OpenCPN

Chartplotter and GPS Navigation Software

Chart Plotter and Navigational software program for use underway or as a planning tool.

Developed by a team of active sailors using real world conditions for program testing and refinement.

- Verified Super Clean Code
- Open Source
- Developed by Boaters
- Real-world Tested
- Updated Regularly
- Loaded with Features
- Its Free Software

Quick Start Guide

About OpenCPN

OpenCPN is a cross platform electronic navigation system (ECS) supporting a variety of cartography standards and hardware interface protocols. Versions are available for Linux, Windows, Macintosh, and ARM computer architectures.

Since widespread introduction in 2008, OpenCPN has gained a solid reputation.

OpenCPN is running on hardware from tiny Raspberry Pis with 4" screens up to networked workstations. Specific user scenarios and needs are easily accommodated by using the Plug-in architecture and the wide scope of user settings. A responsive international user and developer community together with integrated documentation help make installation and use of OpenCPN a pleasure.

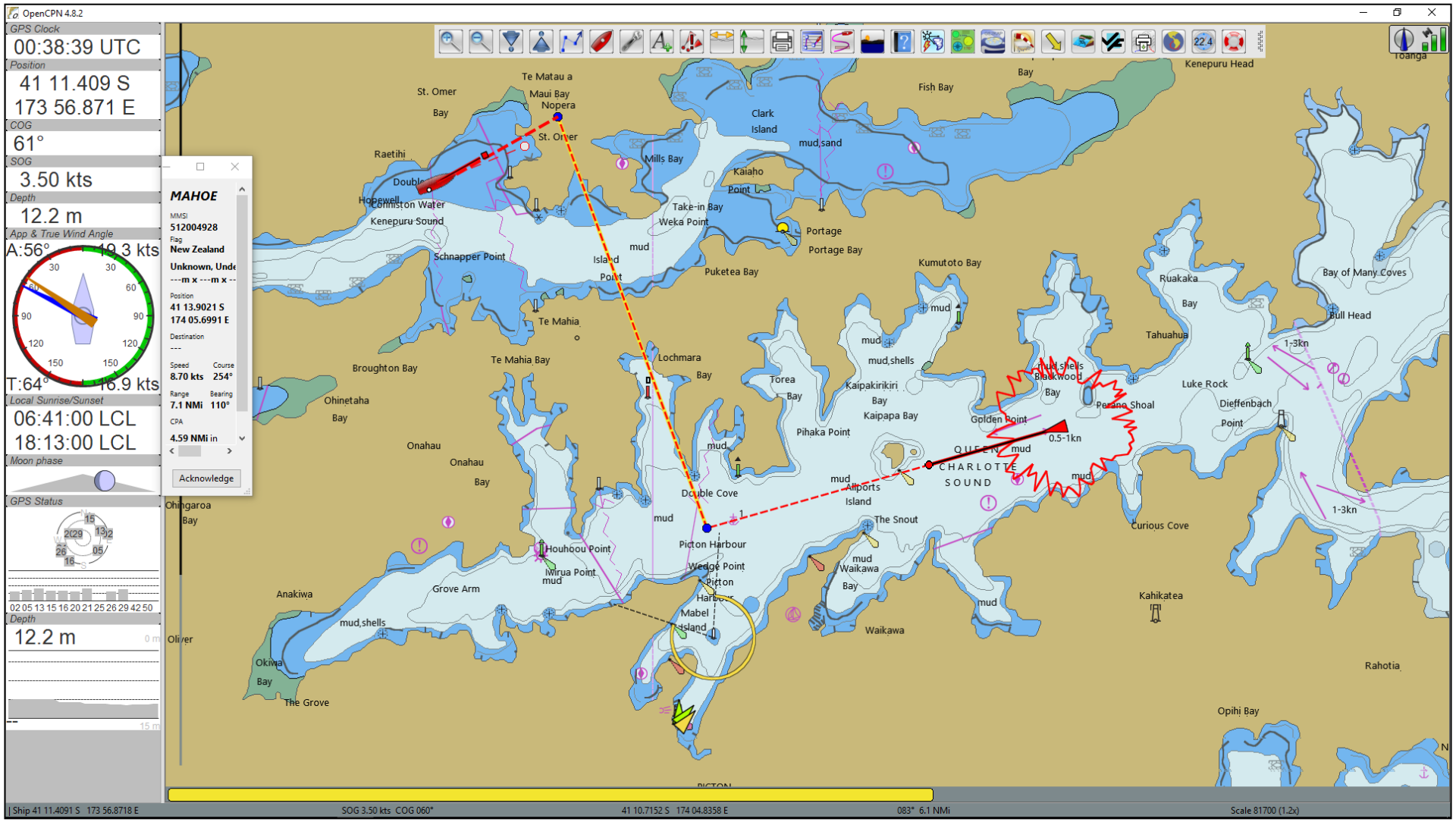
OpenCPN is released under the GPLV2 license. The executable program and its source code are available for immediate, free, and unlimited download from sourceforge.net, and several other sources.

Features

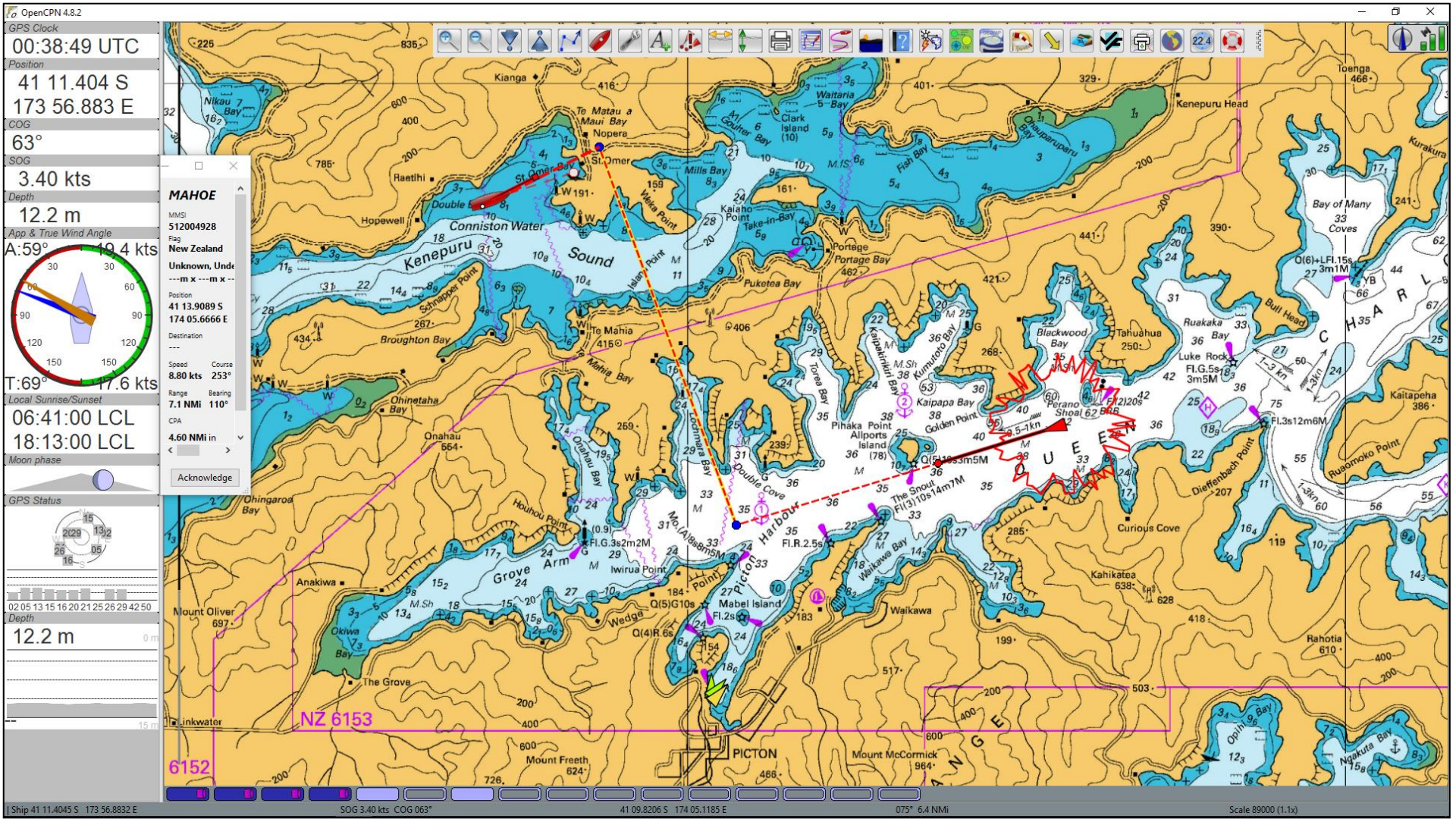
Some of the features of OpenCPN include:

- Quilted Raster(RNC) and Vector(ENC) digital chart display.
- Full compliant support for official vector charts in S-57/S-63 format and Inland ENCs.
- Industry standard GPS receiver interfacing, with "moving map" on-screen vessel tracking.
- AIS receiver interfacing with configurable target safety monitoring.
- Integrated Route, Track, and Waypoint database, with industry standard Import/Export capabilities.
- Tide and Current prediction, with on-screen overlay of predicted data.
- Broad International Language support.
- Plug-in architecture allowing on-going third-party functional enhancements.
- Ability to share charts, tracks, routes and waypoints with other users thanks to support of KAP chart format and GPX files.

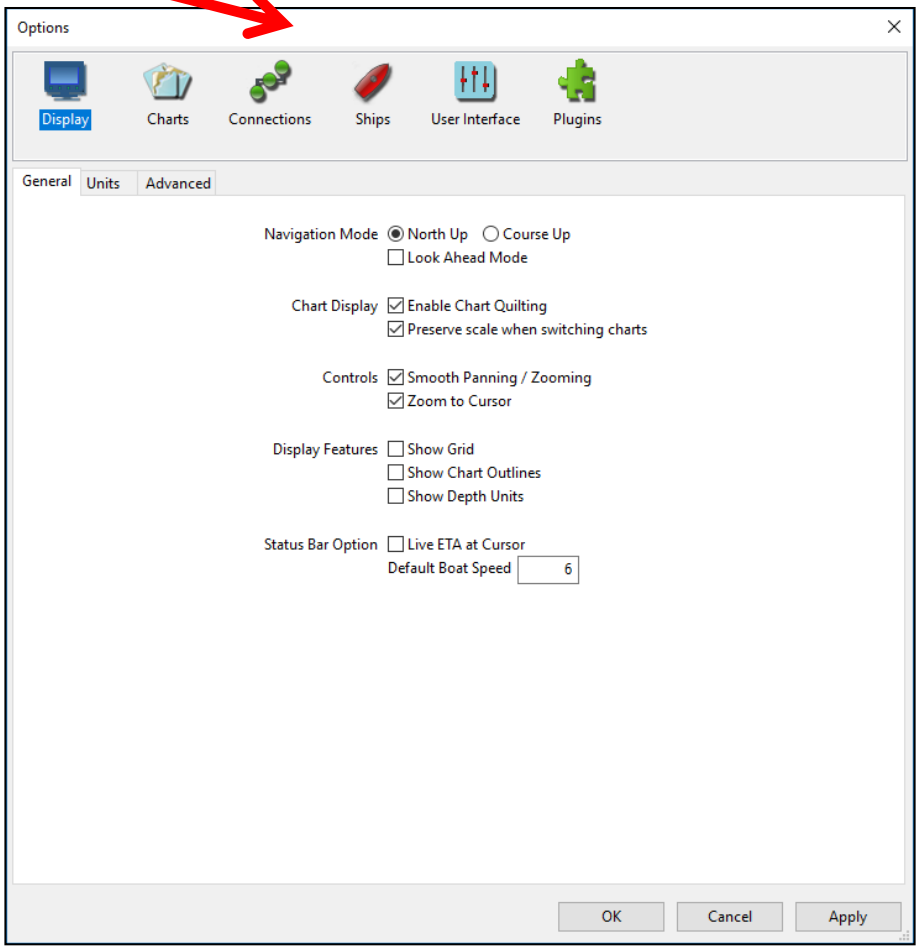
The Interface



The Interface



Configuration



Charts

Free Nautical Charts
The Chart Downloader feature, included with OpenCPN 4.2 and above, will help you to download, update and organize almost all free chart sources.

New Zealand publishes free BSB3 raster charts.

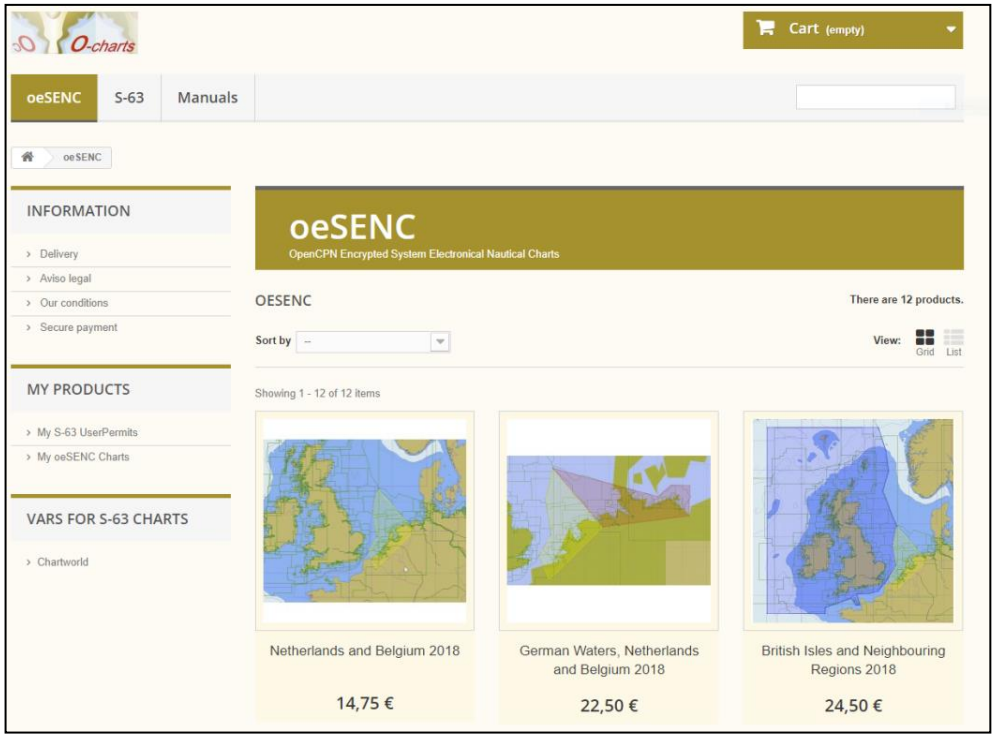
The version of the New Zealand charts compiled by Marco Certelli, includes a better coverage of the Tonga/Samoa area.

The East Asia Hydrographic Commission provides free offshore S57 vector charts for the South China Sea area.

Satellite images – A plugin VFKaps allows satellite images to downloaded directly into the OpenCPN chart database. GE2KAP is a free windows-only program that semi-automatically creates KAP charts from Google Earth and other sources. It supports SASPlanet.

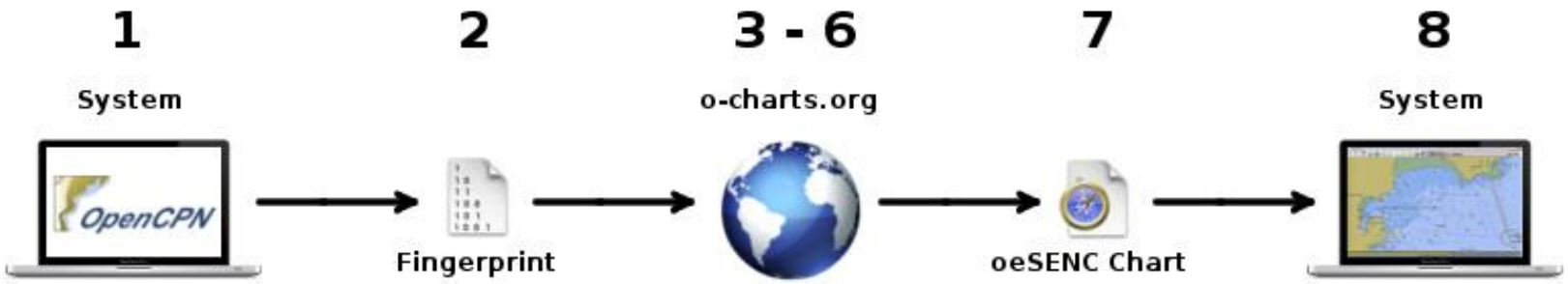
Commercial Chart Sources
O-charts.org
NV-Charts & Chartworld.com have worldwide coverage between them.

Charts - Commercial

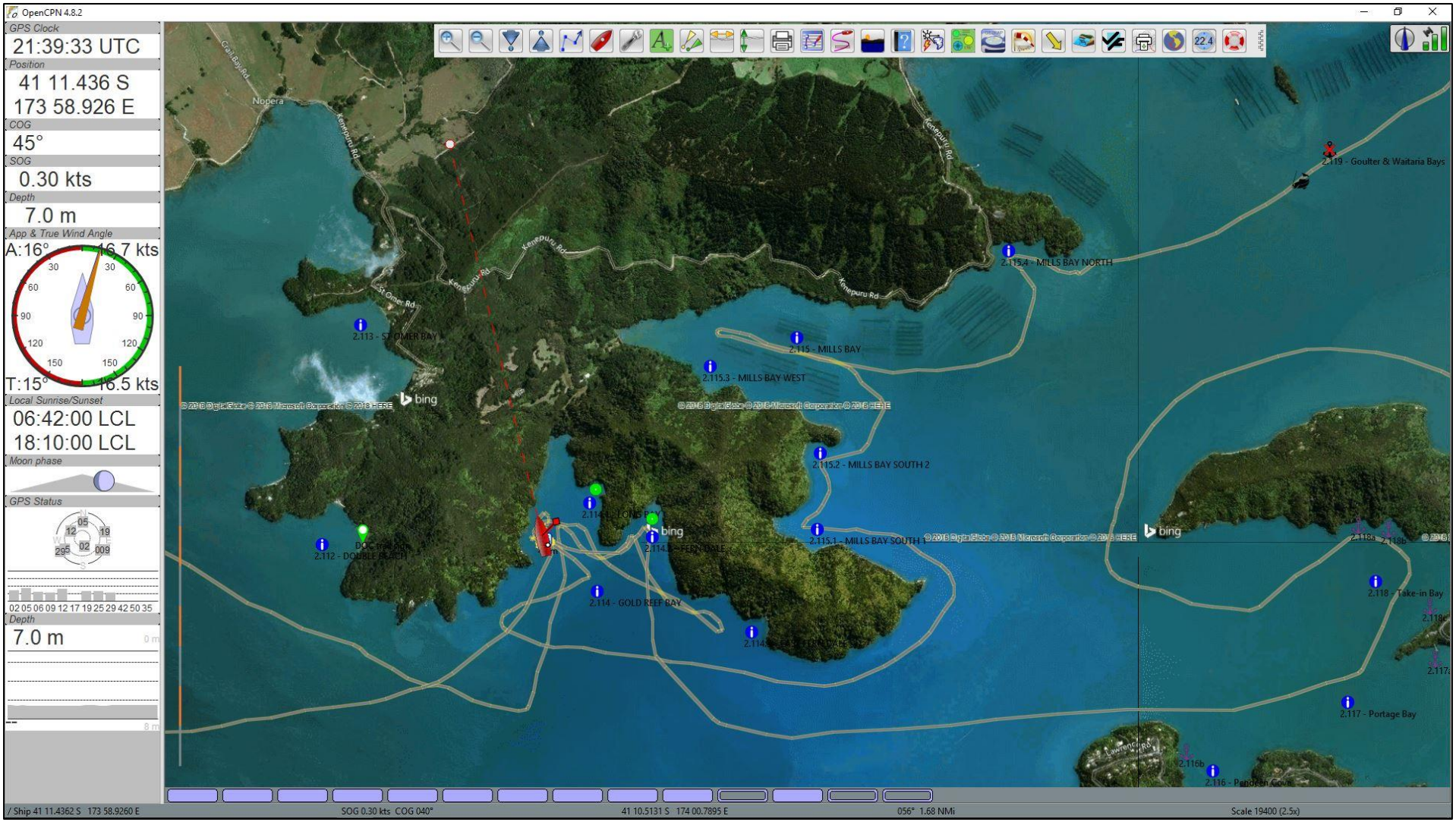


OpenCPN supports commercial S63 format vector charts. Available from sources such as Chartworld & NVCharts.

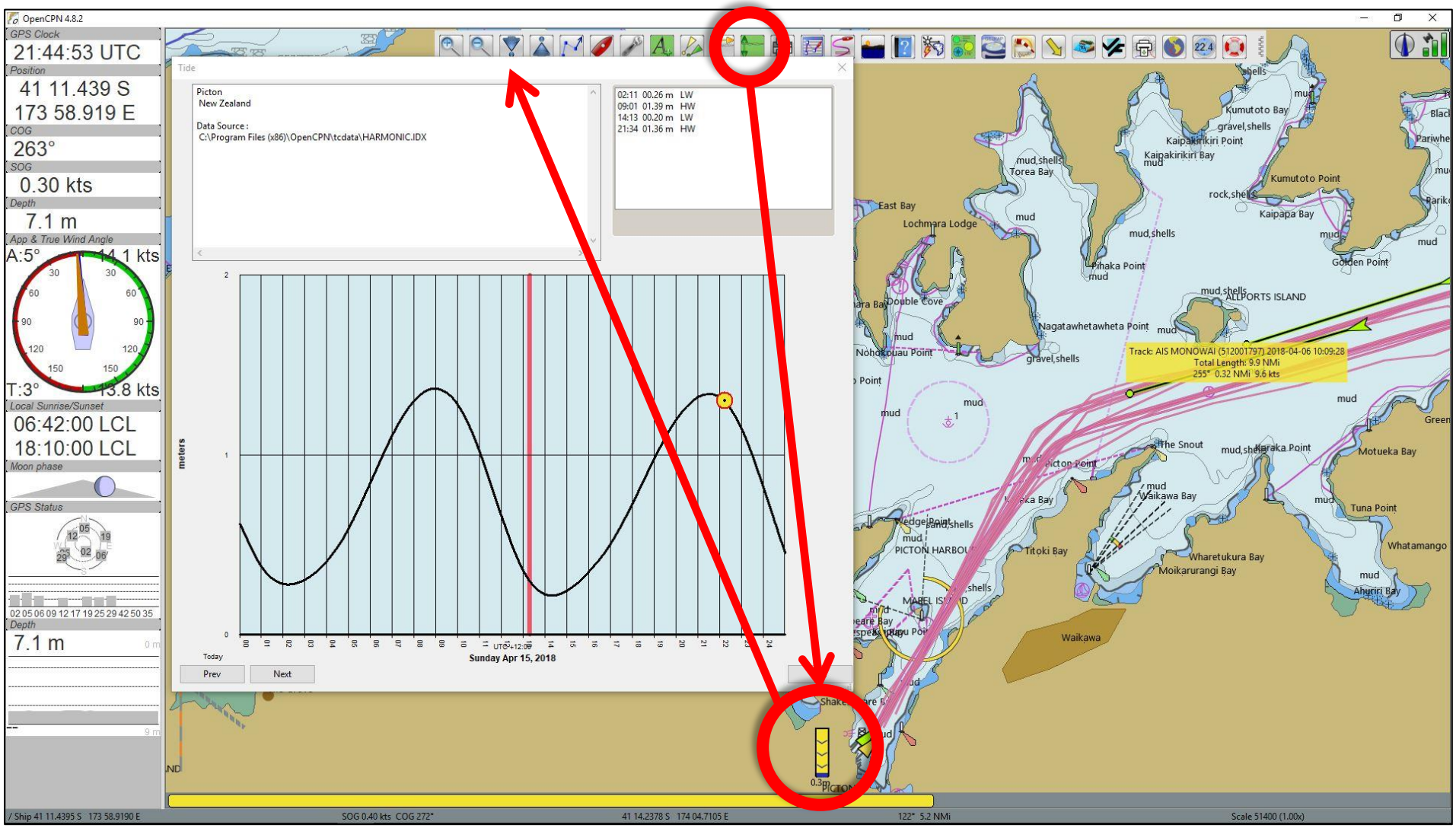
OpenCPN via O-Charts has their own brand of vector charts known as oeSENC charts. These are available in limited coverage (mostly Europe so far) from http://o-charts.org/



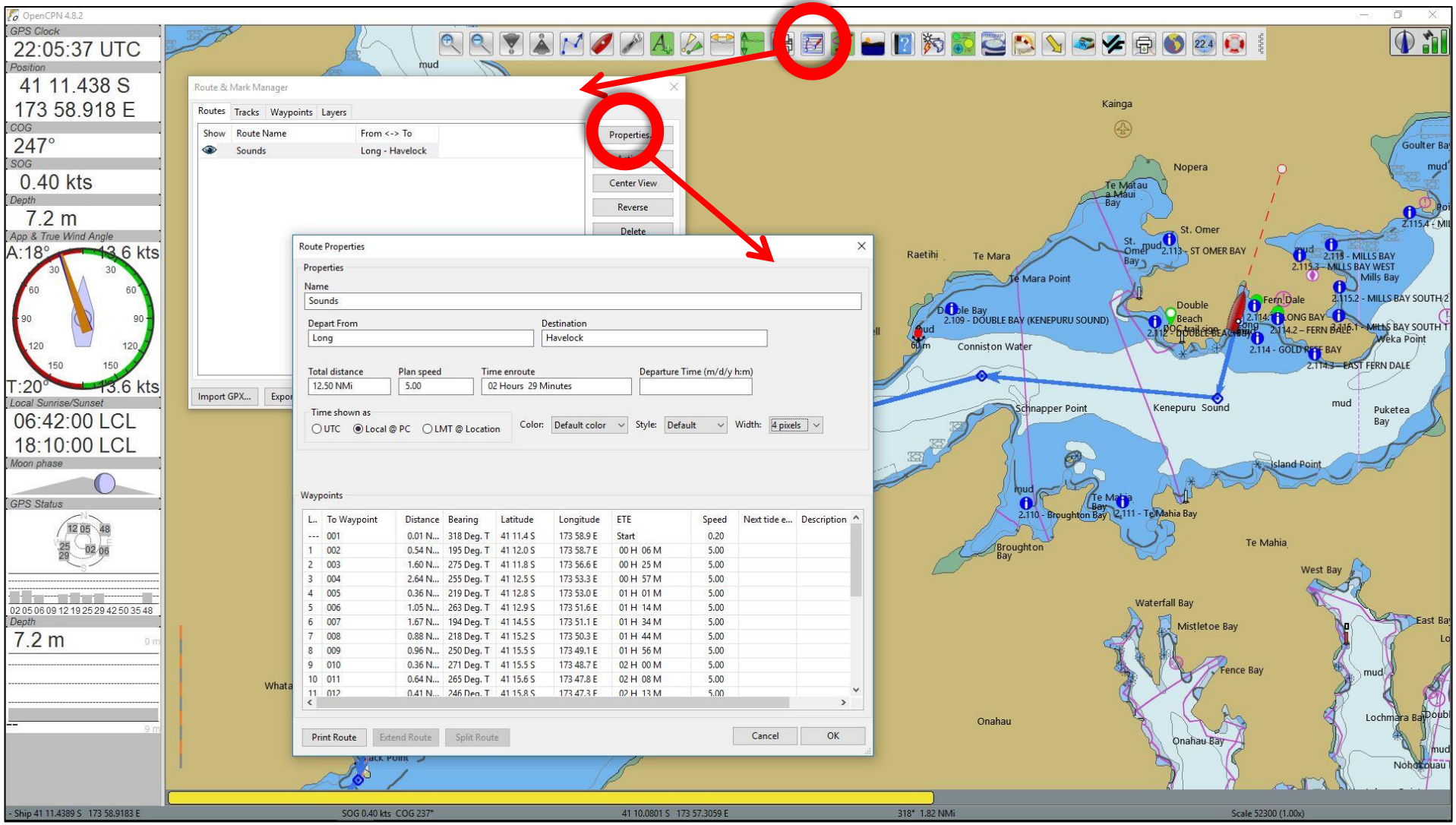
Charts – Satellite



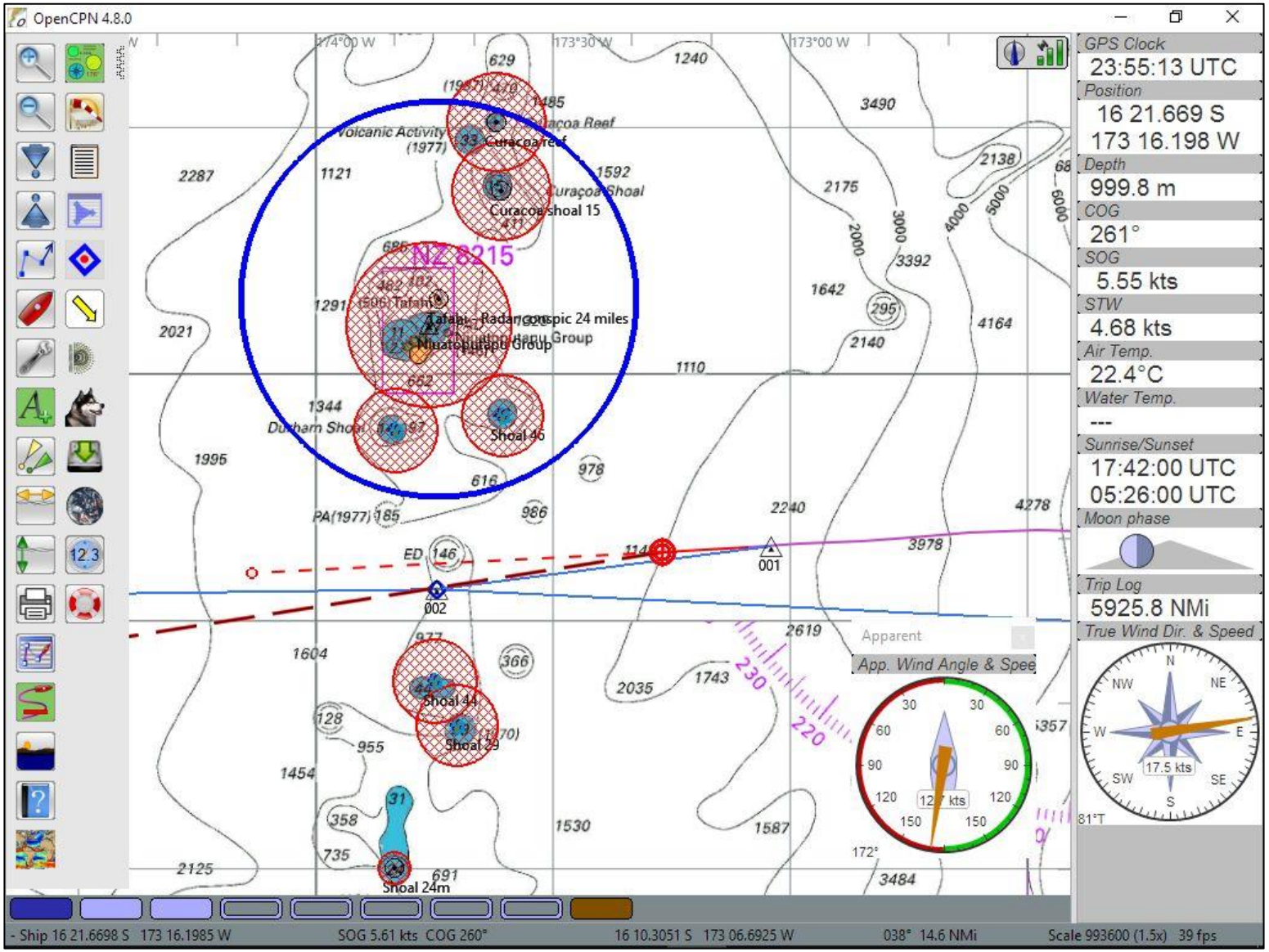
Passage Planning



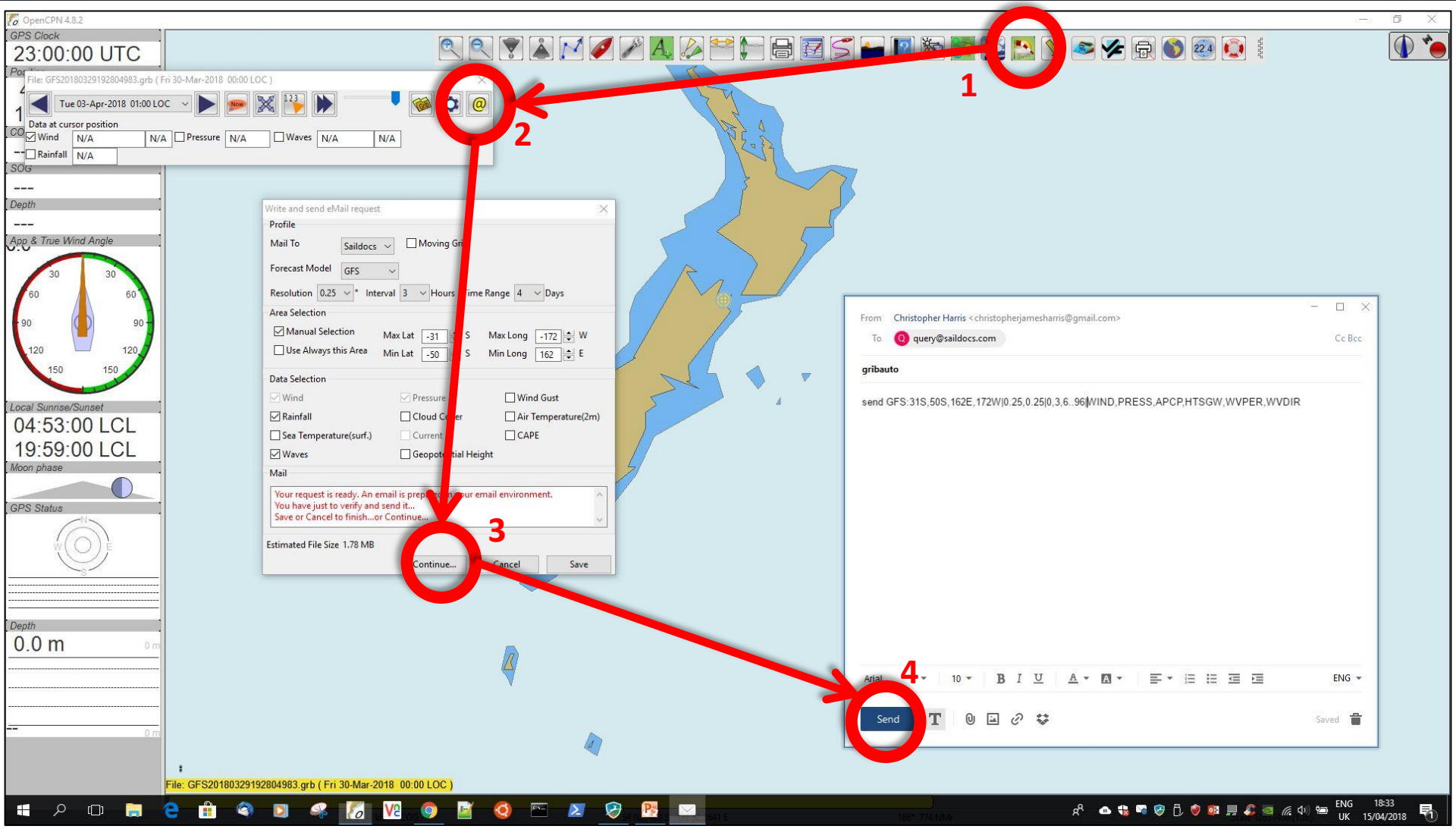
Routes, Track, Waypoints



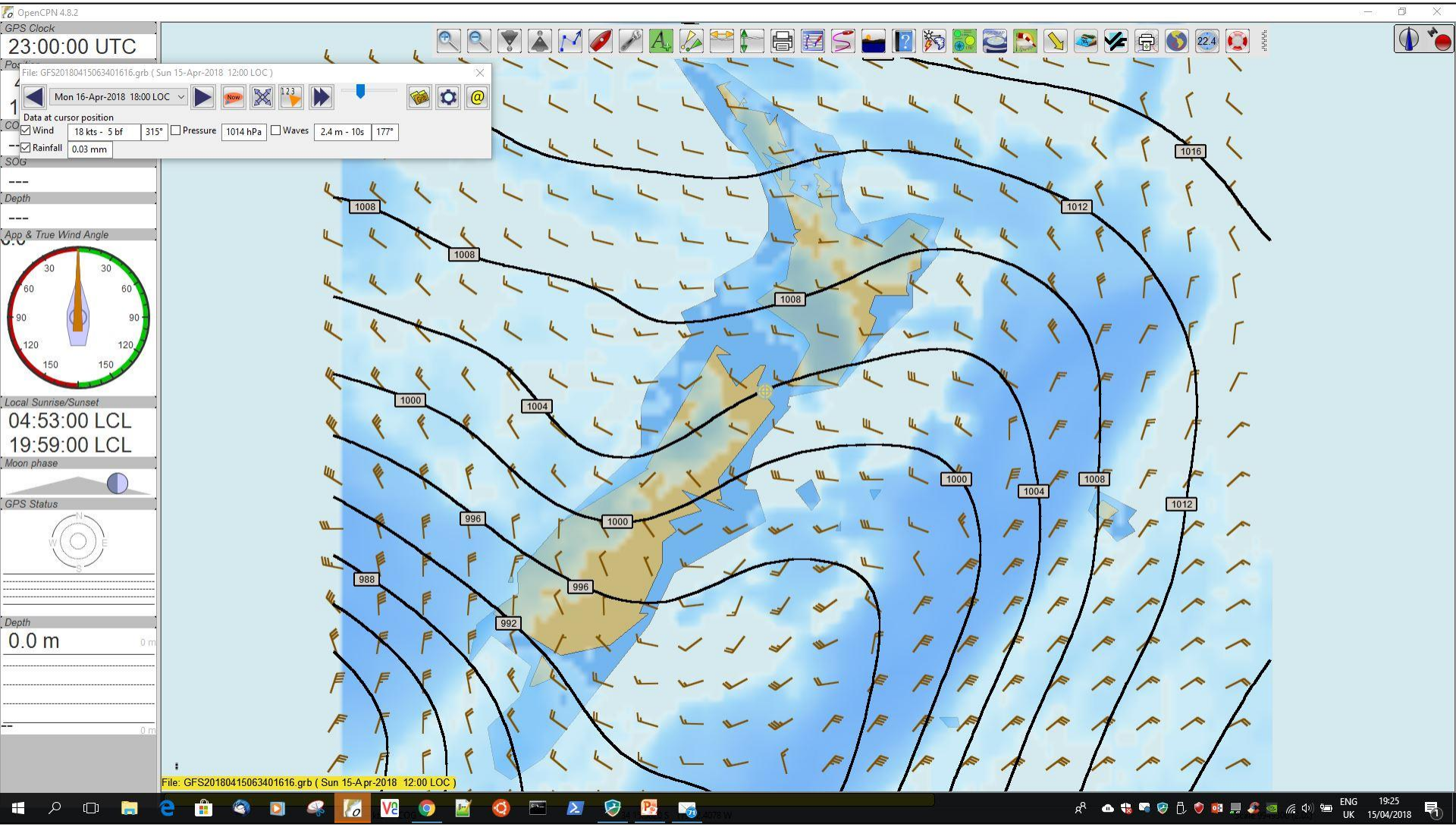
Passage planning



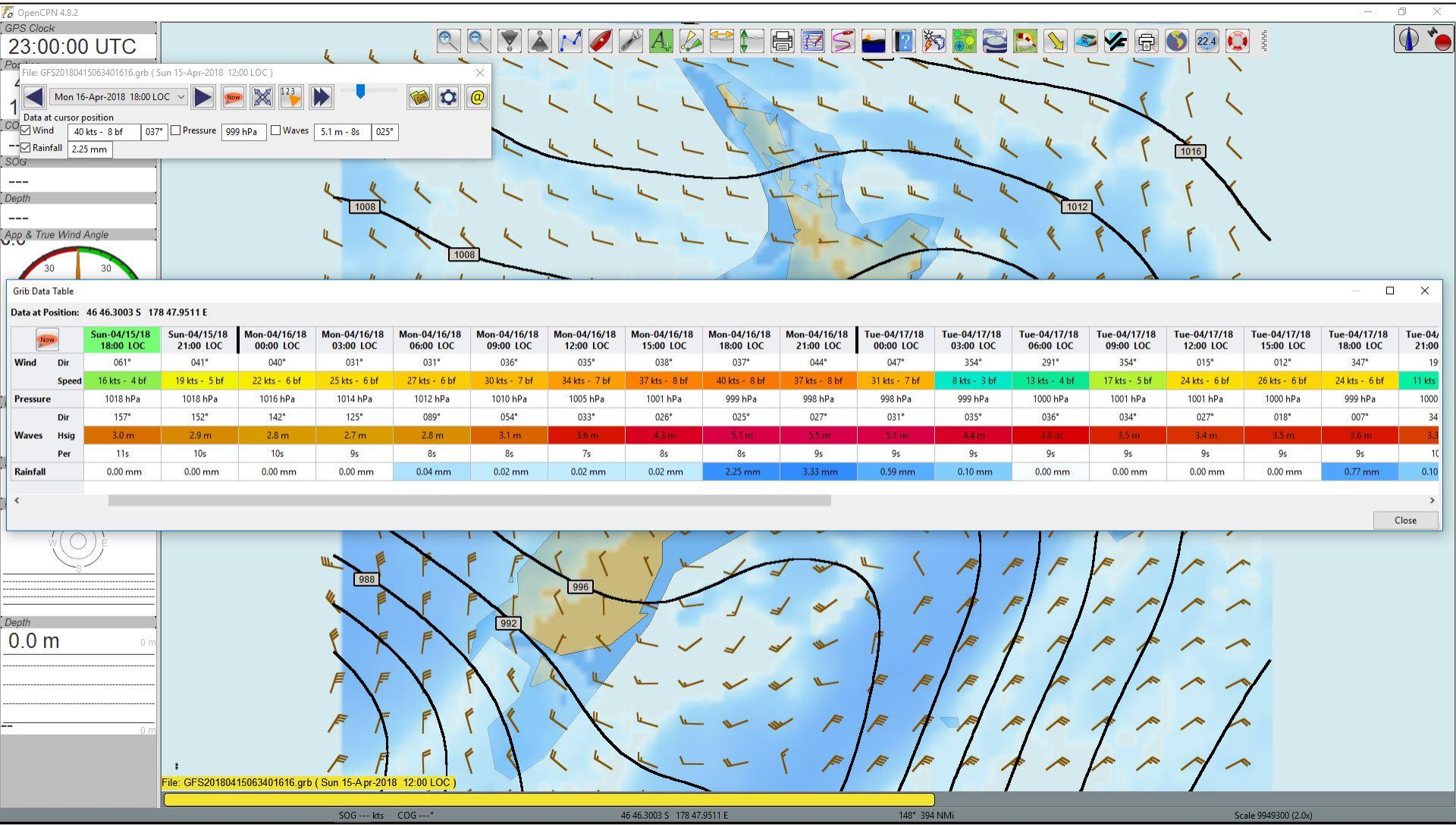
Weather Forecasts



Weather Forecasts

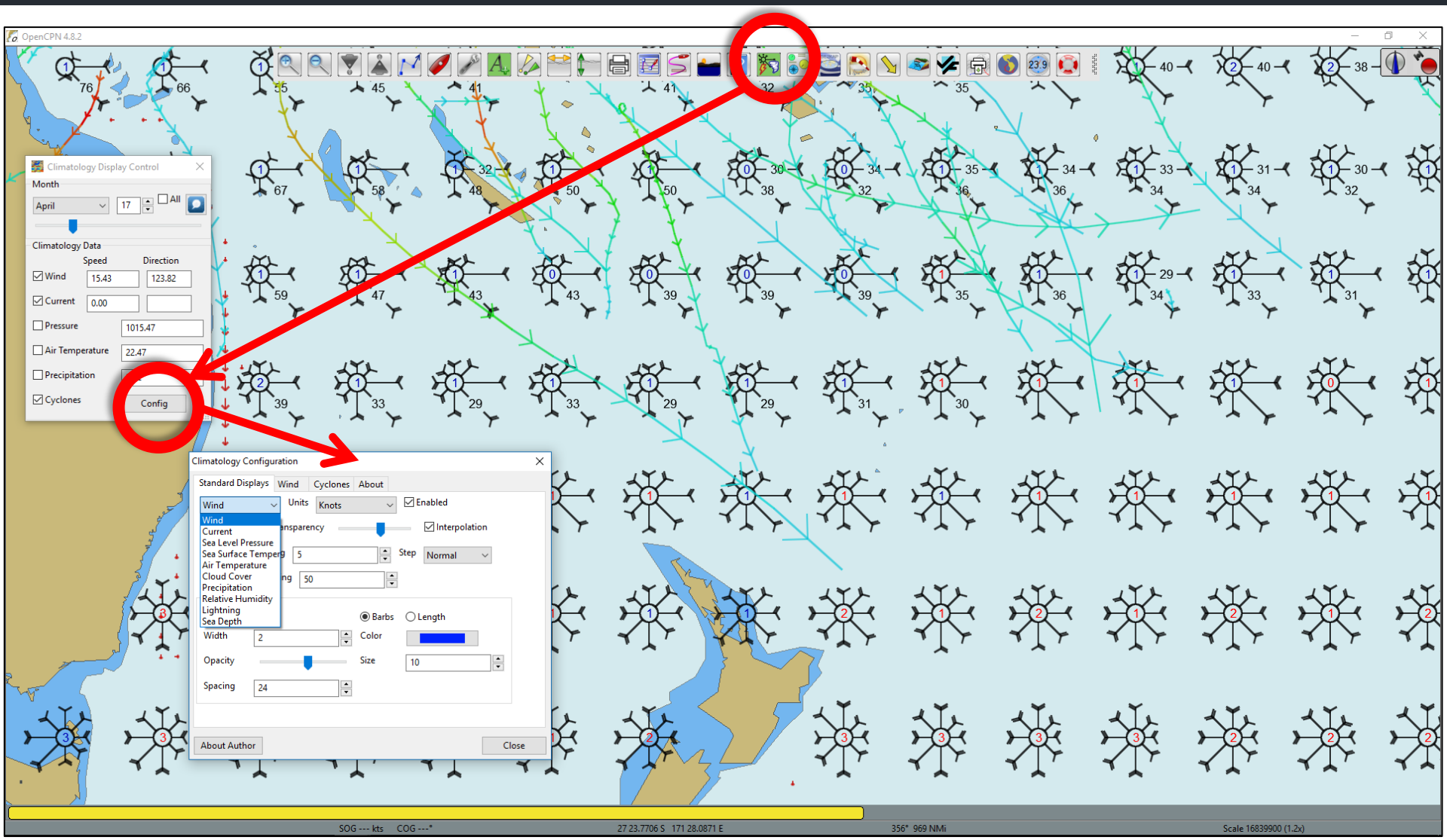


Weather Forecasts



		Sun-04/15/18 18:00 LOC	Sun-04/15/18 21:00 LOC	Mon-04/16/18 00:00 LOC	Mon-04/16/18 03:00 LOC	Mon-04/16/18 06:00 LOC	Mon-04/16/18 09:00 LOC	Mon-04/16/18 12:00 LOC	Mon-04/16/18 15:00 LOC	Mon-04/16/18 18:00 LOC	Mon-04/16/18 21:00 LOC	Tue-04/17/18 00:00 LOC	Tue-04/17/18 03:00 LOC	Tue-04/17/18 06:00 LOC	Tue-04/17/18 09:00 LOC	Tue-04/17/18 12:00 LOC	Tue-04/17/18 15:00 LOC	Tue-04/17/18 18:00 LOC	Tue-04/ 21:00
Wind	Dir	061°	041°	040°	031°	031°	036°	035°	038°	037°	044°	047°	354°	291°	354°	015°	012°	347°	19
	Speed	16 kts - 4 bf	19 kts - 5 bf	22 kts - 6 bf	25 kts - 6 bf	27 kts - 6 bf	30 kts - 7 bf	34 kts - 7 bf	37 kts - 8 bf	40 kts - 8 bf	37 kts - 8 bf	31 kts - 7 bf	8 kts - 3 bf	13 kts - 4 bf	17 kts - 5 bf	24 kts - 6 bf	26 kts - 6 bf	24 kts - 6 bf	11 kts
Pressure		1018 hPa	1018 hPa	1016 hPa	1014 hPa	1012 hPa	1010 hPa	1005 hPa	1001 hPa	999 hPa	998 hPa	998 hPa	999 hPa	1000 hPa	1001 hPa	1001 hPa	1000 hPa	999 hPa	1000
Waves	Dir	157°	152°	142°	125°	089°	054°	033°	026°	025°	027°	031°	035°	036°	034°	027°	018°	007°	34
	Hsig	3.0 m	2.9 m	2.8 m	2.7 m	2.8 m	3.1 m	3.6 m	4.3 m	5.1 m	5.5 m	5.1 m	4.4 m	3.8 m	3.5 m	3.4 m	3.5 m	3.6 m	3.3
	Per	11s	10s	10s	9s	8s	8s	7s	8s	8s	9s	9s	9s	9s	9s	9s	9s	9s	1(
Rainfall		0.00 mm	0.00 mm	0.00 mm	0.00 mm	0.04 mm	0.02 mm	0.02 mm	0.02 mm	2.25 mm	3.33 mm	0.59 mm	0.10 mm	0.00 mm	0.00 mm	0.00 mm	0.00 mm	0.77 mm	0.10

Digital Pilot Charts



Going Live

OpenCPN has a versatile suite of communications interface tools built-in.

It can communicate via:

- Serial ports (DB9 or USB connections)
- Network connections; wired (Ethernet) or WiFi

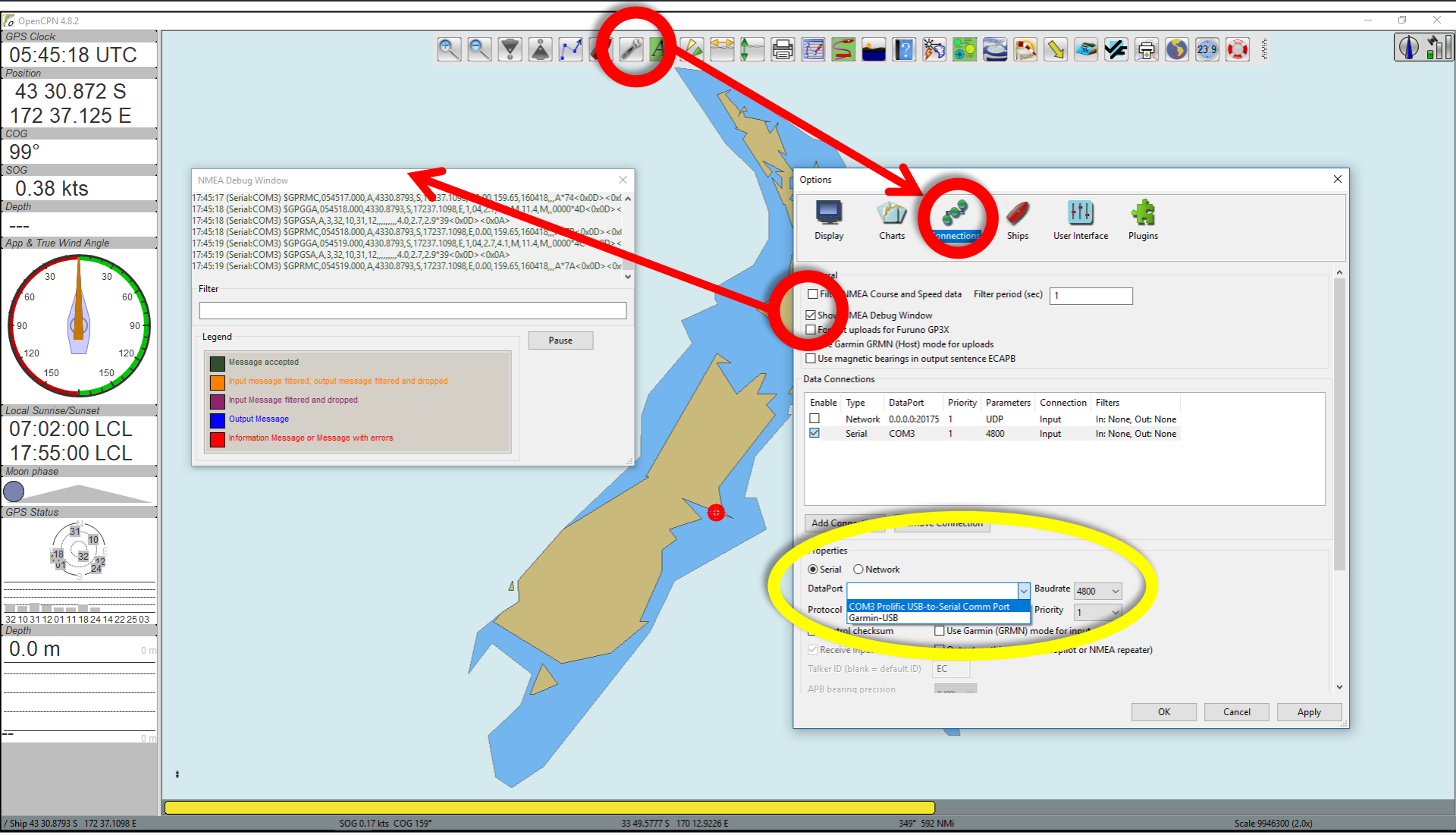
Navigation equipment can either be connected directly of via networked data streams. Open CPN can receive data from several different sources and multiplex the data thereby acting as a gateway.

All data can be logged and played back via the VDR plugin.

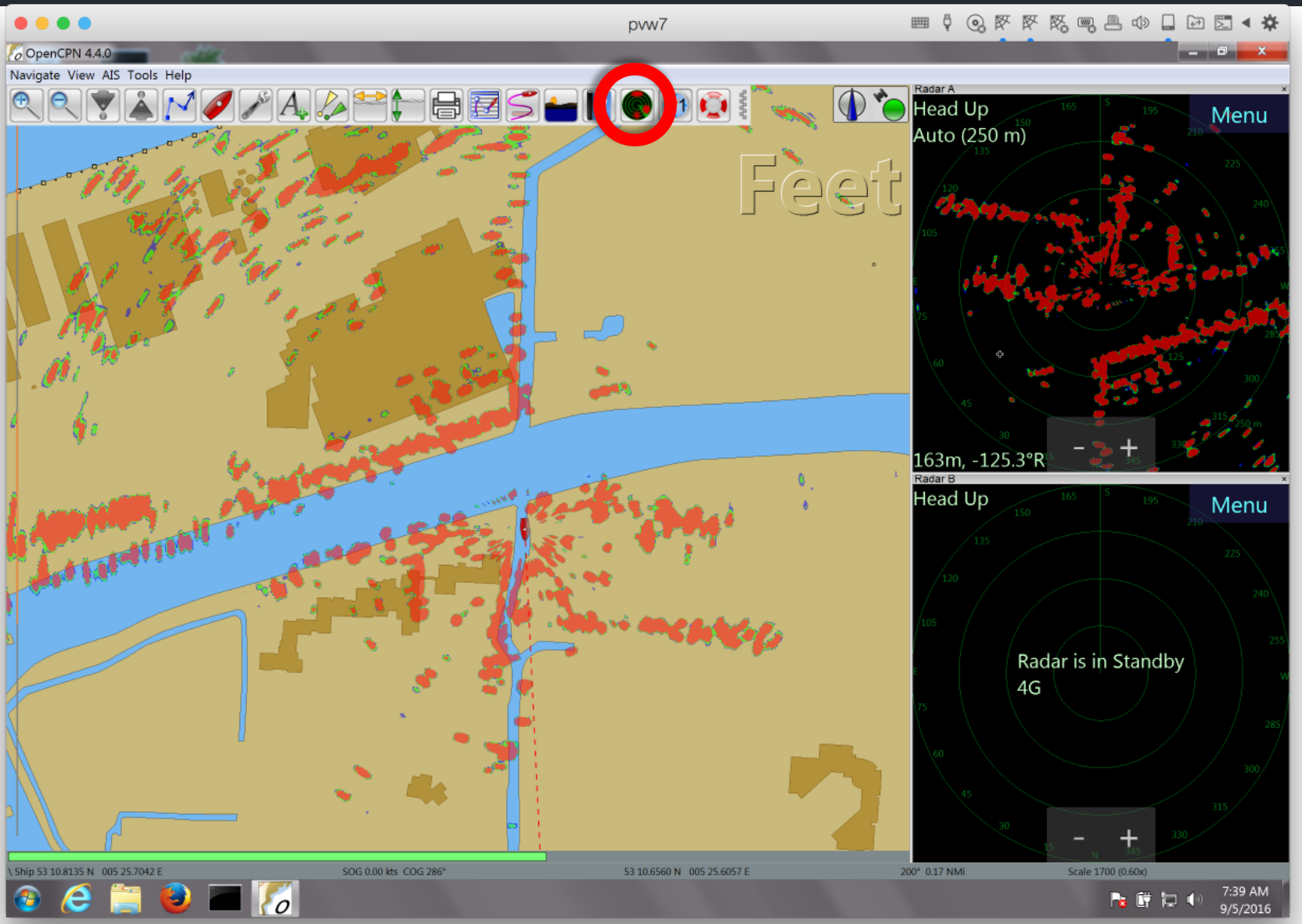
Examples of connections:

- GPS – Data (routes or waypoints) can also be transferred to plotter or GPS
- Autopilot
- RADAR – Radar from some network capable radars can be displayed
- AIS transceiver
- VHF radio DSC messages
- Whatever is on the boats NMEA 0183 or NMEA 2K network can be displayed in OpenCPN

Connecting a GPS



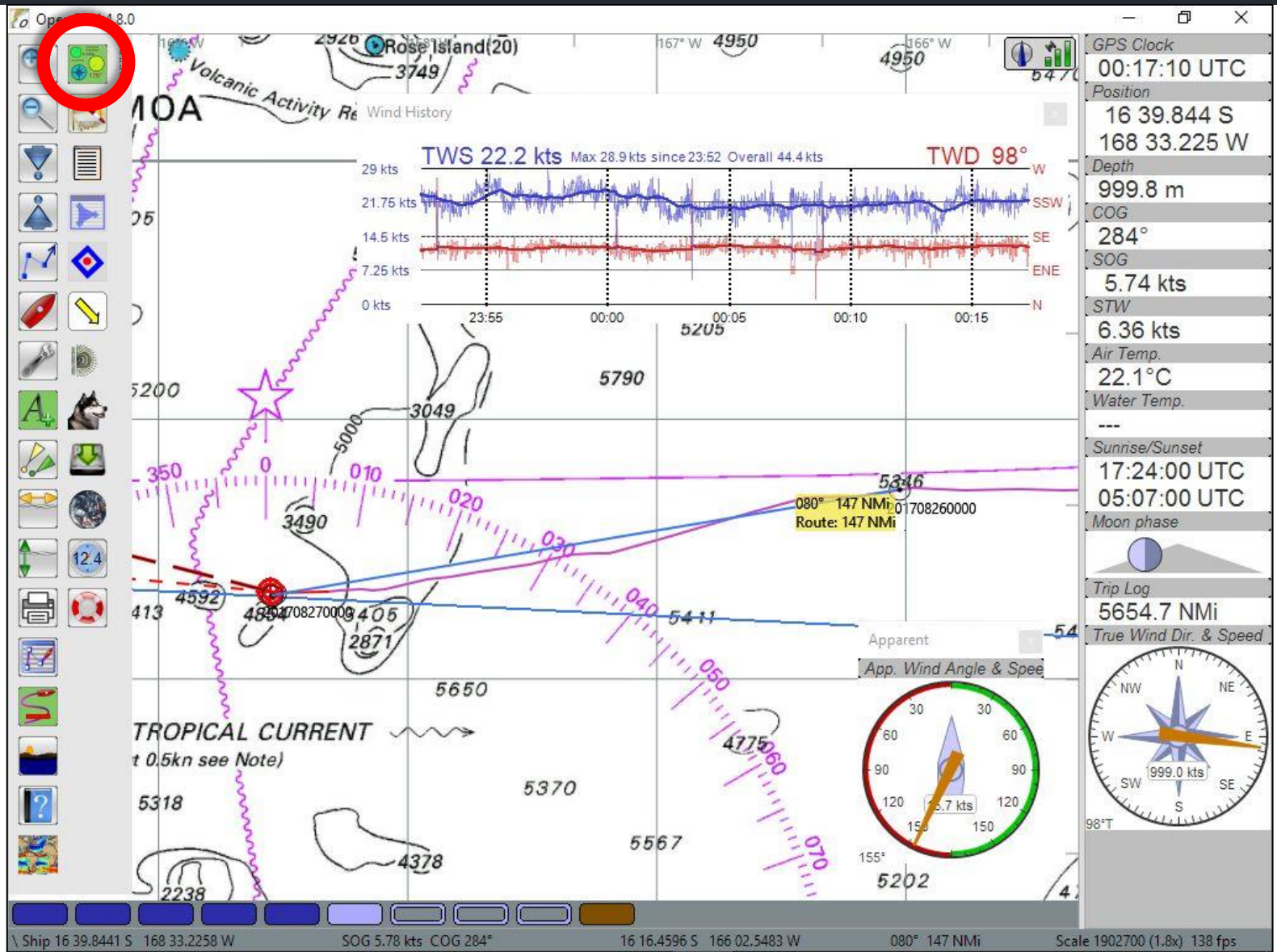
Radar Plugin



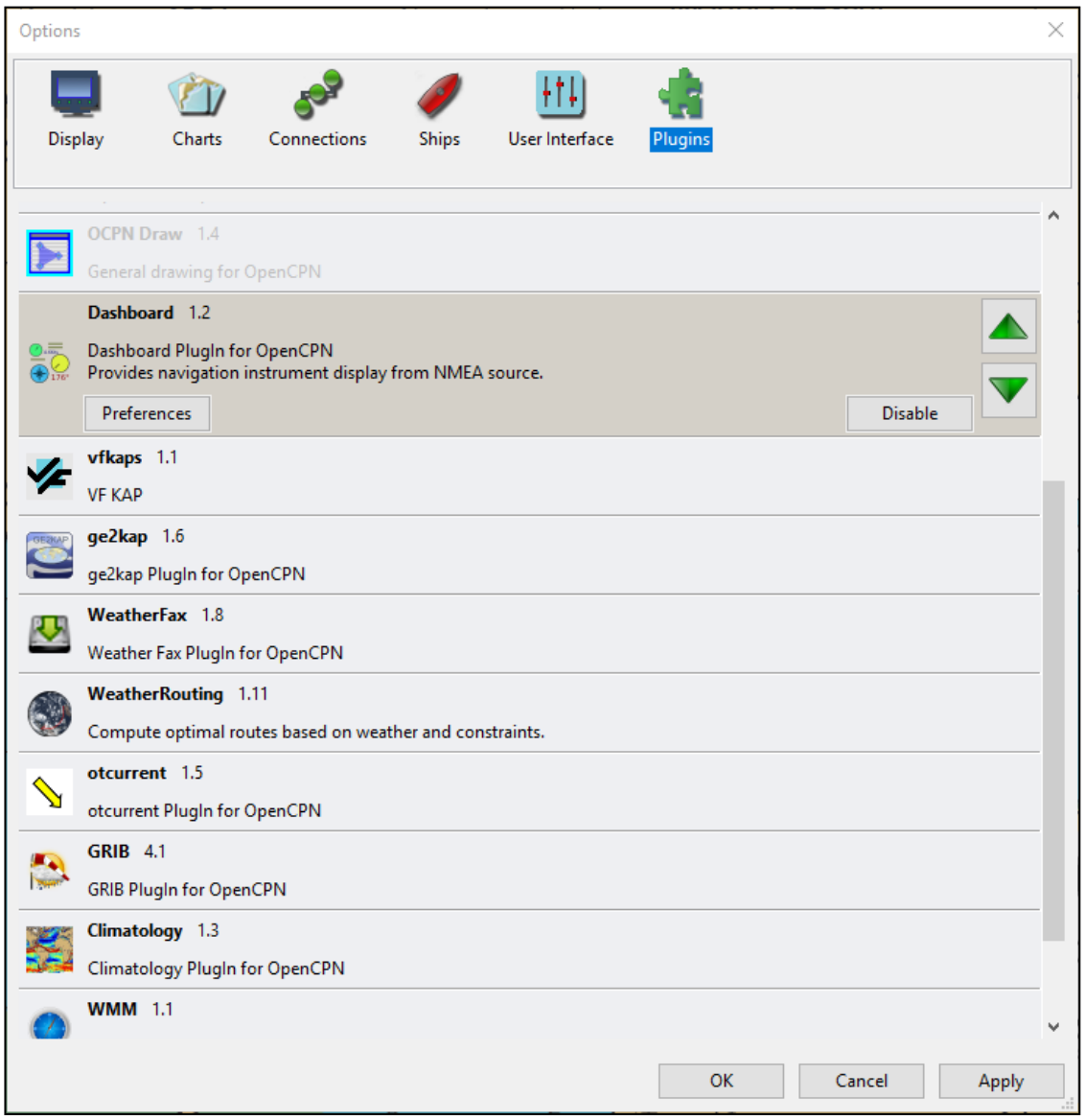
OpenCPN Underway

- Position and situational awareness
- Data display – Navigation, Environment, Vessel function
- Recording track – and other data
- AIS
- RADAR
- Anchor alarm
- Routes & Waypoints
- Search & Rescue
- Log keeping
- Maintenance logs

OpenCPN Underway



Extending OpenCPN



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

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

Logs

Logbook Konni | Find It | Voyage Data Recorder

Navigation

sQuiddio | Google Earth | Celestial Navigation | Route | Dead Reckoning | oTCurrent

Safety

Watch Dog | Ocpn Draw | SAR

Sailing Interests

Polar | Sweep Plot | Tactics

Weather

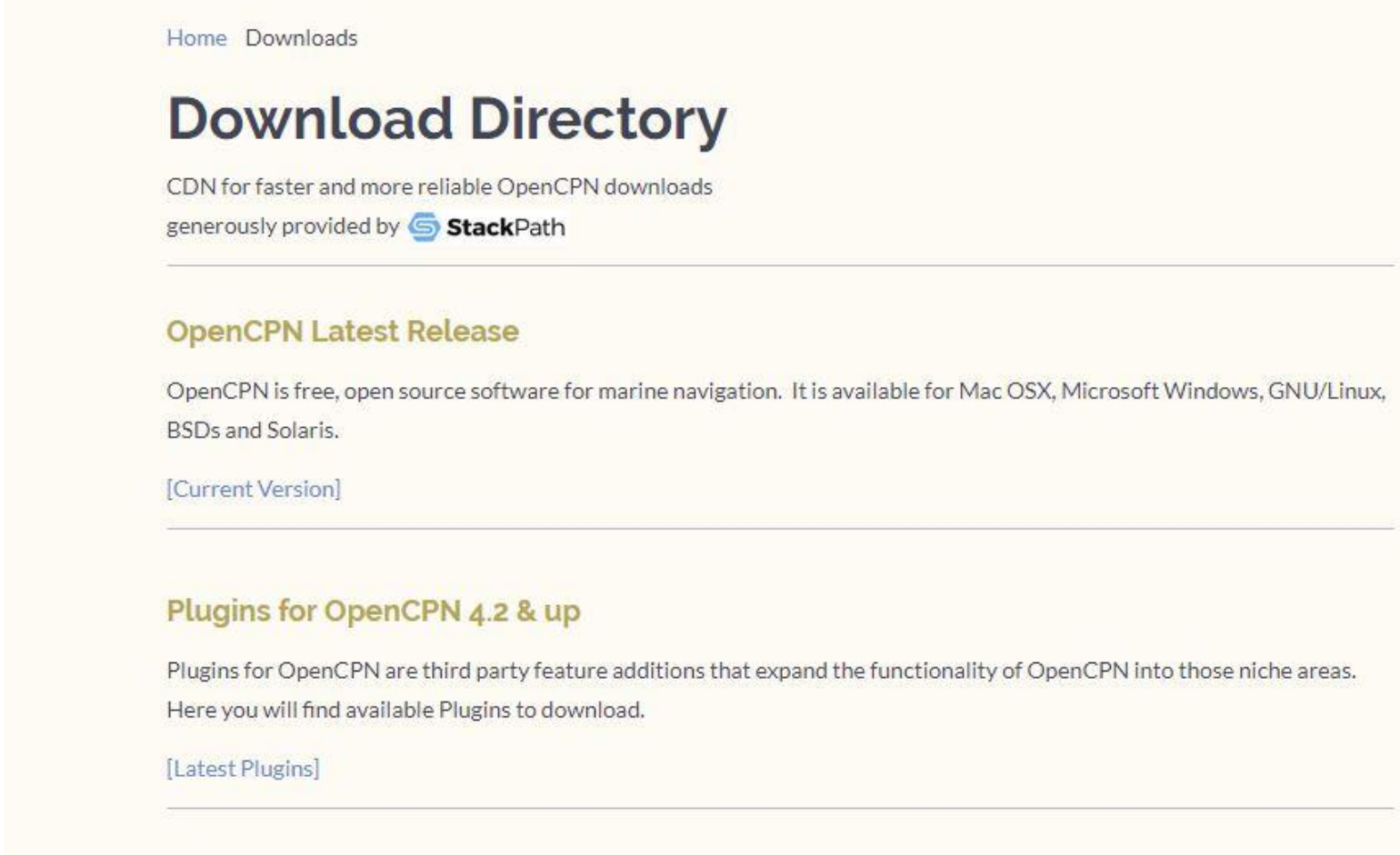
IAC Fleet Code | Weather Routing | Weather Fax | Climatology

Other

Status Bar | Calculator | Launcher | Debugger

Getting OpenCPN

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



Home Downloads

Download Directory

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

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.

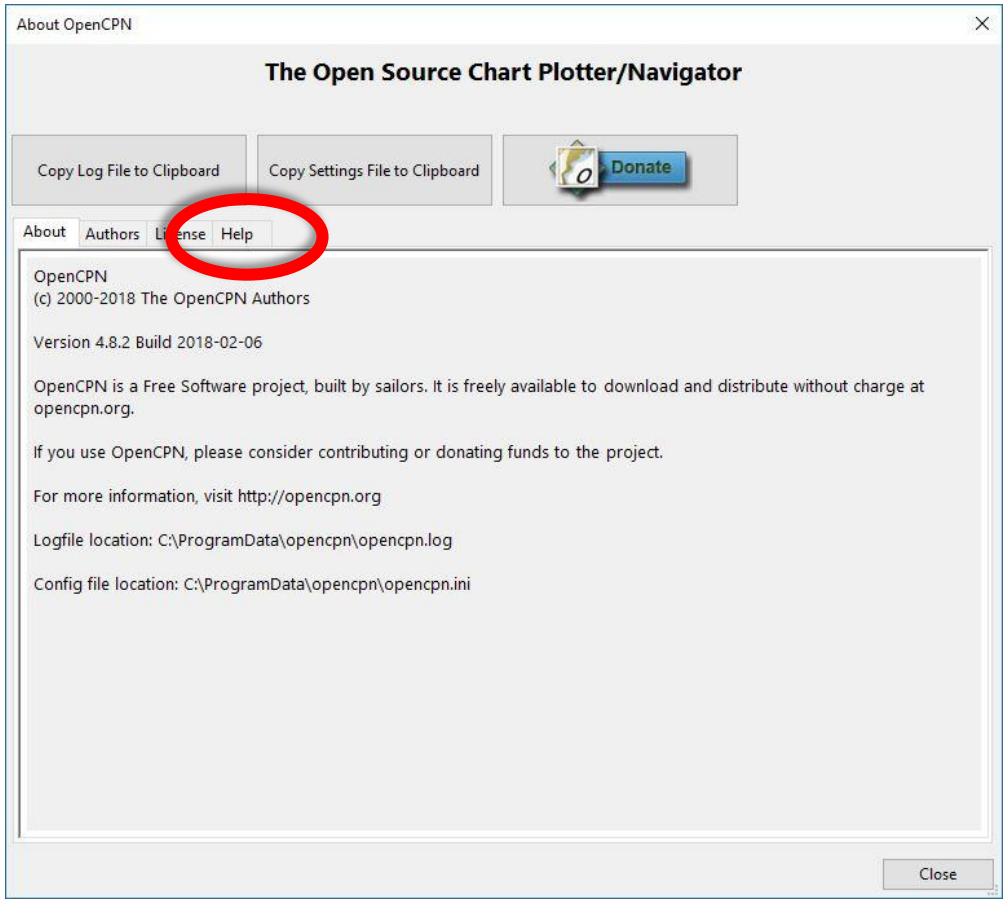
[Current Version]

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]

The Built-in Manual



The Online Manual

OpenCPN Manuals | Home | Search | Log In

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Trace / OpenCPN Manuals / Getting Started / OpenCPN User Manual

opencpn:opencpn_user_manual

OpenCPN User Manual

Cell Phones use the "Sidebar" Dropdown Menu above.

Table of Contents

Organization

Note about organization of the Pages or Namespaces.

1. Getting Started Help for new users and direction to key sections.
2. Getting Around Controls, charts and significant features.
3. TOOLBAR Buttons Each page represents a Toolbar button organization.

Other Online Resources

Home Resources

Resources

Chart Sources

Chart Sources Where to find the charts you need.

OpenCPN Forum

Visit our active Forum. Discuss, Learn, Ask
Facebook is social, but the Team and Mods generally stick to the forum.

Translation Project

OpenCPN Translation Project. Thanks to volunteer interpreters, like you, OpenCPN Supports 20+ languages. If your native language isn't supported yet, a tiny bit of your time can make it happen. No coding knowledge is needed. Its free and fun.

Trusted International Sites

Español Français Netherlands OpenCPN Norge

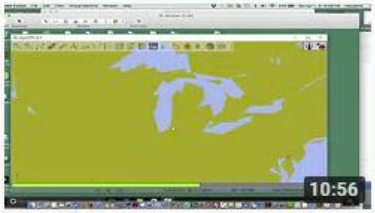
Blog

All Things OpenCPN Highlighting & curating relevant items.

You Tube

opencpn

The new minor light symbols and new wind barb symbols are discussed. Note: it is an improvement to have arrowheads removed



OpenCPN, How to load hi-res base map, Mac and PC

David Burch • 2.5K views • 1 year ago

Base map is discussed, when hi-res might be needed, and how to do it for mac and pc. Note: GSHHS =Global Self-consistent

OpenCPN 4.4.0 with BR24radar_pi 2.1

Merrimac2 • 1.3K views • 1 year ago

Navico 4G broadband radar displayed on two laptops over 5 GHz WiFi network. Additionally NMEA 0183 data streamed to those

OpenCPN 3.1 New Features

OpenCPN • 37K views • 5 years ago

What's new in http://**opencpn**.org since release 3.0.2.

Open CPN Tutorial

SV Souls the sailing channel • 230 views • 1 week ago

Sailing around the world. 100 Technical videos, sailing for beginners, sailing for dummies the full video here for the patreons : https:/

OpenCPN Basic Plotting Tools

Behind the Scenes

More OpenCPN?

Thank You!

You can download a copy of this presentation at:

http://www.tweedsworld.com/notebooks/introtoopencpn.html

OpenCPN in depth – if there is any interest I would be willing to host a few evening sessions helping, coaching, mentoring or just discussing OpenCPN. Contact me on 021 02727292 or at chris@tweedsmarine.nz if you are interested.