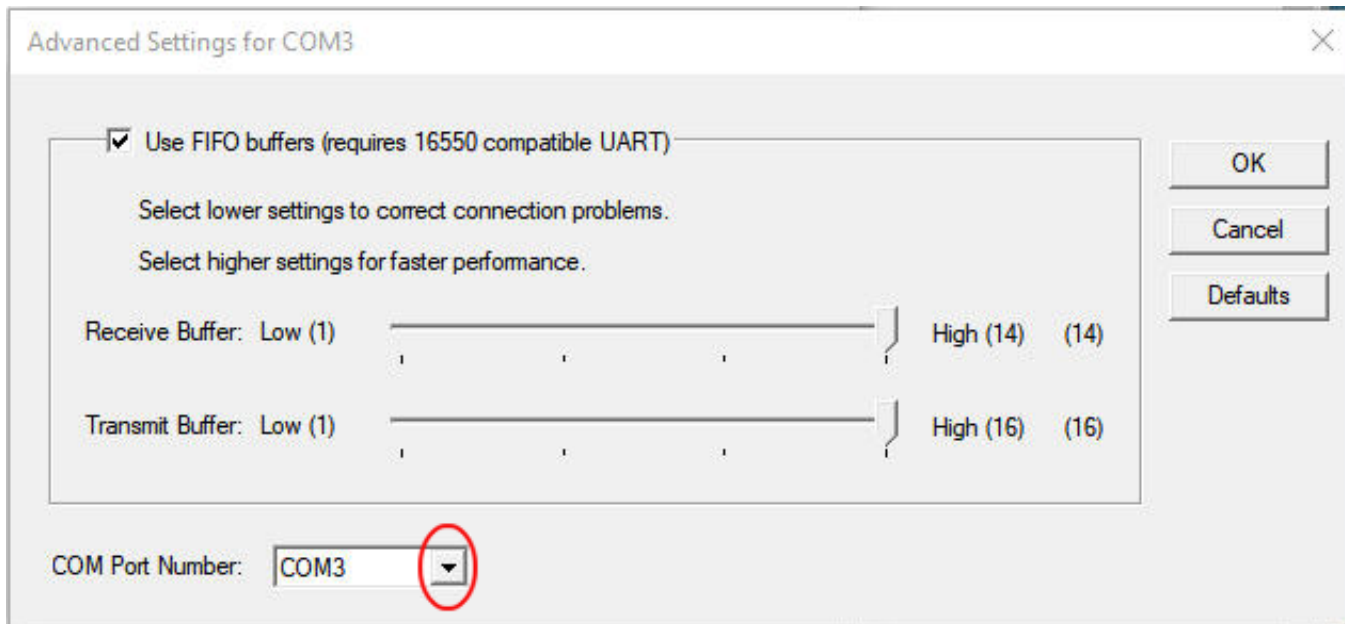
Click on the 'Advanced' button



# PROGRAM SETTINGS

## GPS

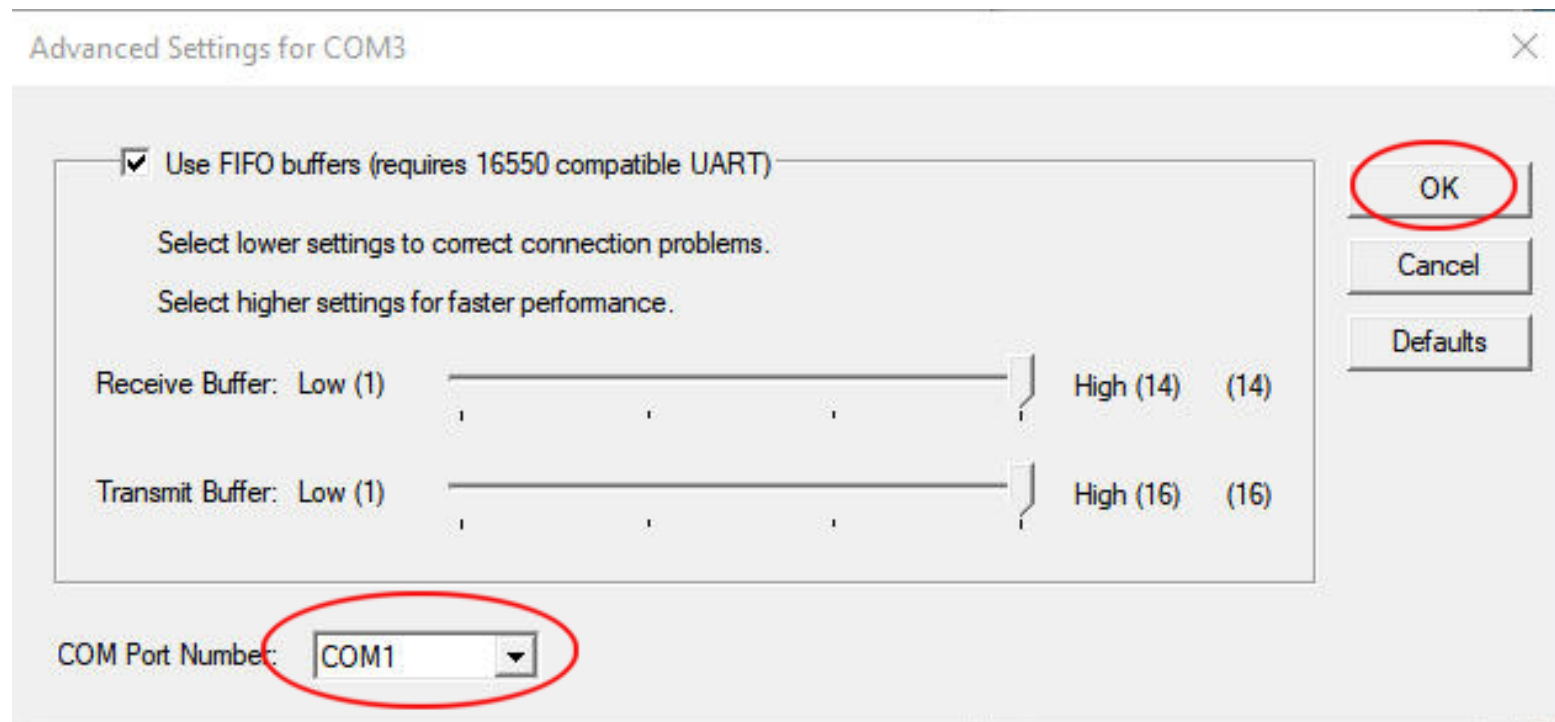
Click on the 'COM Port Number' elevator



# PROGRAM SETTINGS

## GPS

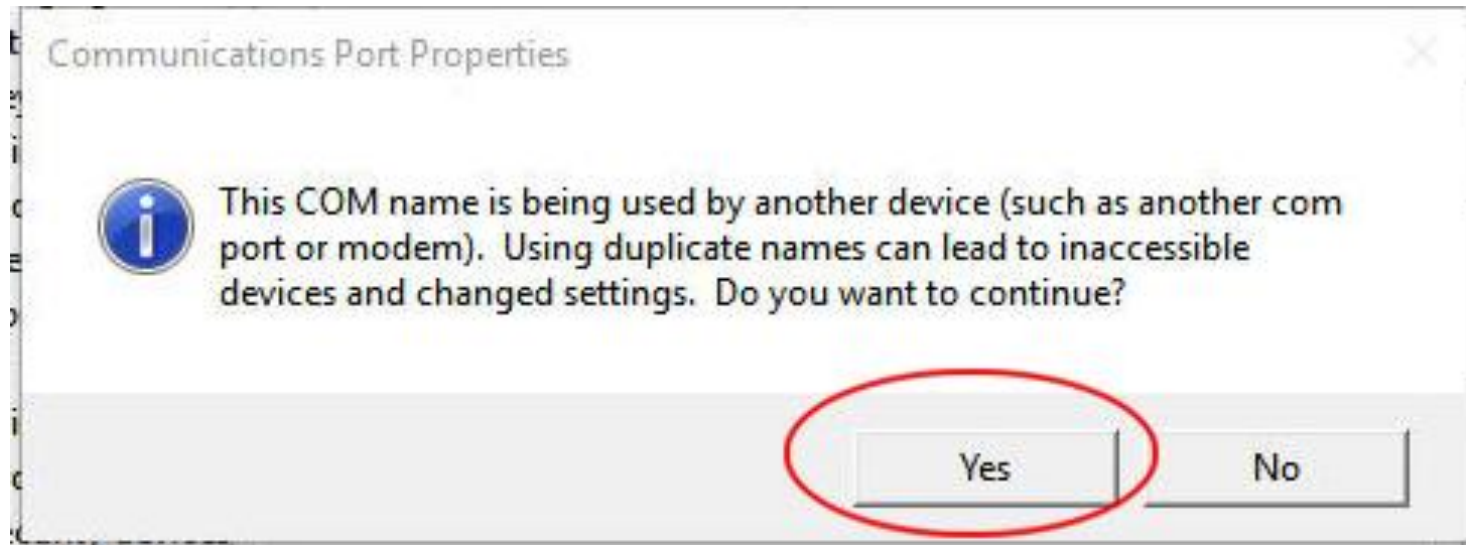
From the elevator select the desired COM port number (in this case COM1) and click 'OK'



# PROGRAM SETTINGS

## GPS

If for convenience you want all USB ports to be the same COM port number, repeat the above for each of the other USB ports. Since you have assigned COM1 to the first USB port you will get this error message. At each instance click on 'Yes'

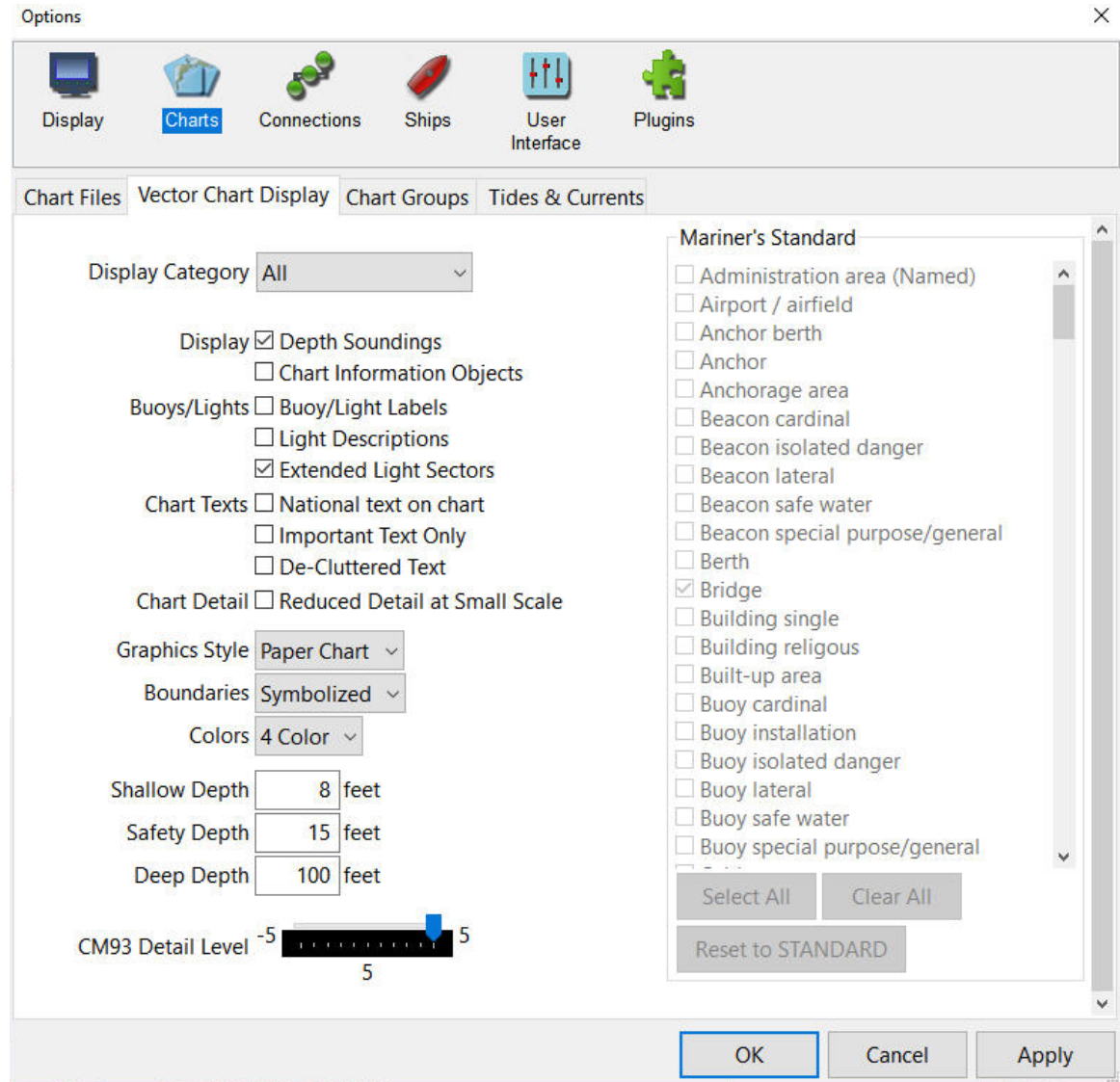


# PROGRAM SETTINGS

## Vector Charts

These are the settings I use.

Play with them to get the display you prefer.

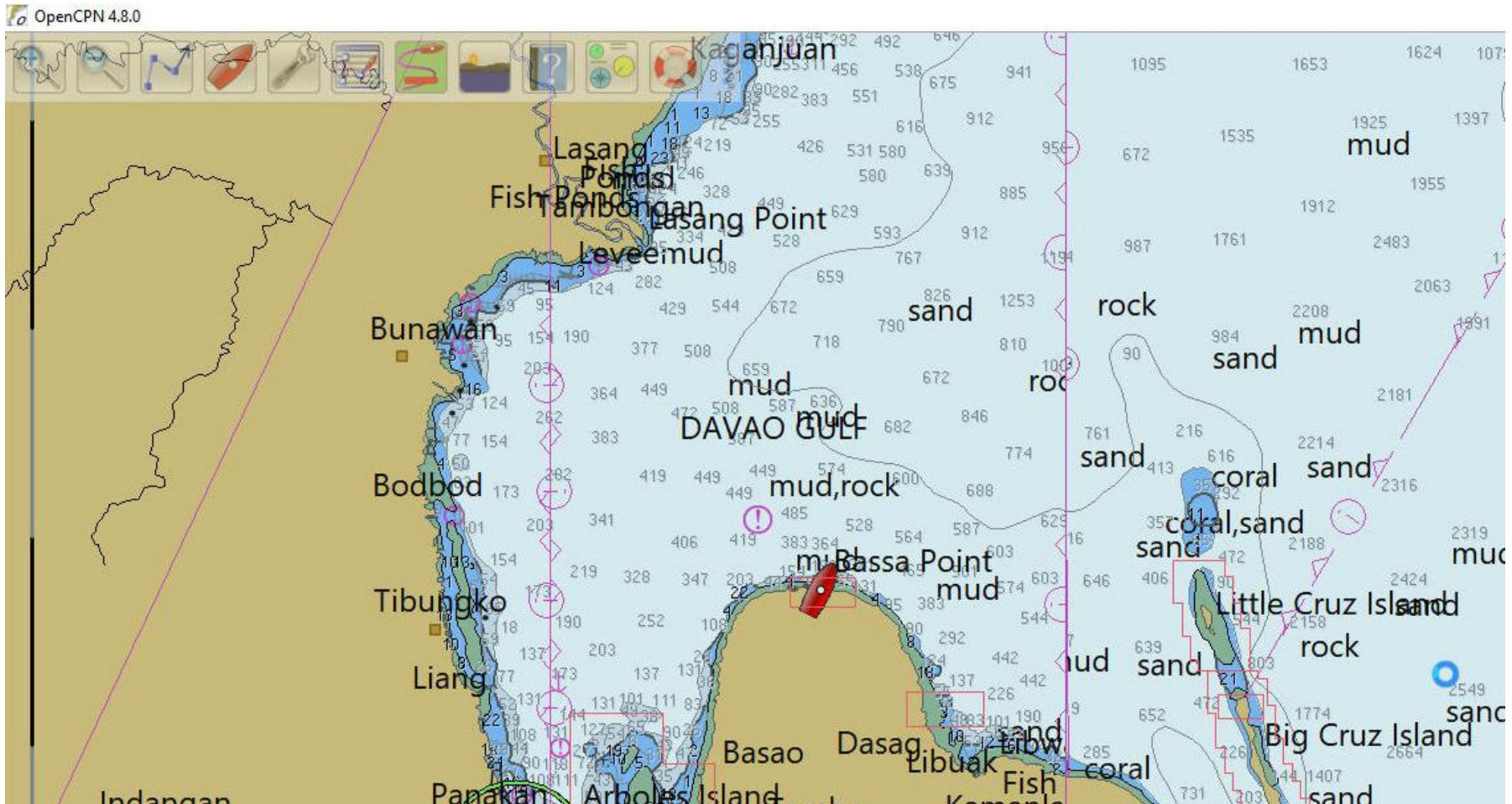




# PROGRAM SETTINGS

## Language/Fonts

When OpenCPN is installed on computers with smaller screens such as netbooks, the font on the screen may be large.



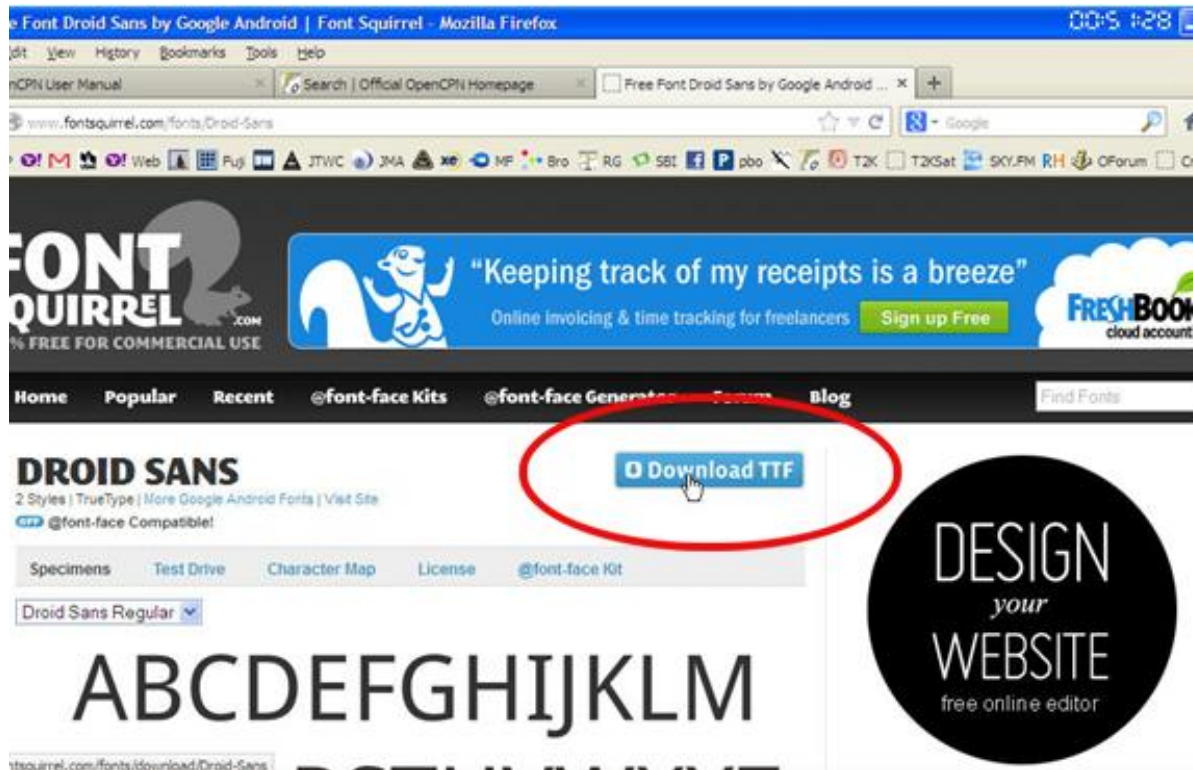
# PROGRAM SETTINGS

## Language/Fonts

A way to change to fonts that are designed for these small machines is to install in the **Windows Fonts** folder a set of fonts titled 'Droid Sans'. These fonts can be downloaded from:

<http://www.fontsquirrel.com/fonts/Droid-Sans>

CLICK ON 'Download TTF'



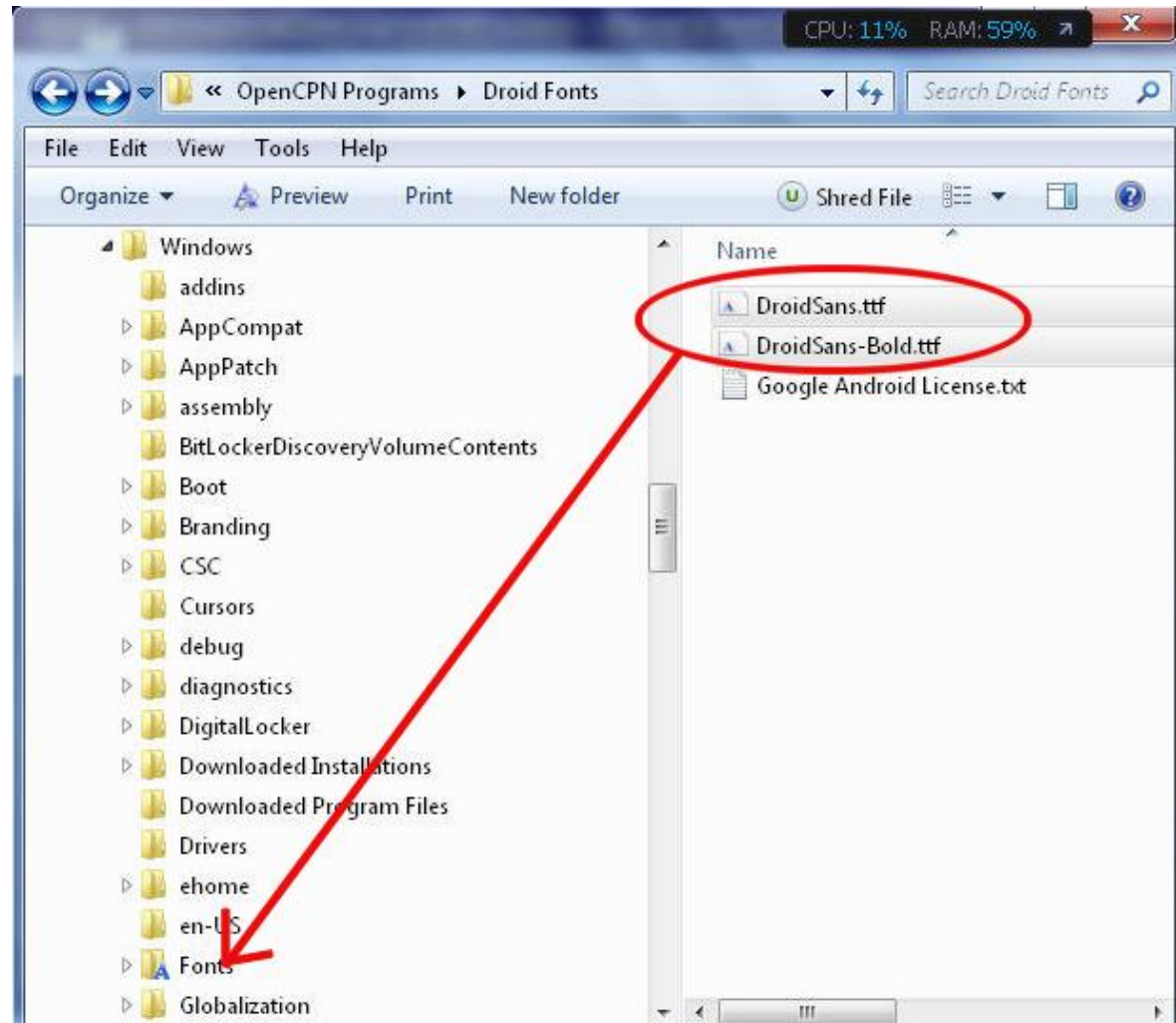
The screenshot shows a Mozilla Firefox browser window displaying the Font Squirrel website. The page title is "Free Font Droid Sans by Google Android | Font Squirrel - Mozilla Firefox". The address bar shows the URL "www.fontsquirrel.com/fonts/Droid-Sans". The page features a navigation menu with links for "Home", "Popular", "Recent", "@font-face Kits", "@font-face Generator", "Forum", and "Blog". A search bar labeled "Find Fonts" is also present. The main content area displays "DROID SANS" with a "Download TTF" button circled in red. Below the button, there are tabs for "Specimens", "Test Drive", "Character Map", "License", and "@font-face Kit". The font "Droid Sans Regular" is selected, and the characters "ABCDEFGHIJKLM" are displayed. A circular logo for "DESIGN your WEBSITE free online editor" is visible in the bottom right corner.

# PROGRAM SETTINGS

## Language/Fonts

After downloading the font file, unzip it to any convenient folder.

Drag and drop (or cut and Paste) the two '.ttf' files into the **Windows Fonts** folder.



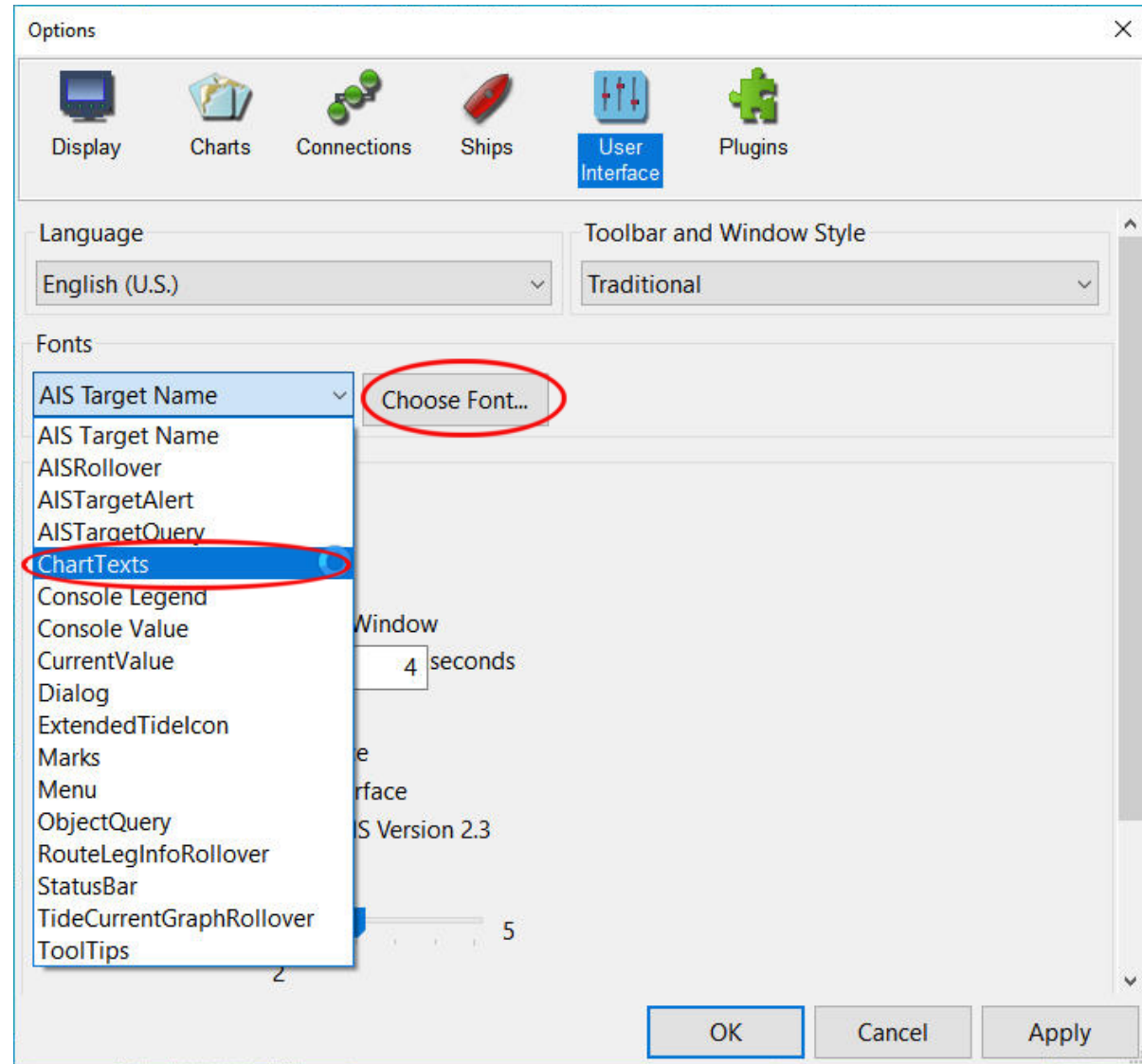
# PROGRAM SETTINGS

## Language/Fonts

Go to the  
'Options/User  
Interface' page.

On the elevator  
under 'Fonts',  
select 'Chart Texts'

Then click on  
'Choose Font ...'

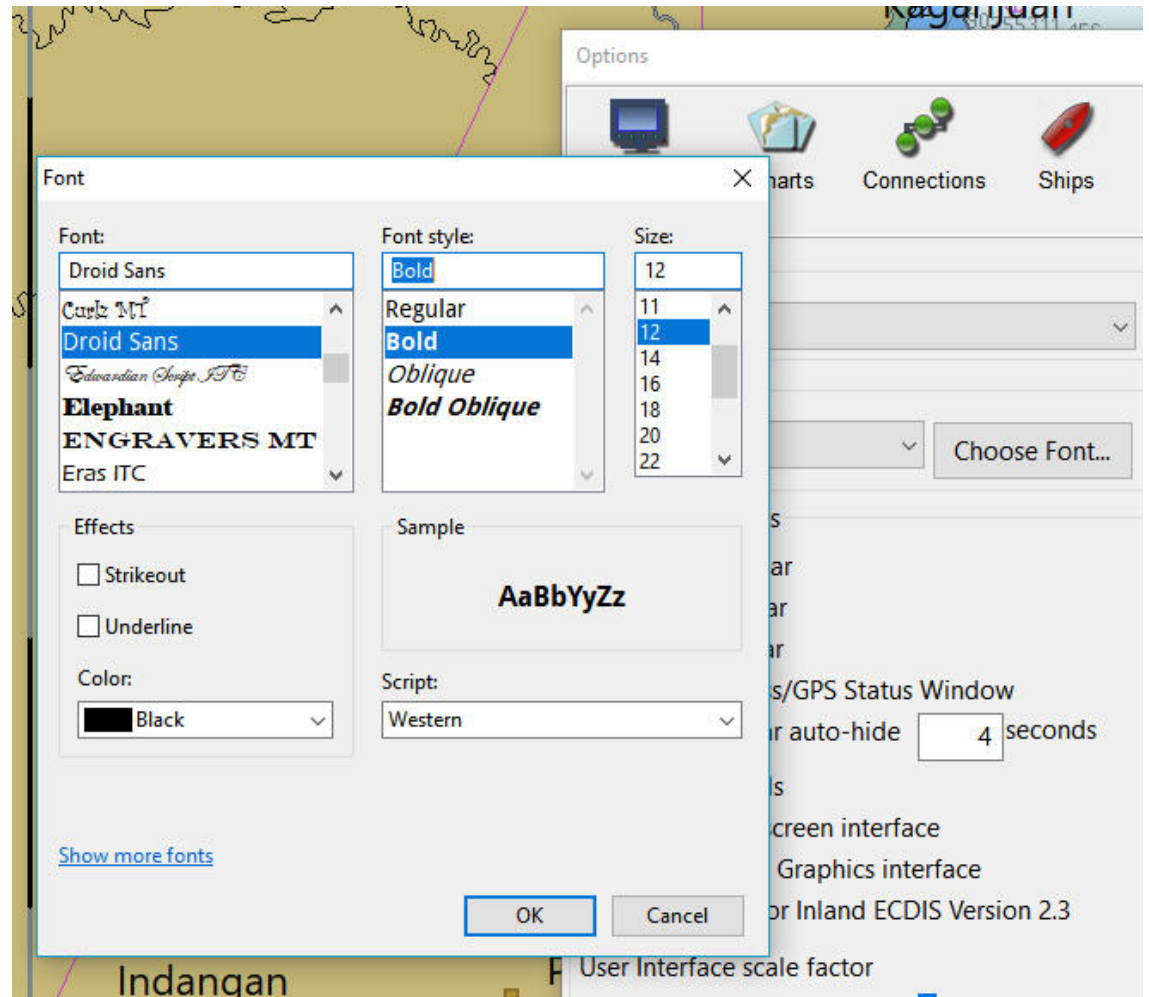


# PROGRAM SETTINGS

## Language/Fonts

This window appears.  
Make the selections as  
shown then click on 'OK'

By trial and error find the  
font size you prefer.

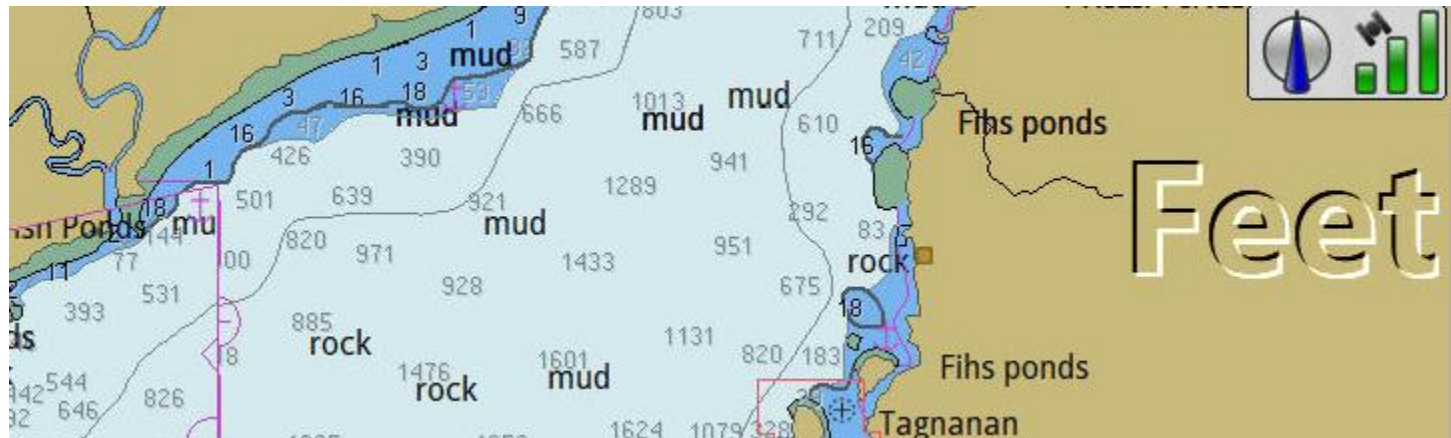




# PROGRAM SETTINGS

## Display Depth Units

My display shows soundings in feet.



I have chosen this unit since my depth sounder displays depths in feet. You have a choice of units to be displayed.

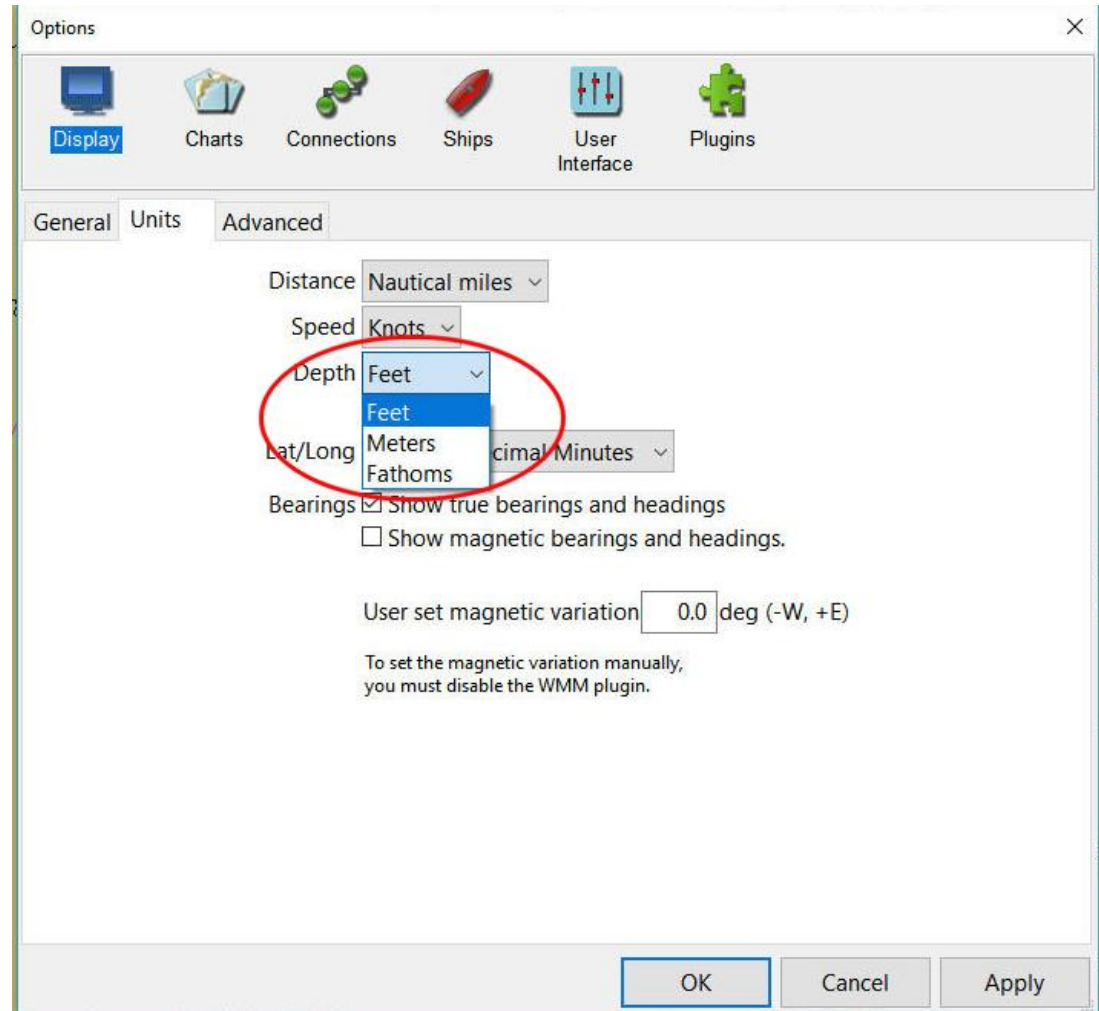
# PROGRAM SETTINGS

## Display Depth Units

Go to 'Options/Display' Units '

You have the choices as shown; Feet, Meters or fathoms.

Other units such as distance, speed and position can be changed here as well.





# PROGRAM SETTINGS

## Tool Bar Cleanup

When first installed the program has many Tool Bar icons.



The non-essential ones can be deleted to clean up the Tool Bar.

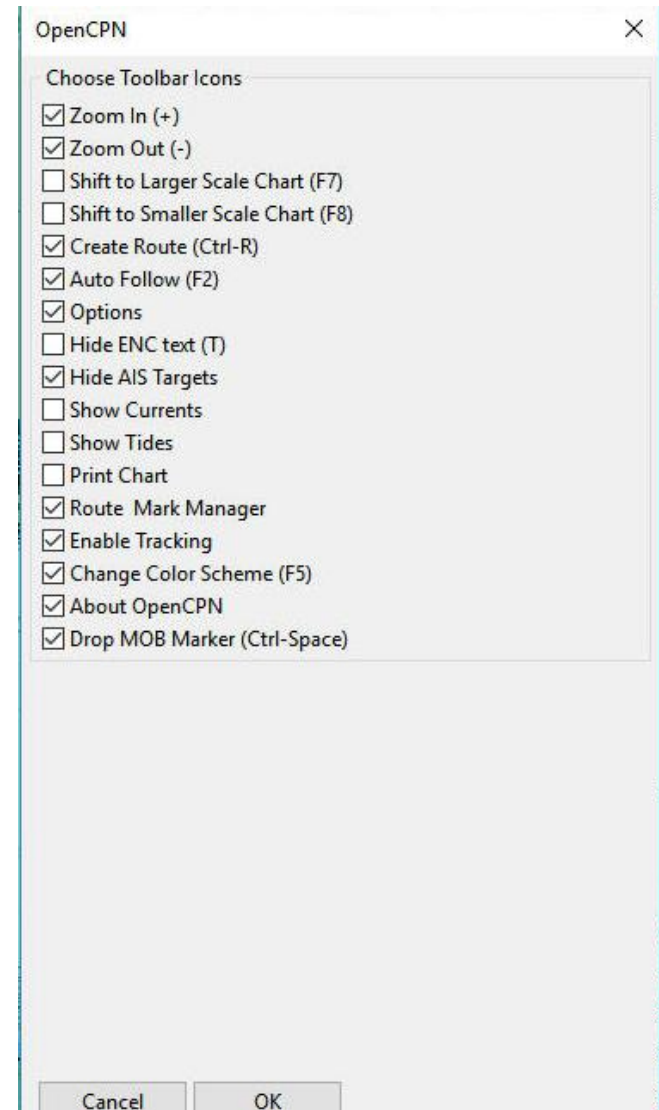
# PROGRAM SETTINGS

## Tool Bar Cleanup

Right-click on the Tool Bar to show this screen.

Uncheck the ones you don't want such as these ....

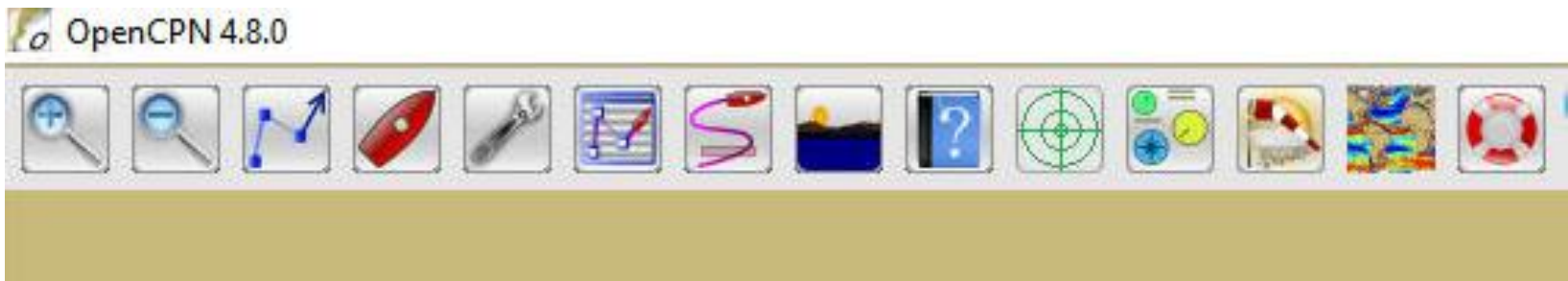
(No current nor tides information is available in my area and I've not found it necessary to print charts)



# PROGRAM SETTINGS

## Tool Bar Cleanup

This is my 'cleaned up' Tool Bar.



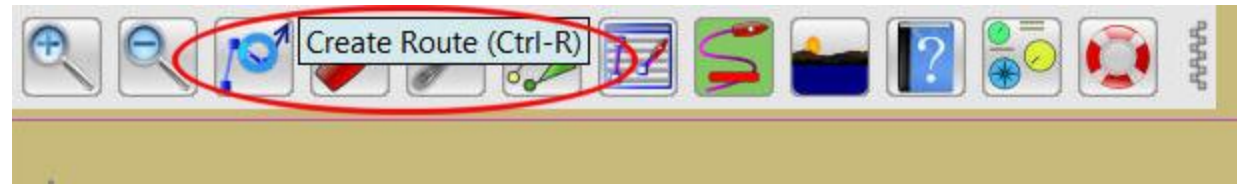
The text icon (A+) has been removed as the shortcut key 'T' toggles the display text on and off.

(And the shortcut key 'S' toggles soundings on and off)

# ROUTES

## Create a Route

Begin by selecting the 'Create Route' tool on the Tool Bar. (The shortcut is to hold down the 'CTL' key and press 'R'.



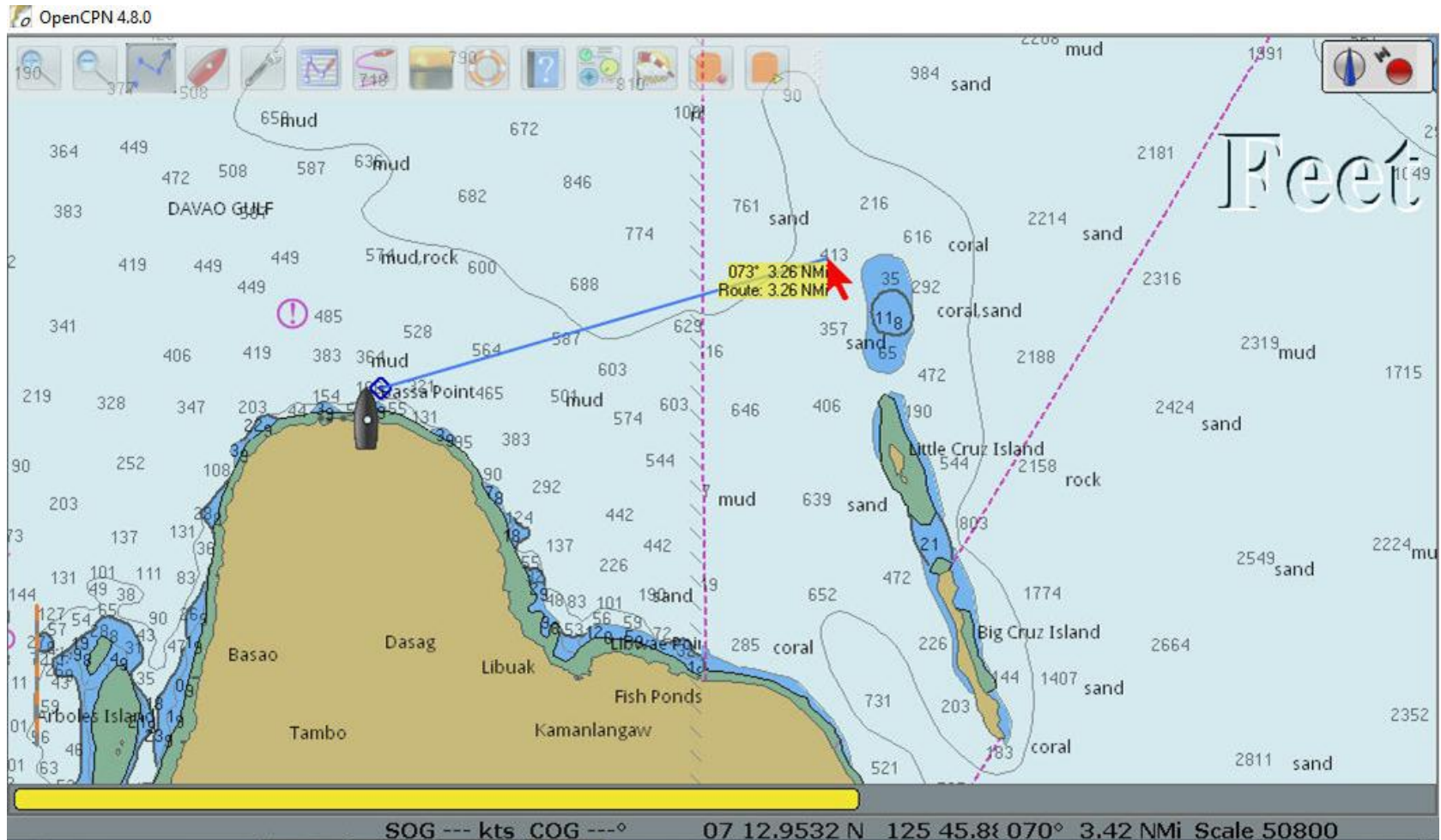
The cursor turns into a 'PENCIL' shape.



# ROUTES

## Create a Route

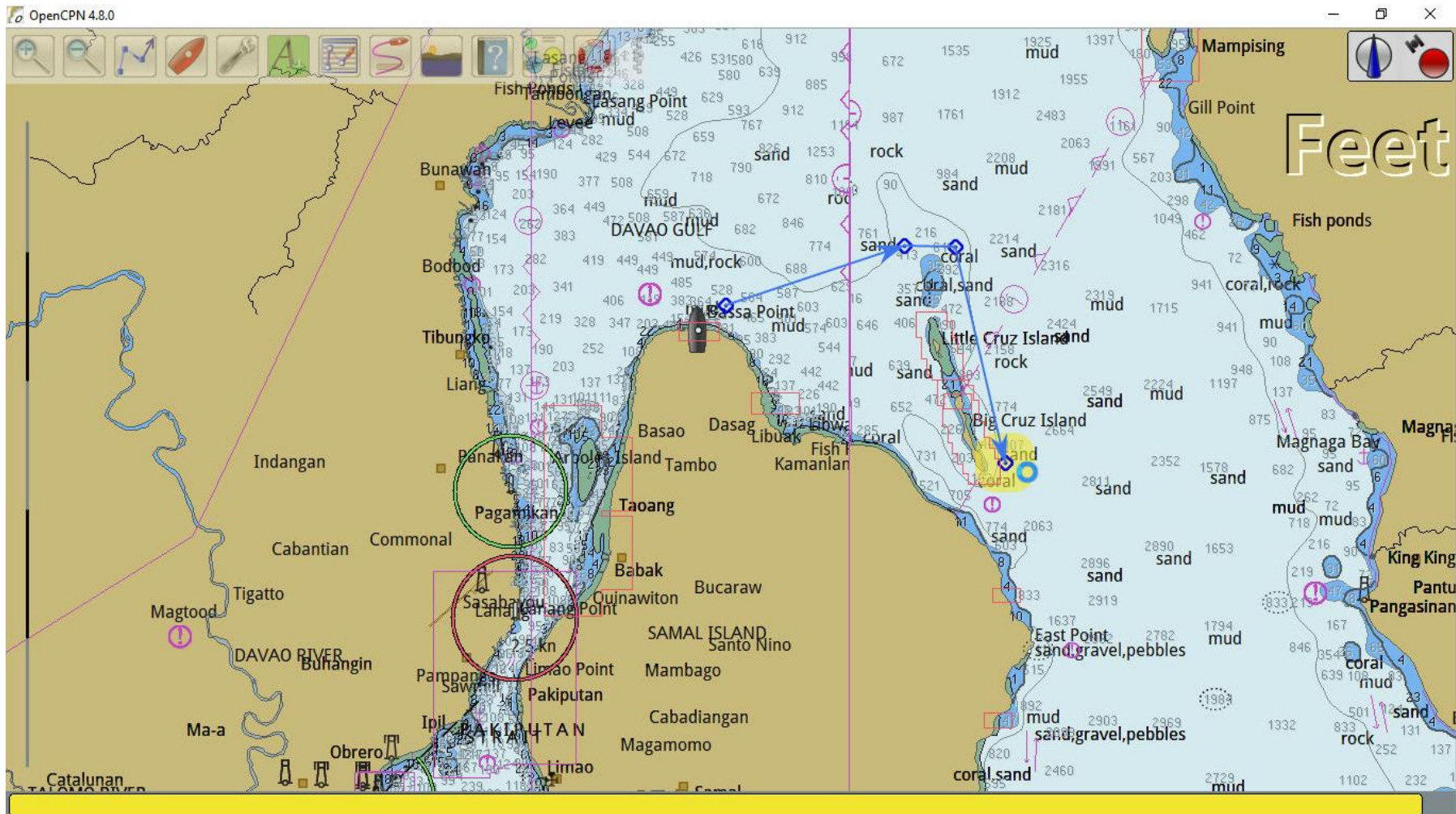
Click the 'pencil' pointer at desired locations to describe a route.



# ROUTES

## Create a Route

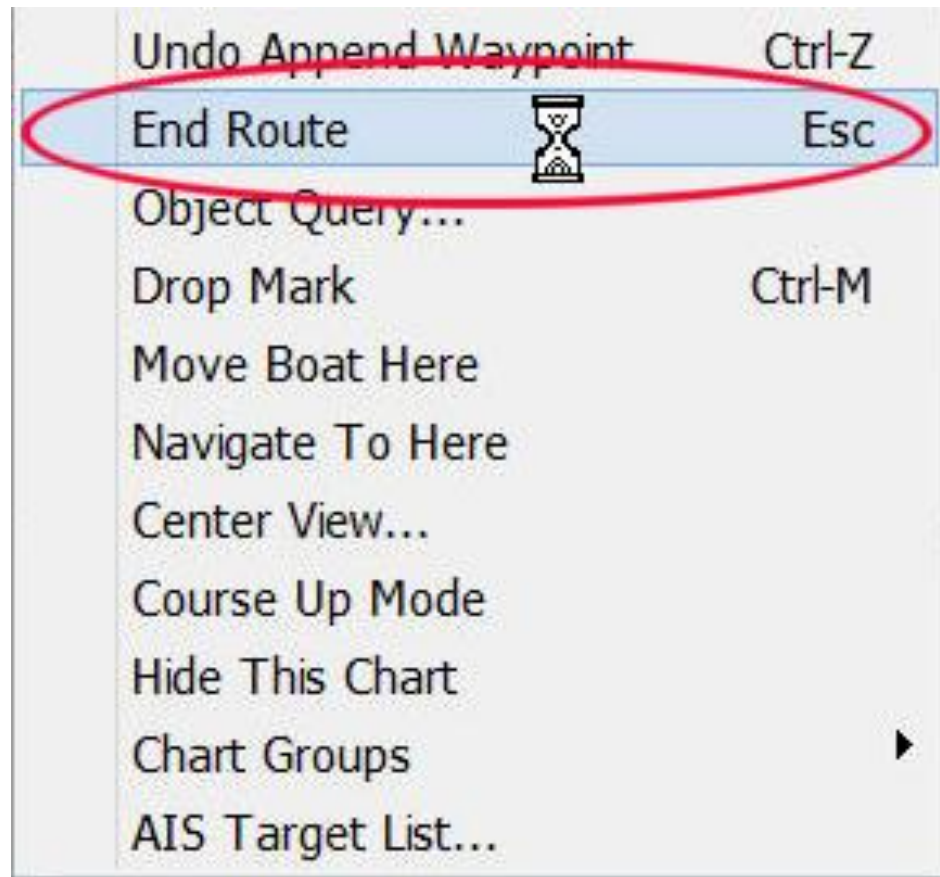
Continue dropping waypoints until the route has been completed then press the 'Esc' key to stop.



# ROUTES

## Create a Route

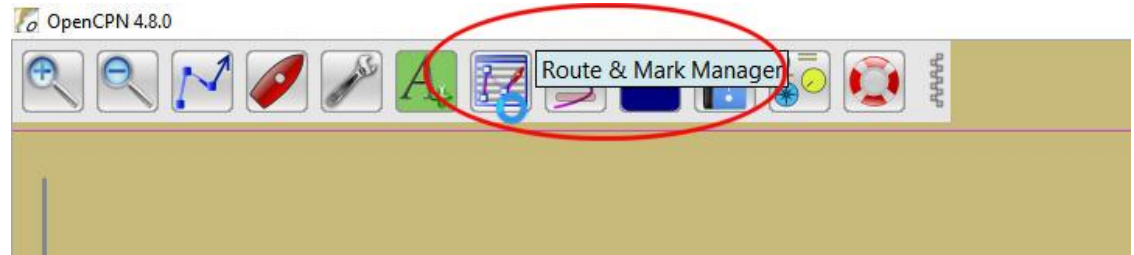
An alternate way to stop creating a route is to right-click on the screen and select 'End Route'. Note the shortcut is the 'Esc' key.



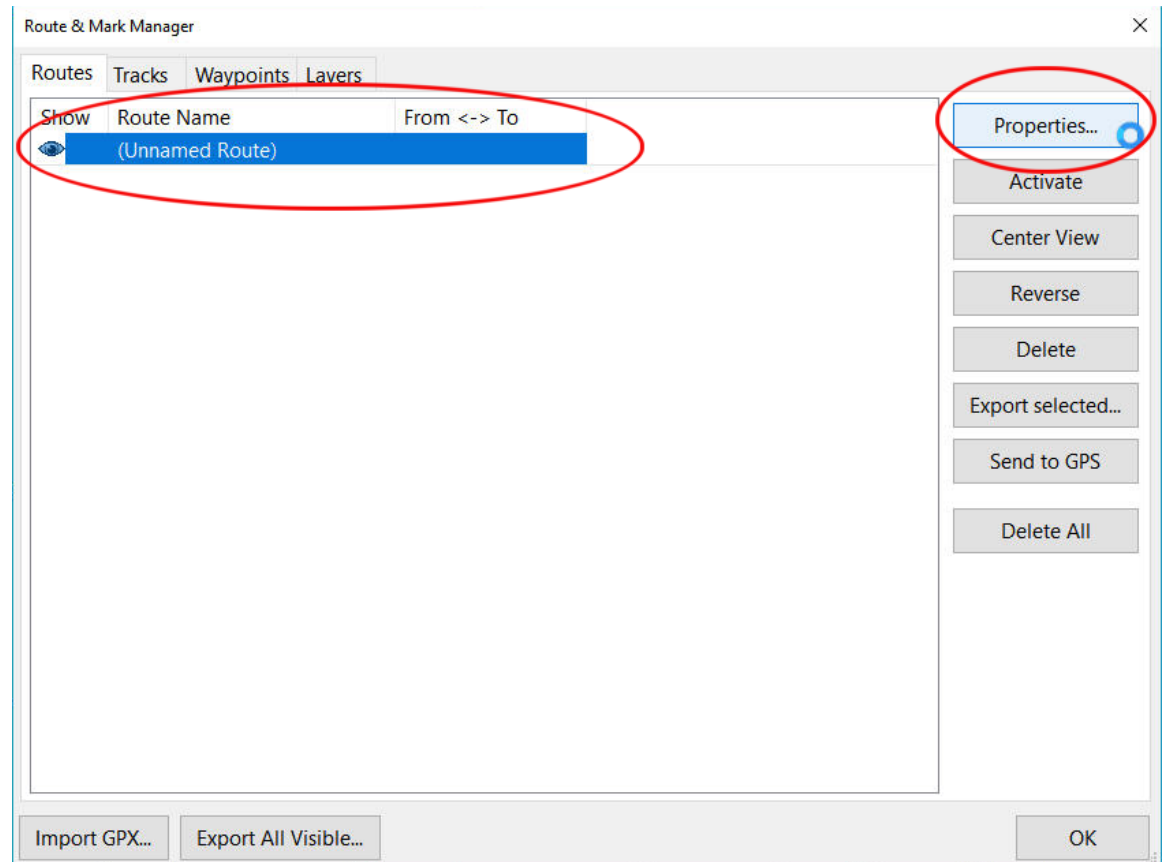
# ROUTES

## Create a Route

Open the 'Route & Mark Manager' from the Tool Bar.



On the 'Routes' tab select the new (Unnamed Route) then click on 'Properties'





# ROUTES

## Create a Route

Here you can give the route a name (e.g. SAMPLE ROUTE).  
The route properties such as the length of the route and waypoint details are presented here.

Route Properties

Properties

Name  
SAMPLE ROUTE

Depart From  Destination

Total distance  Plan speed  Time enroute  Departure Time (m/d/y h:m)

Time shown as  
 UTC  Local @ PC  LMT @ Location

Color:  Style:  Width:

Waypoints

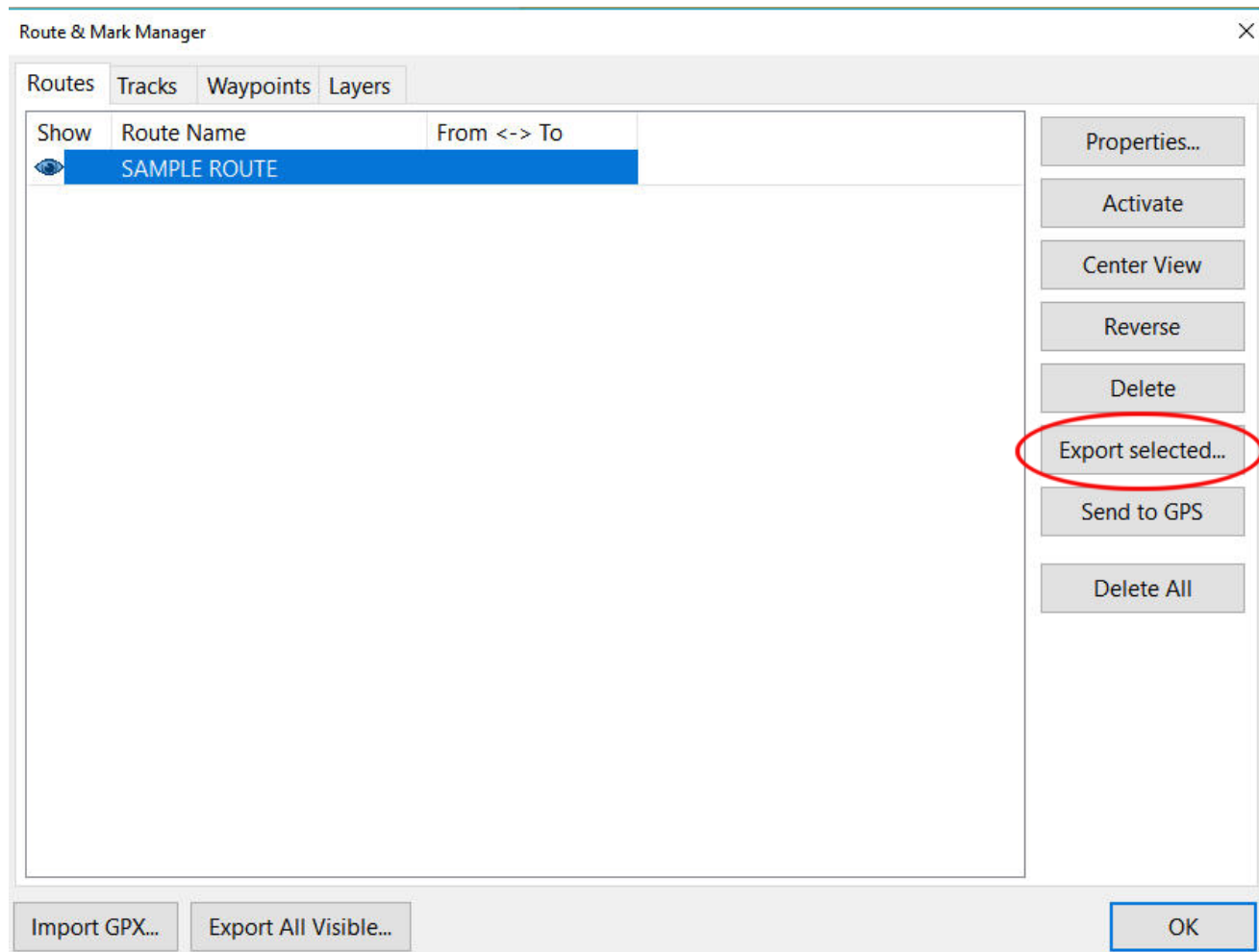
L.	To Waypoint	Distance	Bearing	Latitude	Longitude	ETE	Speed	Next tide e...	Description	Co
---	001	0.58 NMi	048 Deg. T	07 12.2 N	125 43.1 E	Start	6.00			072
1	002	2.95 NMi	072 Deg. T	07 13.1 N	125 45.9 E	00 H 29 M	6.00			091
2	003	0.80 NMi	091 Deg. T	07 13.1 N	125 46.7 E	00 H 37 M	6.00			167
3	004	3.45 NMi	167 Deg. T	07 09.7 N	125 47.4 E	01 H 12 M	6.00			

Print Route Extend Route Split Route Cancel OK

# ROUTES

## Save a Route

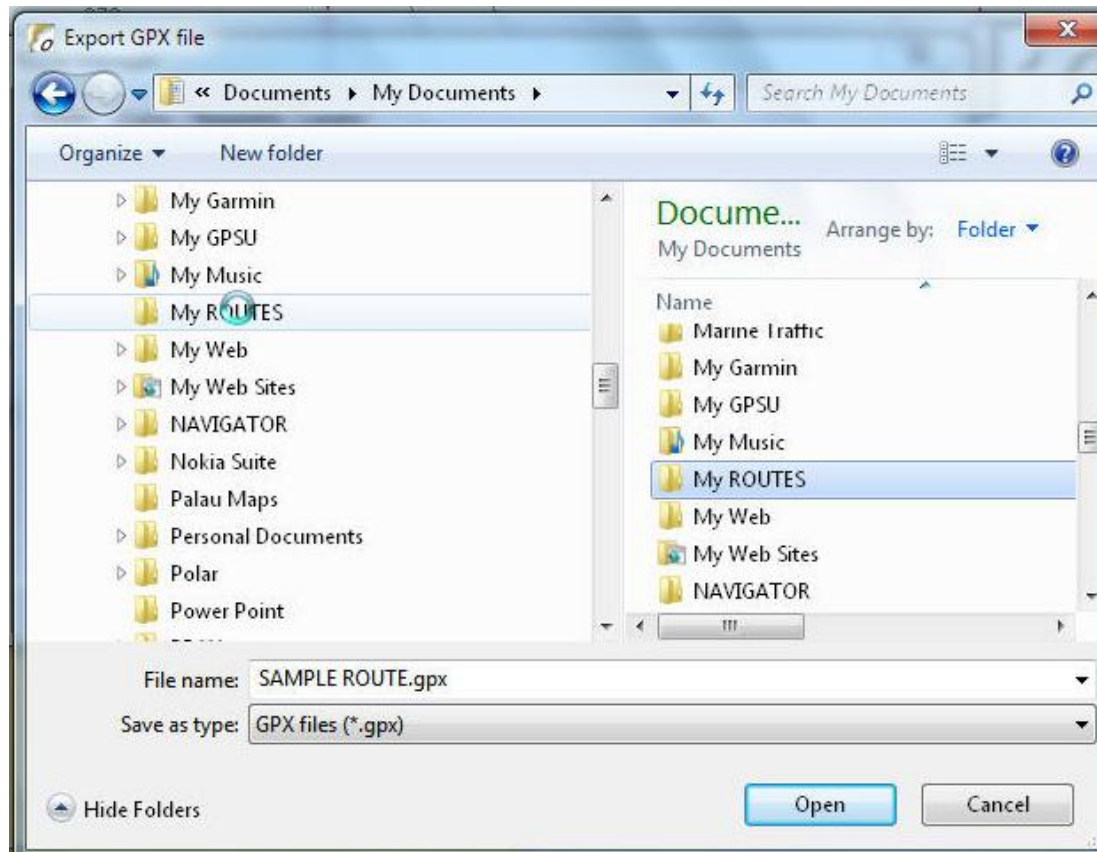
To save the route for future reference go to the 'Route & Mark Manager'. Select the route and click on 'Export selected ...'.



# ROUTES

## Save a Route

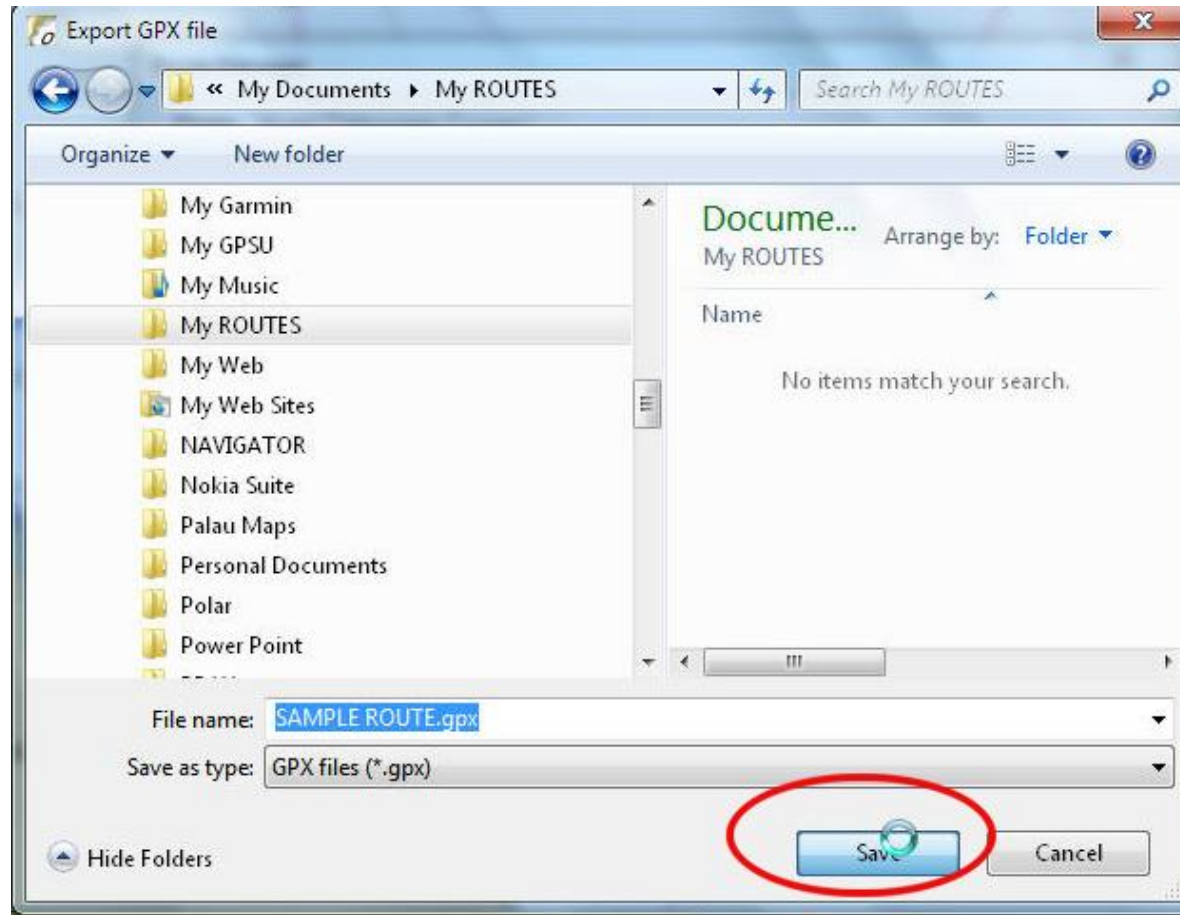
Navigate to where you save your routes (e.g. such as My Routes under My Documents) and open the folder.



# ROUTES

## Save a Route

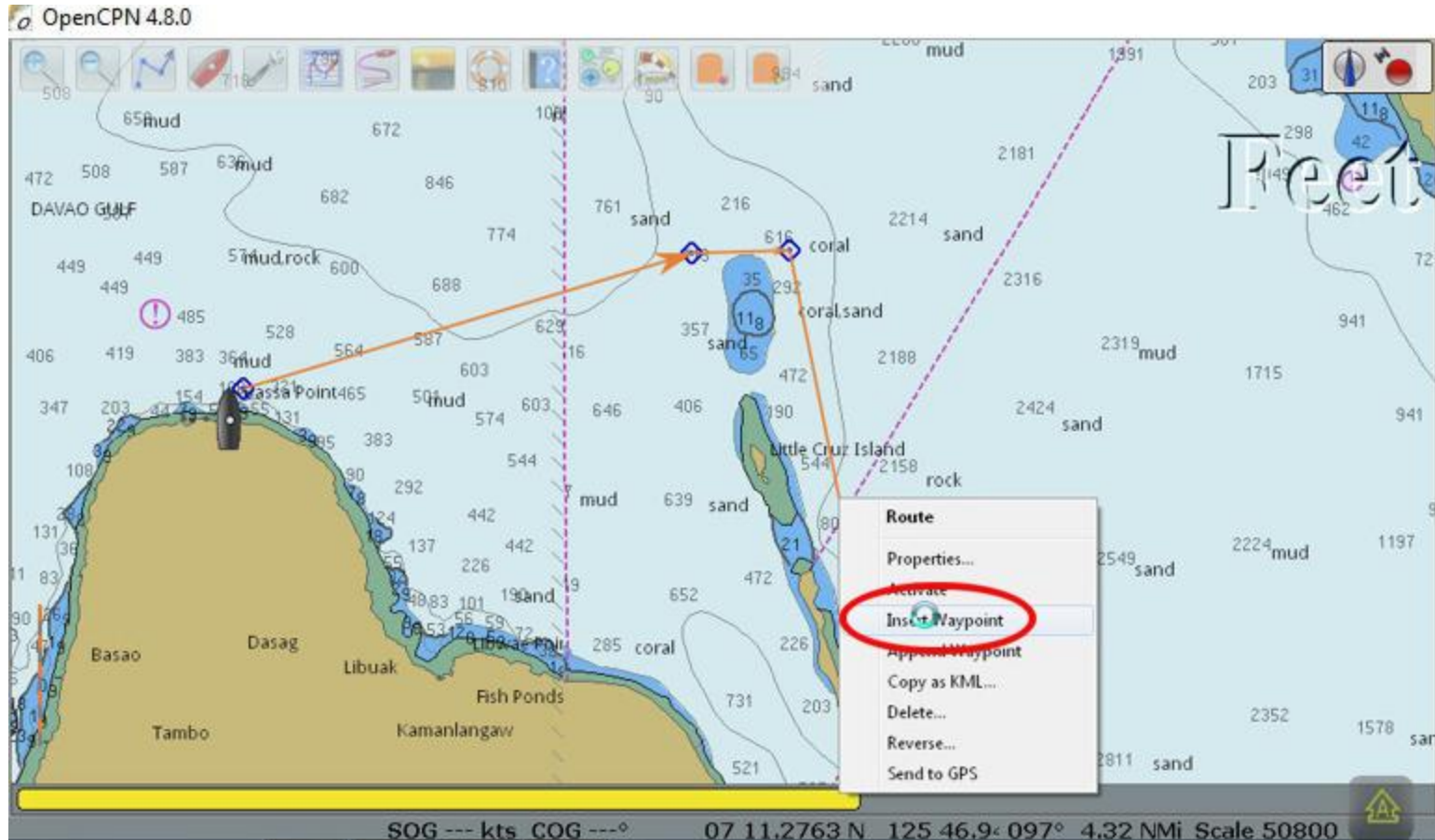
Click on 'Save' and the route is saved to the hard drive.



# ROUTES

## Change a Route

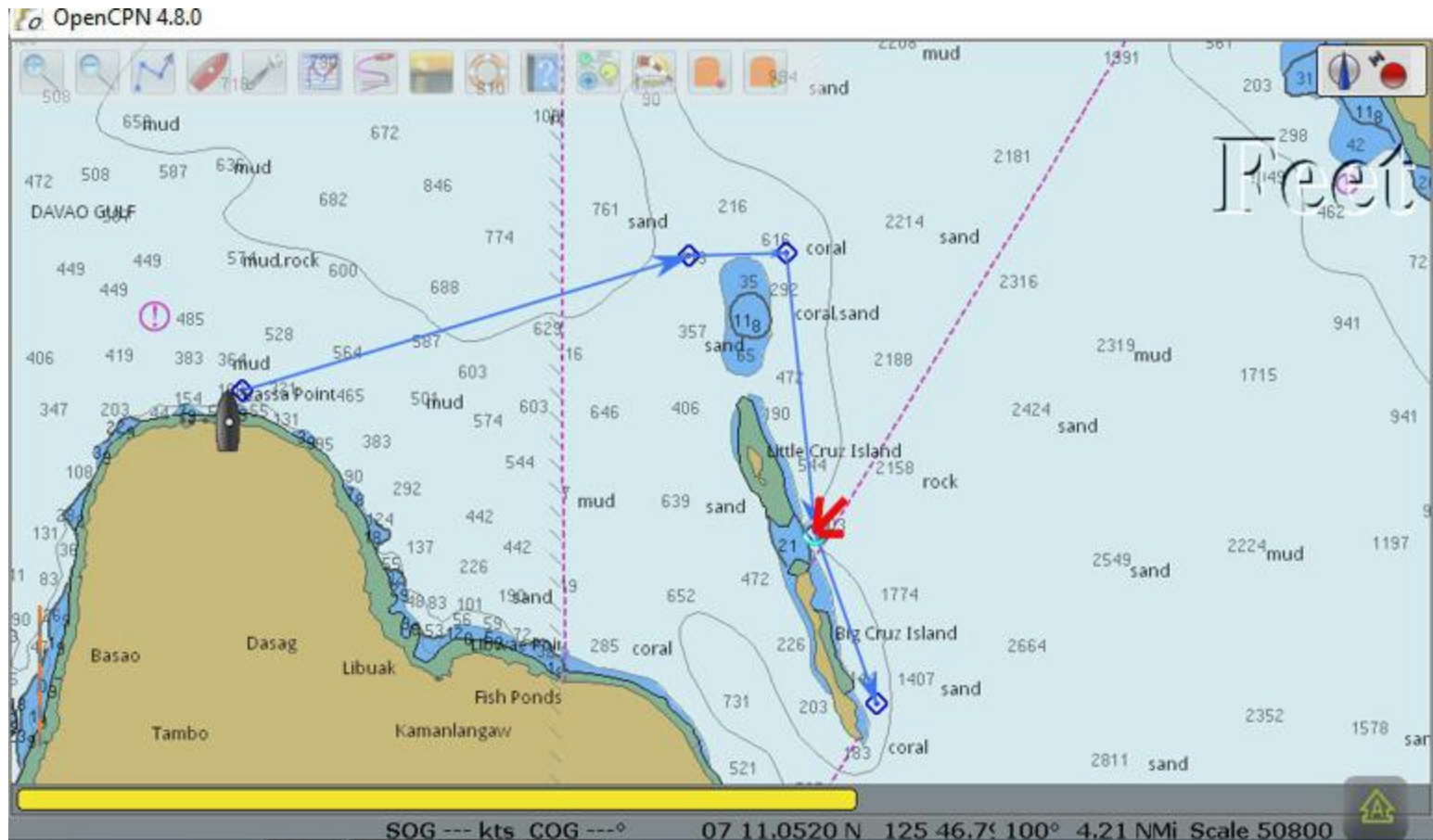
To make changes to a route, right-click on the route and click on 'Insert waypoint'



# ROUTES

## Change a Route

Place the cursor on the newly created waypoint and move it to the desired location (But .....)



# ROUTES

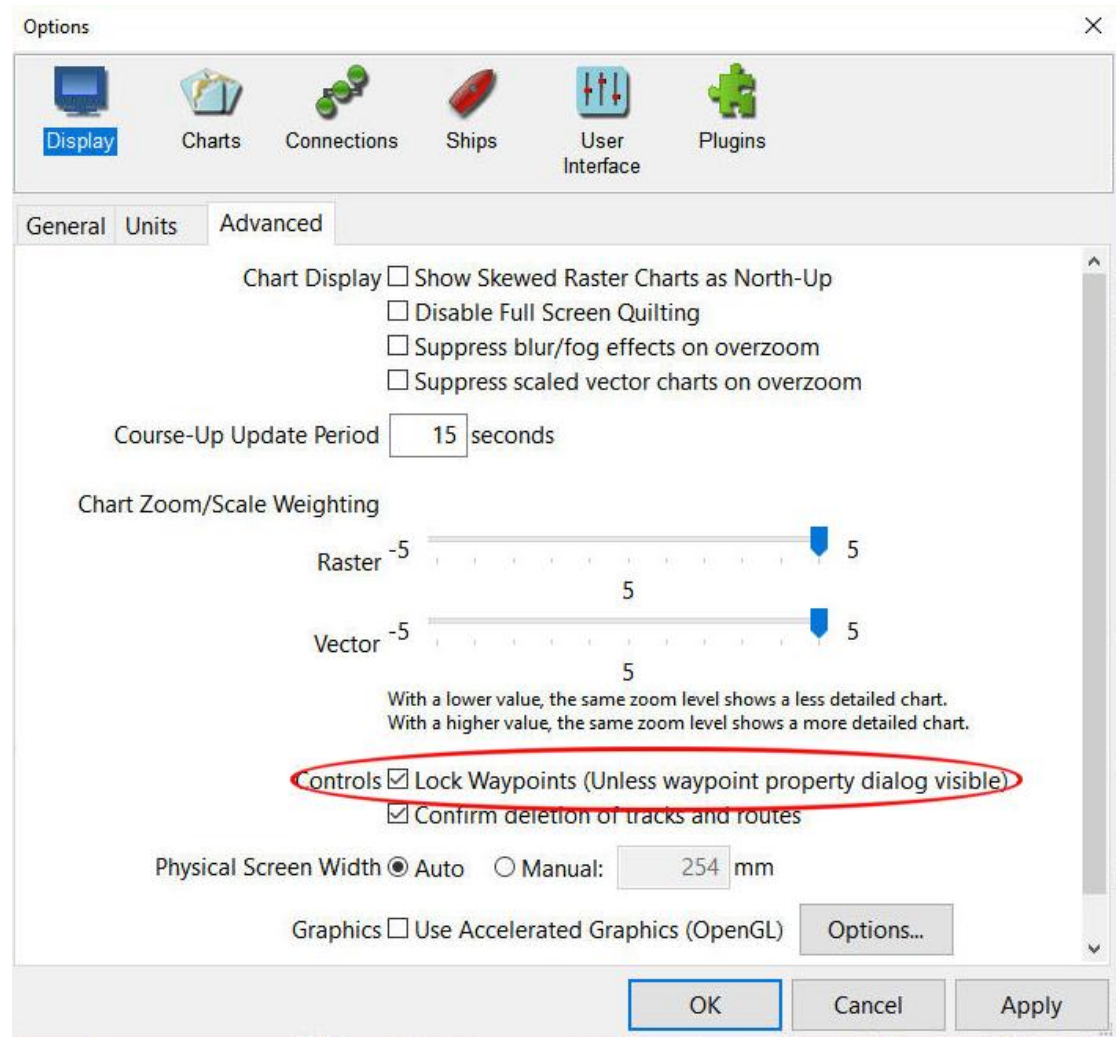
## Change a Route

It may happen that you cannot move a waypoint on the newly created route.

This is because all waypoints have been 'LOCKED'

Go to 'Options/Display/Advanced' AND **UNCHECK** the box 'Lock Waypoints...'

(More discussion on this later)



# ROUTES

## Change a Route

Displaying the 'Route Properties' shows the changes to the route. Longer distance and the new waypoint that was added.

Route Properties

Properties

Name  
SAMPLE ROUTE

Depart From  Destination

Total distance  Plan speed  Time enroute  Departure Time (m/d/y h:m)

Time shown as  
 UTC  Local @ PC  LMT @ Location

Color:  Style:  Width:

Waypoints

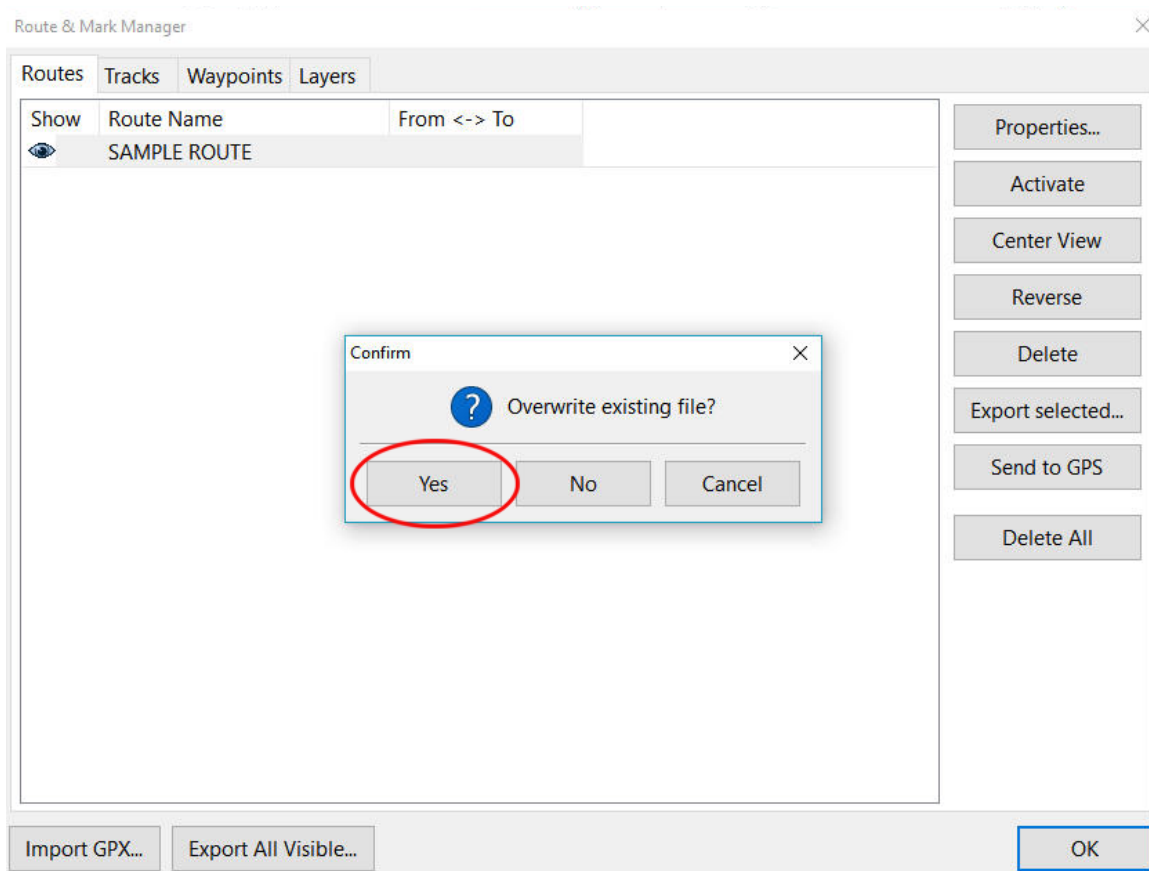
L.	To Waypoint	Distance	Bearing	Latitude	Longitude	ETE	Speed	Next tide e...	Description	Co
---	001	0.58 NMi	048 Deg. T	07 12.2 N	125 43.1 E	Start	6.00			072
1	002	2.95 NMi	072 Deg. T	07 13.1 N	125 45.9 E	00 H 29 M	6.00			091
2	003	0.80 NMi	091 Deg. T	07 13.1 N	125 46.7 E	00 H 37 M	6.00			186
3	NM001	1.06 NMi	186 Deg. T	07 12.1 N	125 46.6 E	00 H 48 M	6.00			161
4	004	2.56 NMi	161 Deg. T	07 09.6 N	125 47.4 E	01 H 13 M	6.00			



# ROUTES

## Change a Route

The route was saved previously and does not contain the newly created information. From the 'Route & Mark Manager' export the route again letting it overwrite the old route.

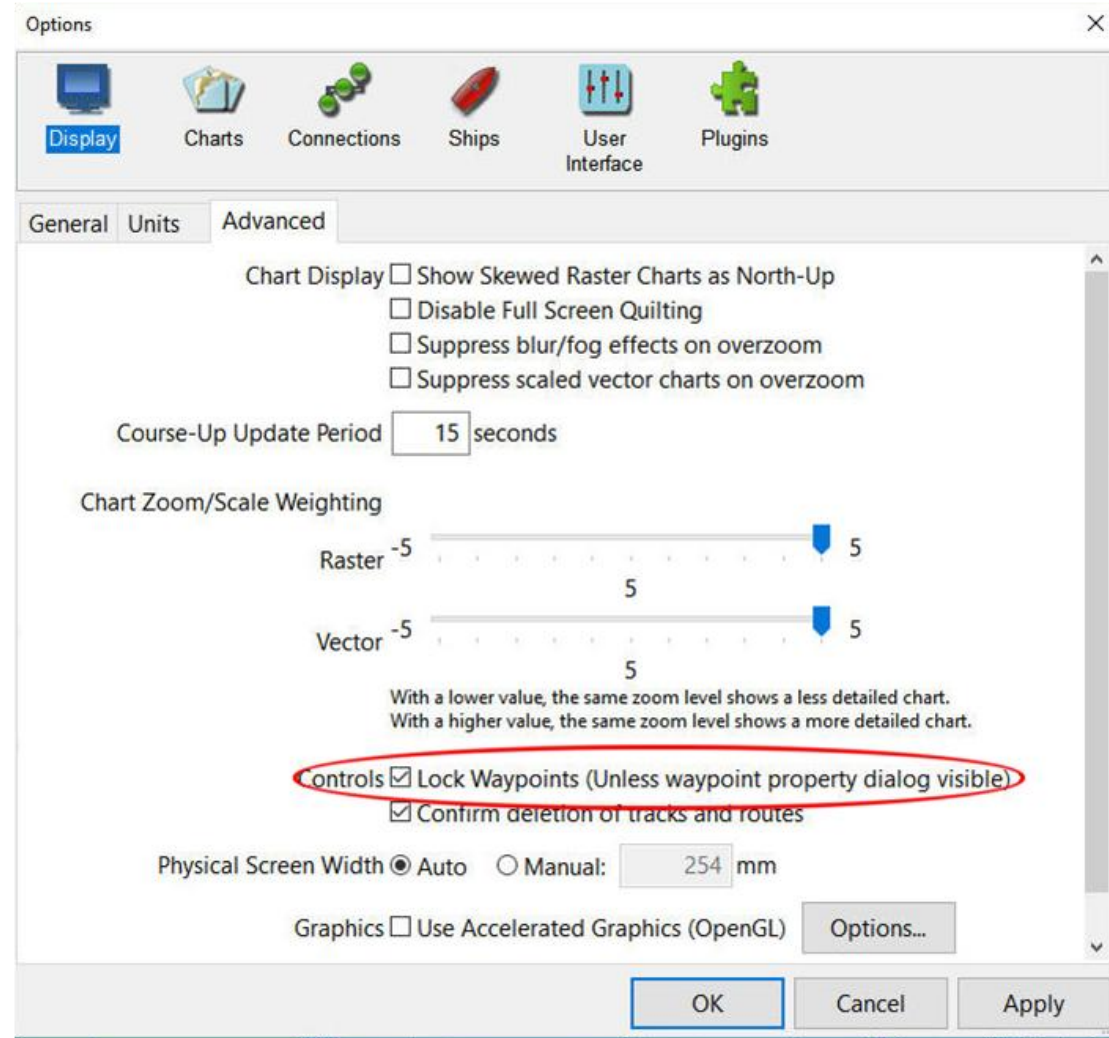


# LOCK WAYPOINTS

Earlier we saw how to lock or unlock waypoints using the 'Options/Advanced' page.

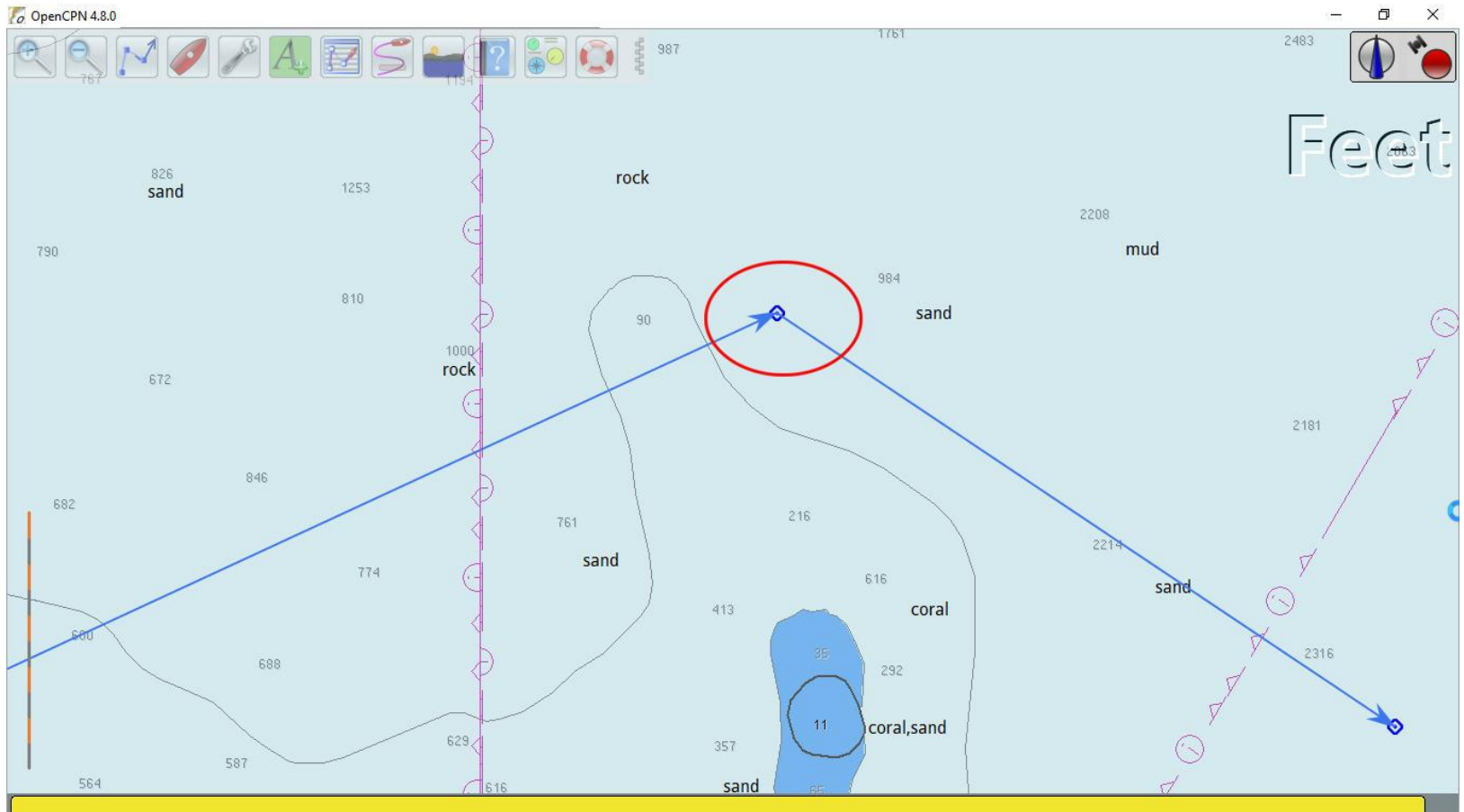
The rationale for keeping waypoints locked is to avoid the accidental change of a waypoint location while underway and following a route. (A 'finger fart')

And alternative exists to allow a waypoint to be temporarily unlocked and moved.



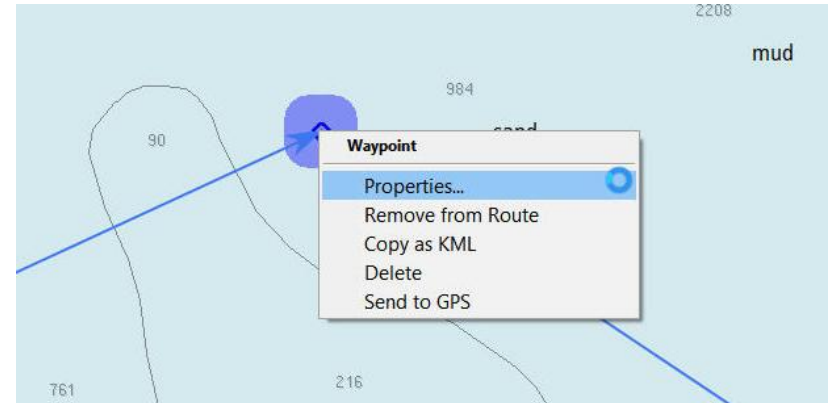
# LOCK WAYPOINTS

Here is a waypoint in a route I want to move. With the waypoints locked I cannot click and drag it.

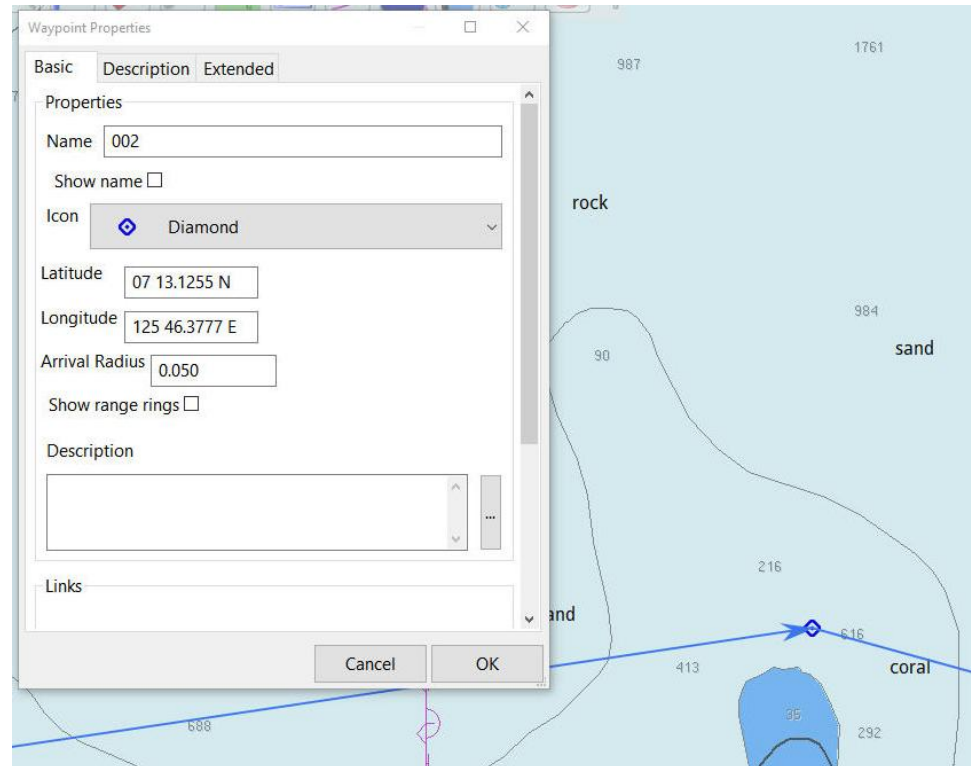


# LOCK WAYPOINTS

Right-click on the waypoint and select 'Properties'.



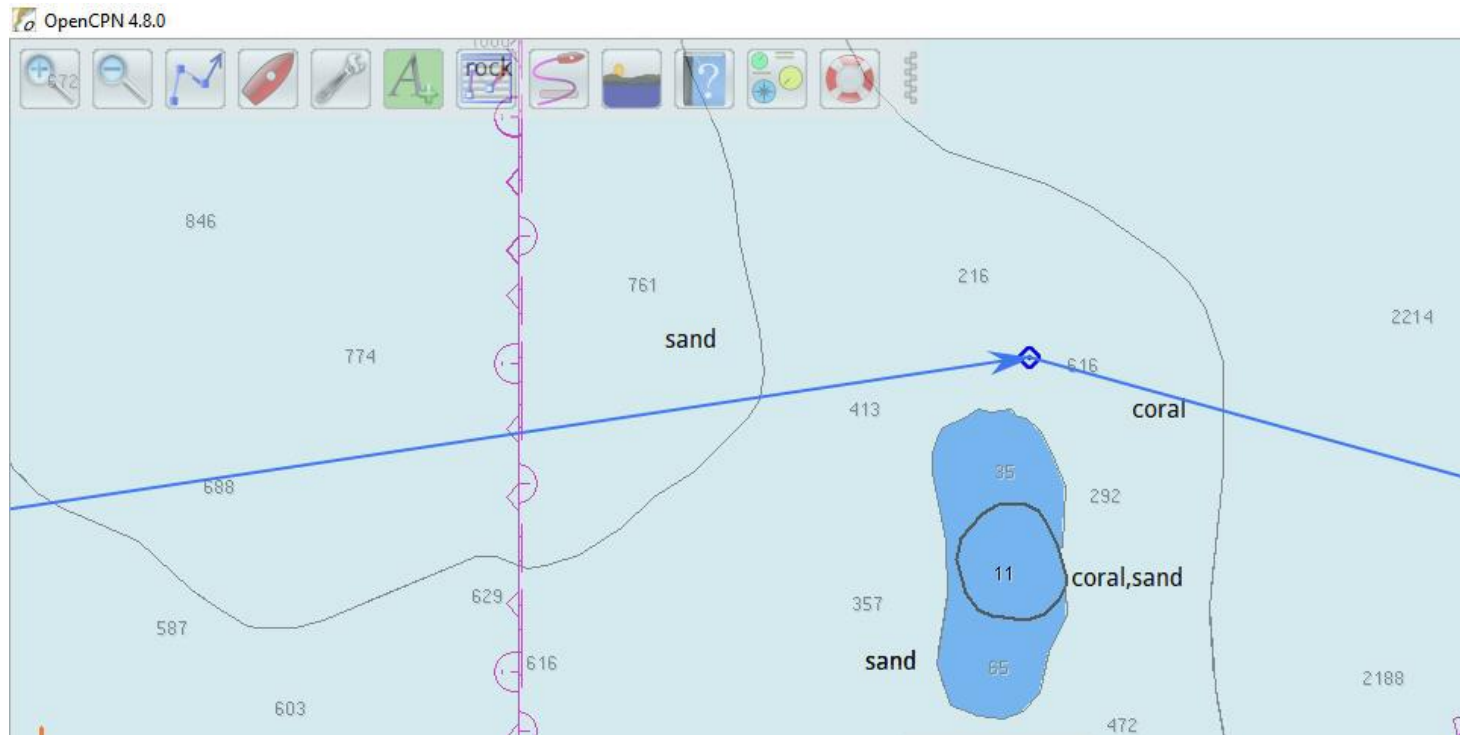
While the waypoint 'Properties' dialog screen is open the waypoint can now be moved.



# LOCK WAYPOINTS

Closing the 'Properties' dialog again locks the waypoint in the new position.

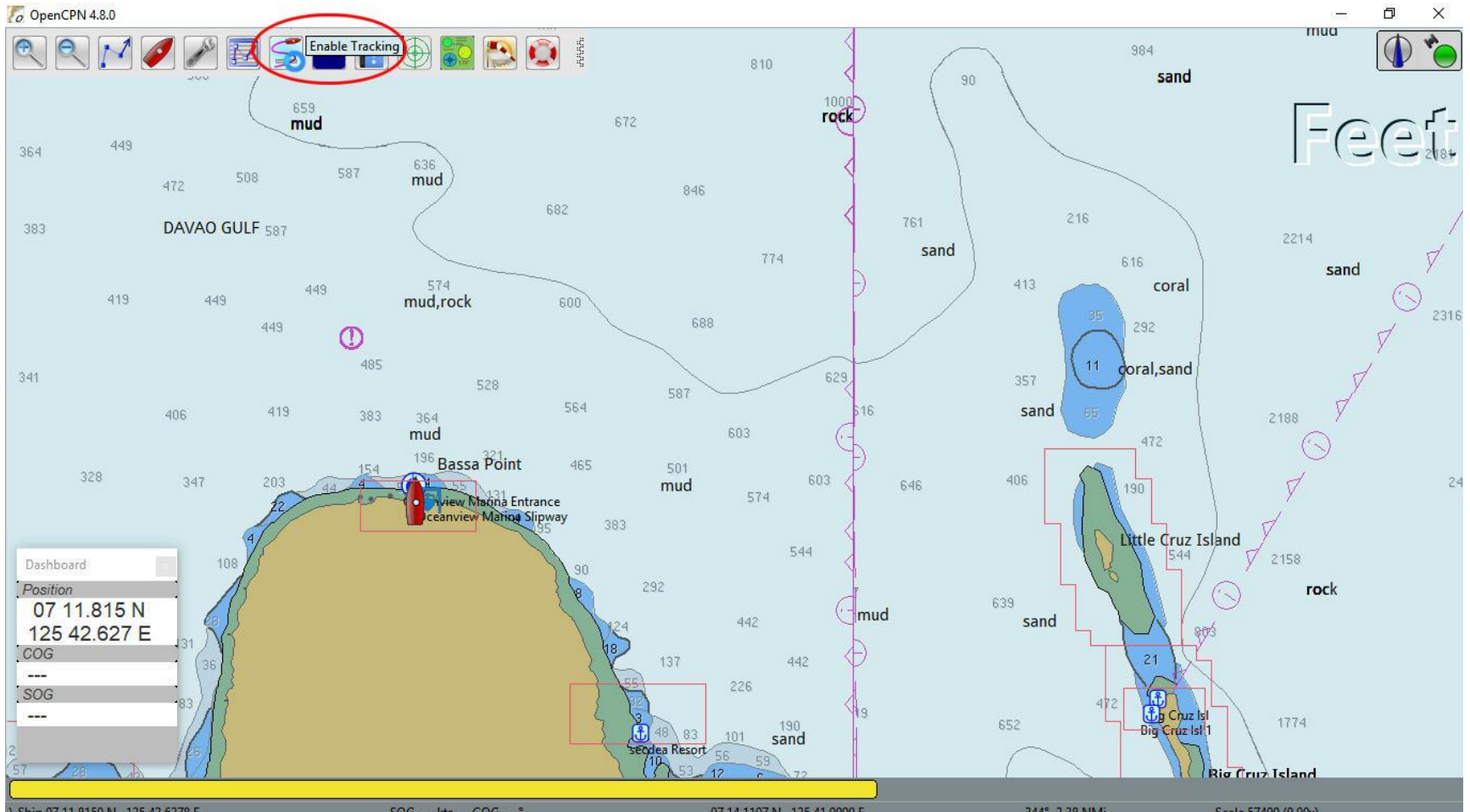
**REMEMBER TO 'Save' THIS CHANGED ROUTE!**



# TRACKS

## Create a Track

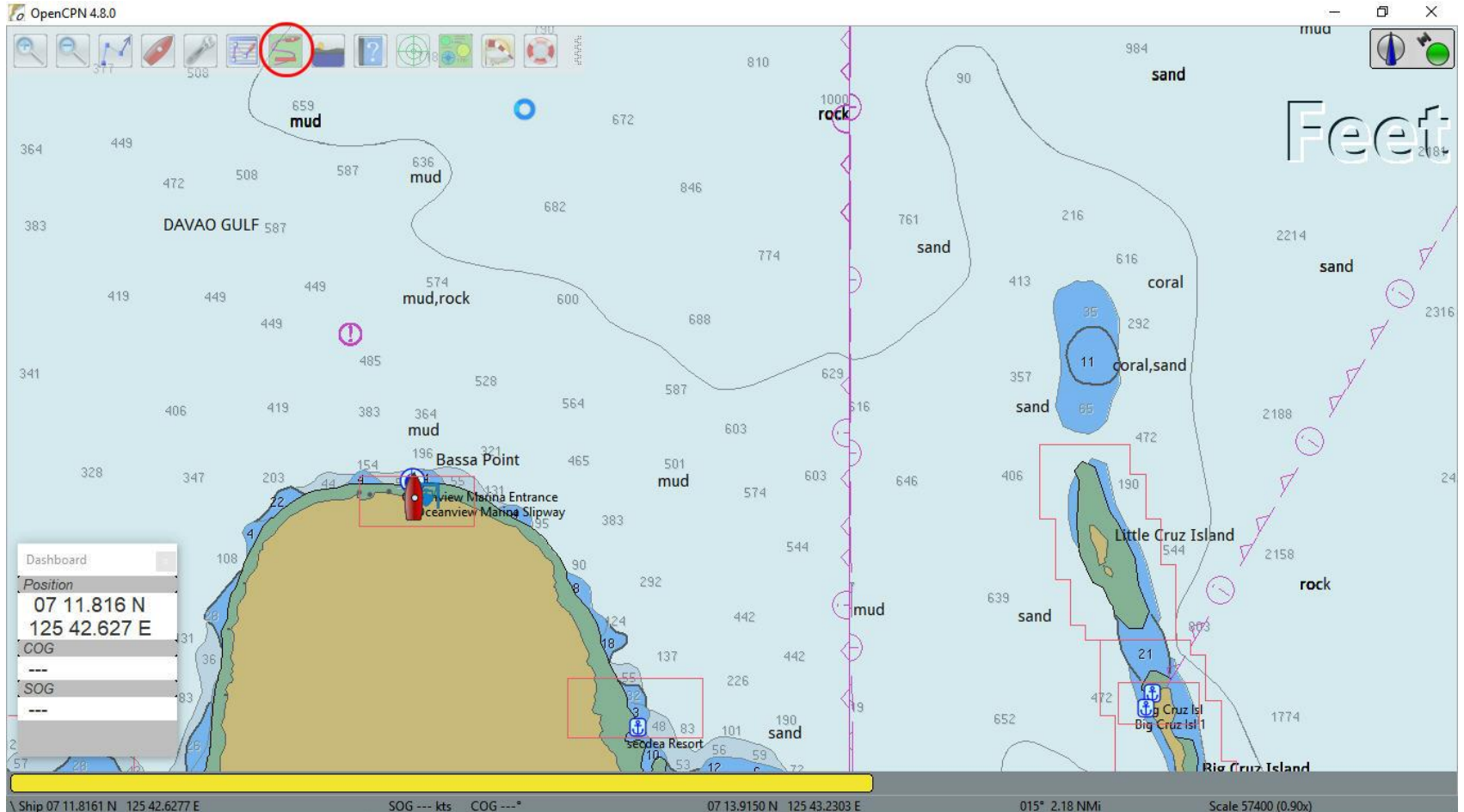
Click on the 'Enable Tracking' icon to activate displaying your track.  
Note that here I have activated the 'Dashboard' plugin as well.



# TRACKS

## Create a Track

Tracking is confirmed by the icon becoming shaded.

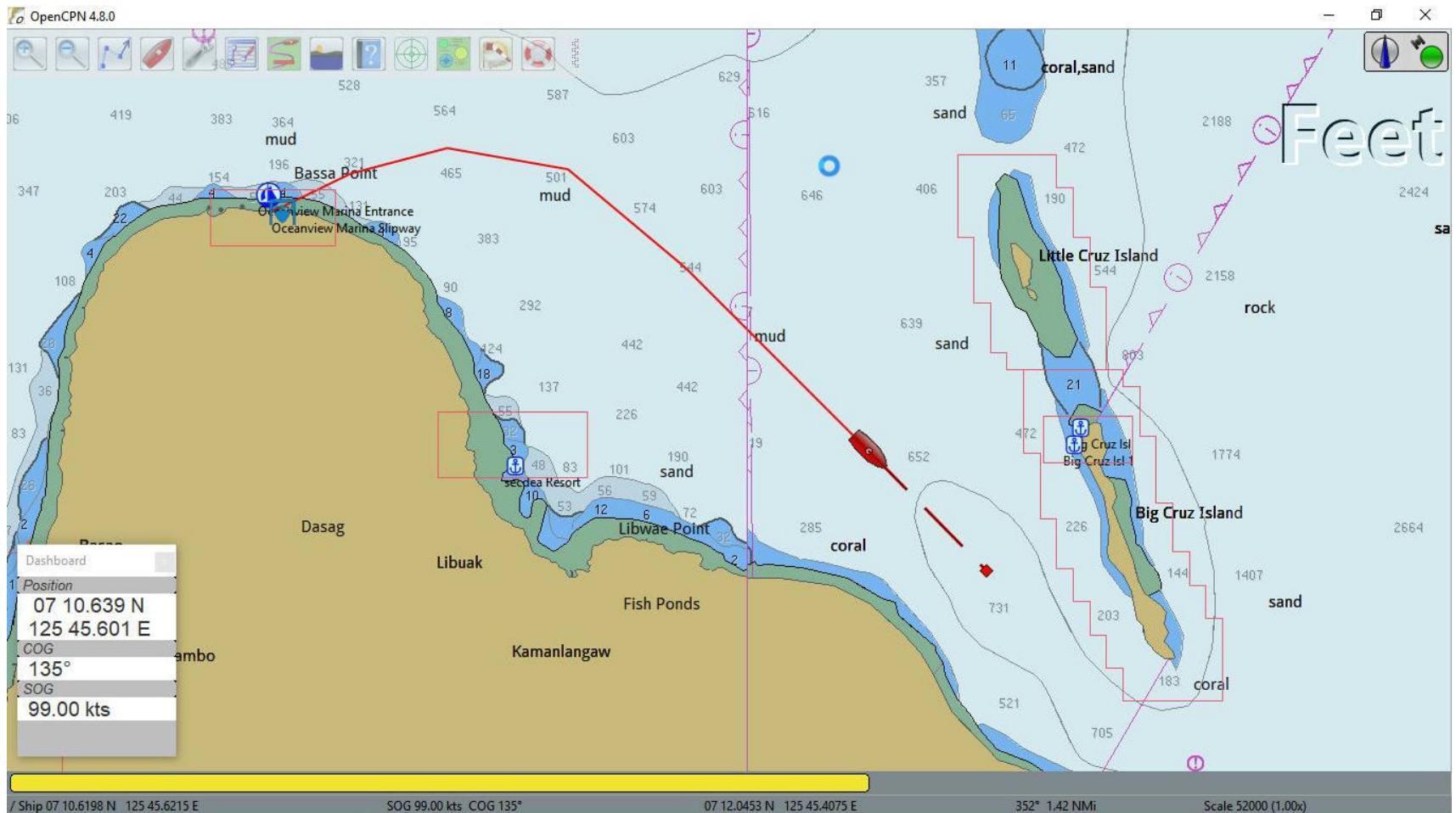


# TRACKS

## Create a Track

The vessel's track is displayed.

(No, my boat wasn't doing 99 knots .. I used GPS simulation to save time ☺)

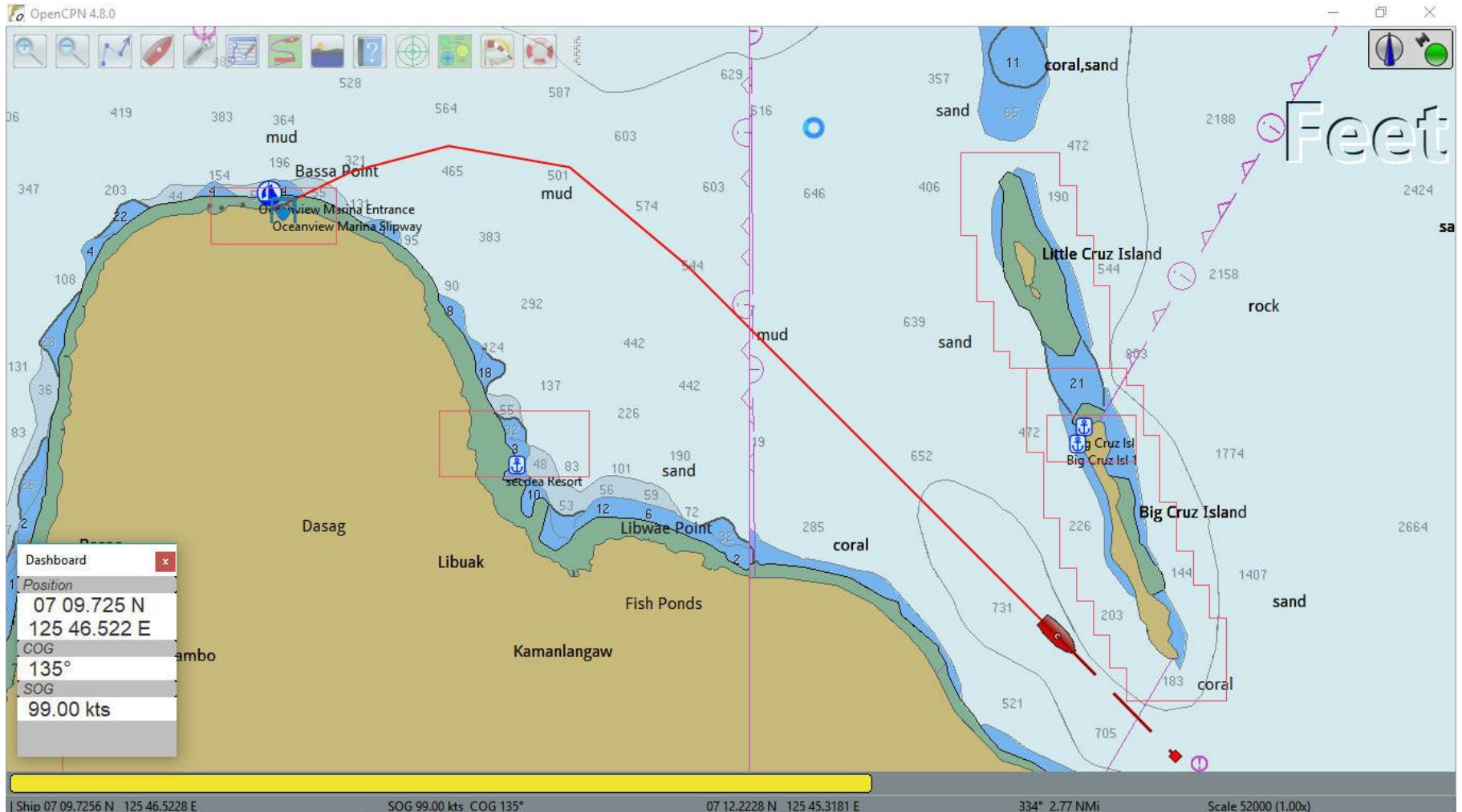




# TRACKS

## Create a Track

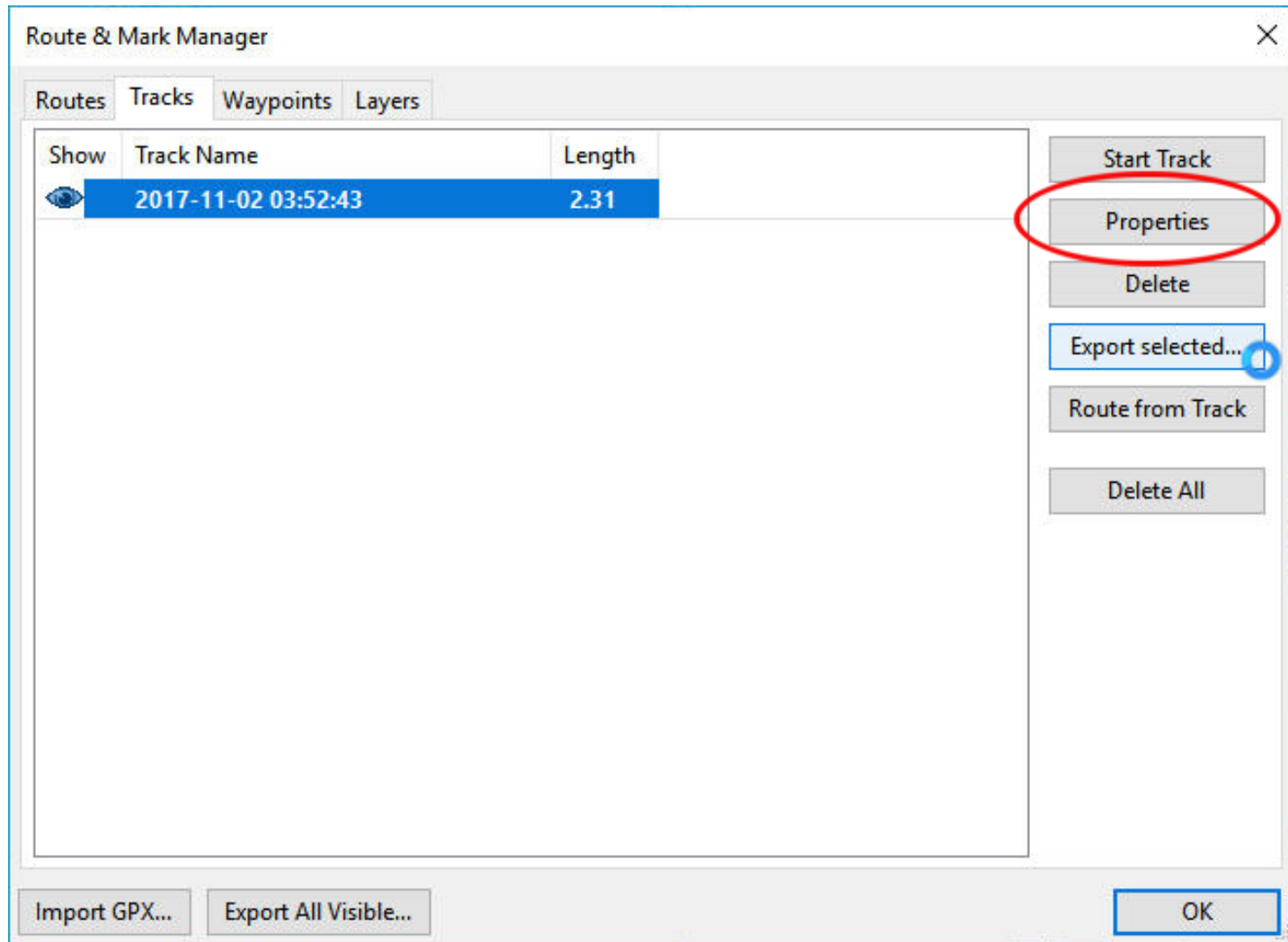
The simulation is stopped here to describe saving the track.



# TRACKS

## Save a Track

In the 'Route & Mark Manager' highlight the track and click on 'Properties'



# TRACKS

## Save a Track

Give the track a name (in this case 'SAMPLE TRACK') then click on 'OK'

Track properties

Basic Advanced

Name **SAMPLE TRACK**

From To

Display parameters

Show on chart Color Default color Style Default Width Default

Statistics

Total distance 4.86 NMi Avg. speed 11.89 Time enroute 00:24

Recorded points

Leg	Distance	Bearing	Latitude	Longitude	Timestamp	Speed
---	0.00 NMi	174 °T	07 11.8138...	125 42.627...	11/02/2017 11:...	--
1	0.44 NMi	064 °T	07 12.0071...	125 43.026...	11/02/2017 11:...	199.38
2	0.50 NMi	075 °T	07 12.1351...	125 43.508...	11/02/2017 11:...	99.52
3	0.61 NMi	100 °T	07 12.0300...	125 44.108...	11/02/2017 11:...	99.58
4	0.72 NMi	130 °T	07 11.5706...	125 44.659...	11/02/2017 11:...	95.63
5	0.06 NMi	132 °T	07 11.5335...	125 44.700...	11/02/2017 11:...	99.19
6	2.57 NMi	135 °T	07 09 7256	125 46 522	11/02/2017 12-	6.62

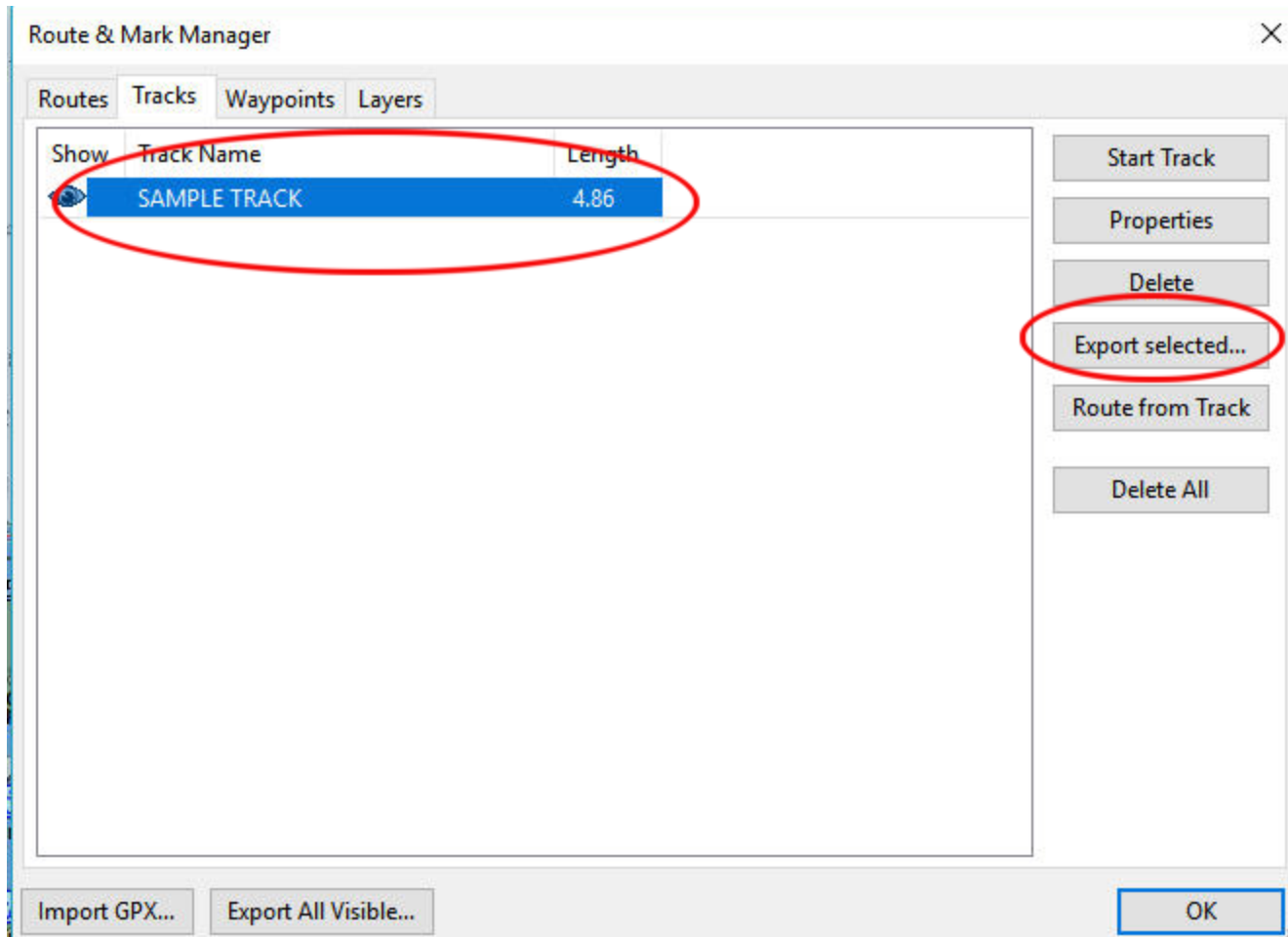
Print Split Extend Route To route Export

Cancel **OK**

# TRACKS

## Save a Track

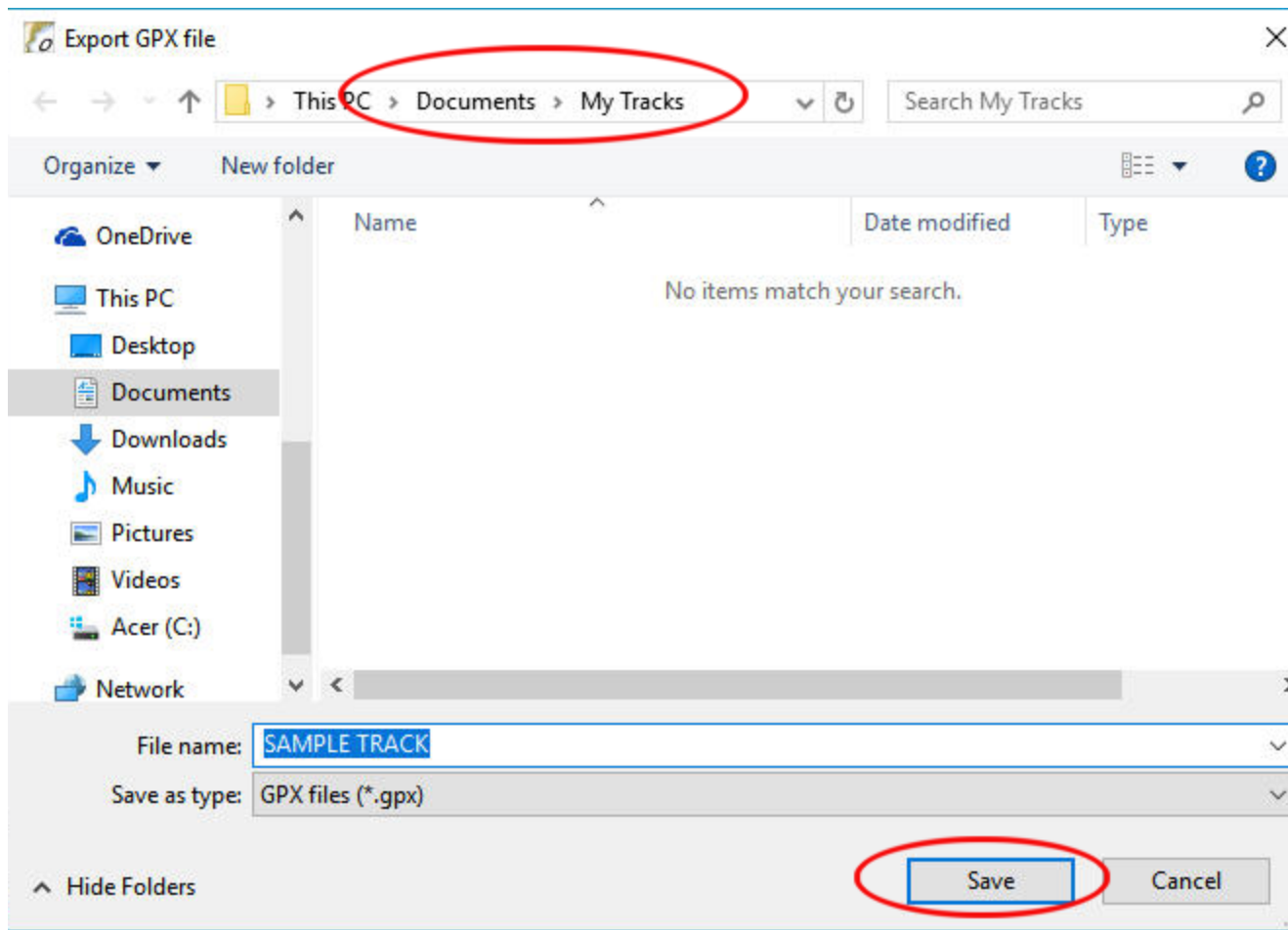
Select the named track and click on 'Export selected ...':



# TRACKS

## Save a Track

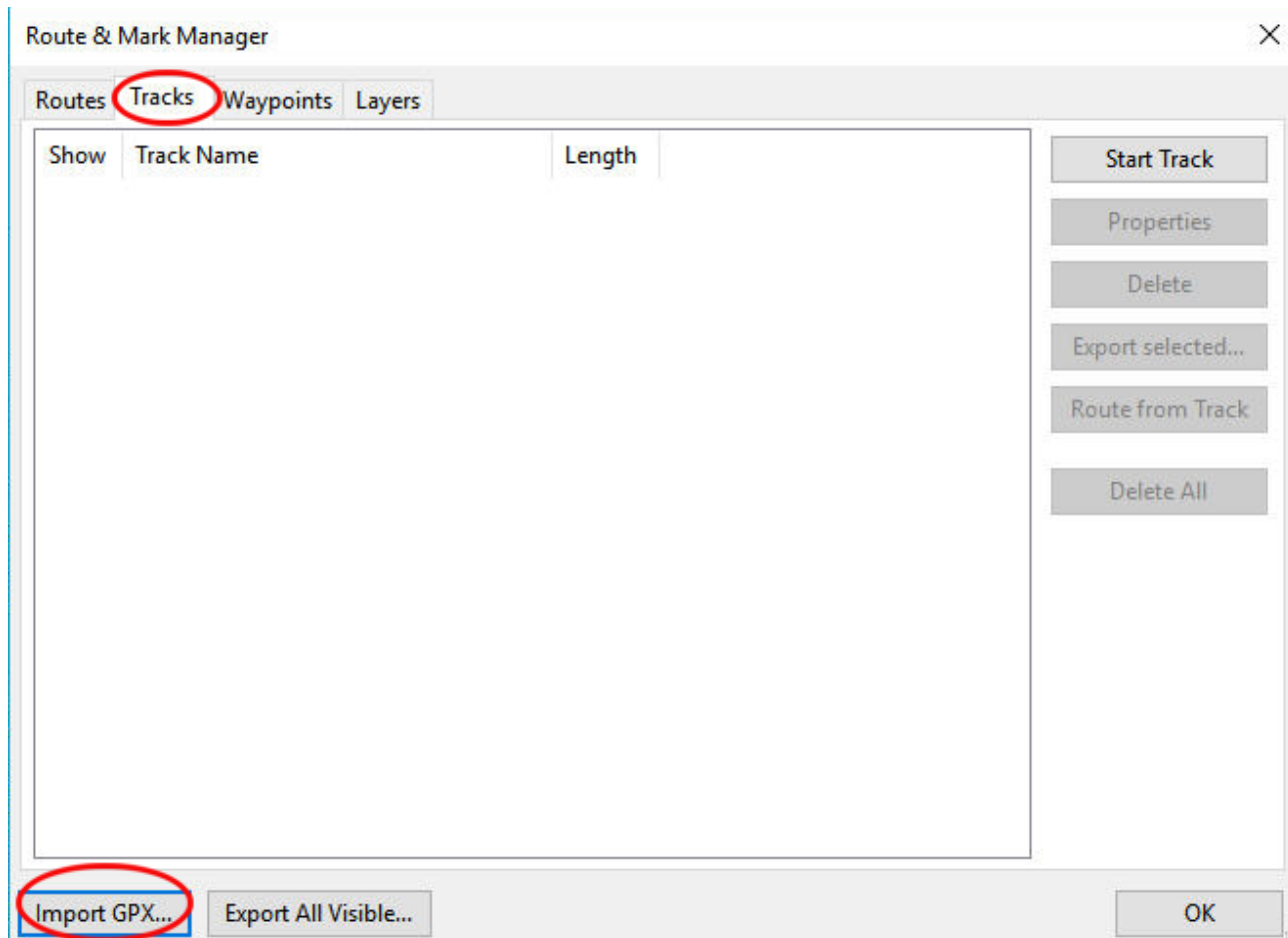
Navigate to where you save your tracks and click on 'Save'. The track is now saved on the hard drive for future reference.



# TRACKS

## Display a Saved Track

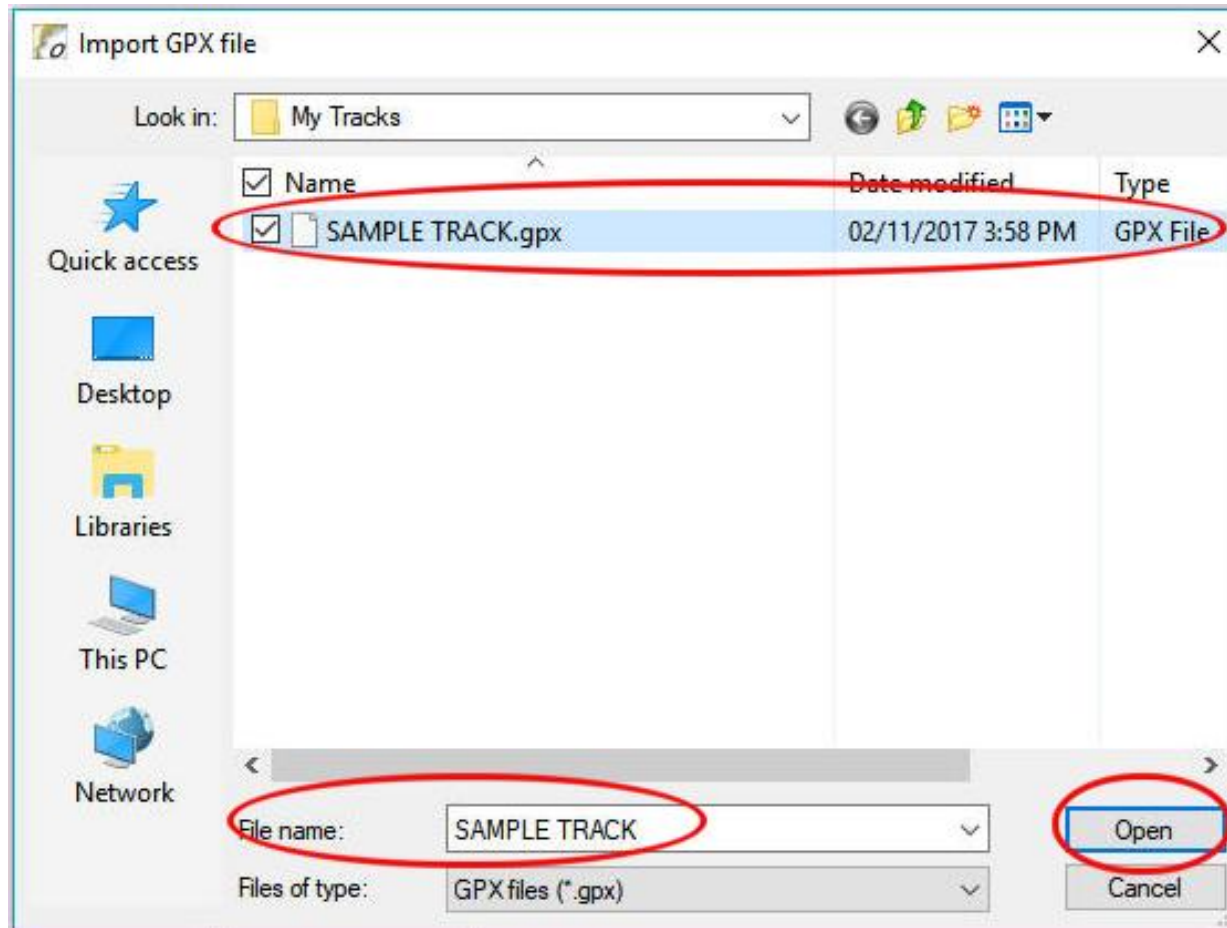
To display a saved track, in 'Route & Mark Manager ' select the 'Tracks' tab and click on 'Import GPX ...'



# TRACKS

## Display a Saved Track

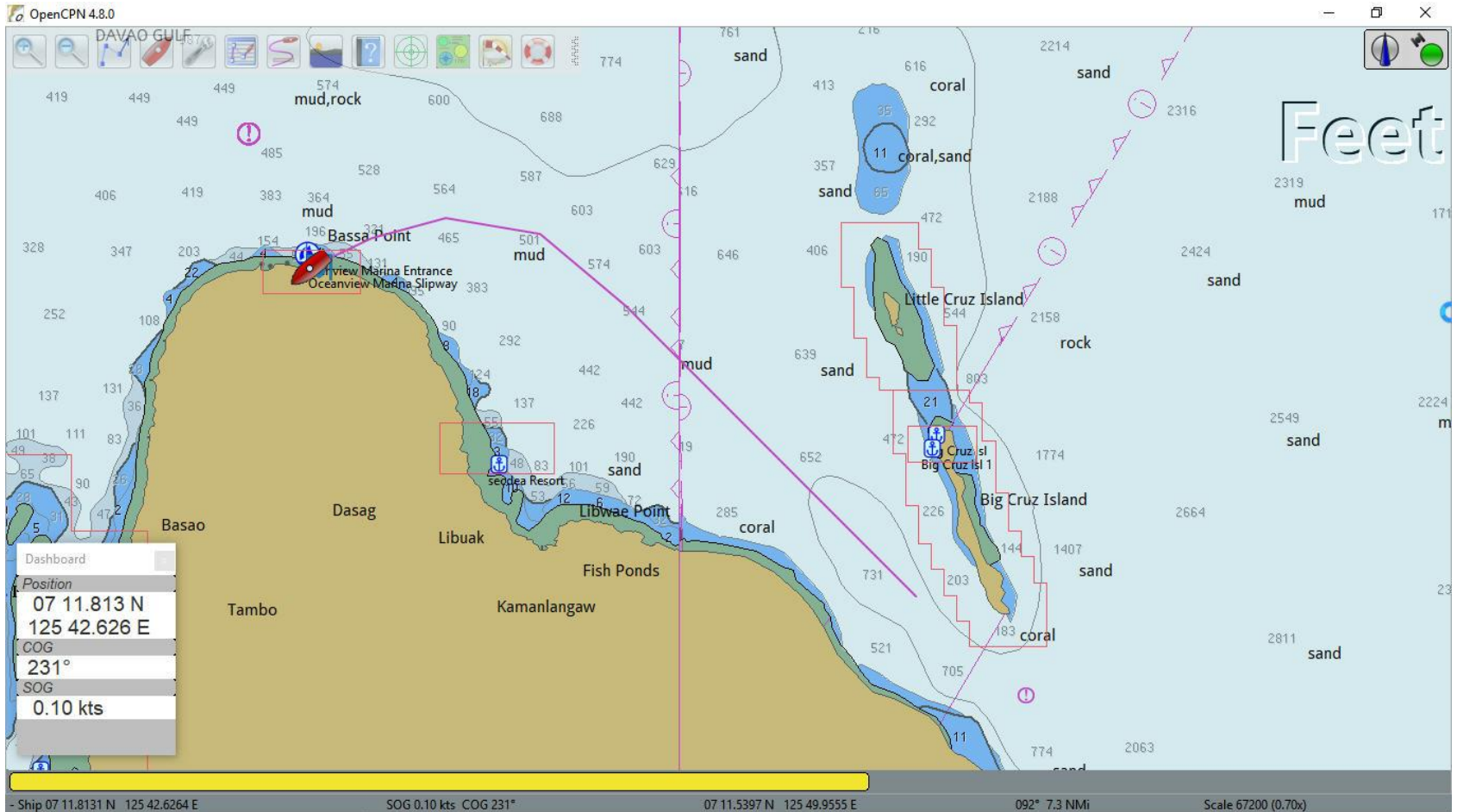
Navigate to your saved tracks, select the desired one (which fills in the 'File name box) and click on 'Open'.



# TRACKS

## Display a Saved Track

The track is displayed again on the chart.

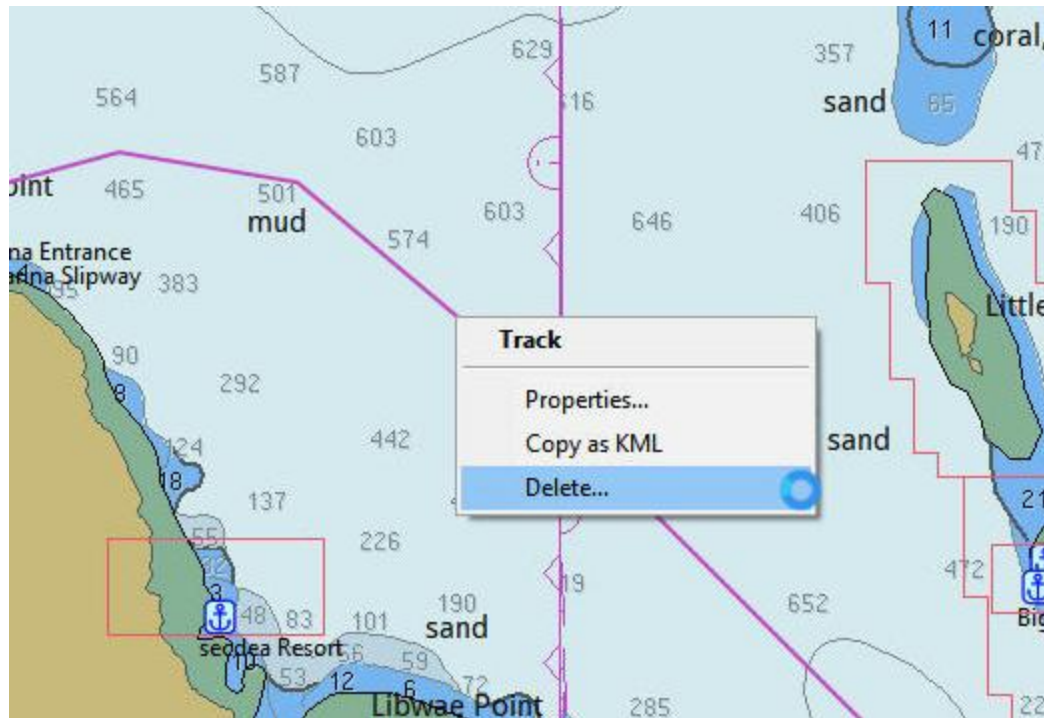




# TRACKS

## Display a Saved Track

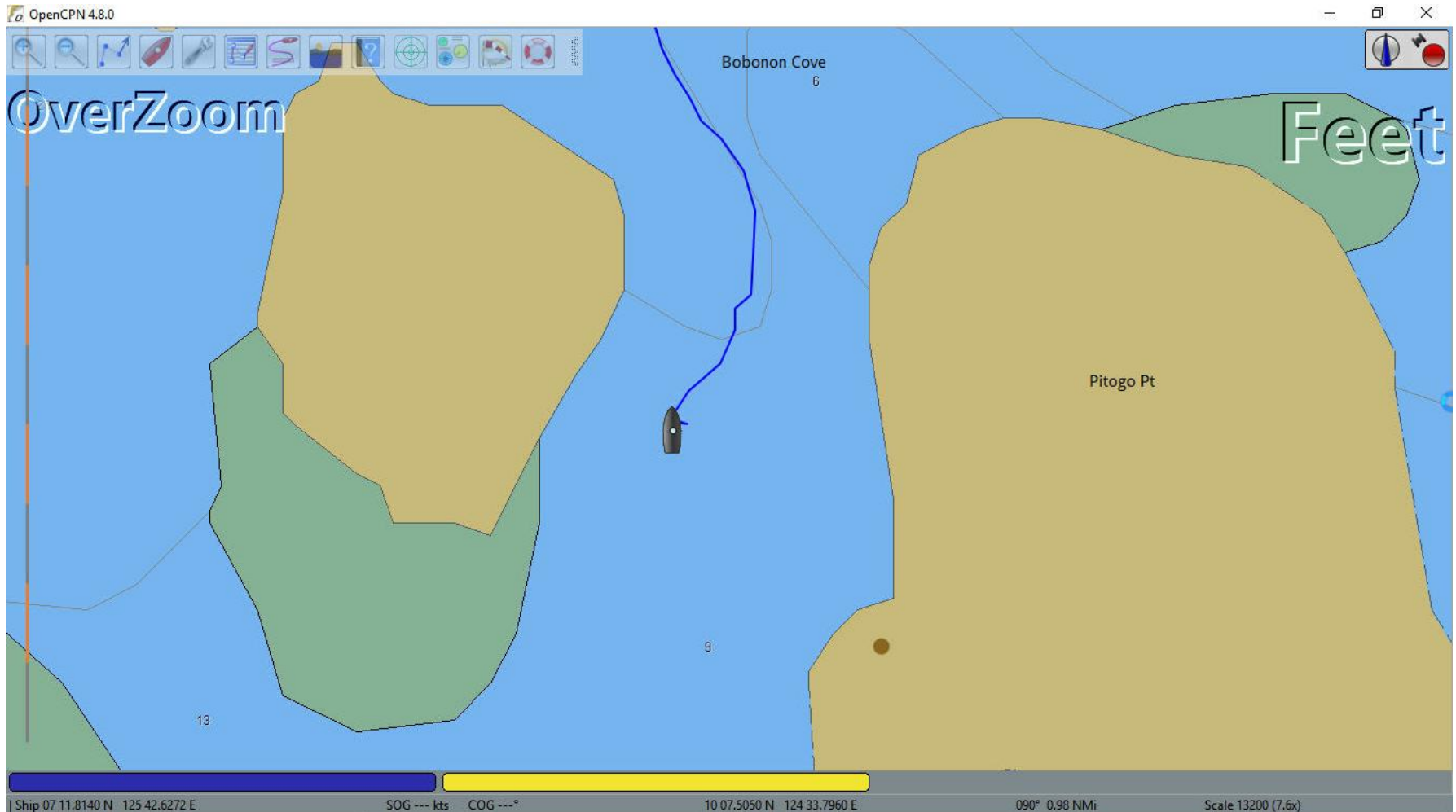
You can delete the track from the screen using the 'Route & Mark Manager' or by right-clicking on the track and selecting 'Delete'.



# ANCHORAGES

## Save an Anchorage Location

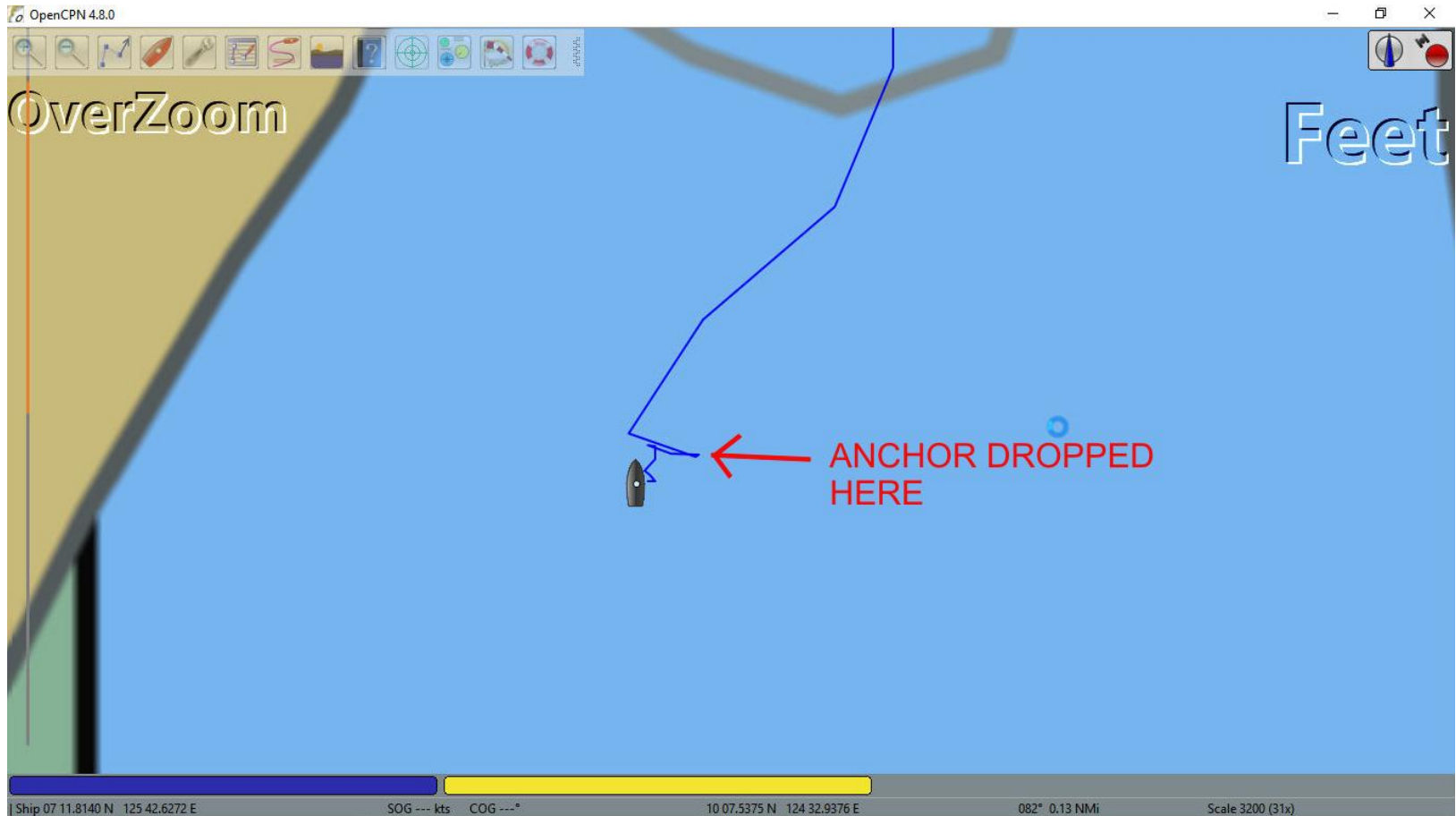
Shown below is the arrival at an anchorage. I want to save this location for future reference.



# ANCHORAGES

## Save an Anchorage Location

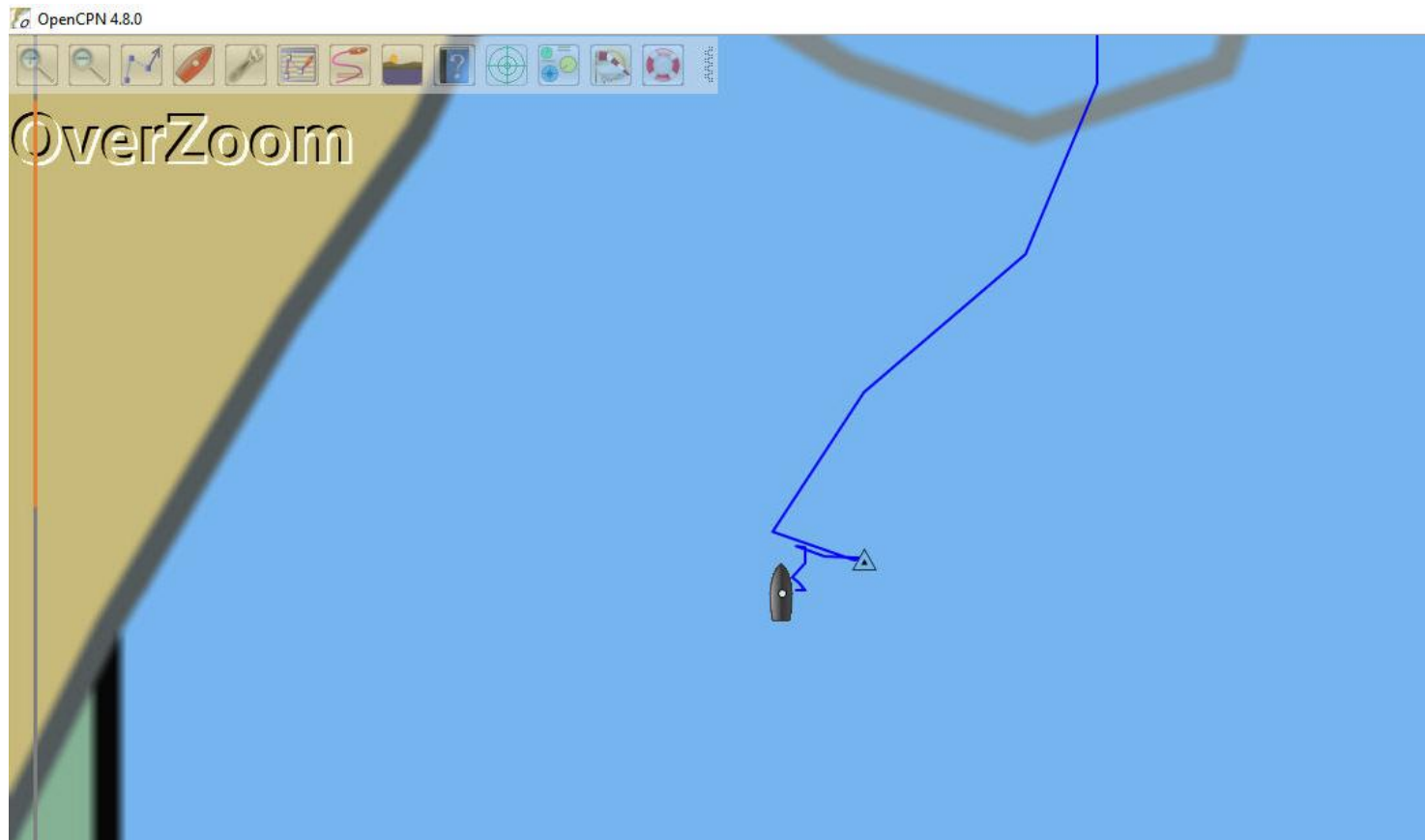
Zoom in to show where the anchor was dropped.



# ANCHORAGES

## Save an Anchorage Location

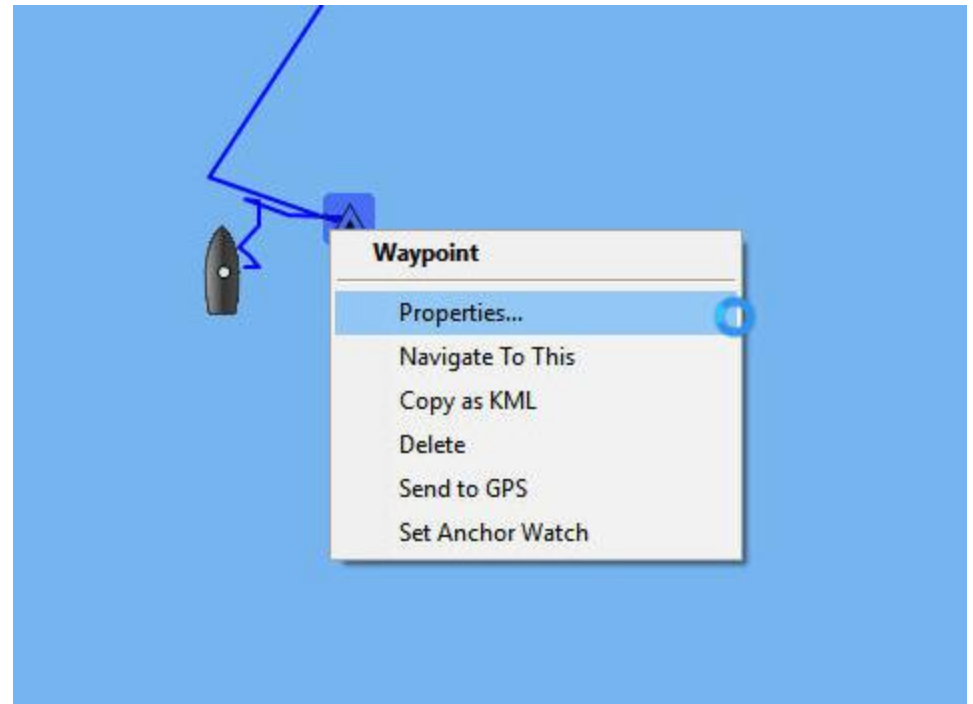
Right-click at the anchor location and click on 'Drop Mark' or use 'Ctl-M'.  
A small triangle appears at the selected point.



# ANCHORAGES

## Save an Anchorage Location

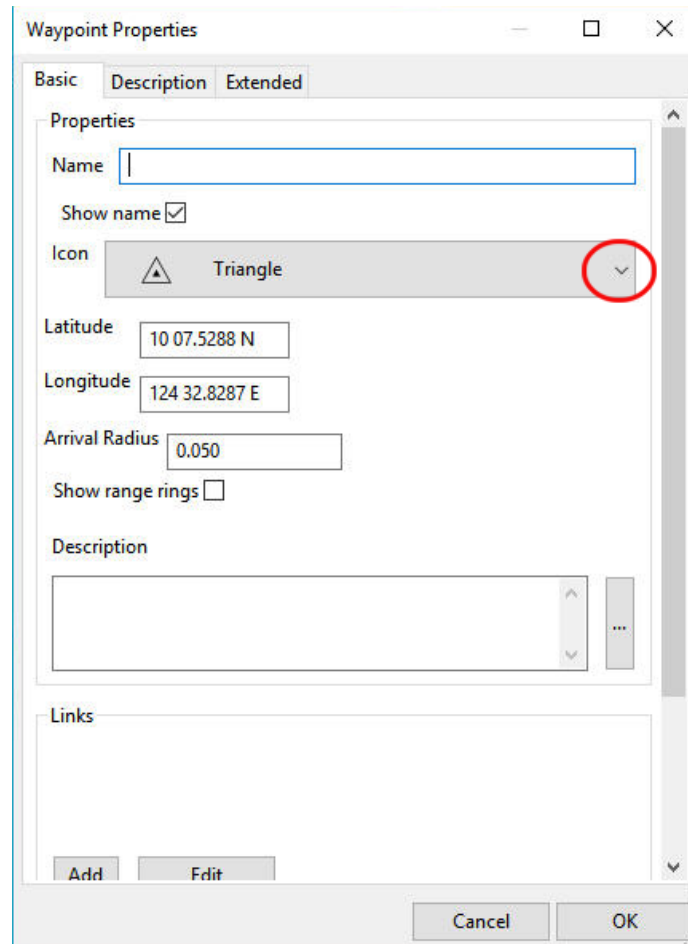
Right-click on the mark (triangle) and click on 'Properties'



# ANCHORAGES

## Save an Anchorage Location

In addition to being hard to see the small triangle, a host of icons are available for marks that are easier to see and provide a better description. To view the available icons click on the elevator.



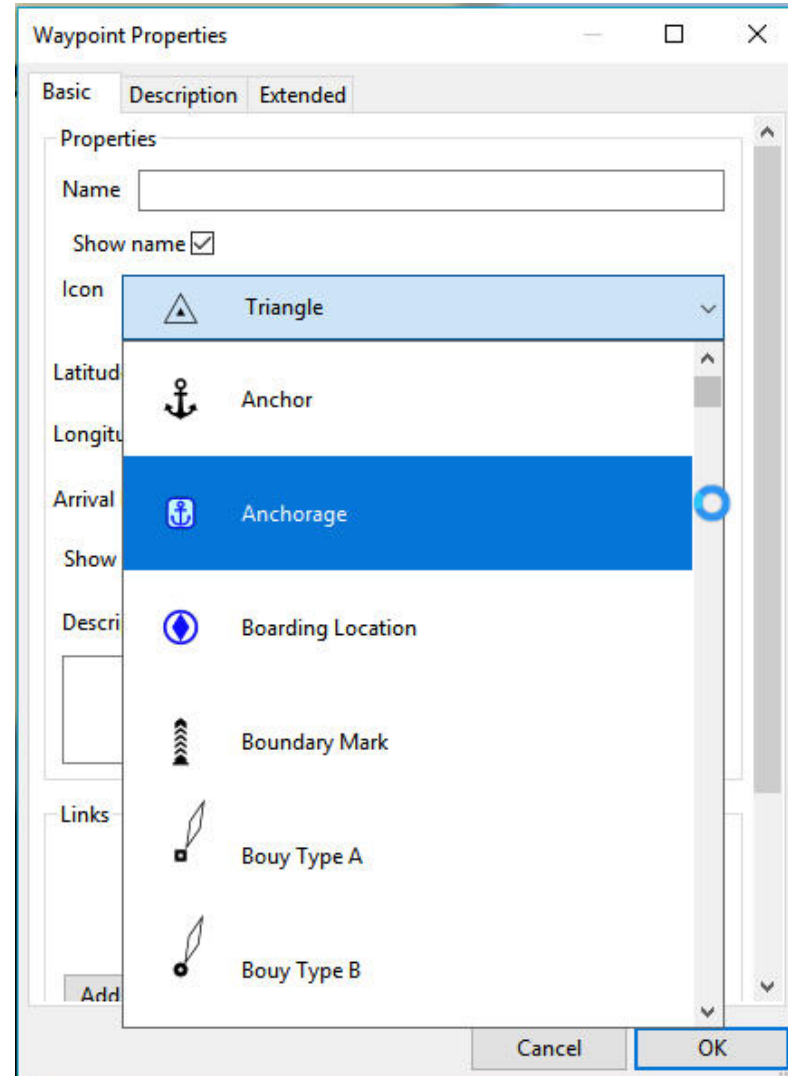
The image shows a screenshot of the "Waypoint Properties" dialog box. The dialog has three tabs: "Basic", "Description", and "Extended". The "Basic" tab is selected. Under the "Properties" section, there is a "Name" text box, a "Show name" checkbox (checked), and an "Icon" dropdown menu. The dropdown menu is open, showing a triangle icon and the text "Triangle". A red circle highlights the downward arrow of the dropdown menu. Below the "Icon" dropdown are fields for "Latitude" (10 07.5288 N), "Longitude" (124 32.8287 E), and "Arrival Radius" (0.050). There is also a "Show range rings" checkbox (unchecked). Below these fields is a "Description" text area with a scroll bar and a "..." button. At the bottom of the dialog are "Add" and "Edit" buttons, and at the very bottom are "Cancel" and "OK" buttons.

# ANCHORAGES

## Save an Anchorage Location

Since this is an anchorage select the 'Anchorage' icon.

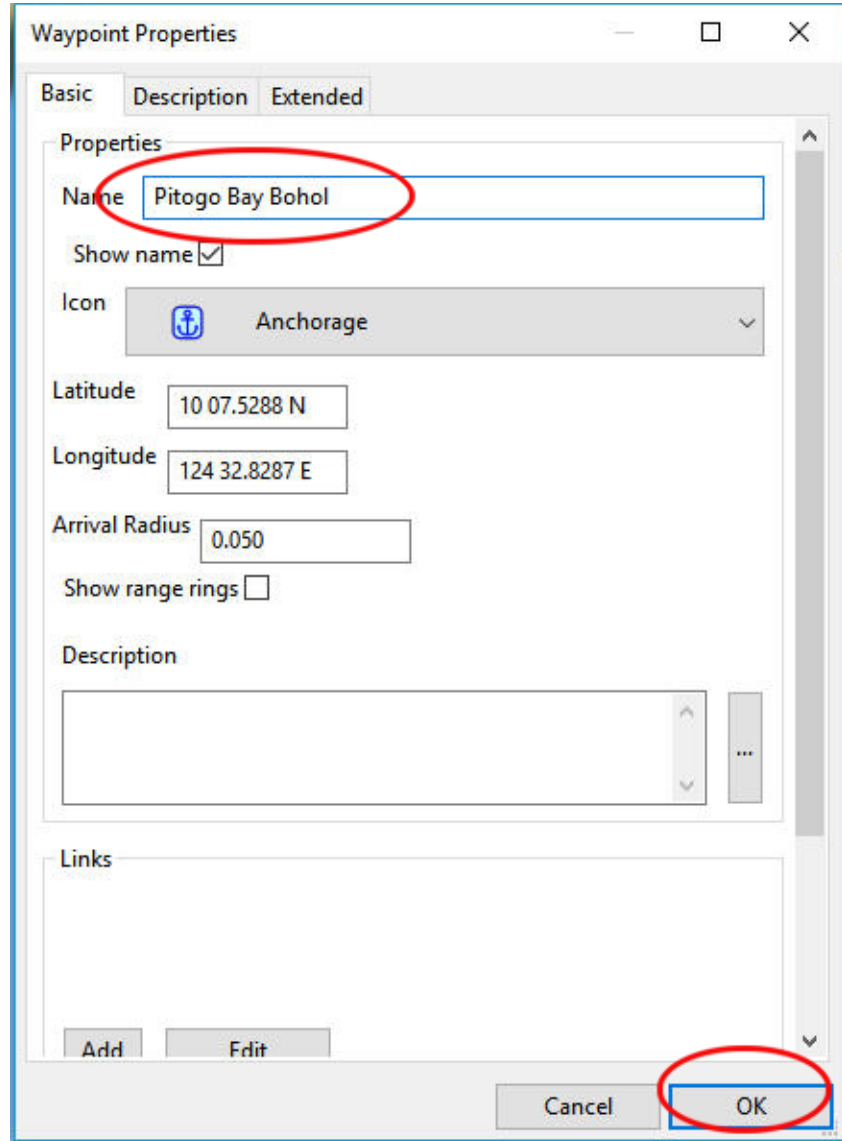
It's also a good idea to give the anchorage location a name.



# ANCHORAGES

## Save an Anchorage Location

Here I have entered a name to something easy to recognize in the future. When done click on 'OK'



The image shows a screenshot of the 'Waypoint Properties' dialog box, which is used for configuring waypoints in a navigation software. The dialog has three tabs: 'Basic', 'Description', and 'Extended'. The 'Basic' tab is currently selected. The 'Properties' section contains the following fields and controls:

- Name:** A text input field containing 'Pitogo Bay Bohol', which is circled in red.
- Show name:** A checked checkbox.
- Icon:** A dropdown menu showing an anchor icon and the text 'Anchorage'.
- Latitude:** A text input field containing '10 07.5288 N'.
- Longitude:** A text input field containing '124 32.8287 E'.
- Arrival Radius:** A text input field containing '0.050'.
- Show range rings:** An unchecked checkbox.
- Description:** A large text area with a scroll bar and a '...' button to the right.
- Links:** A large empty text area.

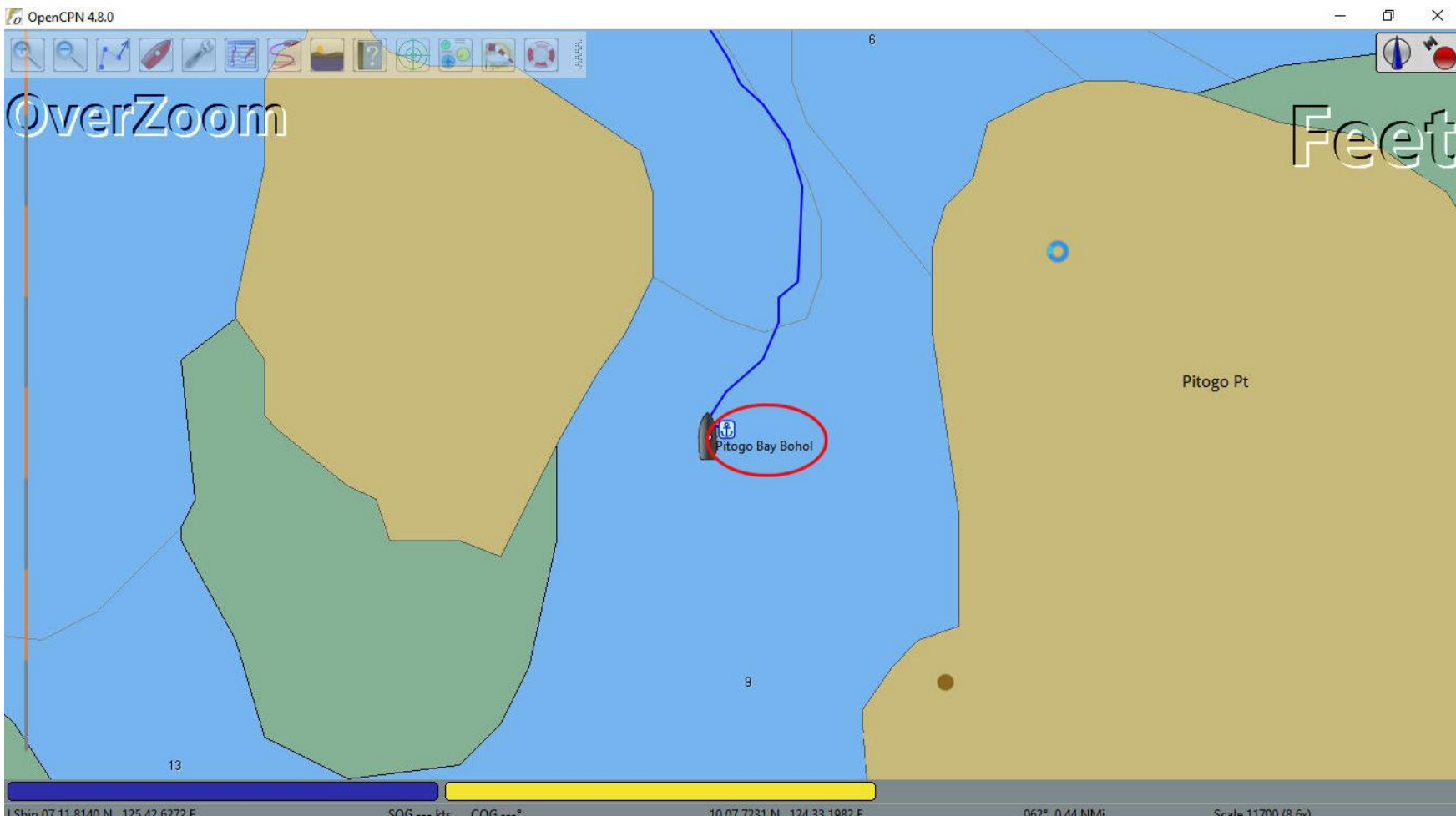
At the bottom of the dialog, there are three buttons: 'Add', 'Edit', and 'OK'. The 'OK' button is circled in red.



# ANCHORAGES

## Save an Anchorage Location

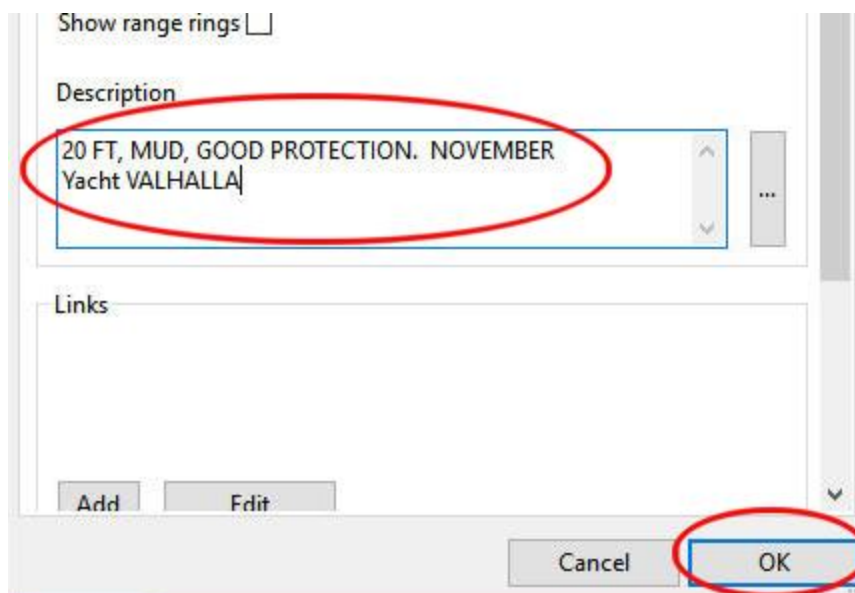
The anchorage is now created and displayed but **not saved!**



# ANCHORAGES

## Save an Anchorage Location

Prior to saving the anchorage location I suggest you add some information about it that can be useful to you in the future and also to any others you may share this information with. Go to the anchorage 'Properties' and enter the additional information in the 'Description' box.

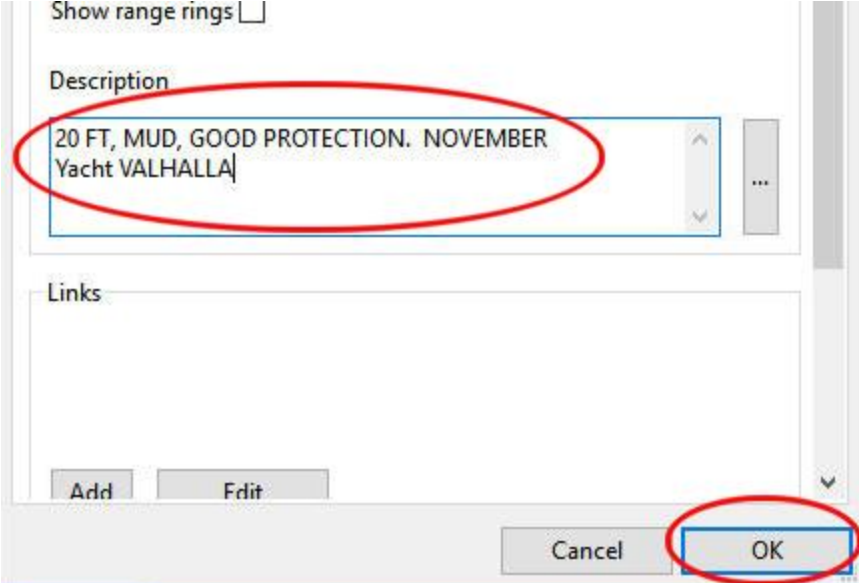


The image shows a software dialog box for editing an anchorage. At the top left, there is a checkbox labeled "Show range rings" which is currently unchecked. Below this is a section titled "Description" containing a text input field. The text in the field is "20 FT, MUD, GOOD PROTECTION. NOVEMBER Yacht VALHALLA". A red oval highlights this text field. Below the description field is a section titled "Links" which is currently empty. At the bottom of the dialog, there are three buttons: "Add", "Edit", and "OK". The "OK" button is highlighted with a red oval. The "Cancel" button is also visible to the left of the "OK" button.

# ANCHORAGES

## Save an Anchorage Location

As a minimum I suggest the depth, bottom composition and other useful information. The month of the year is helpful in monsoon locations. The name of the vessel maintains an audit trail.



Show range rings

Description

20 FT, MUD, GOOD PROTECTION. NOVEMBER  
Yacht VALHALLA

Links

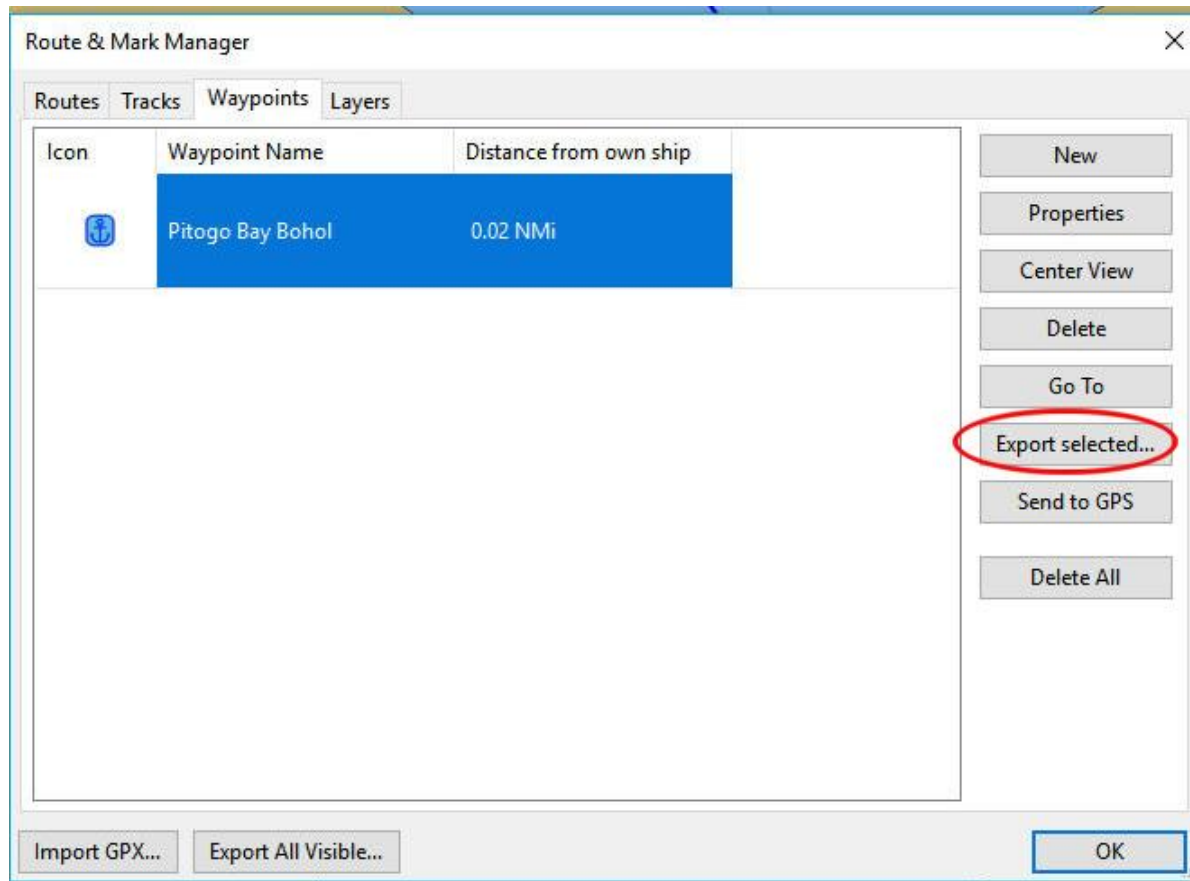
Add Edit

Cancel OK

# ANCHORAGES

## Save an Anchorage Location

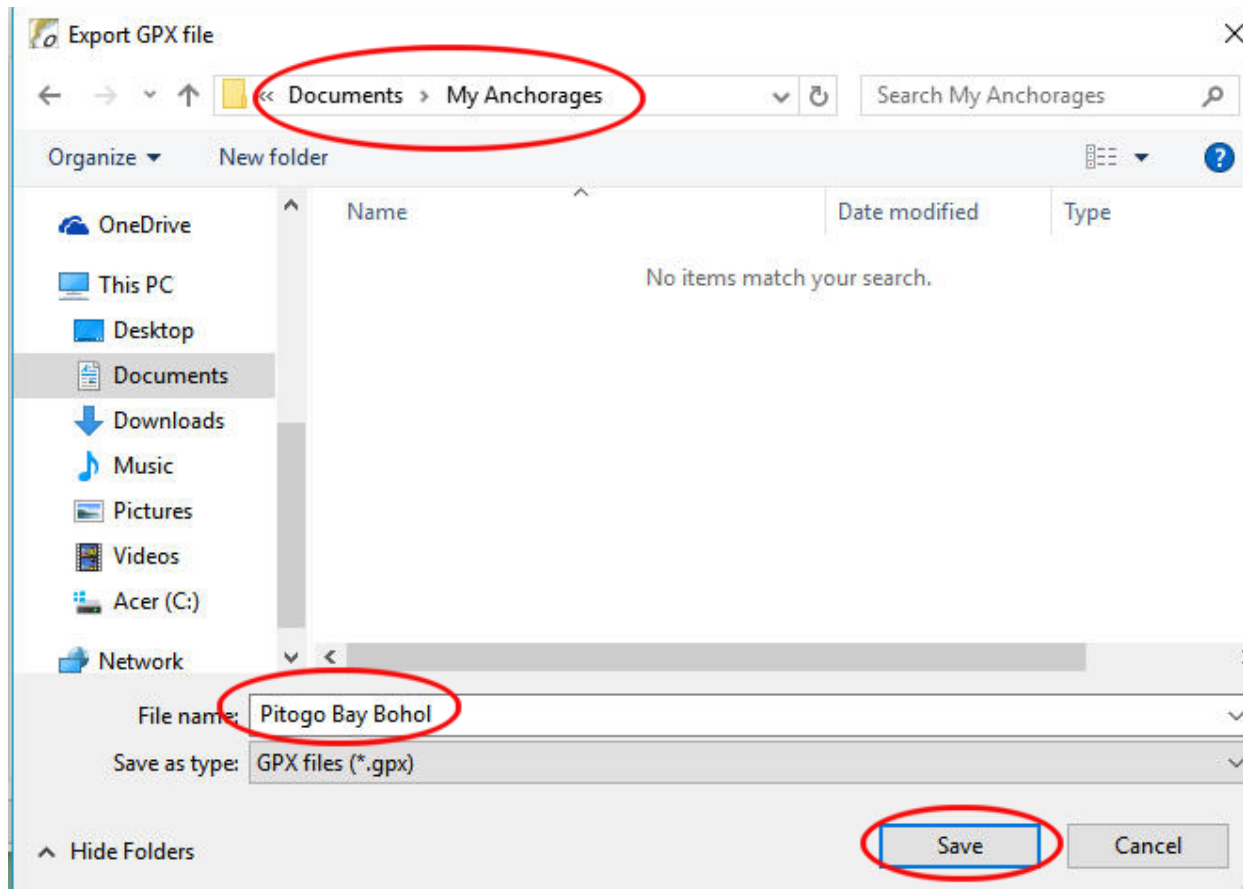
In 'Route & Mark Manager' highlight the anchorage and click on 'Export selected ...'



# ANCHORAGES

## Save an Anchorage Location

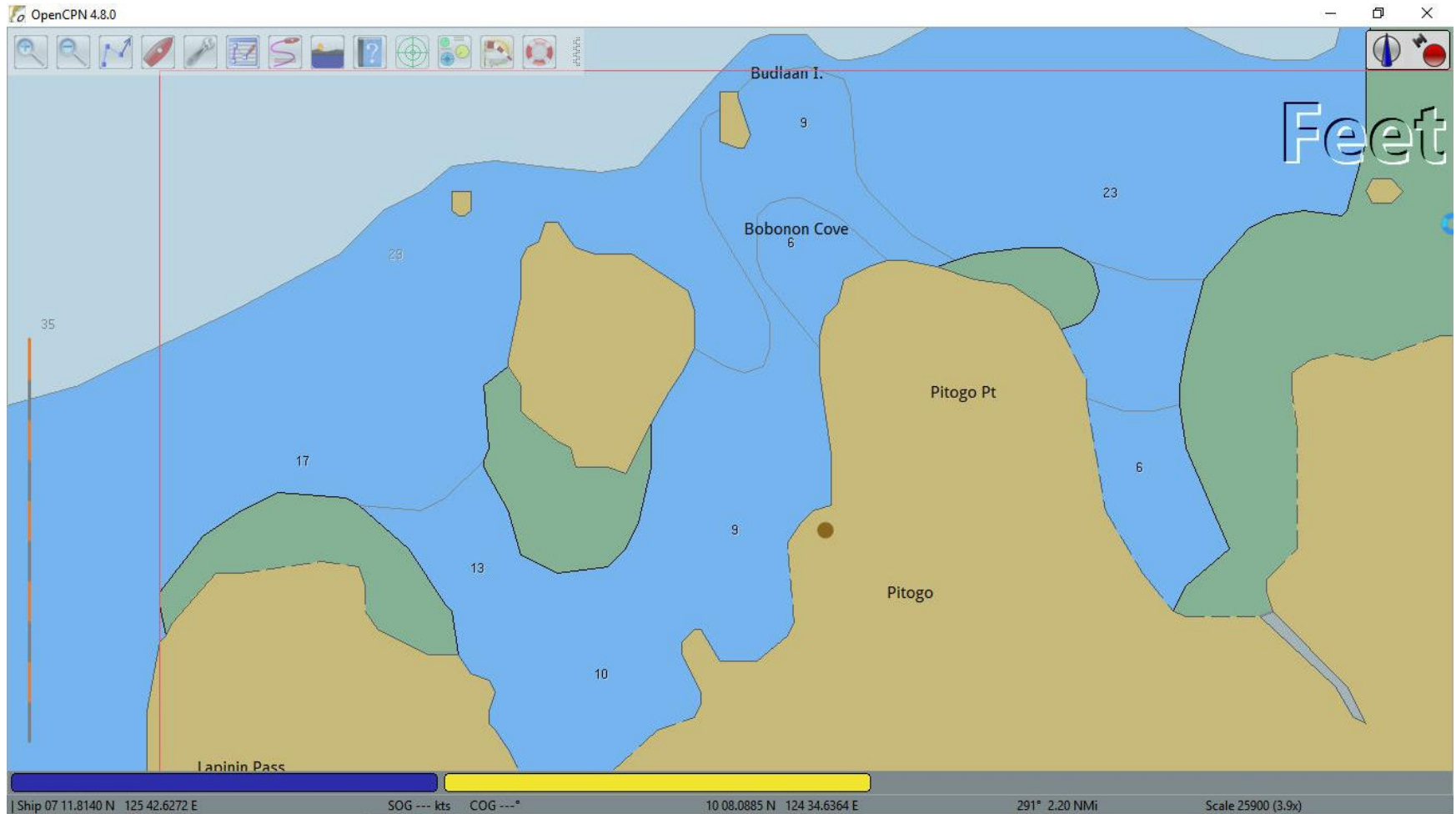
Navigate to where you save anchorages, check the file name for accuracy and click on 'Save'.



# ANCHORAGES

## Display a Saved Anchorage

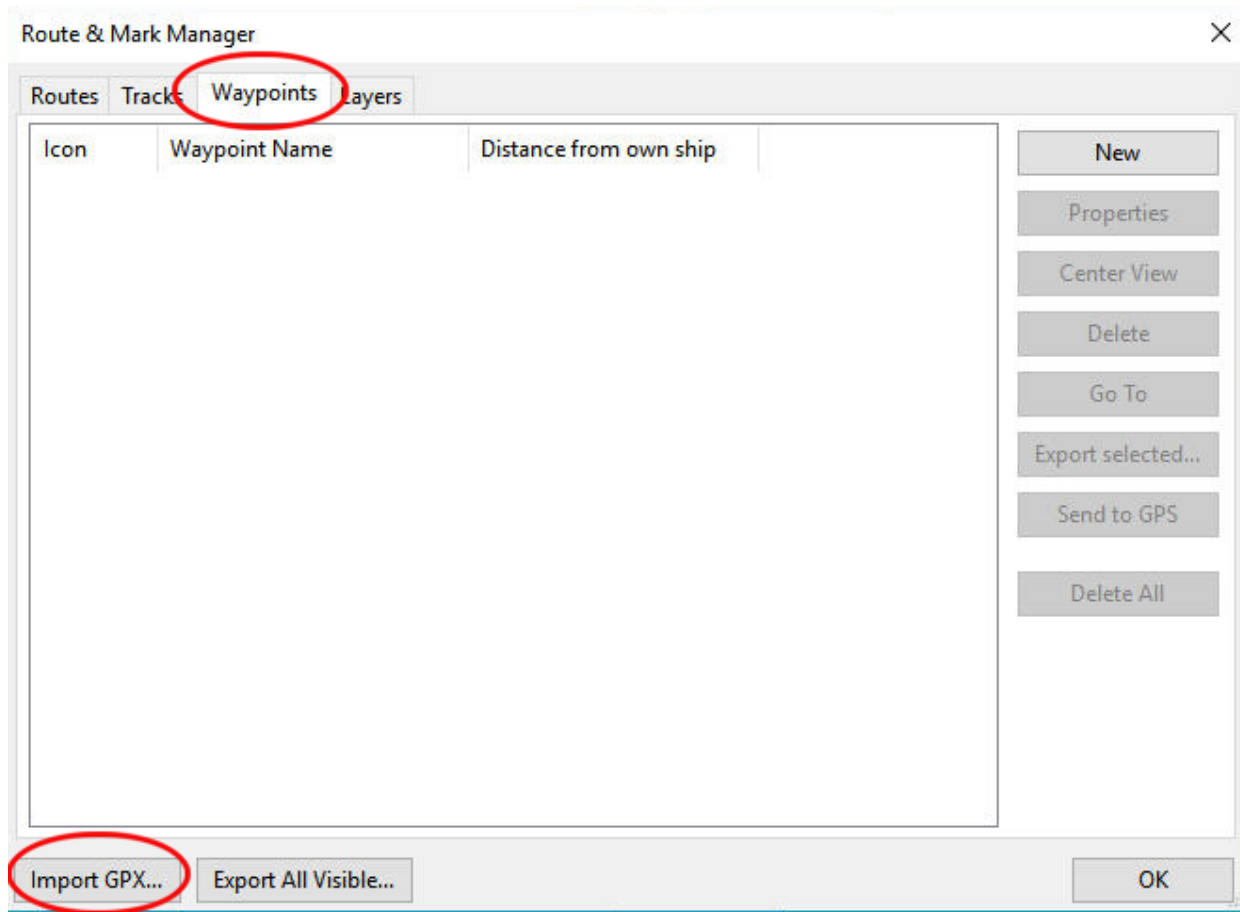
Here I wish to recall the previously saved anchorage.



# ANCHORAGES

## Display a Saved Anchorage

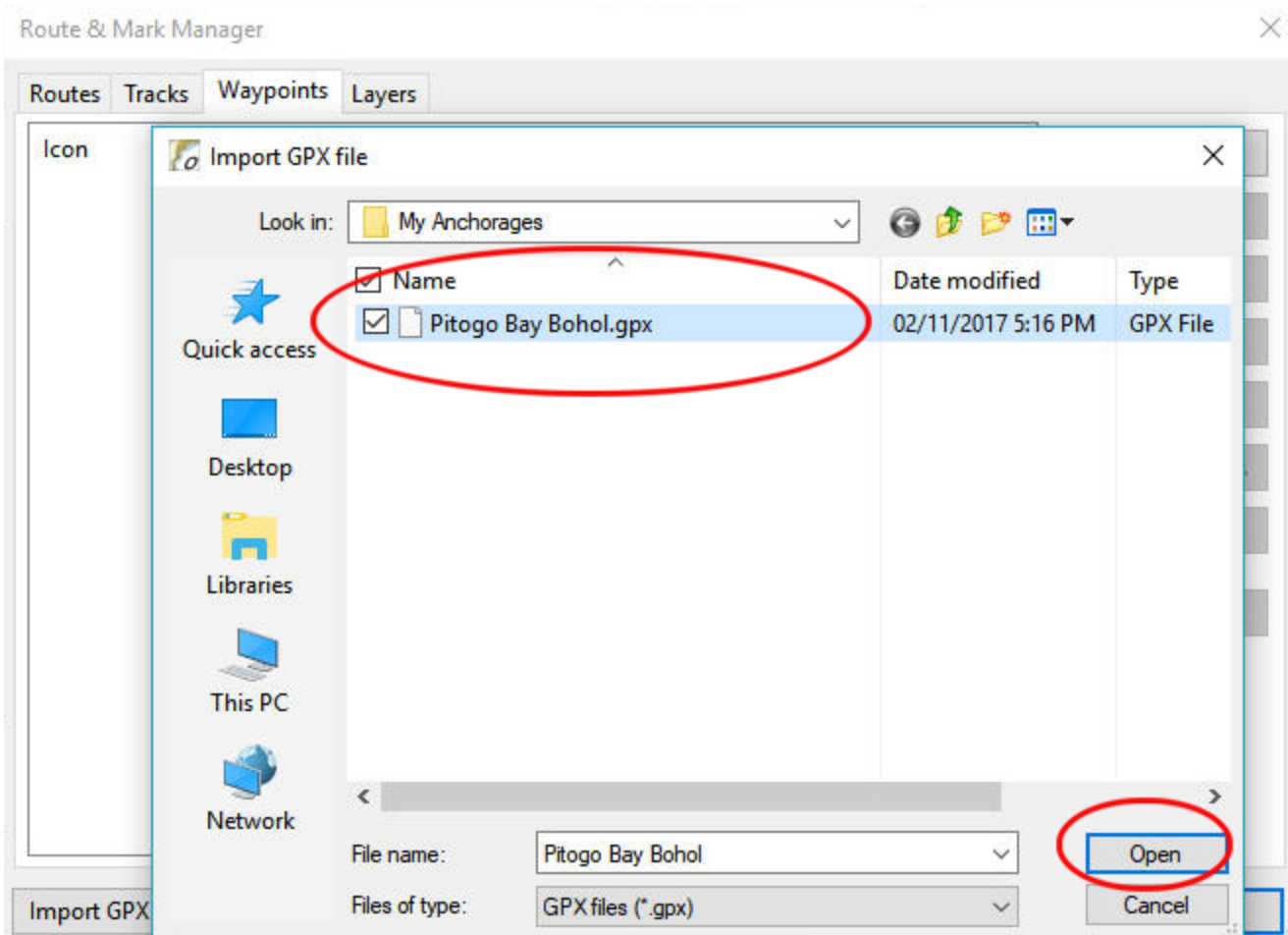
In 'Route & Mark Manager' select the 'Waypoints' tab then click on 'Import GPX ..'



# ANCHORAGES

## Display a Saved Anchorage

Navigate to your saved anchorages, select the desired anchorage and click on 'Open'.

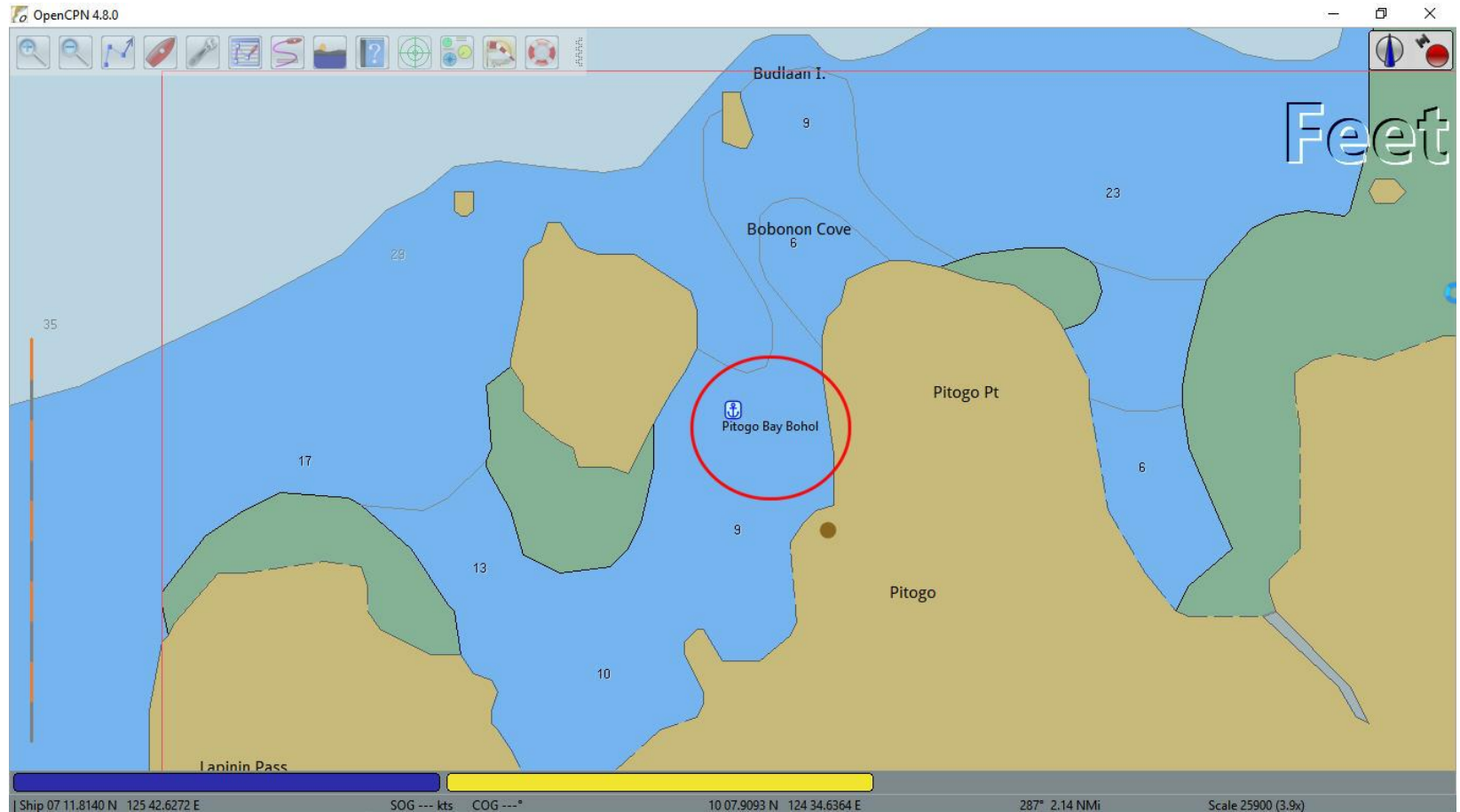




# ANCHORAGES

## Display a Saved Anchorage

The saved anchorage is displayed.

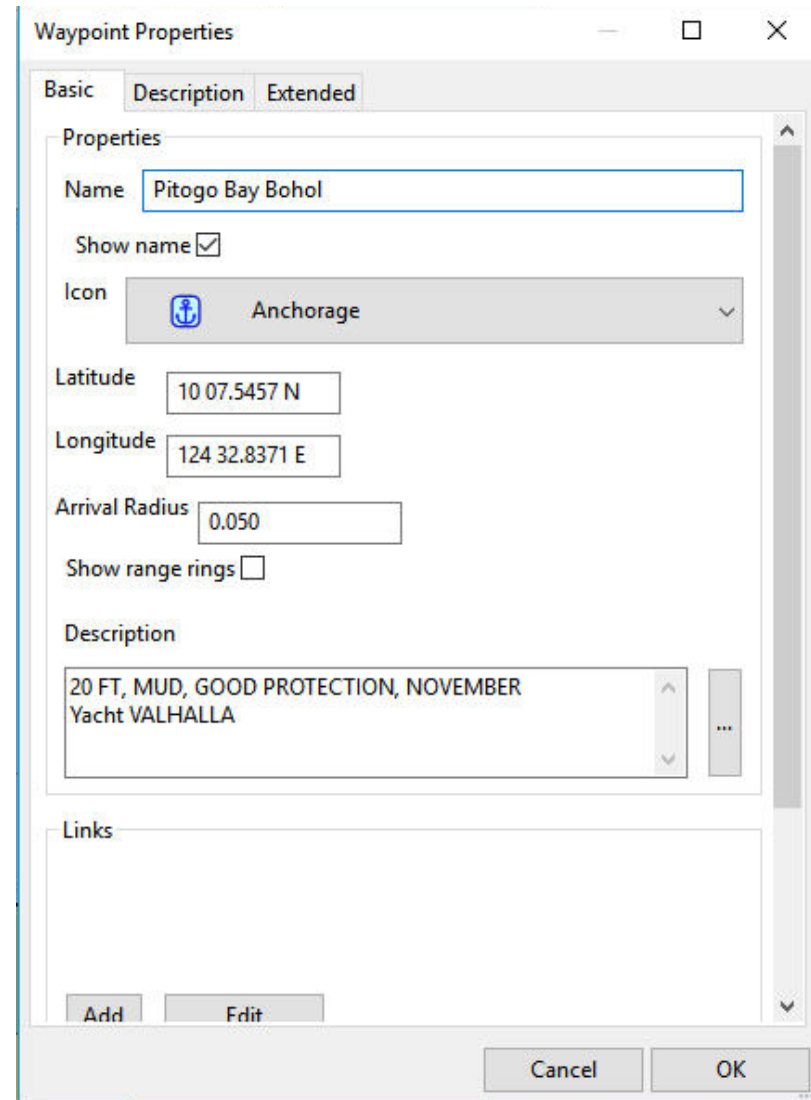


# ANCHORAGES

## Display a Saved Anchorage

To recall information about this anchorage, right-click on the icon and select 'Properties'.

The saved information is displayed.



The screenshot shows a 'Waypoint Properties' dialog box with three tabs: 'Basic', 'Description', and 'Extended'. The 'Basic' tab is active. The 'Properties' section includes a 'Name' field with 'Pitogo Bay Bohol', a checked 'Show name' checkbox, and an 'Icon' dropdown menu set to 'Anchorage'. The 'Latitude' field contains '10 07.5457 N' and the 'Longitude' field contains '124 32.8371 E'. The 'Arrival Radius' field is set to '0.050' and the 'Show range rings' checkbox is unchecked. The 'Description' section contains a text area with '20 FT, MUD, GOOD PROTECTION, NOVEMBER Yacht VALHALLA'. At the bottom, there are 'Add' and 'Edit' buttons, and a 'Cancel' button next to an 'OK' button.

Field	Value
Name	Pitogo Bay Bohol
Show name	<input checked="" type="checkbox"/>
Icon	Anchorage
Latitude	10 07.5457 N
Longitude	124 32.8371 E
Arrival Radius	0.050
Show range rings	<input type="checkbox"/>
Description	20 FT, MUD, GOOD PROTECTION, NOVEMBER Yacht VALHALLA

# LAYERS

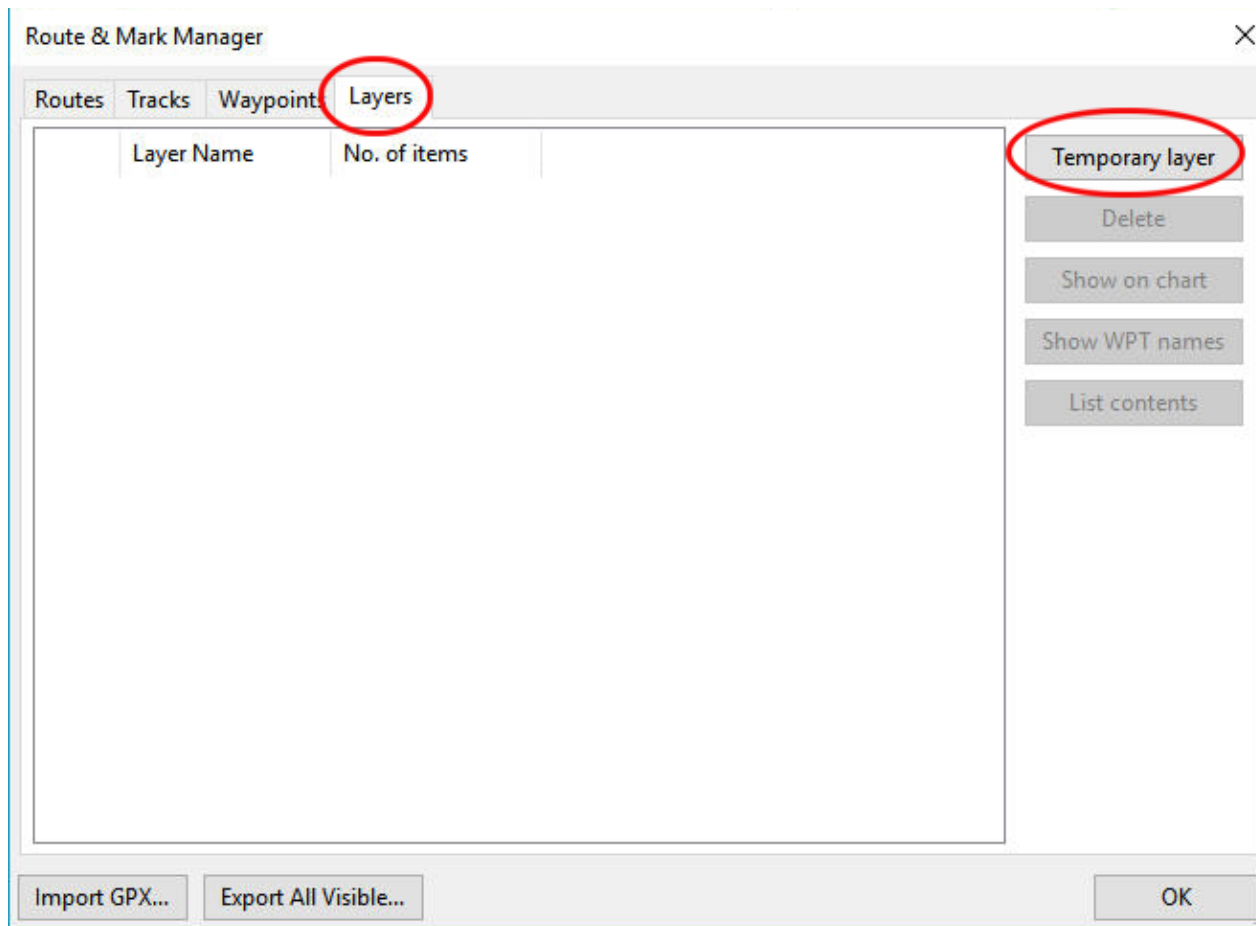
Why Layers? There are two types:

Temporary information during a session  
that can be displayed at will

Permanent information in the program  
that can be displayed at will

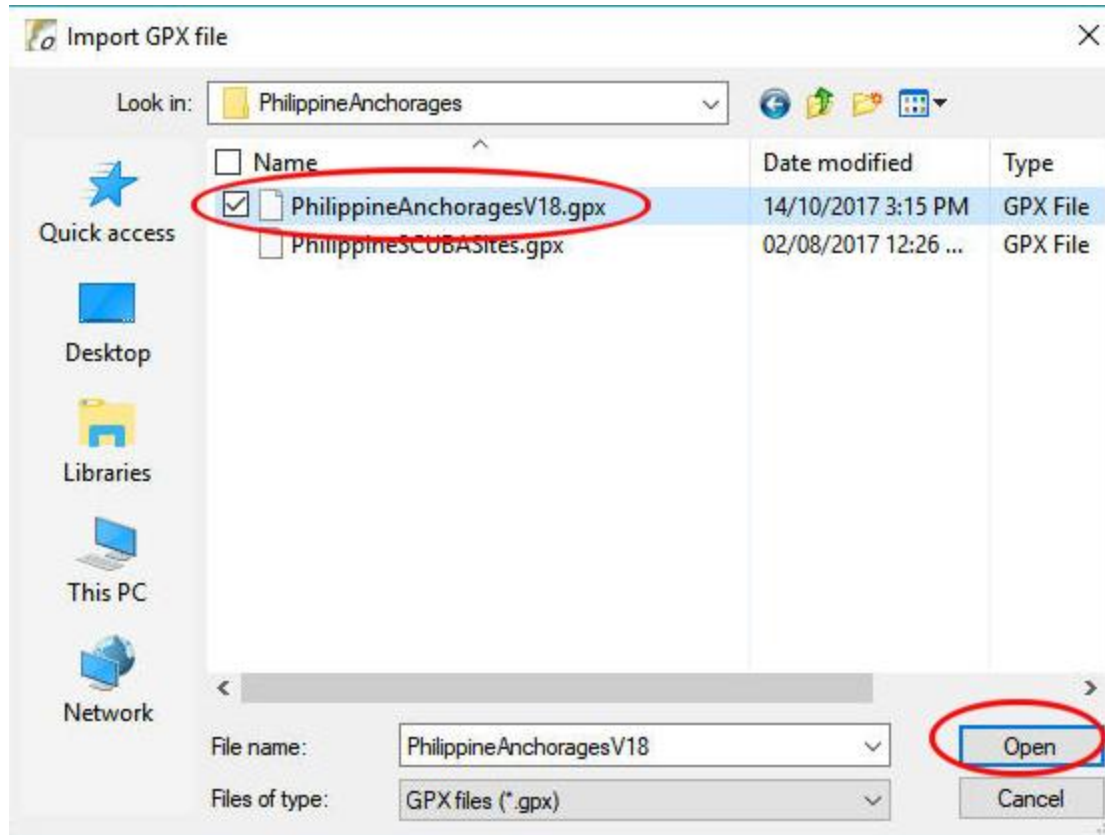
# LAYERS

In the 'Route & Mark Manager' open the 'Layers' tab. Click on 'Temporary layer'.



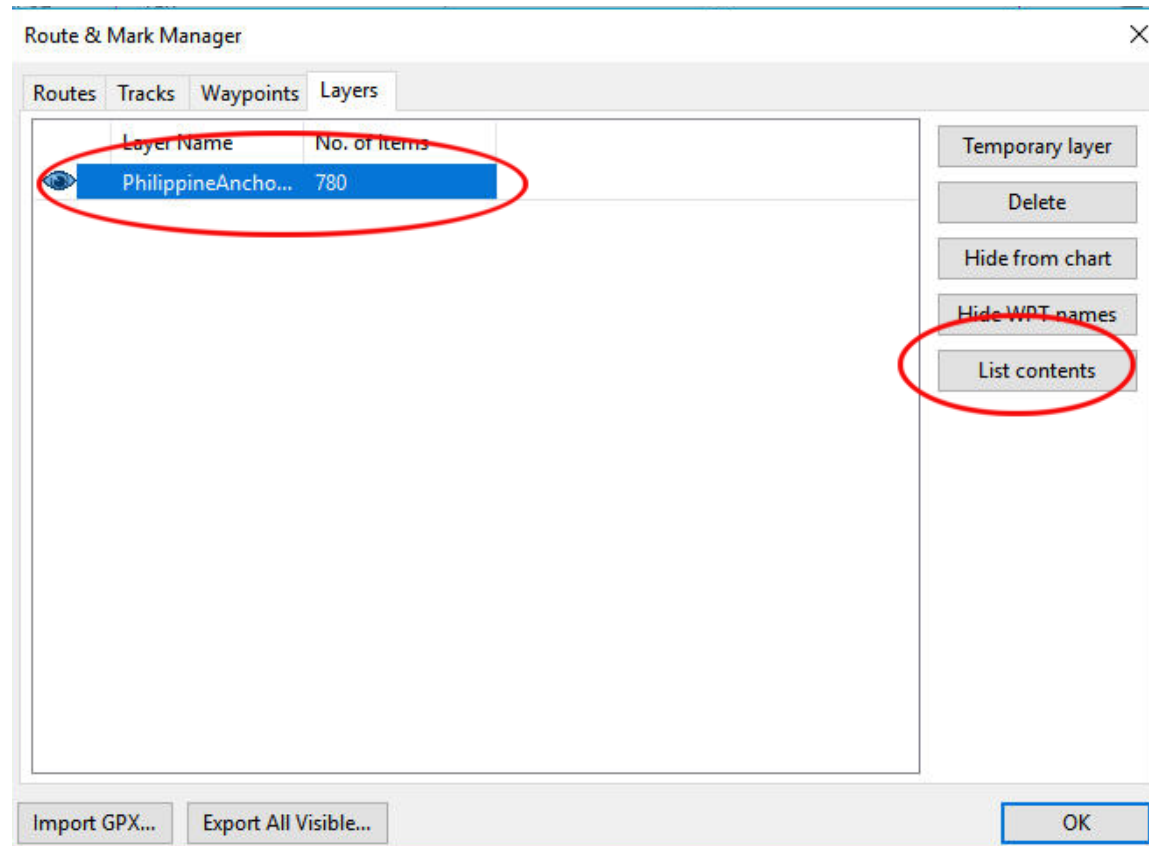
# LAYERS

The 'Import GPX File' window opens. Navigate to the file you want to have in the temporary layer, highlight it and click on 'Open', in this case the 'Philippine AnchoragesV18'.



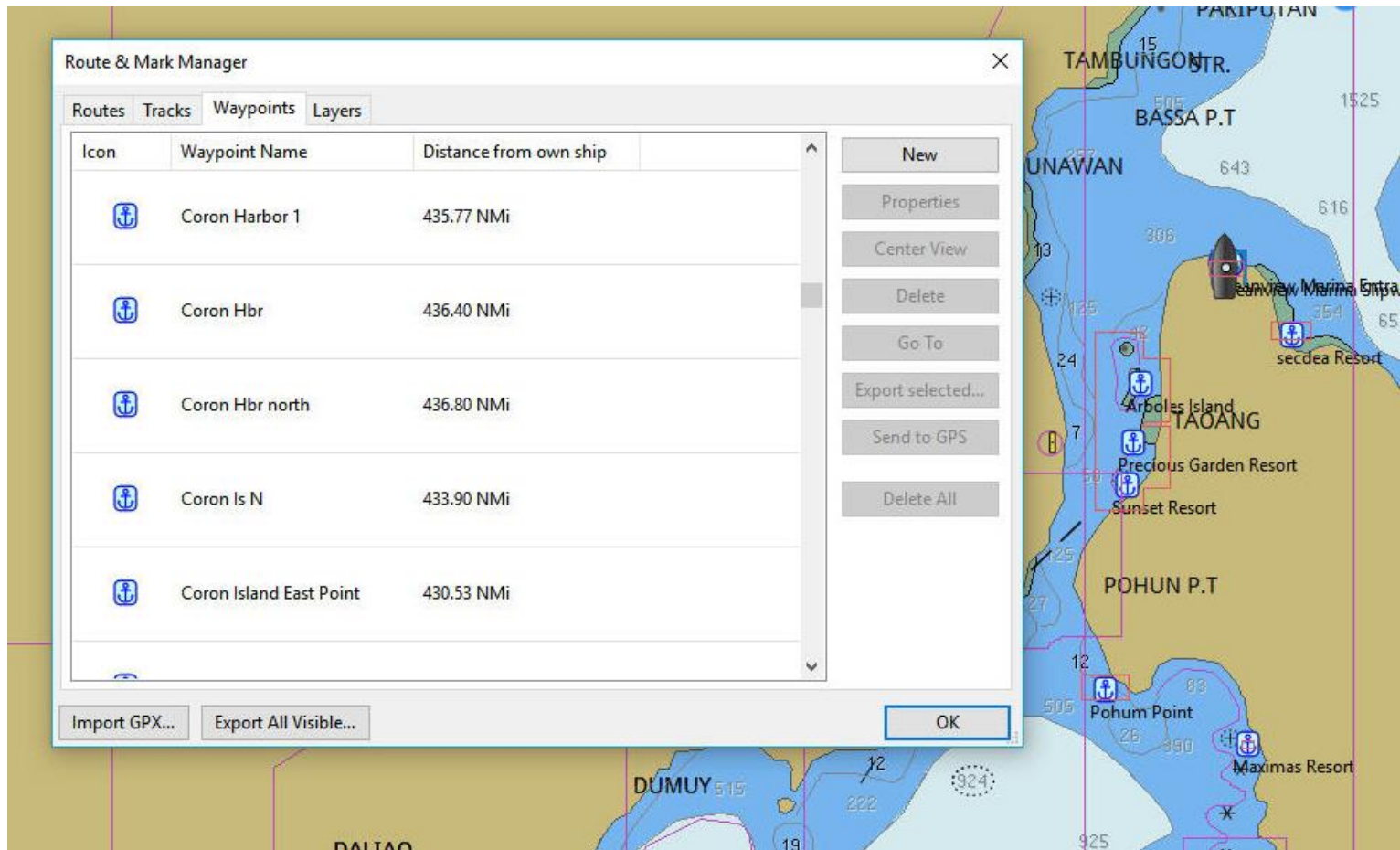
# LAYERS

The file appears under the 'Layers' tab. Select the file and click on 'List contents' to display the anchorages under the 'Waypoints' tab.



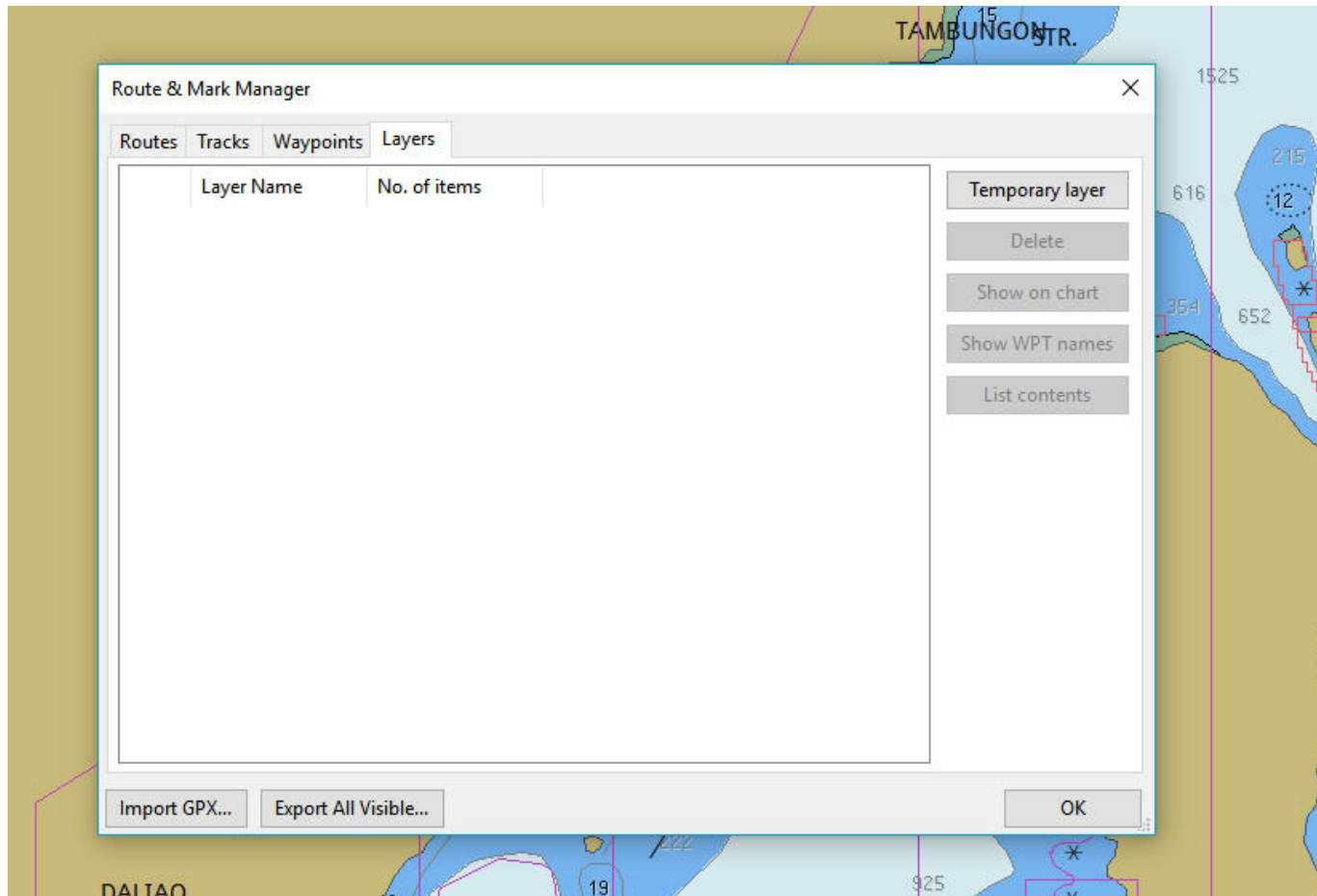
# LAYERS

The anchorages appear under the 'Waypoints' tab.  
The anchorage icons are displayed on the chart.



# LAYERS

If you close OpenCPN and reopen it the file is no longer there ... hence 'Temporary'.





# LAYERS

For layers to be *permanently* available they must be placed within the computer system.

The location is dependent on the Windows operating system ... i.e. Windows XP, 7,8 or 10 but The OpenCPN program helps you find the location !!

For Mac ??

# LAYERS

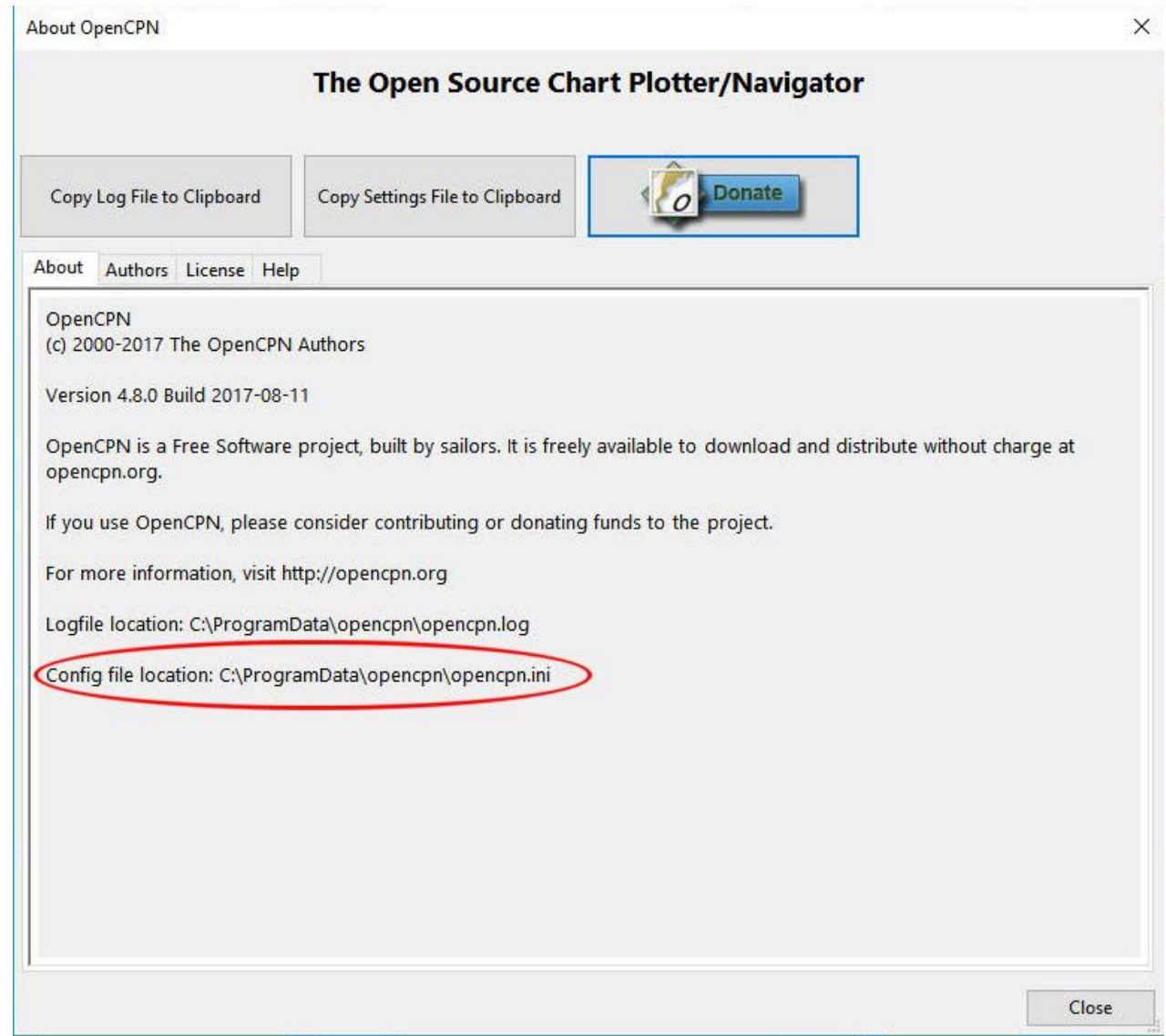
In all cases of Windows, on OpenCPN click on the 'About OpenCPN' icon (book with ? on the cover) as you did to find the manual.



# LAYERS

The Layers folder will be installed at the OpenCPN 'Config file' location e.g. for W8-W10 at C:\Program Data\opencpn

NOTE: This is a 'hidden file' location

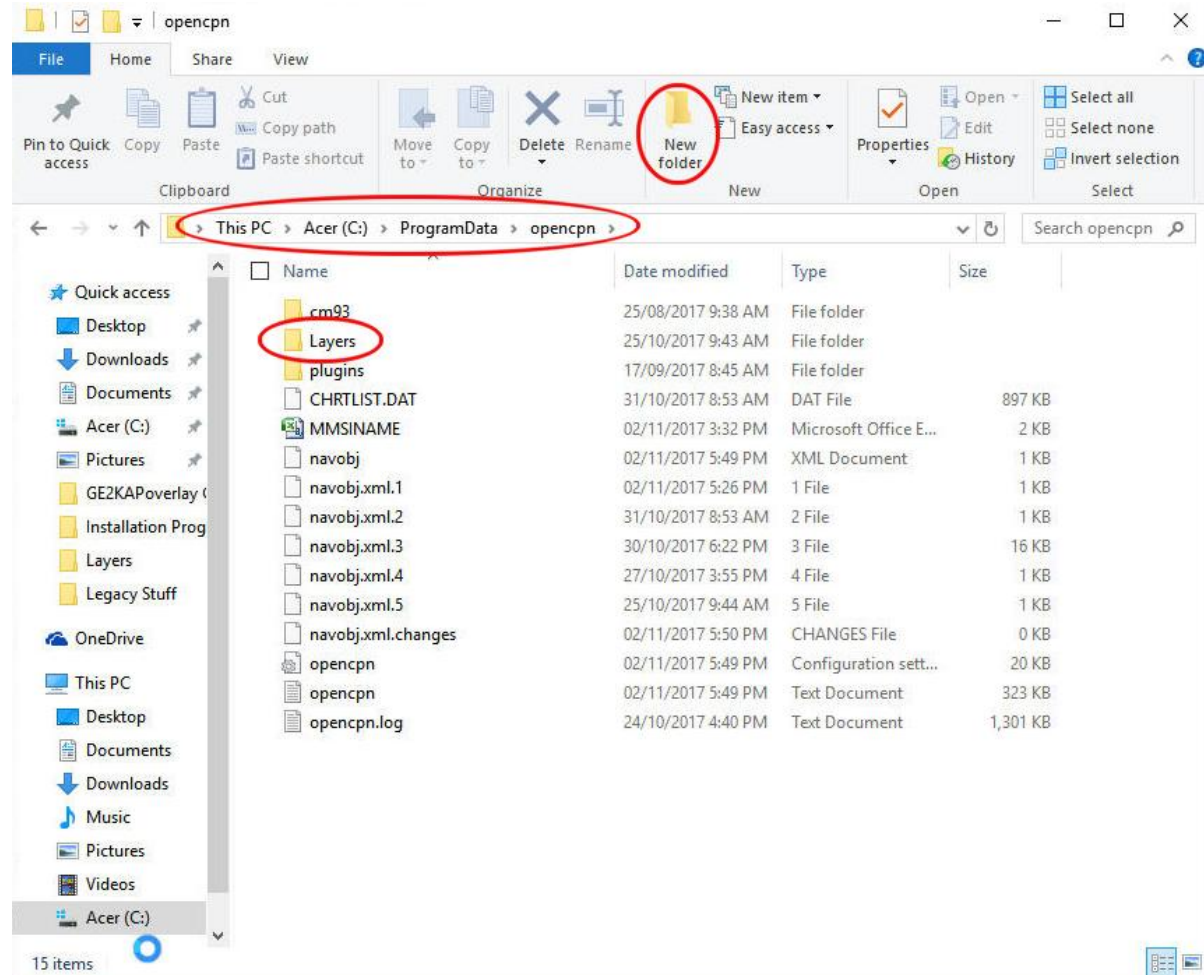


# LAYERS

Create a new folder 'Layers' within the 'opencpn' folder.

It's only necessary to create this folder once.

All future layer information will be placed in this folder.



# LAYERS

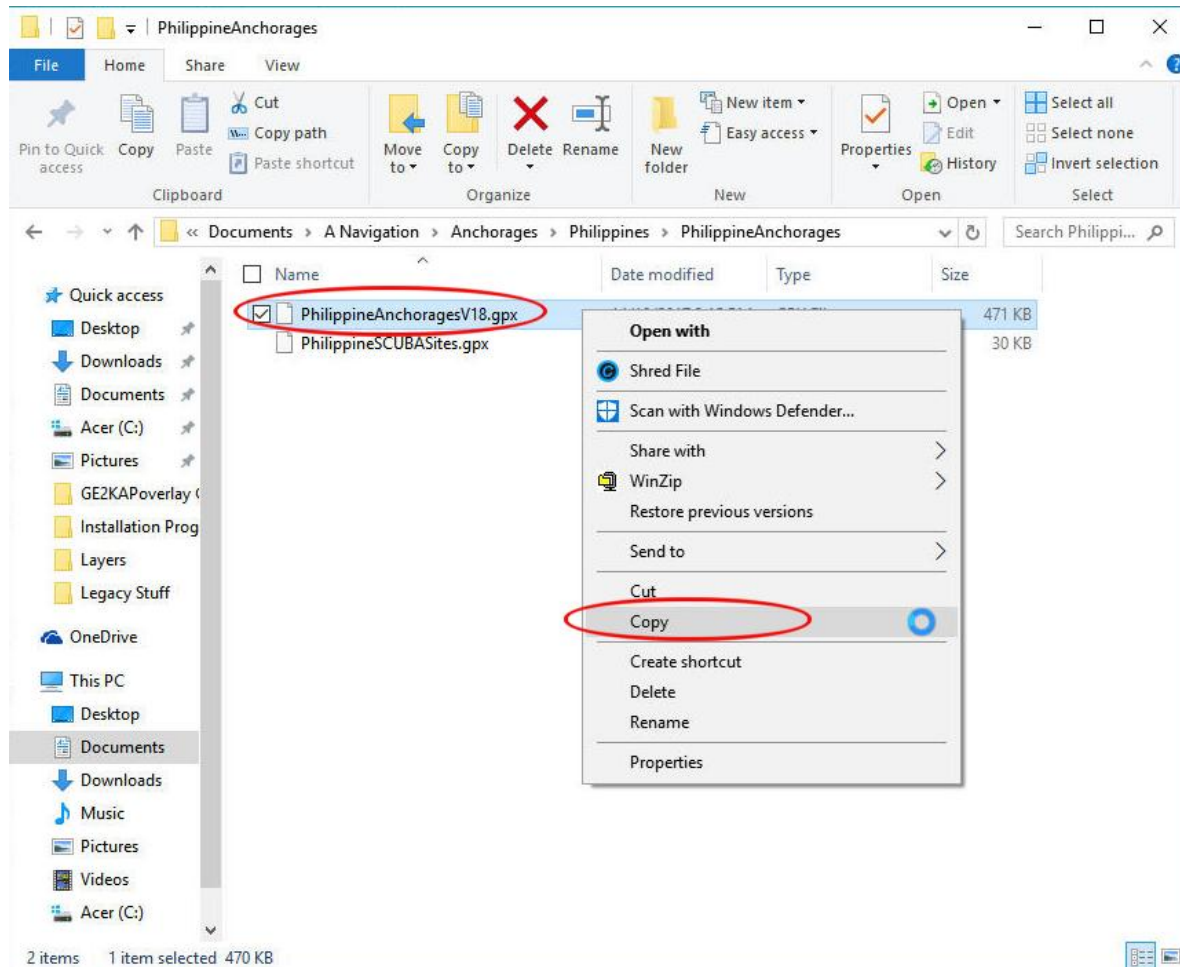
This is where the information you want to be readily available when the program is running. (It can be displayed or not with one click.)

Information such as anchorages, dangers, routes and the like. Though these could be imported from wherever stored on the computer, that can prove to be time-consuming and cumbersome.

Now for how to load up the 'Layers' folder.

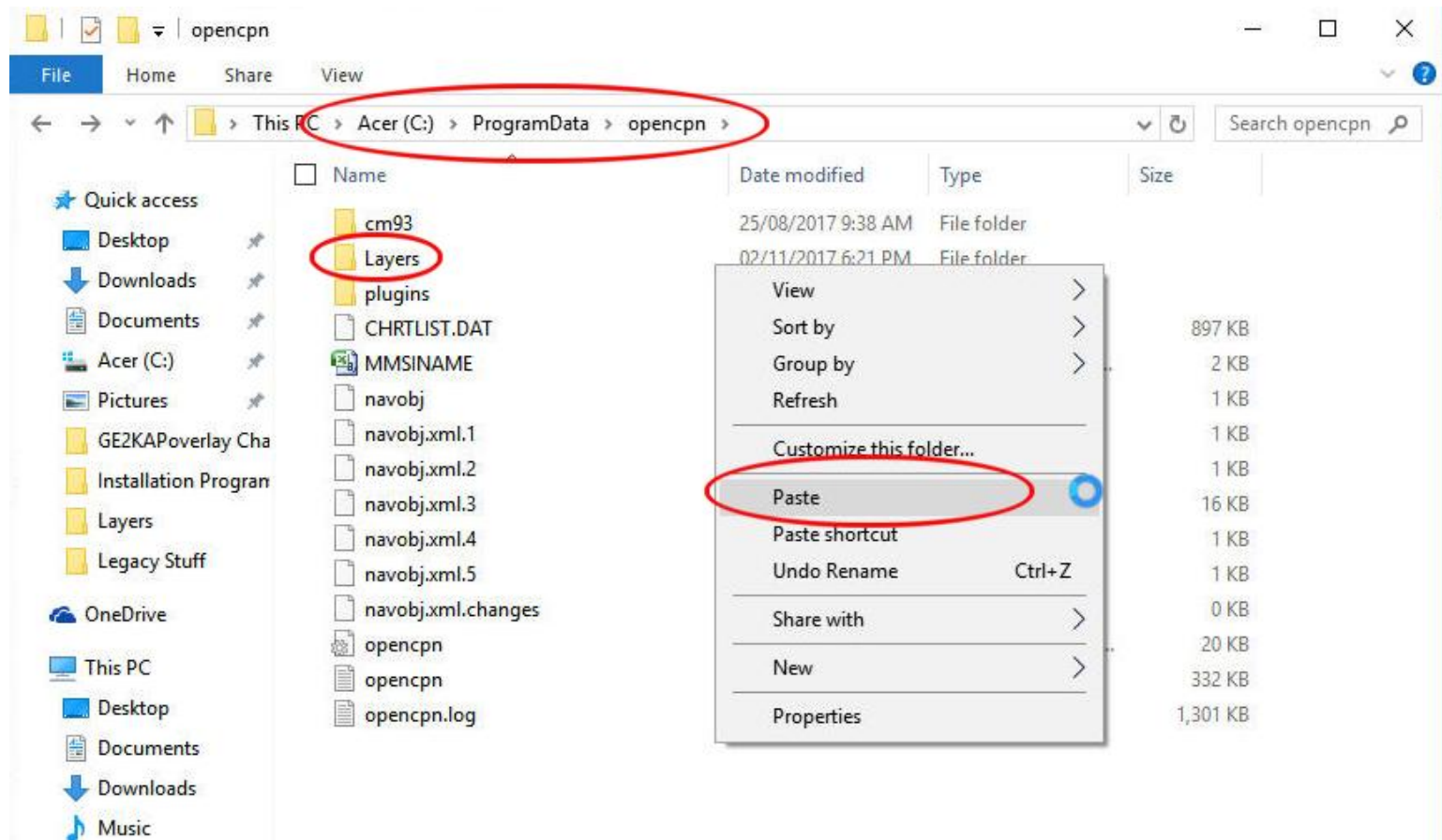
# LAYERS

Here I have navigated to a .gpx file of 'Philippine AnchoragesV18' and copied that file to the clipboard.



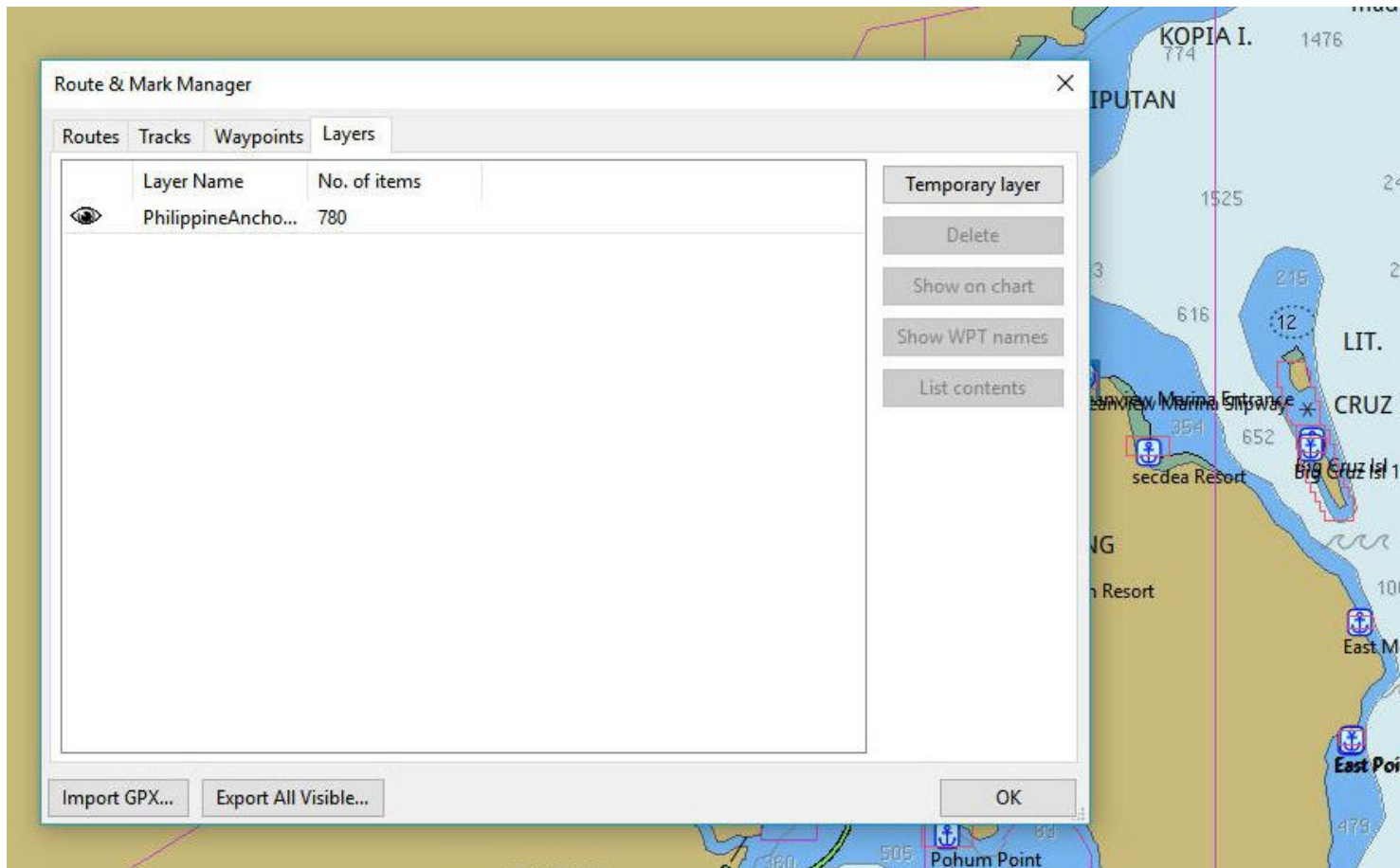
# LAYERS

Return to the 'Layers' folder, right-click on it and paste the file into the folder.



# LAYERS

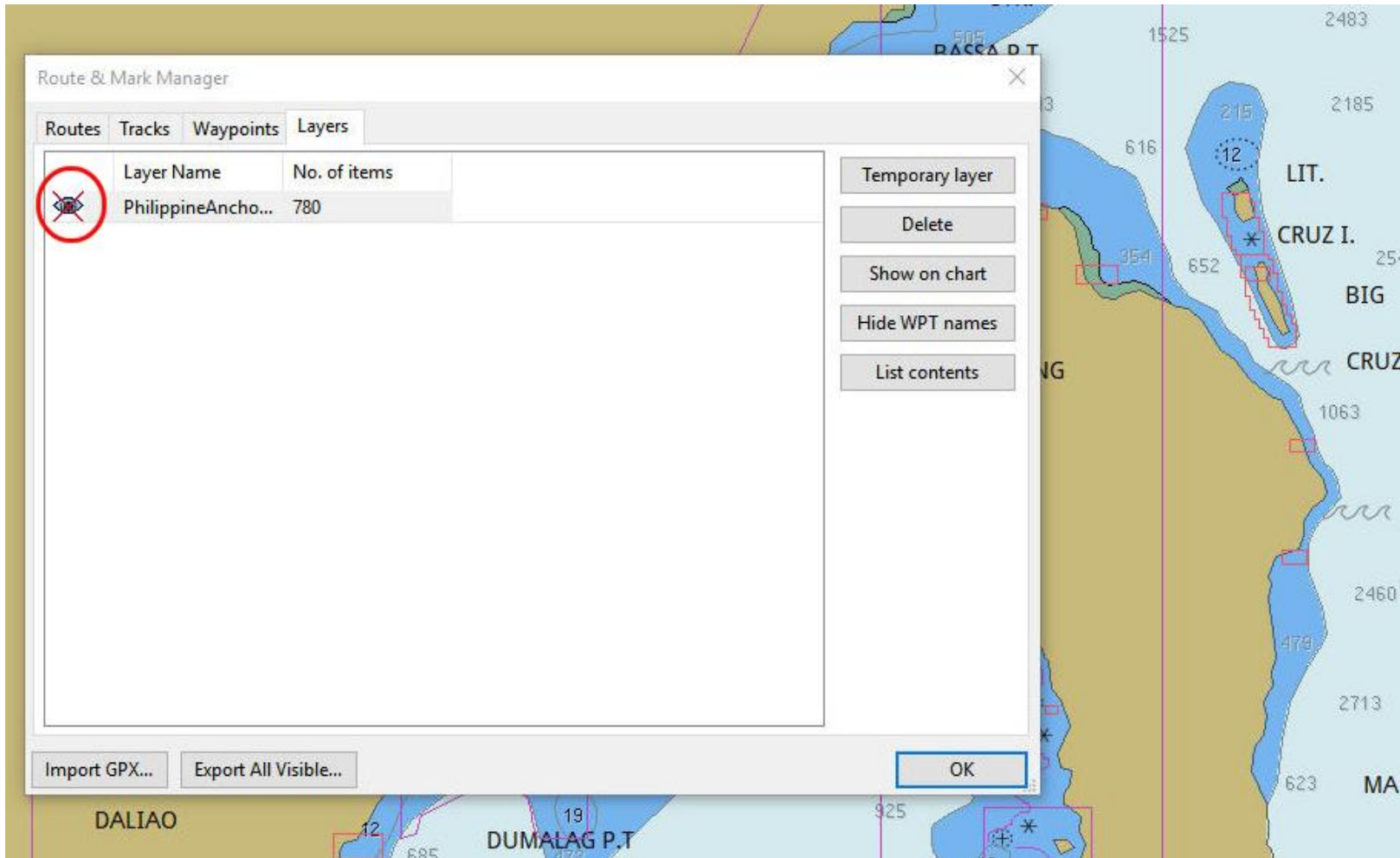
The anchorages are now shown on the 'Layers' tab of the 'Route & Mark Manager' but only after **restarting OpenCPN**.





# LAYERS

To remove the anchorages from the display, click on the 'eye' at the left of the file under the 'Layers' tab. (The 'one-click I said earlier')



# LAYERS

## *POINTS TO REMEMBER*

ANY .gpx file can be put in a layer.

This includes routes, tracks, anchorages and other information that has been saved in the .gpx format.

Waypoints in a layer are locked. This prevents the unplanned movement of a waypoint while clicking on the screen. Remember how to unlock them? And they cannot be edited.

Items in 'Layers' can be displayed or not with a single click

# PLUGINS

## Plugins Included With OpenCPN

### **Dashboard Plugin**

Plugin to display navigation data. Included in the OpenCPN installation.

### **Grib Weather Plugin.**

Plugin to display Grib weather data files. Included in the OpenCPN installation.

### **WMM Plugin**

A plugin to display the magnetic variation, based on the World Magnetic Model.

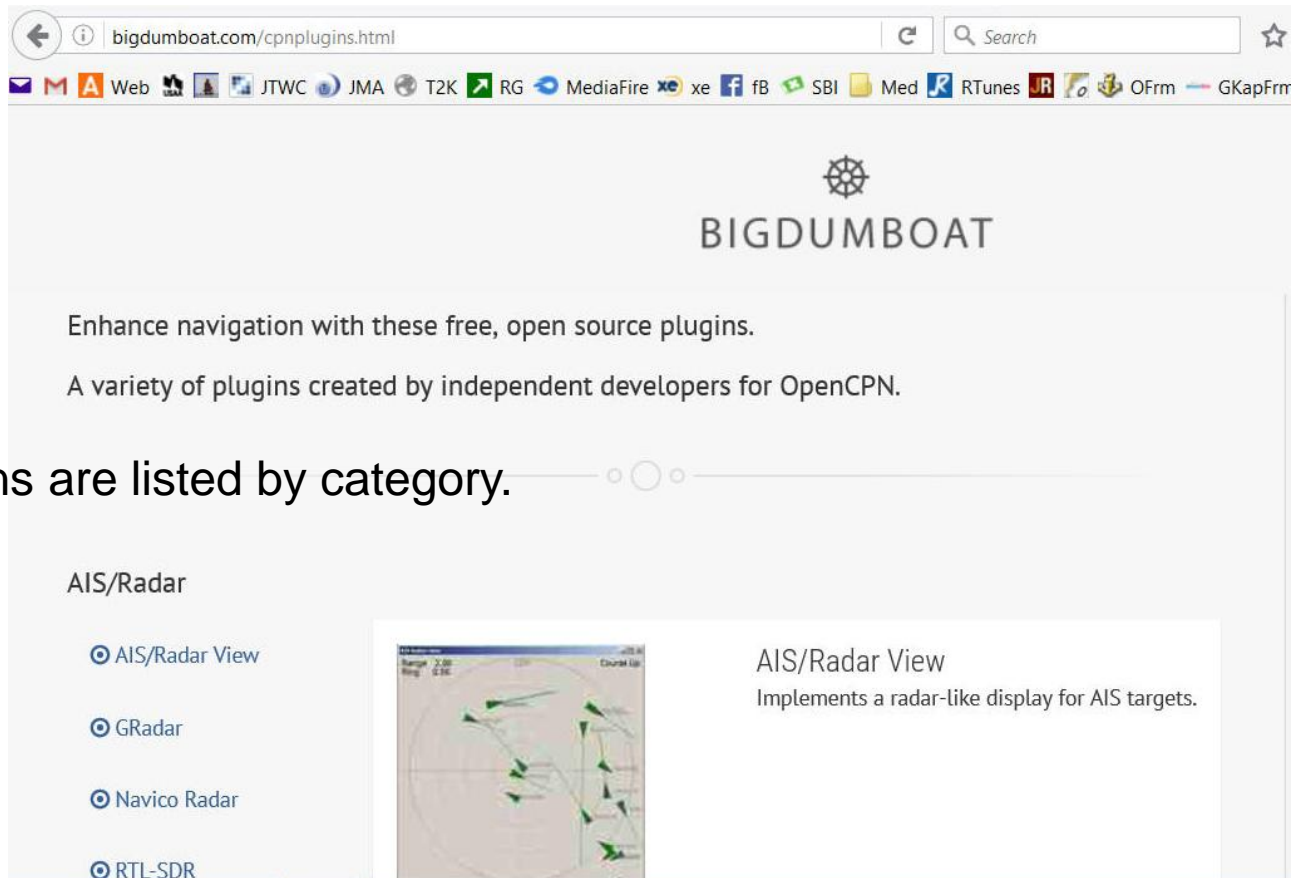
### **Chart Downloader**

Manager for chart downloads.

# PLUGINS

## Additional Plugins

A concise description of the plugins available for OpenCPN  
Is at: <https://bigdumboat.com/cpnplugins.html>



bigdumboat.com/cpnplugins.html

Web JTWC JMA T2K RG MediaFire fb SBI Med RTunes OFrm GKapFrm

**BIGDUMBOAT**

Enhance navigation with these free, open source plugins.  
A variety of plugins created by independent developers for OpenCPN.

The plugins are listed by category.

**AIS/Radar**

- AIS/Radar View
- GRadar
- Navico Radar
- RTL-SDR

**AIS/Radar View**  
Implements a radar-like display for AIS targets.

# PLUGINS

## Downloading Plugins

Go to the OpenCPN 'Downloads' page and click on [\[Latest Plugins\]](#)

(<http://opencpn.org/OpenCPN/info/downloads.html> )

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### Download Directory

CDN for faster and more reliable OpenCPN downloads  
generously provided by StackPath

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#### OpenCPN Latest Release

OpenCPN is free, open source software for marine navigation. It is available for Mac OSX, Microsoft Windows, GNU/Linux, BSDs and Solaris.

[\[Current Version\]](#)

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#### Plugins for OpenCPN 4.2 & up

Plugins for OpenCPN are third party feature additions that expand the functionality of OpenCPN into those niche areas. Here you will find available Plugins to download.

[\[Latest Plugins\]](#)

# PLUGINS

## Downloading Plugins

The *installation programs* for available plugins can be downloaded from [there](https://opencpn.org/OpenCPN/info/downloadplugins.html) for Windows (and also for Linux and Mac OS X)

Plugins for OpenCPN - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Plugins for OpenCPN

https://opencpn.org/OpenCPN/info/downloadplugins.html

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### Plugins for OpenCPN

Plugins for OpenCPN 4.2 and up

Third party features that expand the functionality of OpenCPN into niche areas.

#### AIS/Radar

- AIS Radar View
- GRadar
- GXRadar
- Navico Radar
- RTL-SDR

#### Chart Support

- Chart Object Search
- NV Charts
- S-63 Charts
- BSB4 Charts
- oeSENC Charts
- Chart Rotation
- Projections
- VFkaps Charts

#### Logs

# Exploring OpenCPN

BYE !



*I hope this has been useful . It took several bottles of red wine to complete. I will blame any mistakes on the wine. Questions? Email: [yachties@yahoo.com](mailto:yachties@yahoo.com)*

*Terry Sargent  
<http://yachtvalhalla.net>  
3 November 2017*