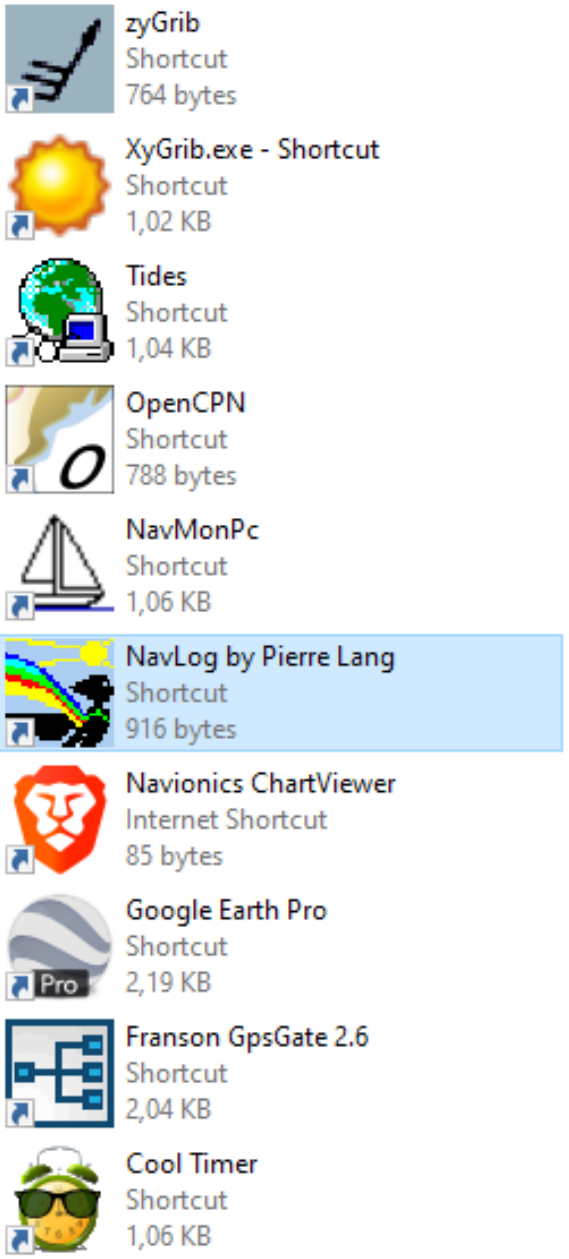


Navigation
- OpenCPN (charts, routes, AIS, etc.)
- Google Earth
- NavMonPc (dials, AIS, alarms, etc.)
- Tides (old version)

Weather
- ZyGrib (downloads GRIB for OpenCPN)
- XyGrib (downloads GRIB for OpenCPN)
- windy.com
- windfinder.com (general)

NavLog
- Logbook Manager

System
- Franson GpsGate Splitter

Others
- Cool Timer (sleeping alarm)

Internet
- Too much sites !

Main Windows Apps

Navigation
- OpenCPN
- (Navionics)
- DGS Tides
- Horaires des marées
- Anchor Alarm (or) Anchor
- Moon

AIS
- MarineTraffic & OnCourse (send GPS position to MarineTraffic)

Weather
- PocketGrib (can download for OpenCPN)
- Baromer Plus (with alarms)
- Windy
- WindFinder (general)

Information
- Coton (Clouds pictures)
- Wind (Wind & Sea scales)

Some Android Apps

GPS

Sounder – Speedo – Windo

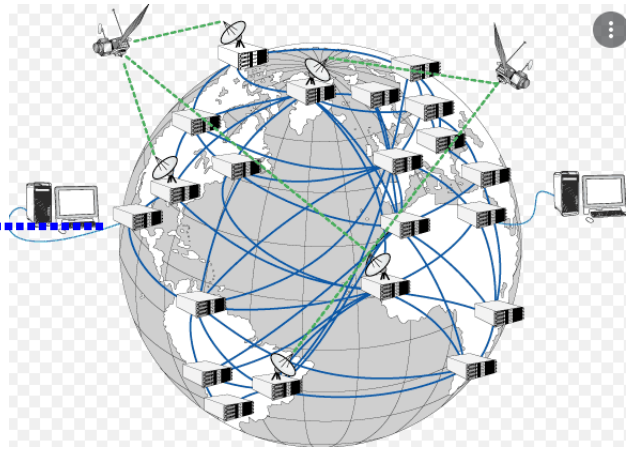
Autopilot

AIS transponder

WiFi

Hot spot

2G
3G
4G
5G



The dream ?

Instruments
GPS
AIS
Sounder
Wind

Autopilot

Weather
(ZyGrib)

Navigation desk
(NavMonPc)

Chart system
(OpenCPN)

Charts
CMAP
BSB
oeSENC
etc.

Plugins
Grib
Dashboard
Radar
etc.

Logbook
(NavLog)

Google Earth

eBook

Main modules & NavLog

Sounder – Speedo – Windo

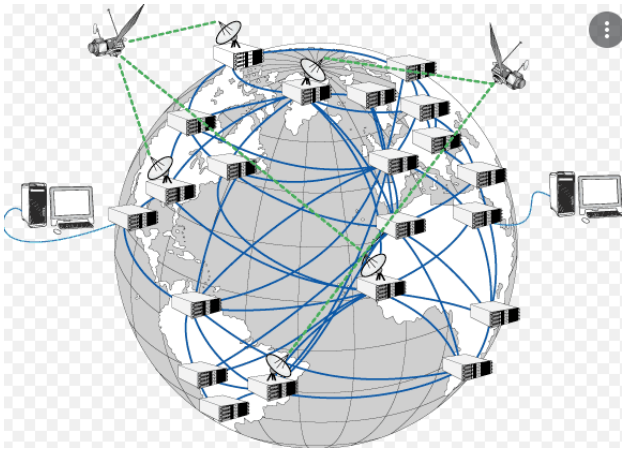
Autopilot

AIS receiver

Network

Seatalk

Navigation only
No chart choice



(+)
- Very expensive
- Easy to use

(-)
- Closed system
- No evolution

Notebook

CLOSED system ?
No integration !!!

GPS

Sounder – Speedo – Windo

Autopilot

AIS transponder

Seatalk

NMEA

NMEA

(+)
- Not expensive
- Flexibility

(-)
- Many software
- System problems

Too many Apps and possibilities !

OPEN system ?
100% integration !!!

GPS

Sounder – Speedo – Windo

Autopilot

AIS receiver

NMEA

Basic GPS (maybe many)

RS232 / USB interface

RS232

USB

USB

(+)

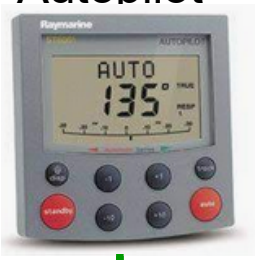
- Many other desktop applications
- Easy evolution

Step 1
Navigation with a computer

GPS

Sounder – Speedo – Windo

Autopilot



AIS transponder

AIS

RS232 / USB interface

NMEA

USB

Step 2
More security = AIS

GPS

Sounder – Speedo – Windo

Autopilot

AIS transponder

USB hub

USB

Step 3
More USB ports

GPS

Sounder – Speedo – Windo

Autopilot

AIS transponder

Network

Seatalk

NMEA

NMEA

Data multiplexer (Brookhouse)

USB

Step 4
More integration

GPS

Sounder – Speedo – Windo

Autopilot

AIS transponder

Seatalk

RS232

NMEA

NMEA

RS232

Step 5
More security
= More redondance

$GPRMC,044435,A,5455.918,N,01014.436,E,006.3,135,150921,000,W*6B

Time	Latitude	Longitude	SOG	COG	Date
04:43:35	54°55.918' N	010°14.436' E	6.3 kts	135°	15/09/21

$IIMTW,15.3,C*1E

Temperature
15.3°C

$IIDBT,11.4,f,3.5,M,,F*0D

Depth	Depth
11.4 ft	3.5 m

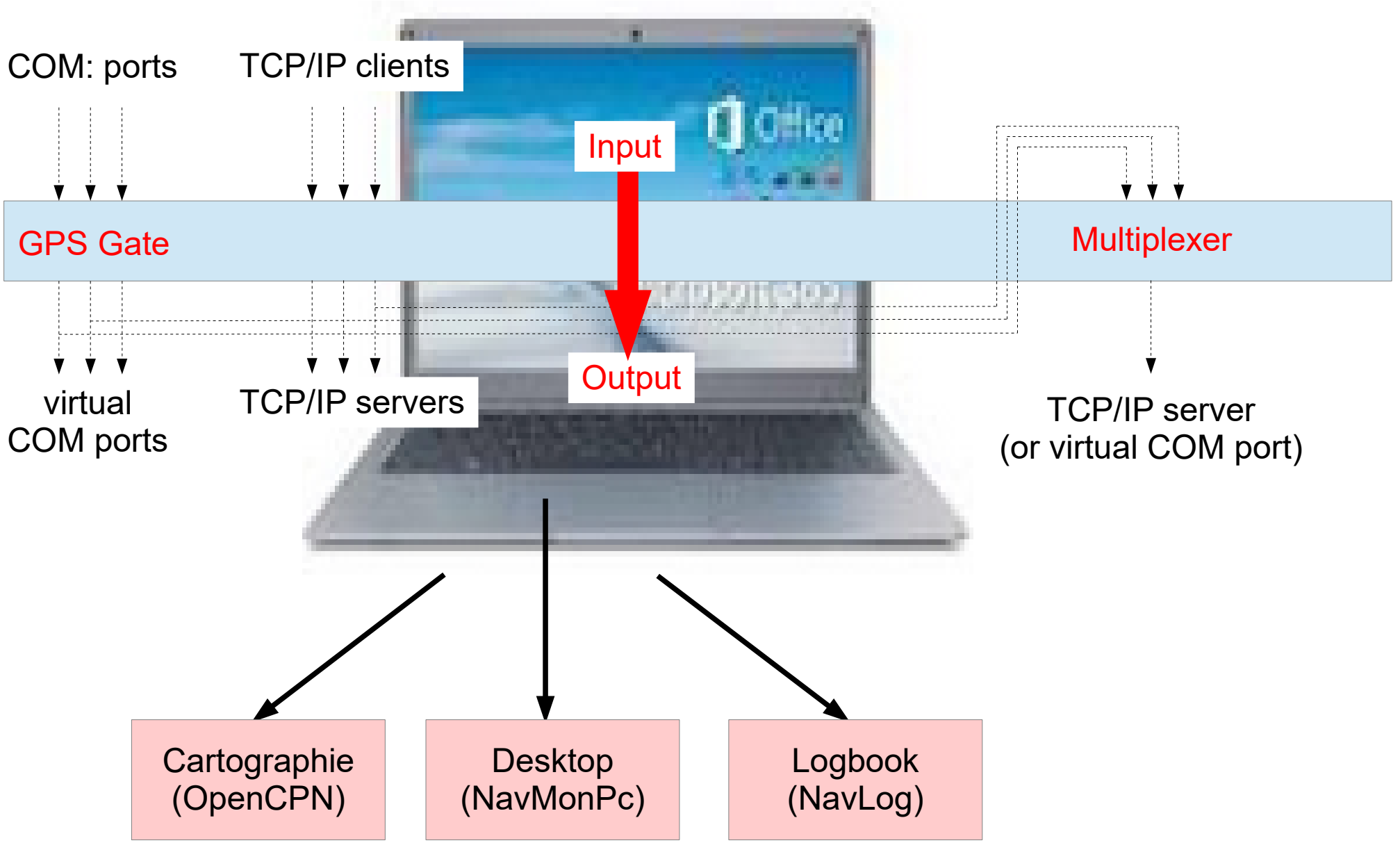
NMEA (readable format)

```
$IIHDM,85.0,M*1F
$GPXTE,A,A,0.00,R,N*70
$IIDBT,11.3,f,3.5,M,,F*0A
$IIVTG,,,0.0,M,,,,*26
$IIVHW,,,85.0,M,0.0,N,,*77
$IIMTW,49.0,C*1E
$IIMTW,120.0,F*25
$IIVHW,,,85.0,M,0.00,N,,*47
$IIMWV,13.0,R,14.5,N,,*52
$IIVWR,13.0,R,14.5,N,,,,*4D
$GPVTG,135,T,000,M,000.0,N,000.0,K*49
$IIHDM,84.0,M*1E
$IIDBT,11.1,f,3.3,M,,F*0E
$IIVHW,,,84.0,M,0.0,N,,*76
$IIVTG,,,0.0,M,,,,*26
$IIMTW,49.0,C*1E
$IIMTW,120.0,F*25
$IIVHW,,,84.0,M,0.00,N,,*46
$IIMWV,8.0,R,14.4,N,,*69
$IIVWR,8.0,R,14.4,N,,,,*76
$GPXTE,A,A,0.00,R,N*70
$GPRMC,044436,A,5455.918,N,01014.436,E,000.0,135,150921,000,W
```

AIS (encoded, unreadble)

```
!AIVDO,1,1,,B33k`aP008;GeV7lLu;23wn5oP06,0*27
!AIVDM,1,1,,A,139fgK0P150ehDHOBFH4w?wH05:P,0*2D
```

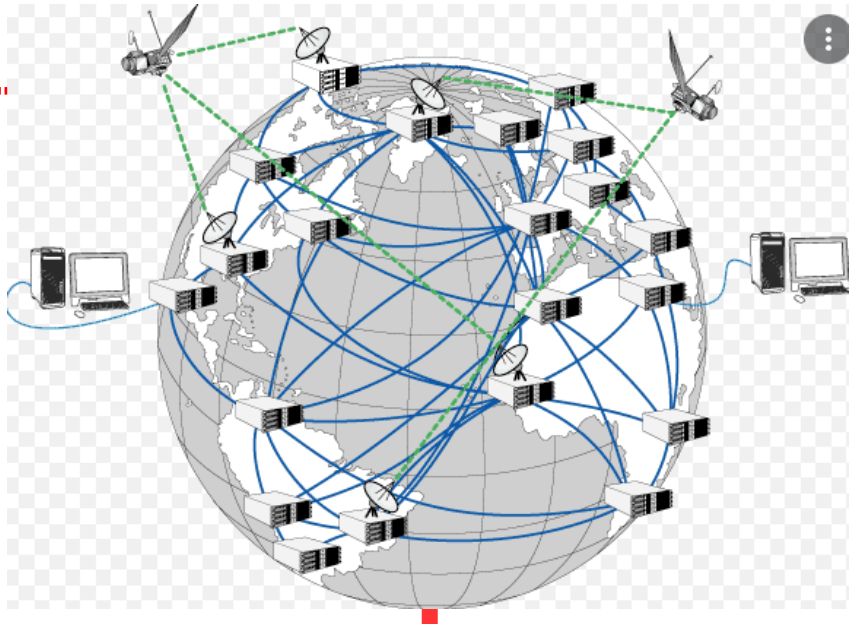
NMEA protocol



https://gpsgate.com/gpsgate-splitter

NMEA data input with GpsGate Splitter

Weather
(NOAA)

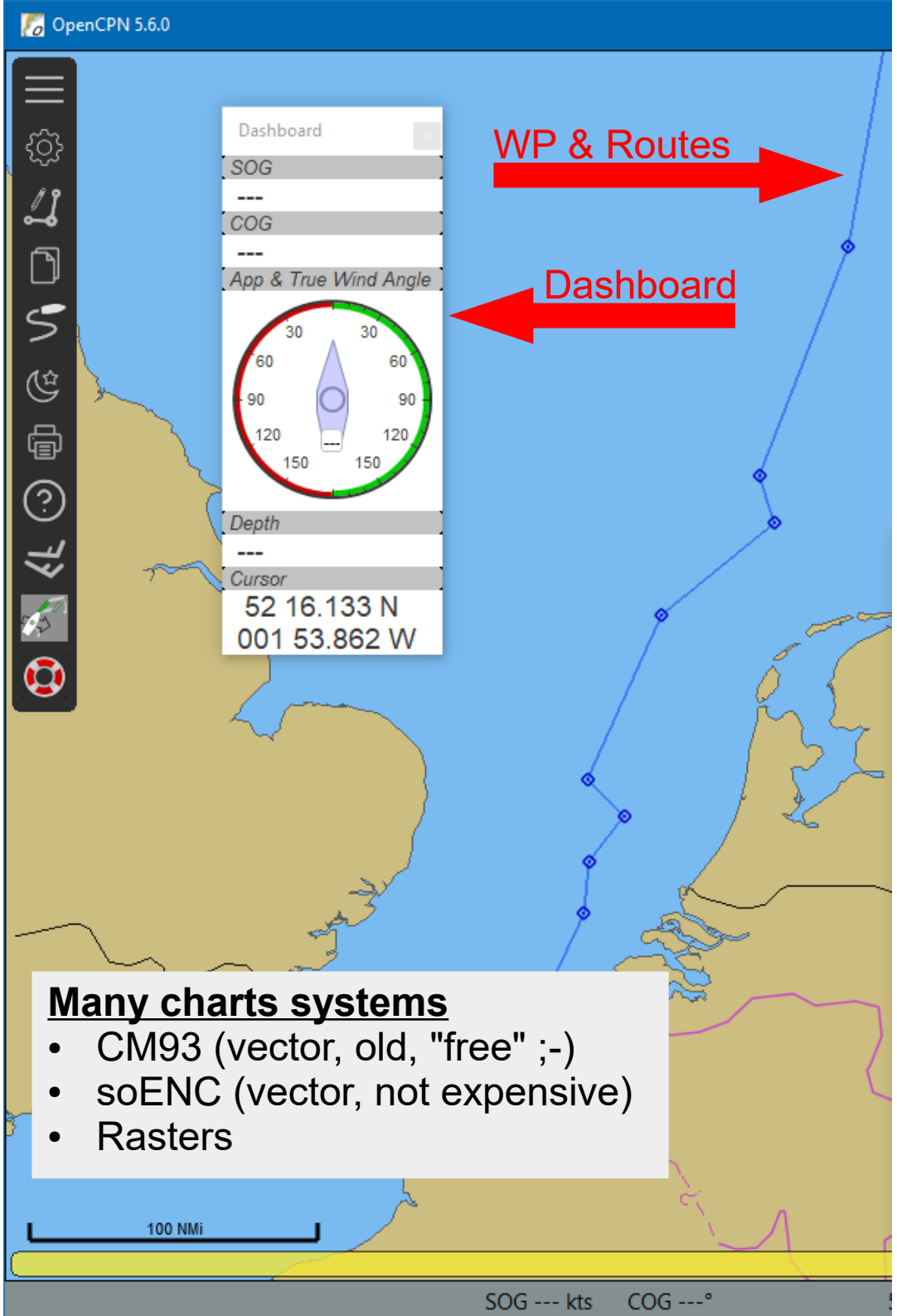


Hot spot

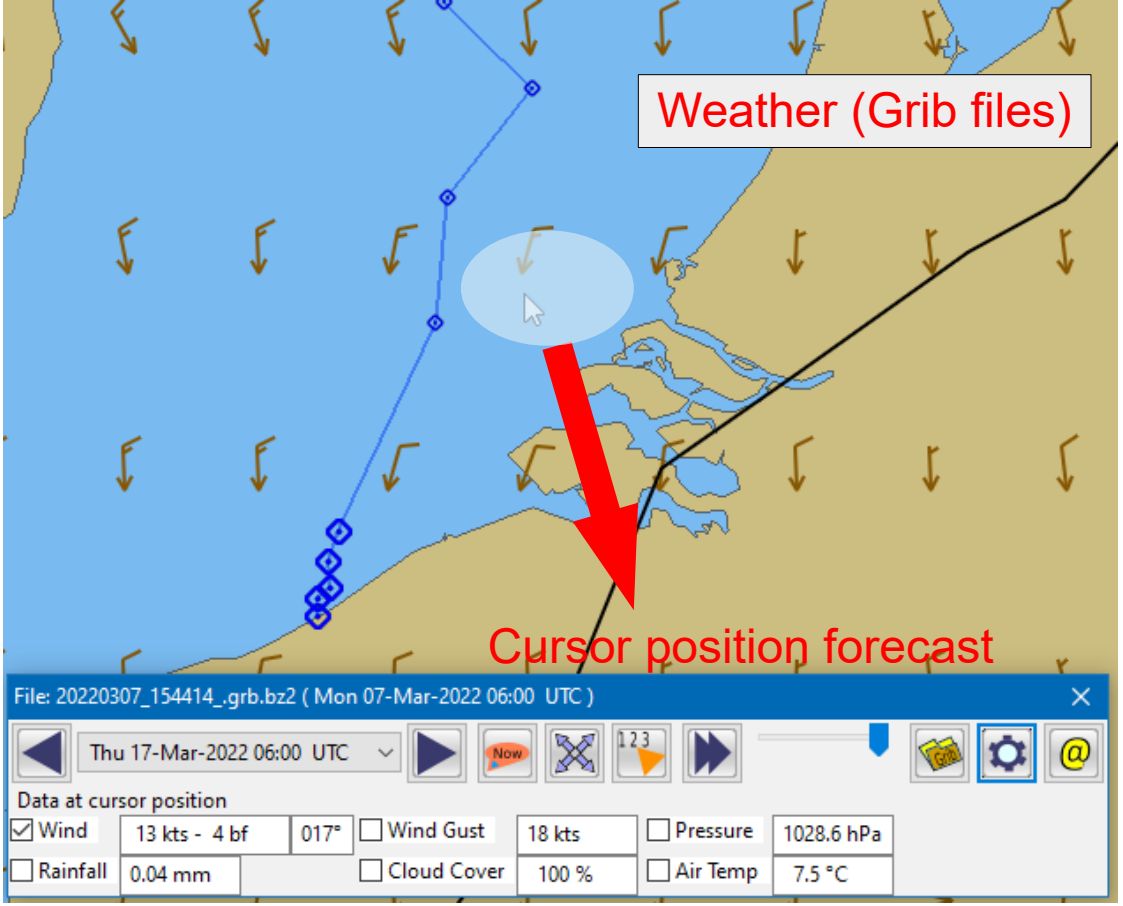
PC + Tablet + Smatphone*SSS*

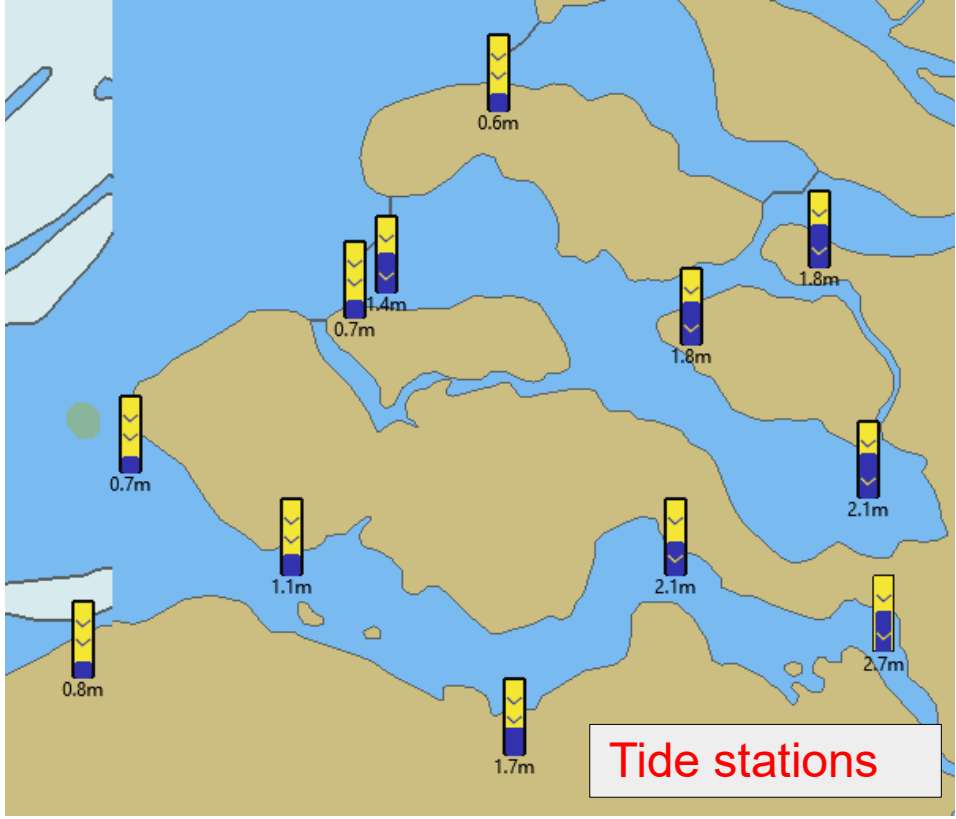
WiFi Networking
Internet

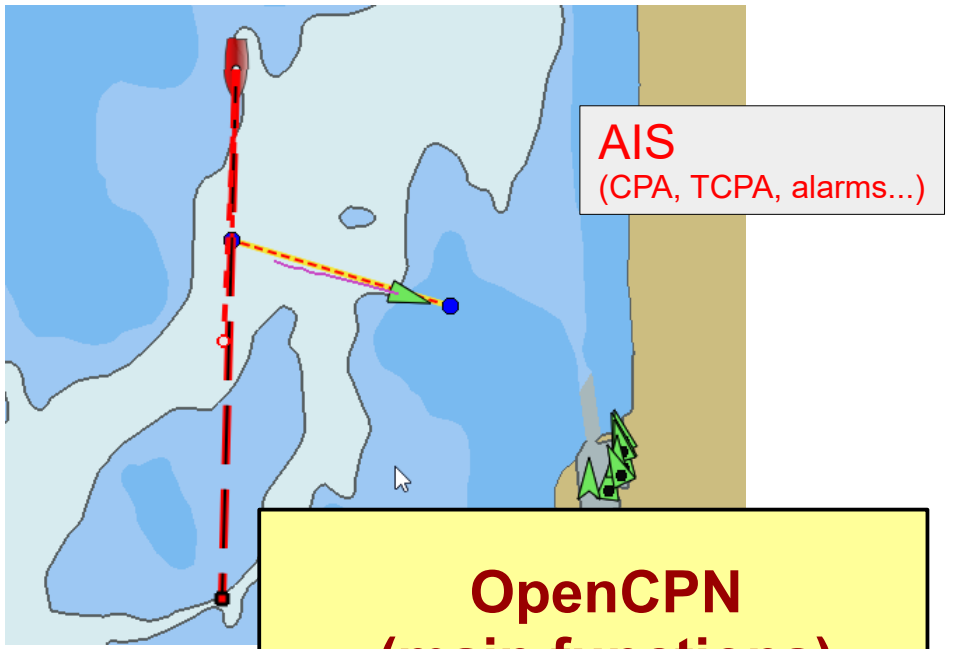
Main software
Windwos 7, 8, 10 (11?)



OpenCPN (Cartography)







OpenCPN (main functions)

AIS/Radar

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

Chart Support

O-Charts | S-63 Charts | PhotoLayer | VFkaps Charts | Chart Object Search | Chart Rotation | Chart Scale | Projections

Note: the O-Charts plugin replaces the former oeRNC and oeSENC plugins.

Logs

Dashboard-Tactics | Find It | Logbook Konni | Voyage Data Recorder | NmeaConverter

Navigation

sQuiddio | Celestial Navigation | Dead Reckoning | oTCurrent | Route

Safety

Ocpn Draw | SAR | Watch Dog

Sailing Interests

Plots | Polar | Tactics | Windvane Autopilot

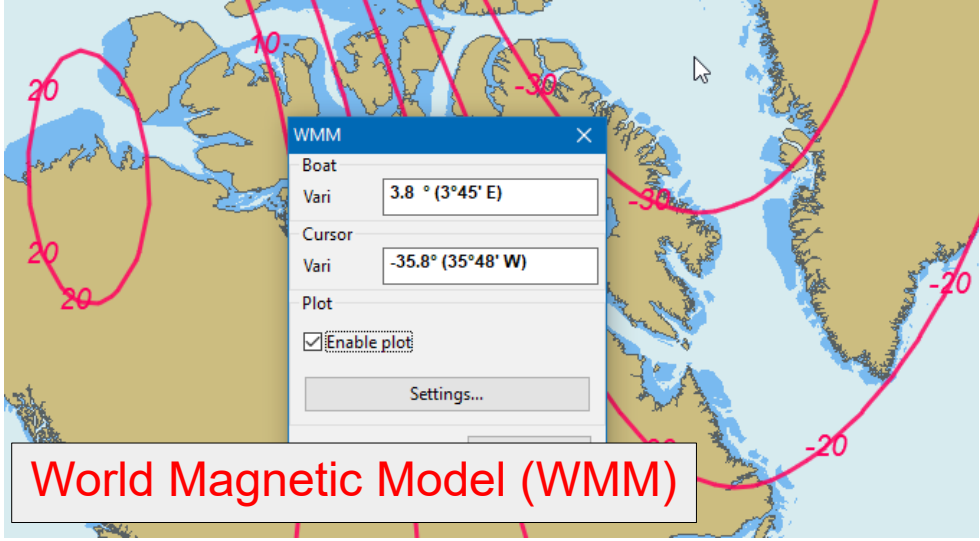
Weather

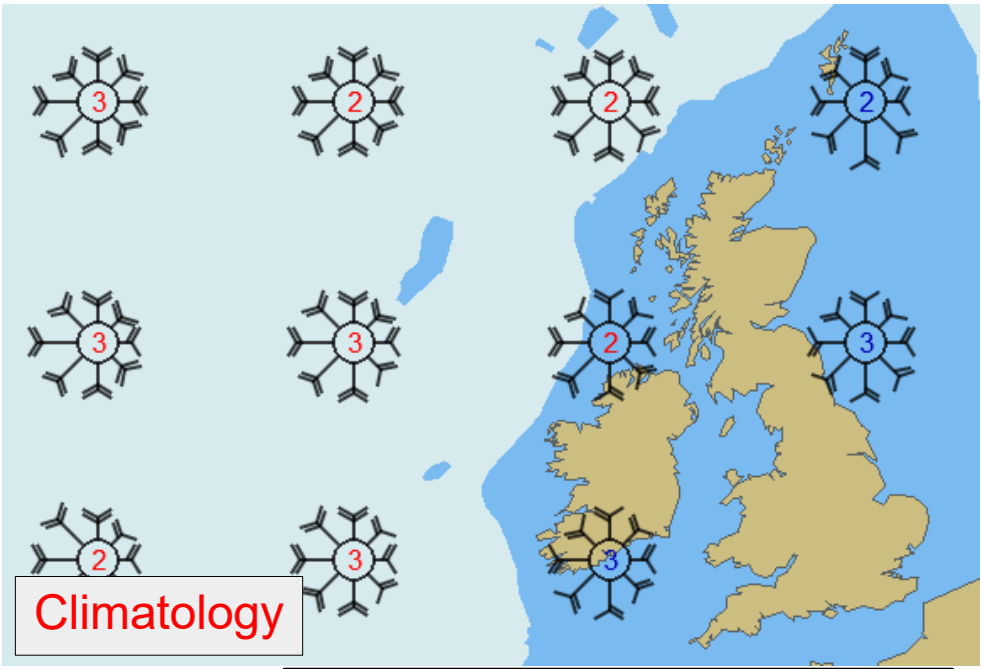
Climatology | Weather Fax | Weather Routing | IAC Fleet Code

Related Weather Interests

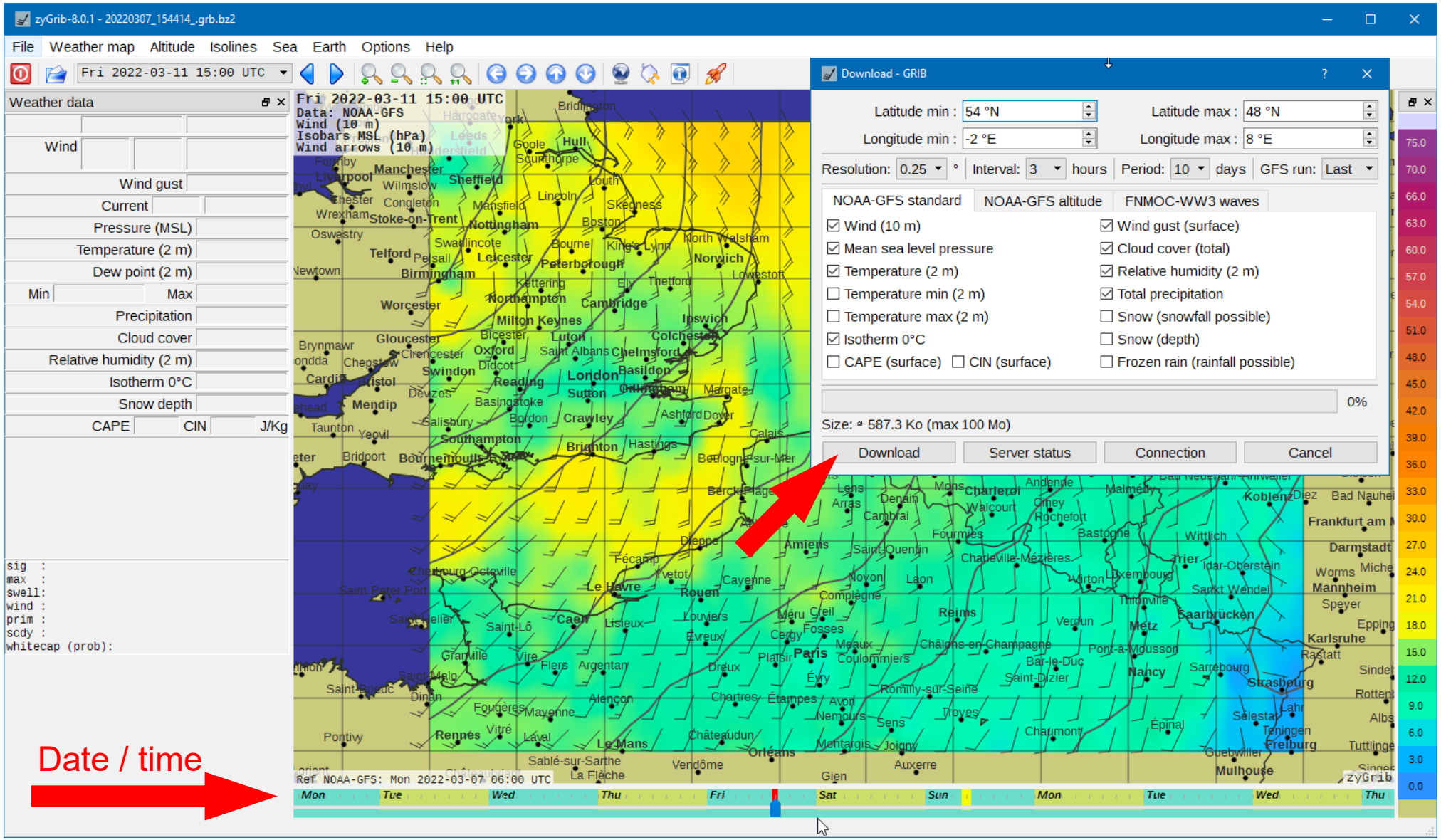
Utility

AIS Voyage Data | TwoCan | GPS Odometer | Pypilot | ShipDriver | Status Bar | JavaScript | Calculator | Debugger | Launcher





OpenCPN
(Lots of Plugins)



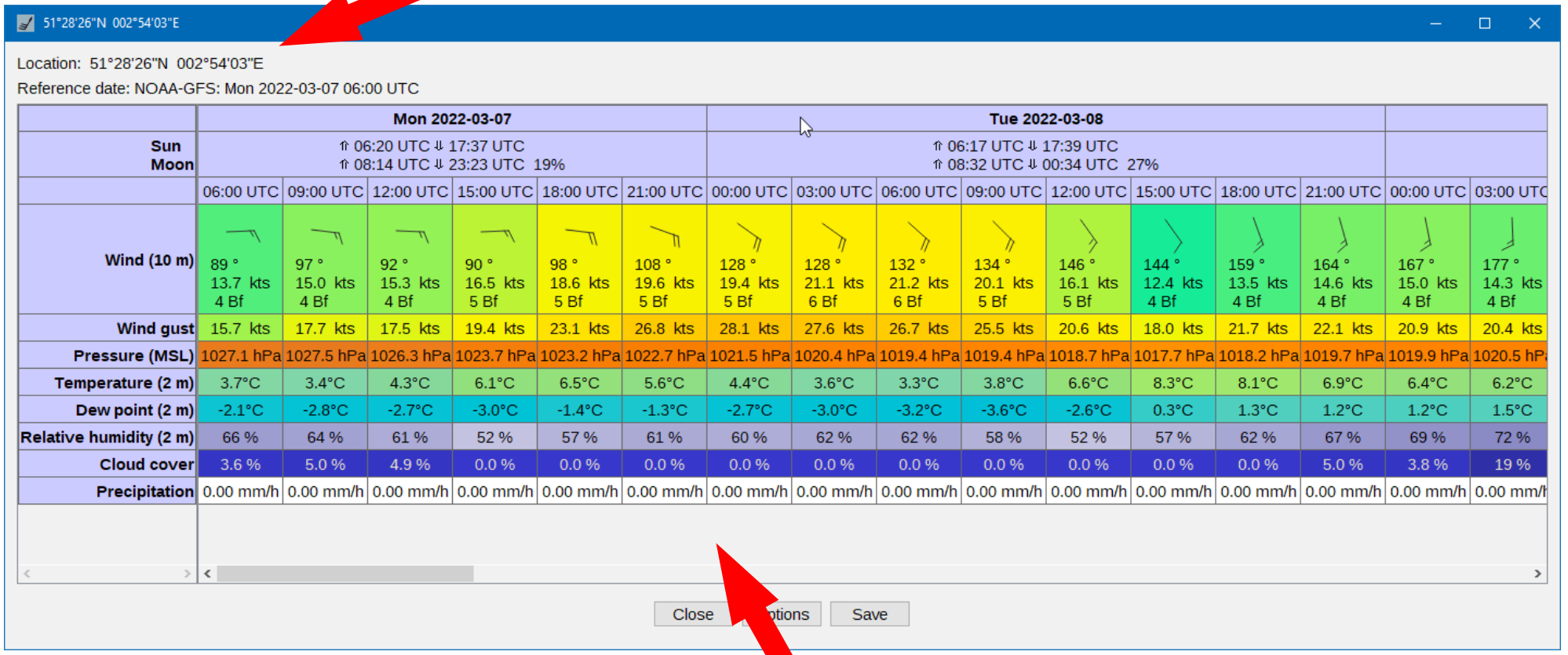
XyGrib ?

- Derived from zyGrib
- More weather models
- Not updated since 2019

www.zygrib.org
www.opengribs.org

Weather
ZyGrib, XyGrib
(PocketGrib)

Right click on a position to get a meteogram



Wind speed

- Overestimated if speed < 10 kts
- Add 20% to 50% if speed > 10 kts
- Wind direction unreliable in very low winds

Cloud cover

- Can be 0% in case of fog

Risk of fog ?

- 90%-100 % humidity [and] (air Temp - Dew point) < 1 to 2°

Risk of fog banks (advection mist) ?

- Air Temp [close to] Sea Temp

Weather
ZyGrib & XyGrib

51°05'27"N 002°27'50"E

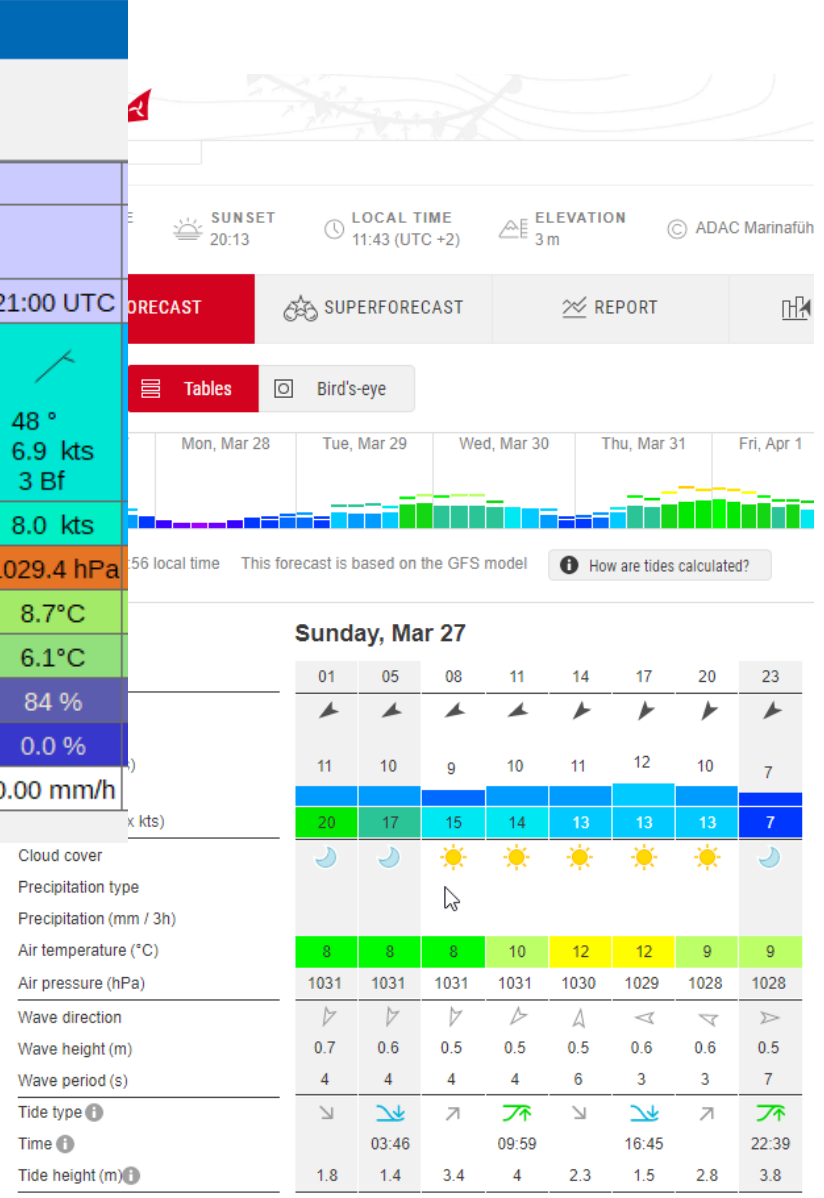
Location: 51°05'27"N 002°27'50"E

Reference date: NOAA-GFS: Sun 2022-03-27 00:00 UTC

	Sun 2022-03-27							
Sun	⇑ 05:36 UTC ⇓ 18:12 UTC							
Moon	⇑ 04:09 UTC ⇓ 11:58 UTC 31%							
	00:00 UTC	03:00 UTC	06:00 UTC	09:00 UTC	12:00 UTC	15:00 UTC	18:00 UTC	21:00 UTC
Wind (10 m)	57 ° 11.3 kts 4 Bf	60 ° 9.1 kts 3 Bf	61 ° 8.9 kts 3 Bf	66 ° 9.8 kts 3 Bf	43 ° 11.0 kts 4 Bf	35 ° 12.1 kts 4 Bf	38 ° 9.5 kts 3 Bf	48 ° 6.9 kts 3 Bf
Wind gust	22.2 kts	16.1 kts	14.6 kts	13.4 kts	12.3 kts	13.7 kts	14.0 kts	8.0 kts
Pressure (MSL)	1031.8 hPa	1031.4 hPa	1031.4 hPa	1031.8 hPa	1030.8 hPa	1029.4 hPa	1029.0 hPa	1029.4 hPa
Temperature (2 m)	8.5°C	7.9°C	7.7°C	10.7°C	12.2°C	11.2°C	9.1°C	8.7°C
Dew point (2 m)	6.3°C	6.9°C	7.0	7.9°C	7.5°C	6.4°C	6.1°C	6.1°C
Relative humidity (2 m)	86 %	93 %	%	83 %	73 %	72 %	81 %	84 %
Cloud cover	2.9 %	0.0 %	7.5 %	3.3 %	0.0 %	0.0 %	0.0 %	0.0 %
Precipitation	0.00 m/h	0.00 /h	0.00 mm/h	0.00 mm/h	0.00 mm/h	0.00 mm/h	0.00 mm/h	0.00 mm/h

Grib file (zyGrib) interpretation

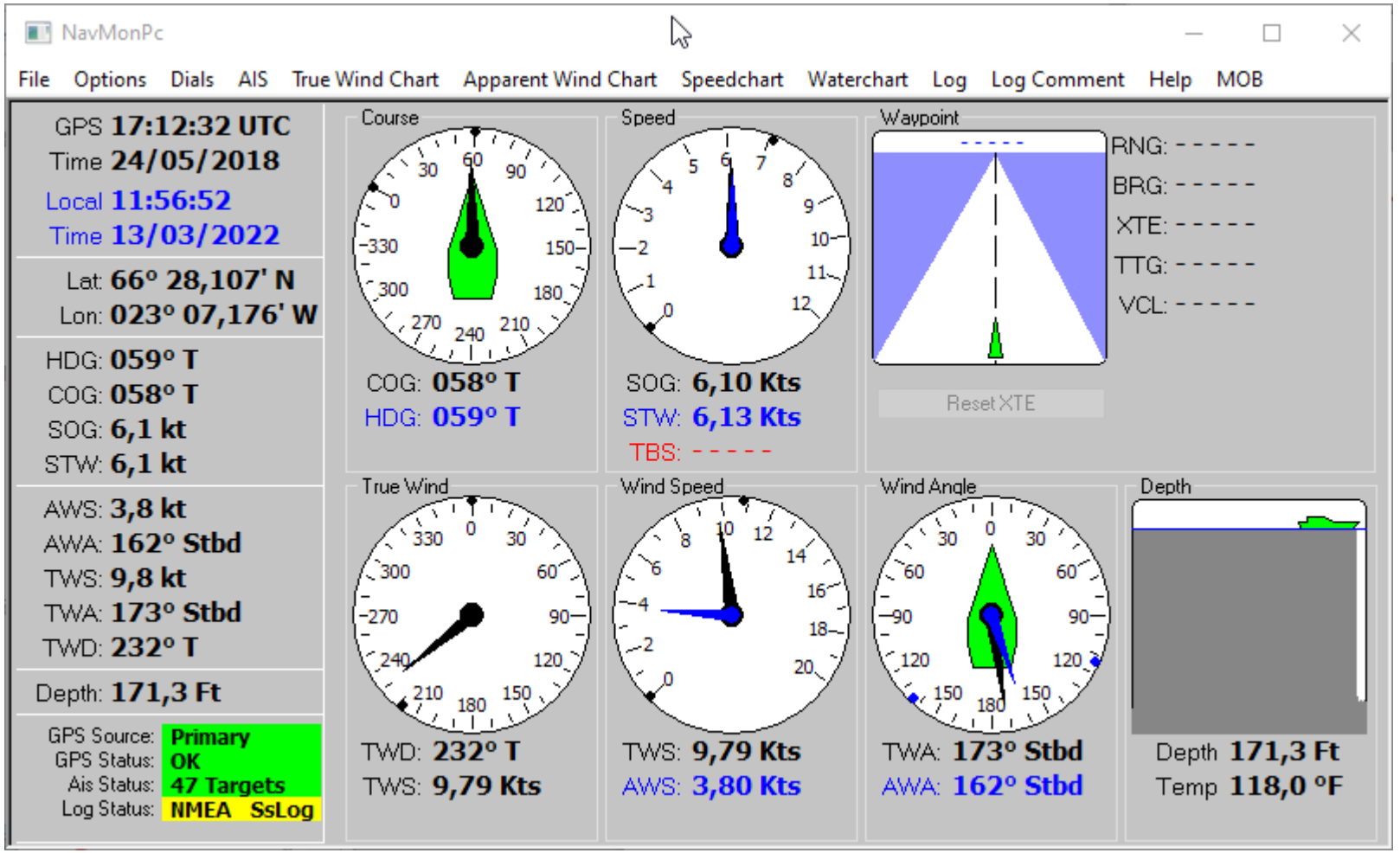
- (Temp – Dew point) < 1 °C to 2 °C (fog)
- In reality first sun ray at 15:30 !!!



Windfinder forecast

- 100% sun !!!

Weather
Fog forecast



Features

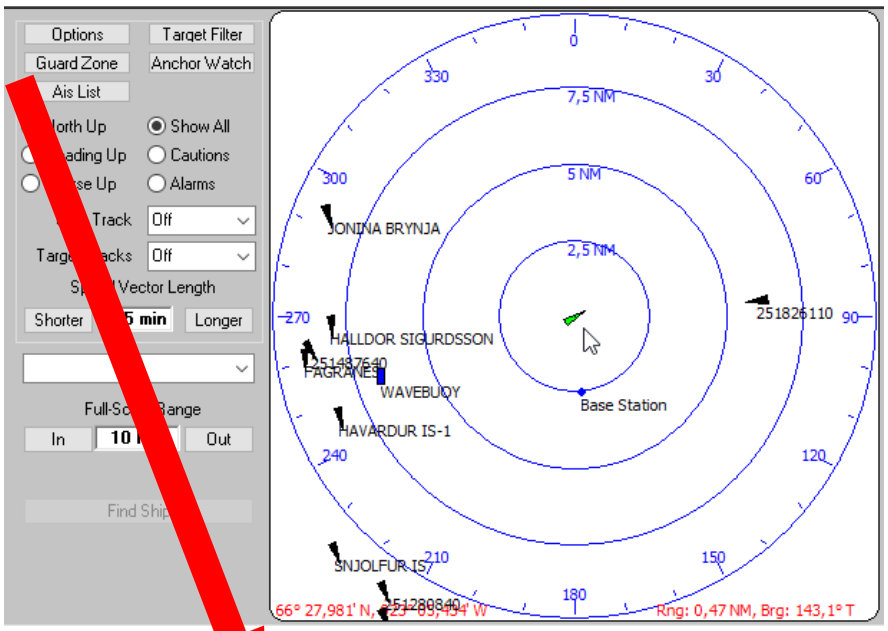
- Many dials on a single desktop
- AIS radar with alarms
- Alarms on many parameters
- Contains a basic & simple GpsGate
- Usefull charts : True wind, App wind, Speed, etc.

http://navmonpc.com

- Not updated but I received the sources from Paul Ellioth

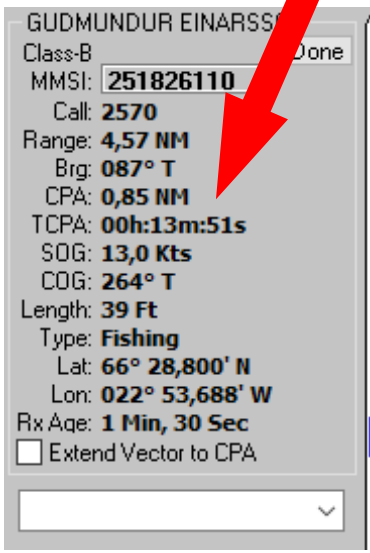
Instruments, Alarmes NavMonPc (main window)

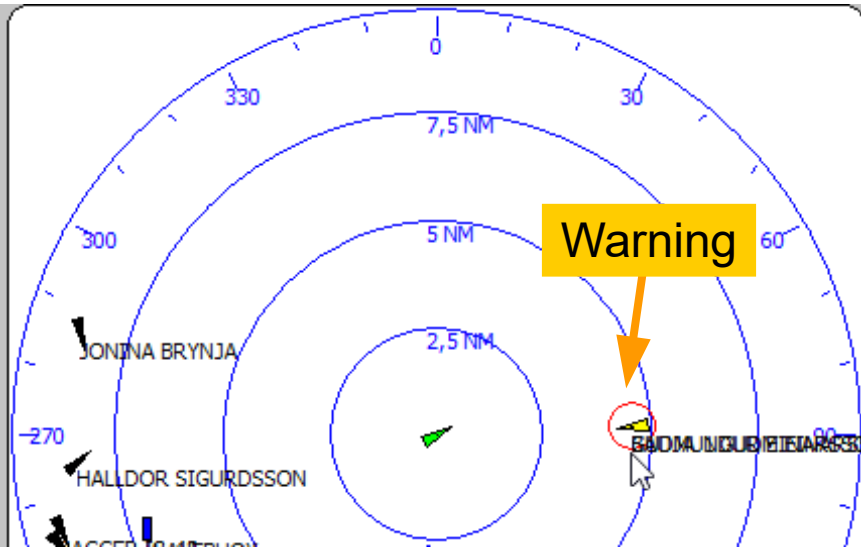
Menu...

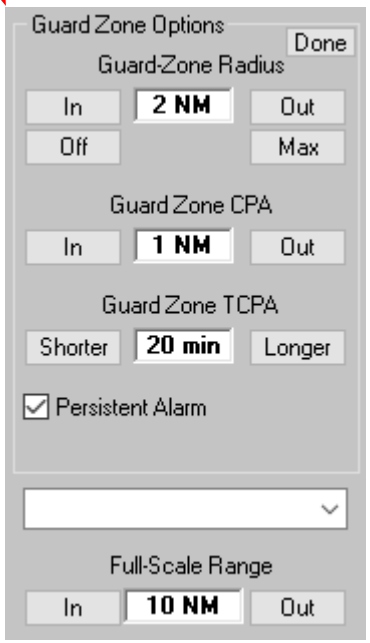


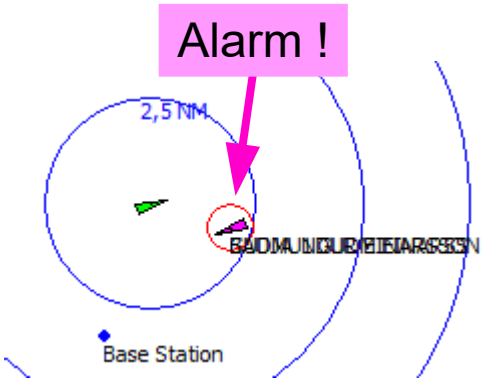
Take care !

- (CPA < 1 NM) & (TCPA < 20 min)







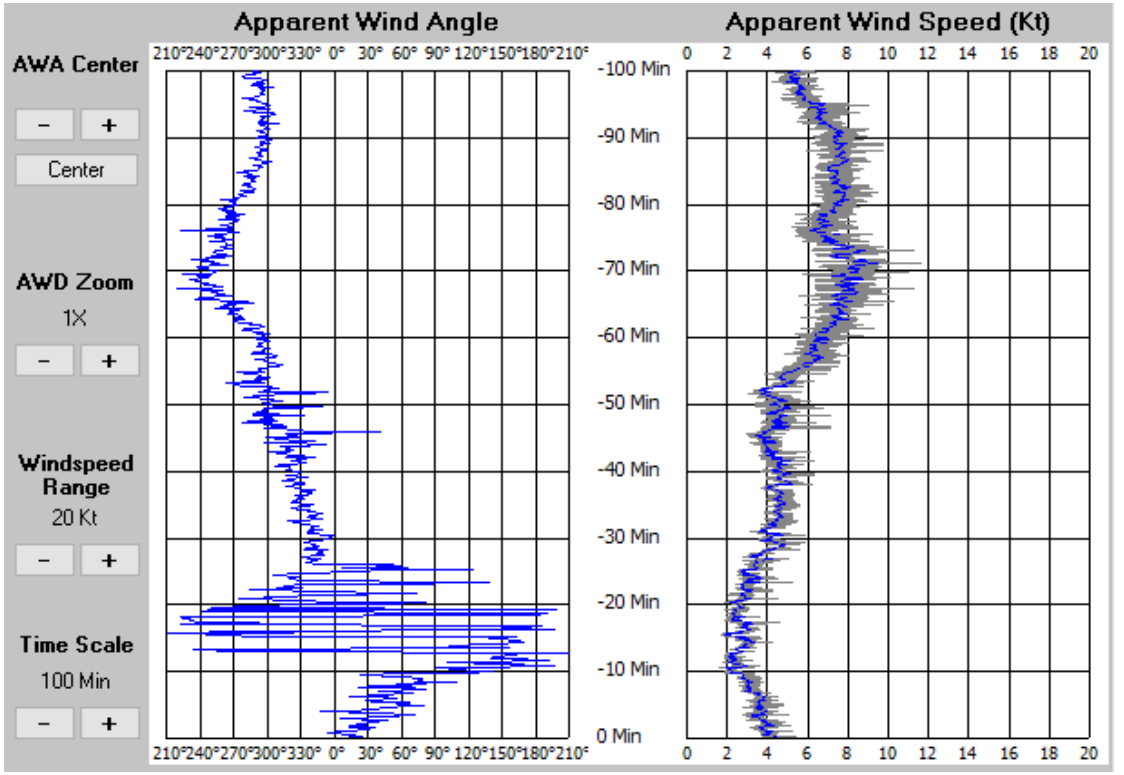


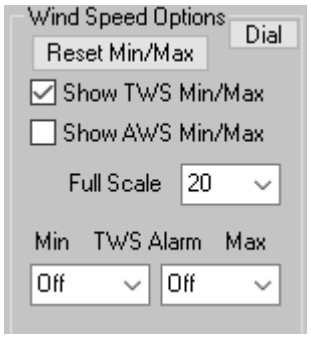
www.irisoft.be/navlog

NavMonPc
(AIS radar)

Save **AIS List** Done

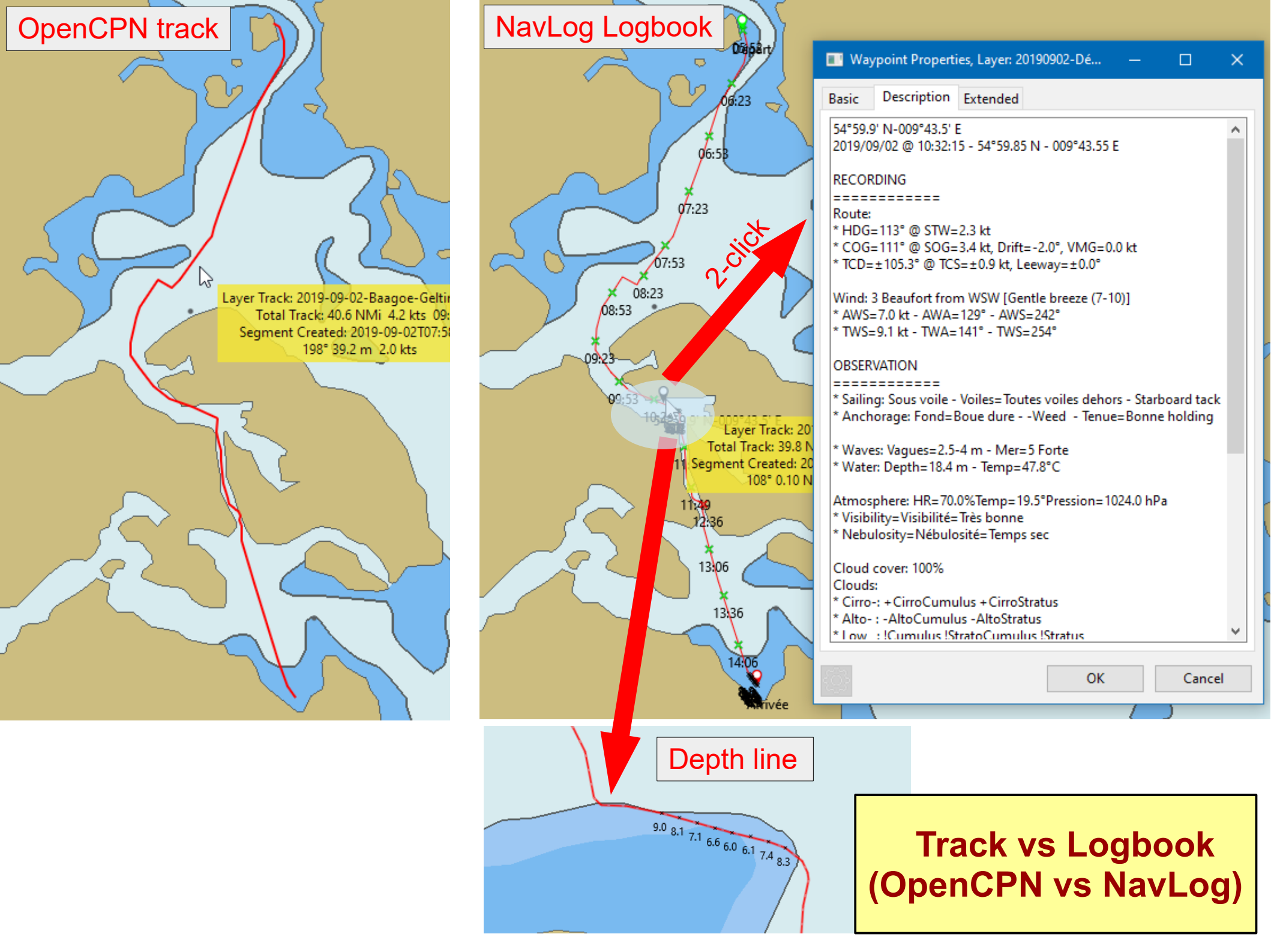
Name	MMSI	Call	Range	Bear
Own Ship, Current Posi...	0		0 Ft	000°
Base Station	2515050	0	2,61 NM	181°
BAUJA 1 GUDM EINARSS	992511141	0	5,13 NM	086°
GUDMUNDUR EINARSS...	251826110	2570	5,17 NM	086°
WAVEBUOY	992511903	0	6,93 NM	252°
HALLDOR SIGURDSSON	251046110	TFYT	8,22 NM	266°
JONINA BRYNJA	251420000	2868	8,65 NM	288°
HAVARDUR IS-1	251444240	0	8,68 NM	244°
JAGGER IS-43	251487640	7338	8,89 NM	258°
FAGRANES	251225640	6347	9,13 NM	256°
251833240	251833240	7173	10,56 NM	253°
ELIN	251800840	6752	10,65 NM	269°
SNJOLFUR IS	251738110	2365	11,45 NM	224°
GUDNY	251280840	7359	11,54 NM	212°
FRIDA DAGMAR	251841270	TFFD	12,06 NM	065°
OLVER	251115340	6353	12,32 NM	210°
251150110	251150110	0	13,48 NM	120°
FREYJA DIS	251465640	2090	14,23 NM	191°

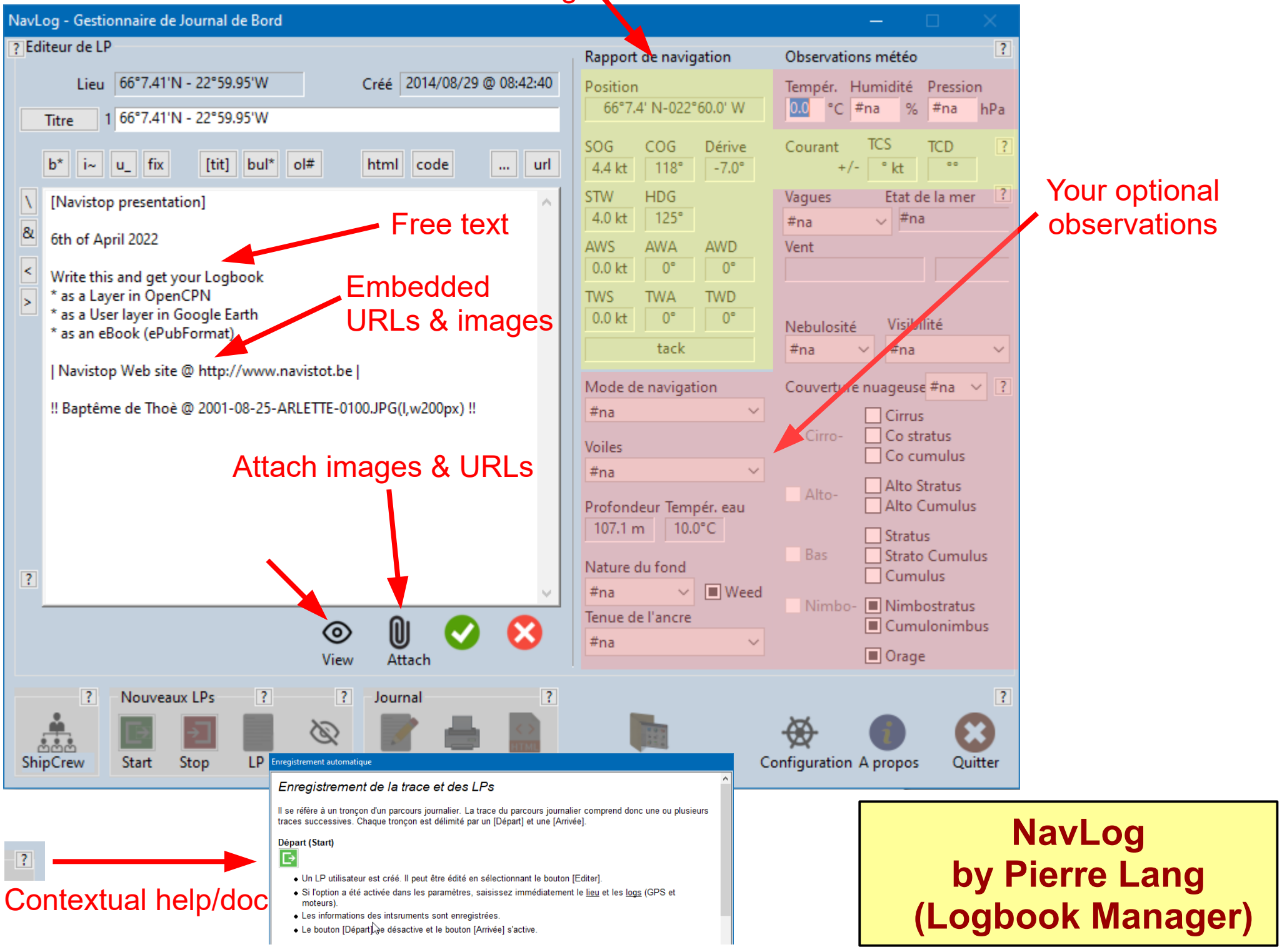


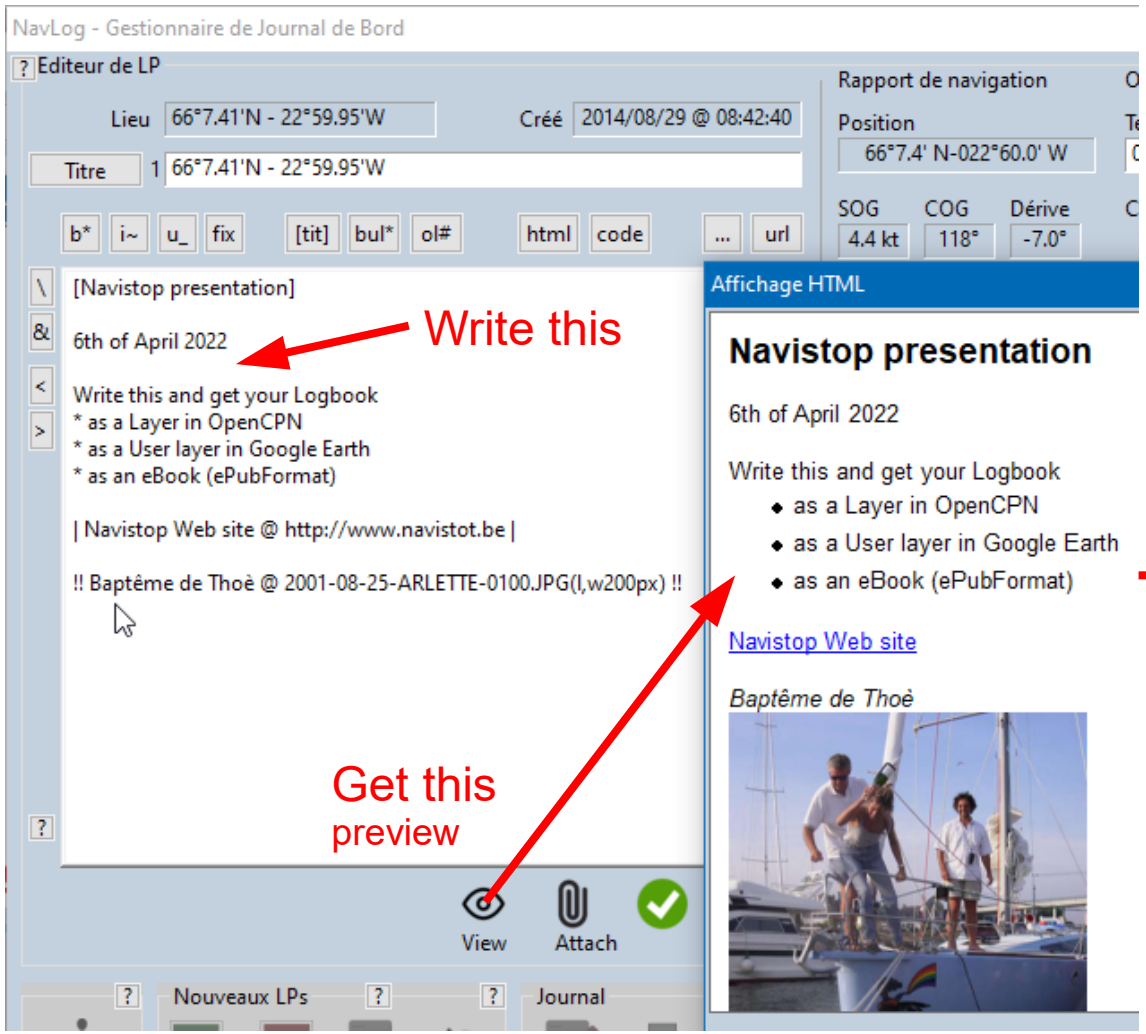


SOG and TWS alarms

NavMonPc (Graphs, Alarms & AIS Target list)


OpenCPN track
NavLog Logbook
Layer Track: 2019-09-02-Baagoe-Gelti
Total Track: 40.6 NMi 4.2 kts 09:
Segment Created: 2019-09-02T07:5
198° 39.2 m 2.0 kts
Départ
06:23
06:53
07:23
07:53
08:23
08:53
09:23
09:53
11:49
12:36
13:06
13:36
14:06
Arrivée
2-click
Waypoint Properties, Layer: 20190902-Dé...
Basic
Description
Extended
54°59.9' N-009°43.5' E
2019/09/02 @ 10:32:15 - 54°59.85 N - 009°43.55 E
RECORDING
==========
Route:
* HDG=113° @ STW=2.3 kt
* COG=111° @ SOG=3.4 kt, Drift=-2.0°, VMG=0.0 kt
* TCD=±105.3° @ TCS=±0.9 kt, Leeway=±0.0°
Wind: 3 Beaufort from WSW [Gentle breeze (7-10)]
* AWS=7.0 kt - AWA=129° - AWS=242°
* TWS=9.1 kt - TWA=141° - TWS=254°
OBSERVATION
==========
* Sailing: Sous voile - Voiles=Toutes voiles dehors - Starboard tack
* Anchorage: Fond=Boue dure - -Weed - Tenue=Bonne holding
* Waves: Vagues=2.5-4 m - Mer=5 Forte
* Water: Depth=18.4 m - Temp=47.8°C
Atmosphere: HR=70.0%Temp=19.5°Pression=1024.0 hPa
* Visibility=Visibilité=Très bonne
* Nebulosity=Nébulosité=Temps sec
Cloud cover: 100%
Clouds:
* Cirro-: +CirroCumulus +CirroStratus
* Alto- : -AltoCumulus -AltoStratus
OK
Cancel
Depth line
9.0 8.1 7.1 6.6 6.0 6.1 7.4 8.3
Track vs Logbook
(OpenCPN vs NavLog)


Instruments recording
NavLog - Gestionnaire de Journal de Bord
Editeur de LP
Lieu
66°7.41'N - 22°59.95'W
Créé
2014/08/29 @ 08:42:40
Titre
1
66°7.41'N - 22°59.95'W
b*
i~
u_
fix
[tit]
bul*
ol#
html
code
...
url
[Navistop presentation]
6th of April 2022
Write this and get your Logbook
* as a Layer in OpenCPN
* as a User layer in Google Earth
* as an eBook (ePubFormat)
| Navistop Web site @ http://www.navistot.be |
!! Baptême de Thoè @ 2001-08-25-ARLETTE-0100.JPG(I,w200px) !!
Free text
Embedded
URLs & images
Attach images & URLs
View
Attach
Rapport de navigation
Position
66°7.4' N-022°60.0' W
SOG
COG
Dérive
4.4 kt
118°
-7.0°
STW
HDG
4.0 kt
125°
AWS
AWA
AWD
0.0 kt
0°
0°
TWS
TWA
TWD
0.0 kt
0°
0°
tack
Mode de navigation
#na
Voiles
#na
Profondeur
Tempér. eau
107.1 m
10.0°C
Nature du fond
#na
Weed
Tenue de l'ancre
#na
Observations météo
Tempér.
Humidité
Pression
0.0
°C
#na
%
#na
hPa
Courant
TCS
TCD
+/-
° kt
°°
Vagues
Etat de la mer
#na
#na
Vent
Nebulosité
Visibilité
#na
#na
Couverture nuageuse
#na
Cirro-
Cirrus
Co stratus
Co cumulus
Alto-
Alto Stratus
Alto Cumulus
Bas
Stratus
Strato Cumulus
Cumulus
Nimbo-
Nimbostratus
Cumulonimbus
Orage
Your optional
observations
Nouveaux LPs
Journal
ShipCrew
Start
Stop
LP
Configuration
A propos
Quitter
Enregistrement automatique
Enregistrement de la trace et des LPs
Il se réfère à un tronçon d'un parcours journalier. La trace du parcours journalier comprend donc une ou plusieurs traces successives. Chaque tronçon est délimité par un [Départ] et une [Arrivée].
Départ (Start)
Un LP utilisateur est créé. Il peut être édité en sélectionnant le bouton [Editer].
Si l'option a été activée dans les paramètres, saisissez immédiatement le lieu et les logs (GPS et moteurs).
Les informations des intsruments sont enregistrées.
Le bouton [Départ] se désactive et le bouton [Arrivée] s'active.
Contextual help/doc
NavLog
by Pierre Lang
(Logbook Manager)



Editing format

- Simple text formatting.
- Easy to use while sailing.
- Preview function.
- Most functions using the mouse.

See pubications on 3 next pages

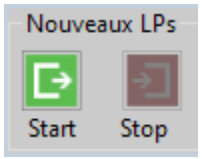
NavLog
Log Point contents edition

Ship & Crew profiles

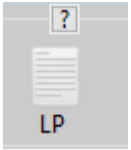
Customs & and immigration documents publishing

Auto recording & User LPs

- Only 3 buttons.



Start/Stop recording



Enter LP at any time

NavLog
Logging functions

Hierarchical menu

> Year
  > Month
    > Day
      > Hour

ePub-Complet [EPUB] — E-book viewer

Table of Contents

- Couverture
- Introduction
- **2014**
  - **August 2014**
    - **29**
      - 07:56:39 | 66°4.2' N-023°6.4' W (Colli...
      - 08:42:40 | 66°7.41'N - 22°59.95'W
      - **09:07:04 | Arrivée**
- 2016
- 2017
- 2018
- 2019
- 2021

Search Table of Contents

Navistop presentation

6th of April 2022

Write this and get your Logbook

- as a Layer in OpenCPN
- as a User layer in Google Earth
- as an eBook (ePubFormat)

Navistop Web site

Baptême de Thoé

09:07:04 | Arrivée

NMEA recording

```
DateTime: 2014/08/29 -
09:07:04
Position: 66°7.18 N -
022°56.76 W
Route    : COG=67°°, SOG=5.2
kt kt
Heading : HDG=78°°, STW=5.3
kt kt
Navigat.: VMG= kt°,
Drift=-11.0°°
```

Observations

```
Sailing : 0Voiles
Atmosph.: Temp=0.
          0Nébulo
Sea     : Vagues=
Anchor. : Fond=0!
Clouds  : Cirro-:
          Alto- :
          Low : -
```

eBook

- ePub format
- Nice presentation
- Easy to read
- Day by day

HTML source

- Allows to print it

User text

Instruments recording

User observations

NavLog
Logbook as eBook

66°7.41'N - 22°59.95'W

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Navistop Web site

Baptême de Thoé

Enregistrement

```
DateTime: 2014/08/29 - 08:42:40
Position: 66°7.41 N - 022°59.95 W
          0 Beaufort from  -

Heading : HDG=125°, STW=4.0 kt,  tack
Route   : COG=118°, SOG=4.4 kt, Drift=-7.0°, VMG=° kt
Compas  : variation=0.0°, deviation=0.0°

Current : TCD=±°°, TCS=±° kt, Leeway=±°

App Wind: AWA=0°,
TrueWind: TWA=0°,
Water   : depth=1
```

Observations

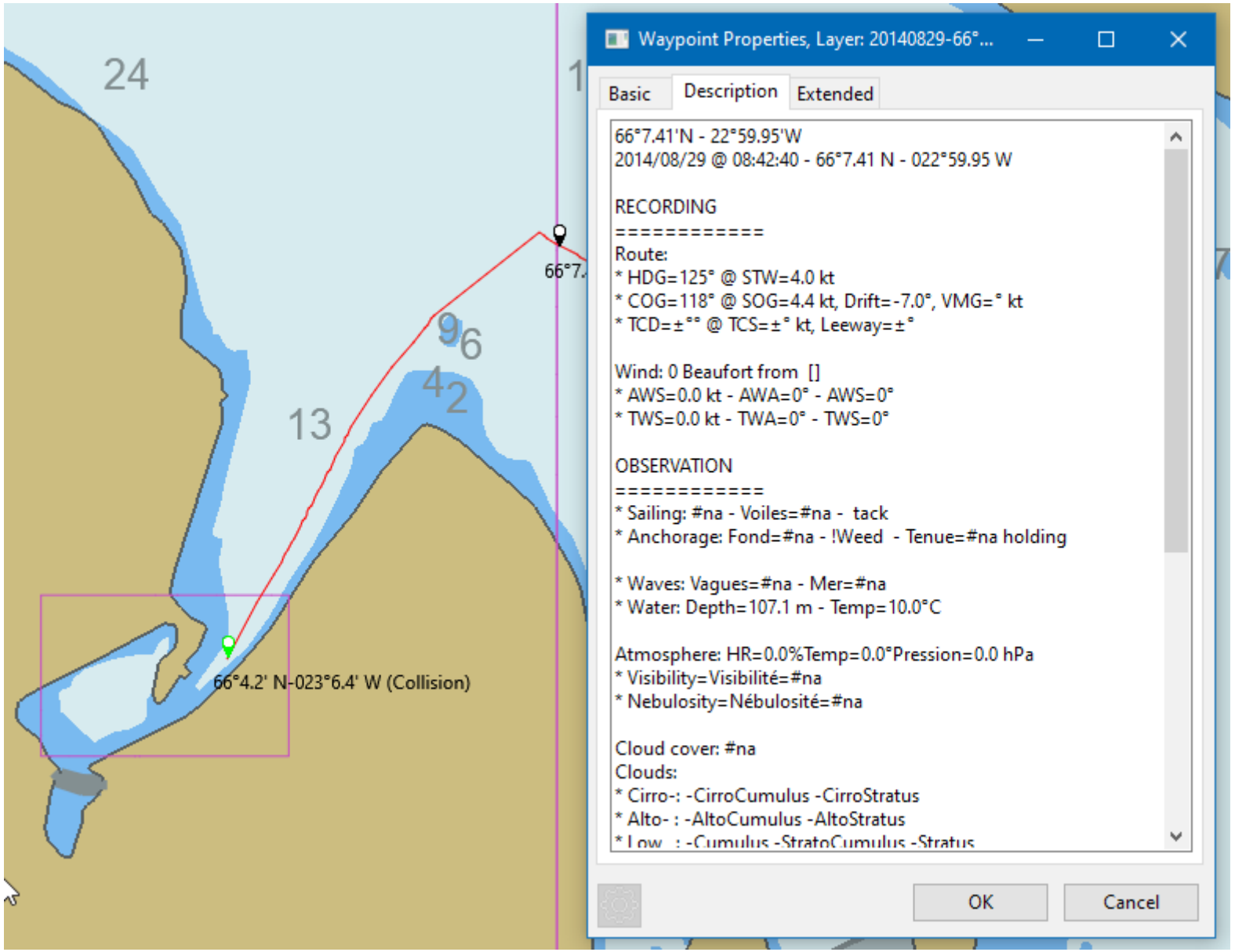
Sailing : #na. Vo

Google Earth

Same contents as the eBook

- Satellite image
- With track
- Nice presentation

NavLog Logbook in Google Earth

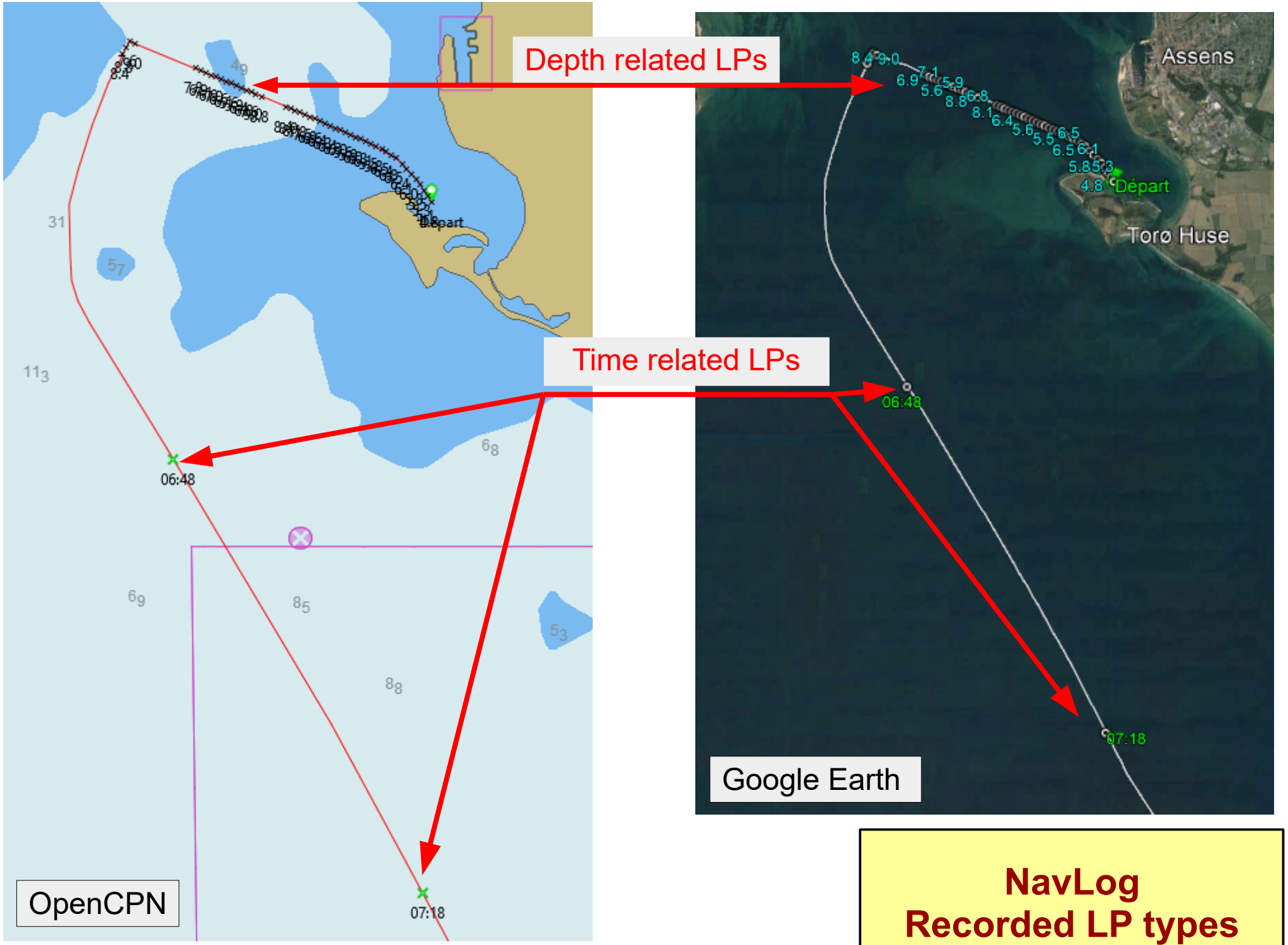


OpenCPN

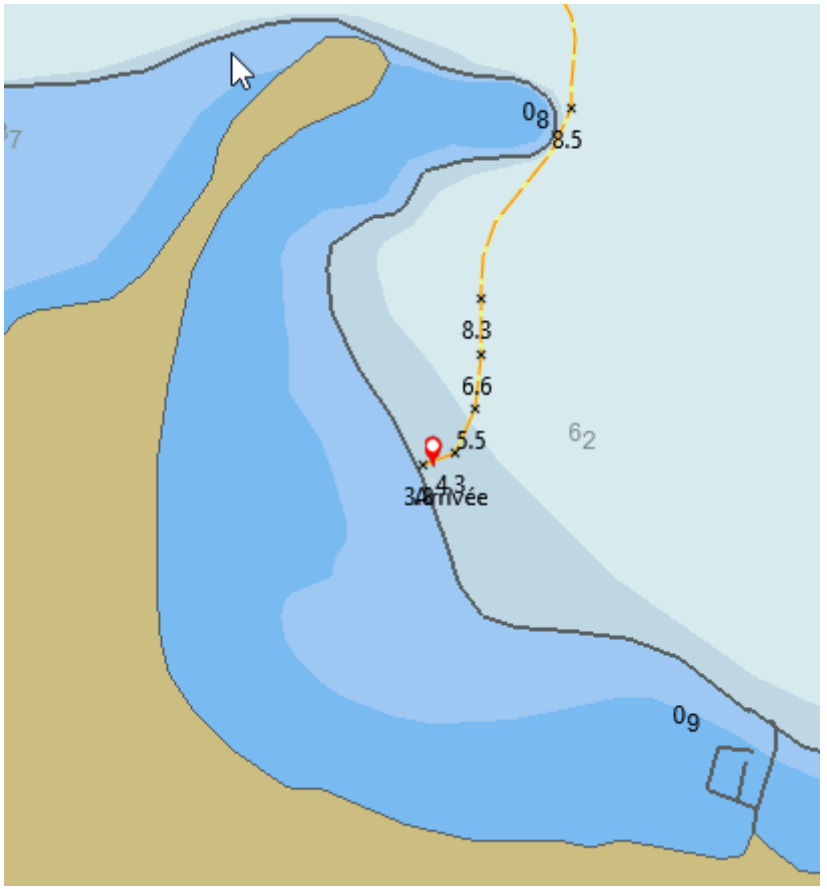
Same contents as the eBook

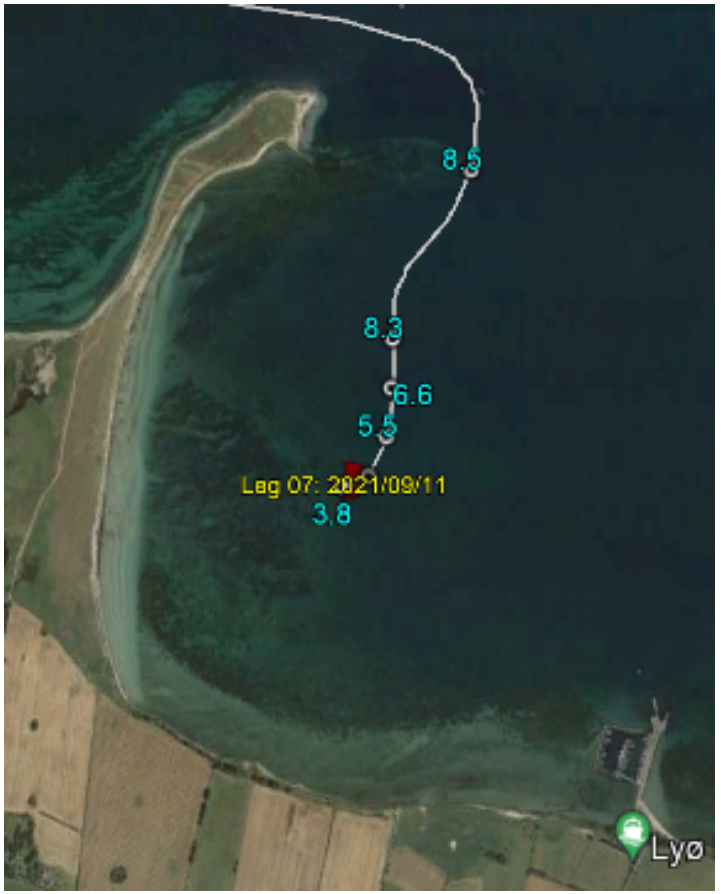
- On the chart
- With track
- No HTML

NavLog
Logbook as a OpenCPN layer



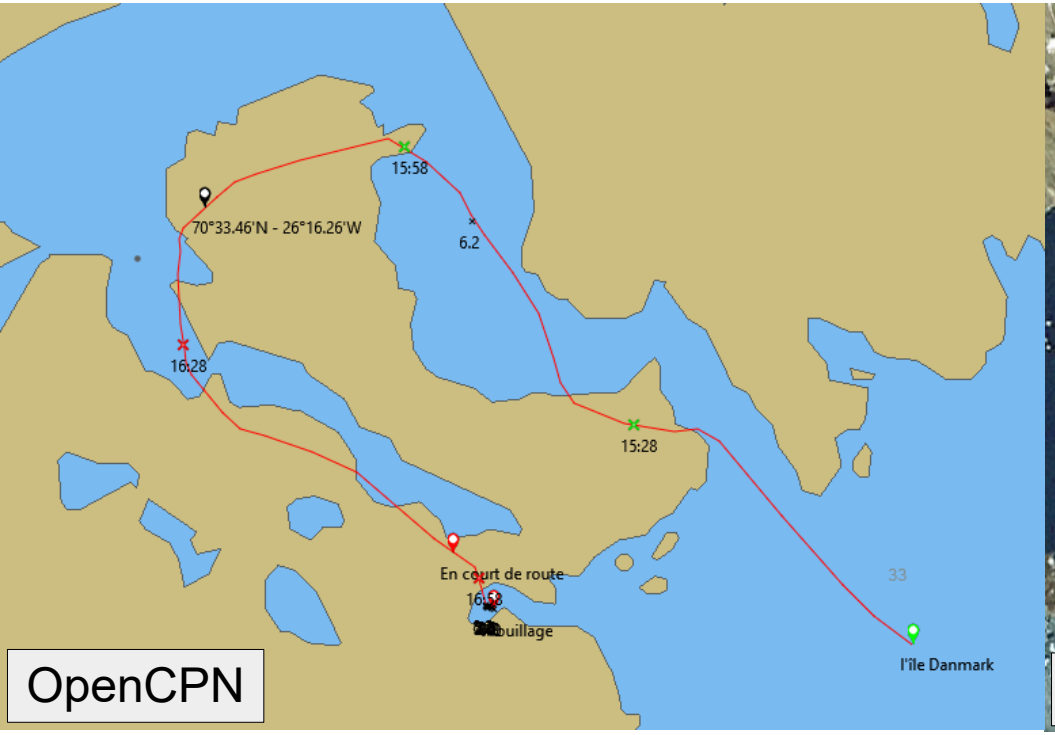
NavLog
Recorded LP types

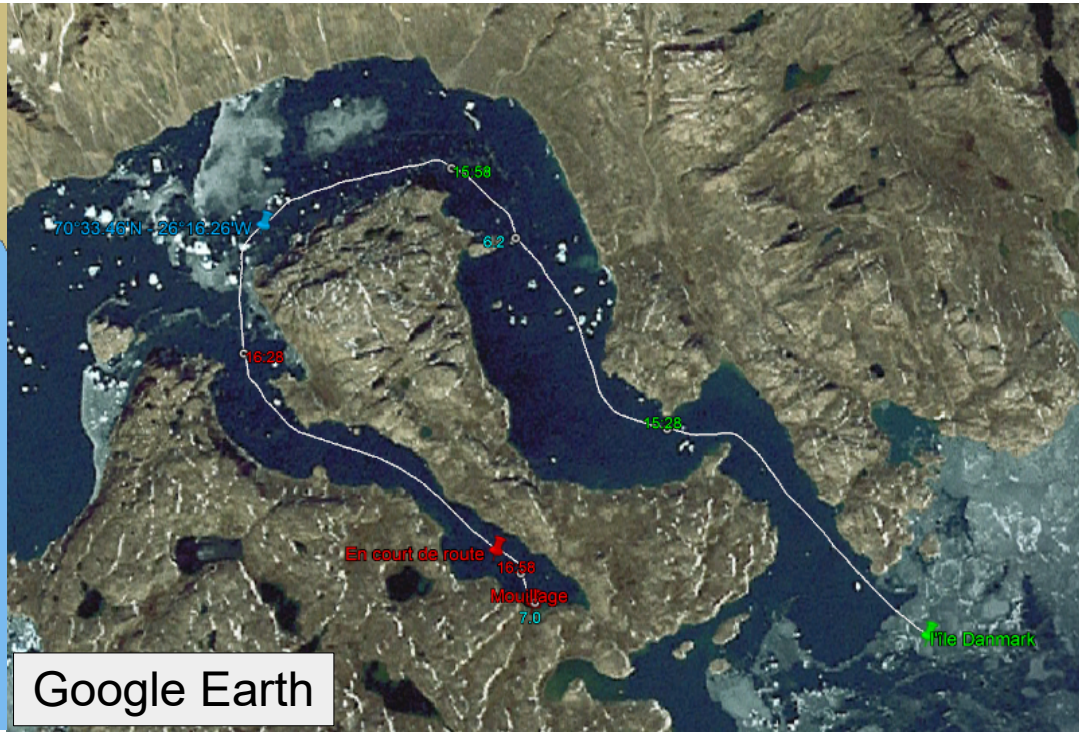




Depth related LPs become a depth line

NavLog
Depth line





Charts are not always true unlike Google Earth !!!

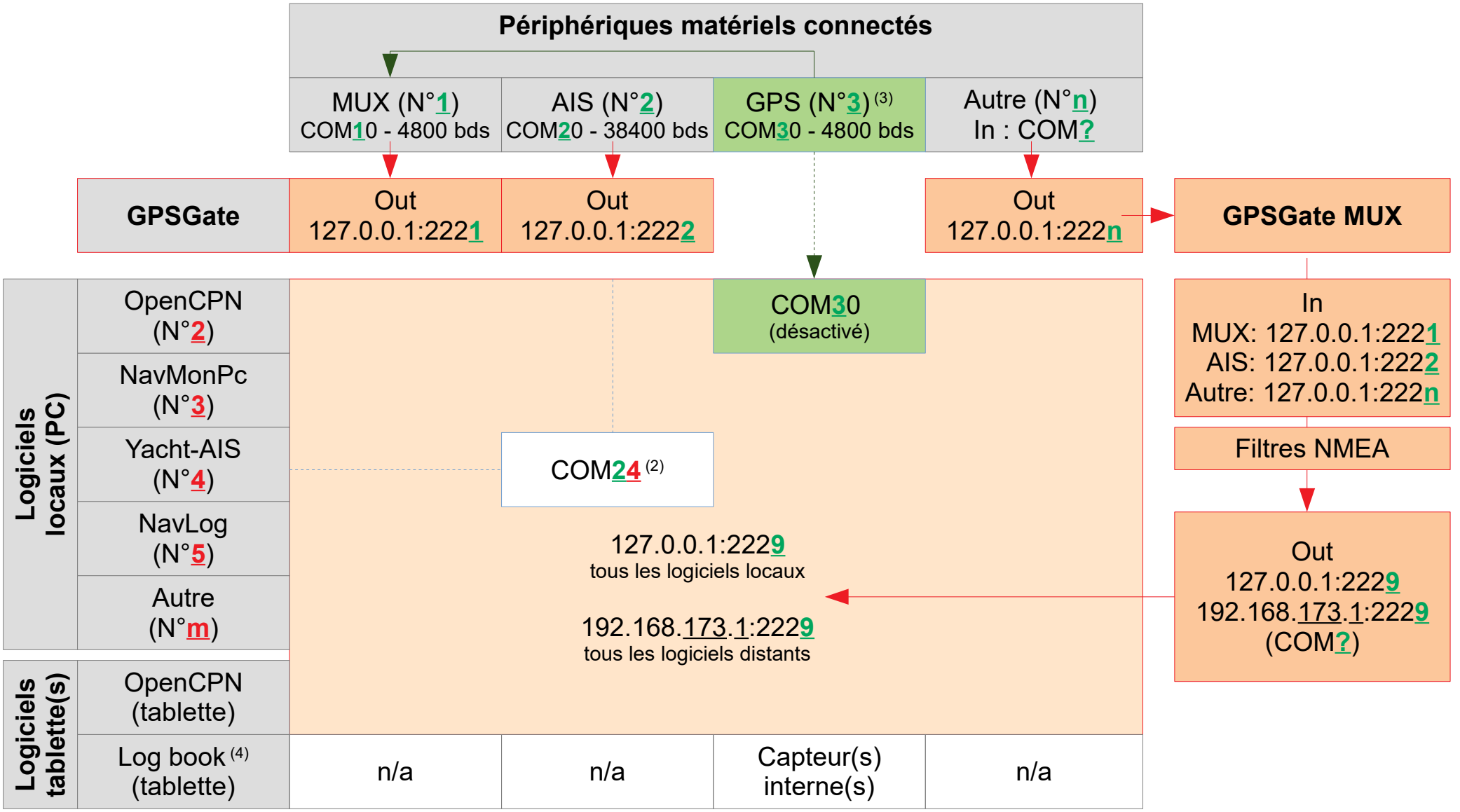
Green symbol
- Departure LP
- Sailing starboard tack

Red symbol
- Arrival LP
- Sailing port tack

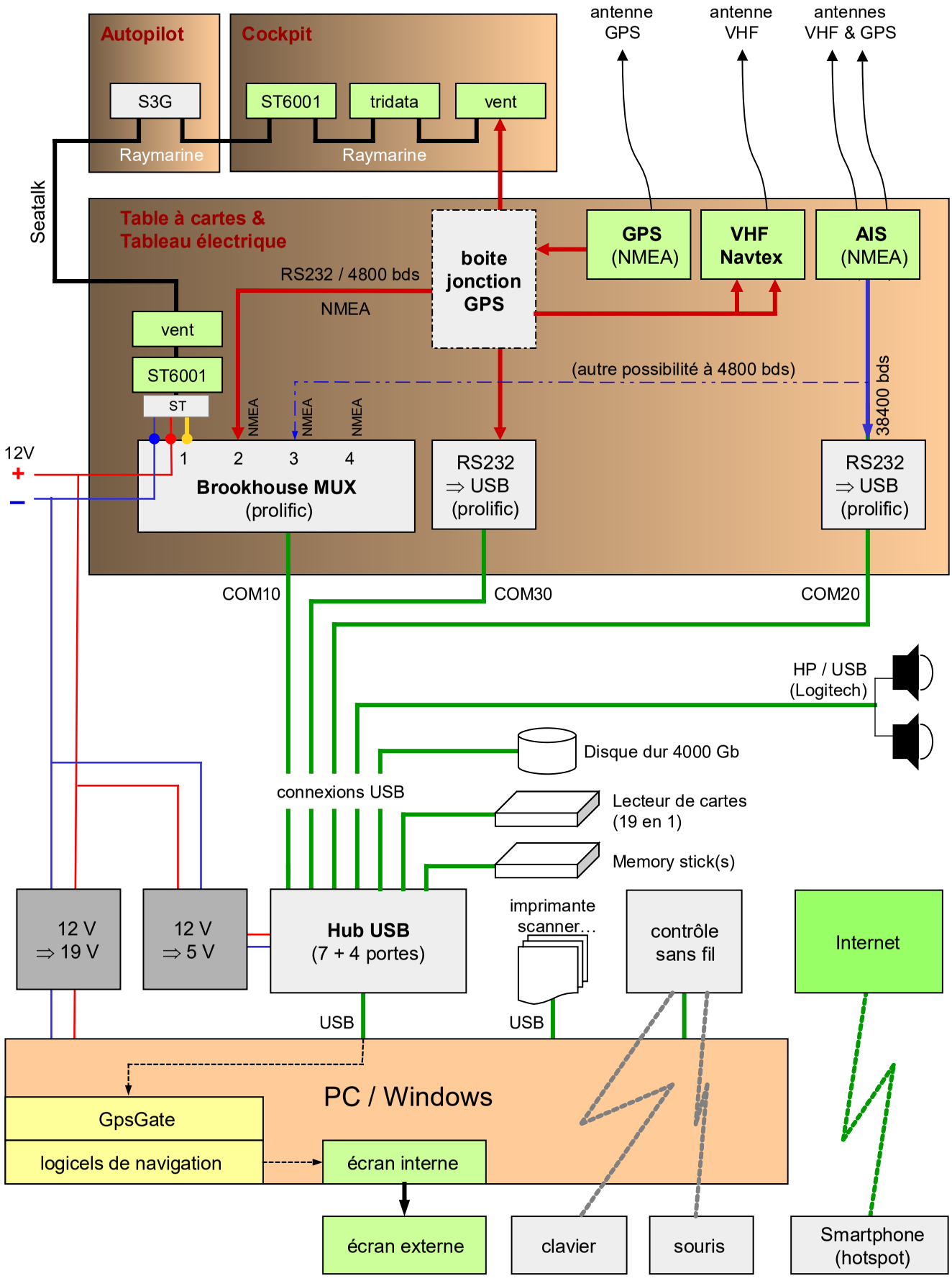
Black or Cyan symbol
- User LPs

NavLog
Google Earth vs OpenCPN

Annexes



Configuration Entrées - sorties



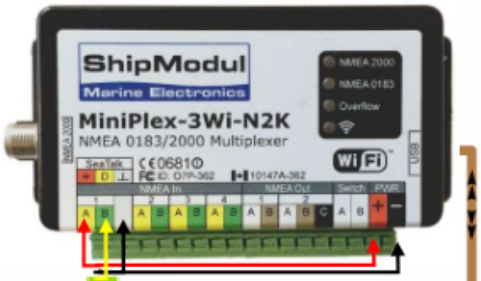
Electronique & Informatique

Principe et câblage **01-04-2022**

Schéma réseau seatalk miniplex 3WI N2K – 28.10.2106 – v3

Radom RD218

Réseau Seatalk:
Plotter C80
Radar Radom RD218
GPS Raystar 120SDGPS
ST 60 wind
ST 60 tridata (x2)
ST 80 master view (x2)



Ipad/Iphone

PC Lenovo

USB /
RS232

SeaTalk

Seatalk GPS

Antenne SD GPS
Raystar 120

Seatalk Network

DSC VHF

VHF Navman
7100

Auto pilot

Raymarine ST 6001G+

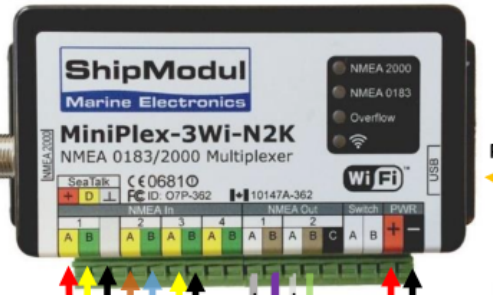
Plotter C80

Raymarine plotter
Seatalk ⇒ PC

Network Seatalk 1 + Miniplex 3WI N2K – 31.01.2021

IN1=SeaTalk1
IN2= AIS at 38400 Bds
IN3= GPS Raystar 120SD
OUT1= Autopilot + VHF at 4800 Bds
OUT2= C80 at 38400 Bds
PWR= 12Vdc

Réseau SeaTalk1:
MFD C80
Radar Radom RD218
GPS Raystar 120SDGPS
ST 60 wind
ST 60 tridata
ST 80 master view (x2)
Répétiteur Auto Pilot à la TAC



SeaTalk

TX+ Brun

TX - Bleu

(-)
12 Vdc
(+)

Paramétrage

Tablette Huawei MediaPad Lite 5 au Cockpit

Raspberry Pi4 dans la TAC

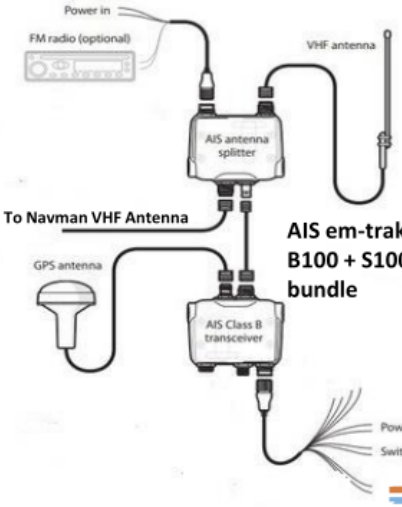
Ecran tactile Waweshare 15'' à la TAC

Seatalk Network

NMEA input at 38400 Bds

IN - Vert

IN + Blanc



AIS em-trak B100 + S100 bundle

GPS 120SD

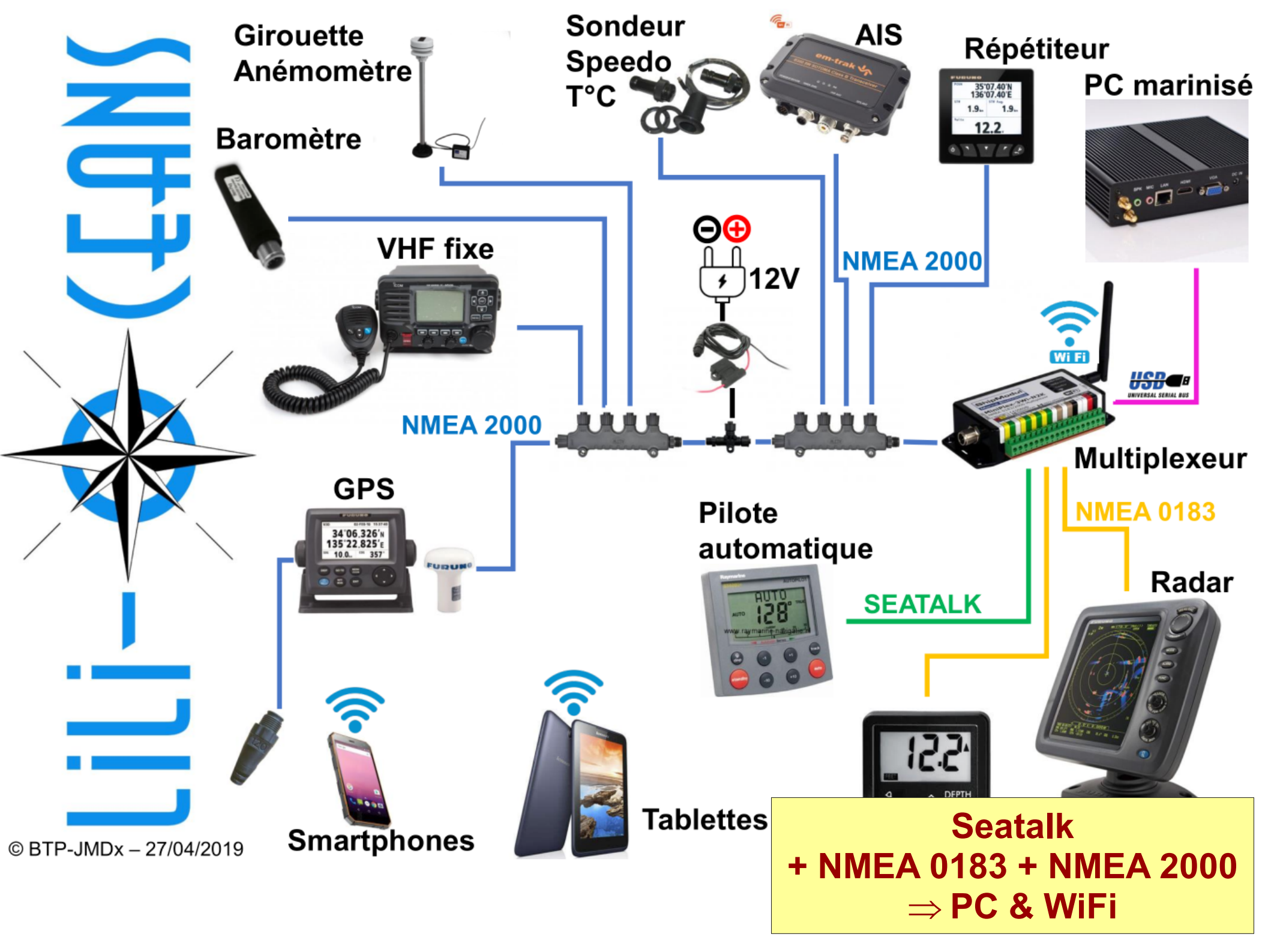
(-)
(+)

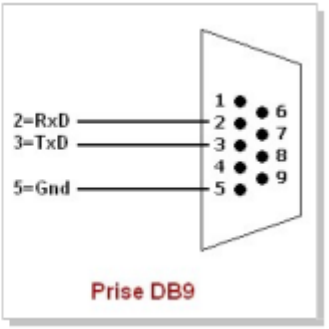
VHF Navman 7100 ASN

(-)
(+)

Auto pilot
Raymarine ST 6001G+S3

Raymarine plotter,
AIS
Seatalk + NMEA ⇒ PC


Girouette
Anémomètre
Baromètre
Sondeur
Speedo
T°C
AIS
Répétiteur
PC marinisé
VHF fixe
12V
NMEA 2000
NMEA 2000
Wi Fi
USB
UNIVERSAL SERIAL BUS
Multiplexeur
GPS
Pilote
automatique
NMEA 0183
Radar
SEATALK
Smartphones
Tablettes
Seatalk
+ NMEA 0183 + NMEA 2000
⇒ PC & WiFi
© BTP-JMDx – 27/04/2019



Numéro	Nom	Désignation
1	CD - Carrier Detect	Détection de porteuse
2	RXD - Receive Data	Réception de données
3	TXD - Transmit Data	Transmission de données
4	DTR - Data Terminal Ready	Terminal prêt
5	GND - Signal Ground	Masse logique
6	DSR - Data Set Ready	Données prêtes
7	RTS - Request To Send	Demande d'émission
8	CTS - Clear To Send	Prêt à émettre
9	RI - Ring Indicator	Indicateur de sonnerie
	Shield	Blindage

RS232
DB 9

Thank you for your interest !

Welcome to Pierre's web sites

www.irisoft.be/navlog

www.thoe.be

www.schavuit.net

Contact
plang@irisoft.be