

SeaData User Manual

Everything on the screen explained, step by step.
Written for first-time users. No experience needed.

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ABOUT THIS MANUAL

This manual explains SeaData from the very first login to the most advanced screens. Every chapter shows a real screenshot of the program with numbered markers, and tells you in plain words what you see, what each button does and how to read the numbers. You do not need any experience with weather models to use it. Read chapters 1 to 4 first; after that, open the chapter of the screen you are working with. The vessel in the screenshots is called **Demo vessel**; on your screen you will see your own vessel.

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Revision	Rev 0, 2026-09-26
Applies to	SeaData web platform at seadata.online (all account types)
Latest version	https://seadata.online/static/SeaData_User_Manual.pdf
Questions	Ask about SeaData (the ? button on the map) or info@seadata.online

DOCUMENT CONTROL

Revision history

Every change to this manual gets a new revision number. The revision on the front page and in the footer tells you which version you are reading. The latest version can always be downloaded from the link in every SeaData e-mail.

Rev	Date	Description	By
0	2026-09-26	First issue of the SeaData User Manual.	SeaData

How to read the revision number. Rev 0 is the first issue. Each later issue counts up (Rev 1, Rev 2 ...). When a screen in SeaData changes, the manual is updated and the new revision lists what changed, so you only need to read those sections again.

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CHAPTER 1

1. Before you start

What SeaData is, what you need, and a few words and rules that come back on every page.

What is SeaData?

SeaData is a website that shows the **weather at sea for your own vessel**: waves, wind, current, tide, rain and more. It collects the forecasts of many weather models and measuring stations and puts them together for the exact position of your vessel. It also answers the question every vessel on a job asks: **can we work, and when is the next good window?**

You do not install anything. SeaData runs in an ordinary web browser (Chrome, Edge, Safari or Firefox) on a pc, laptop, tablet or phone. You open **seadata.online** and log in.

What you need

- 1 An account.** Every account is checked and released by hand. Chapter 2 explains how to request one.
- 2 The MMSI of your vessel.** This is the 9-digit number of the vessel's radio / AIS. You find it on the AIS transponder, on the radio licence, or ask the master.
- 3 An internet connection.** On board this can be VSAT, Starlink or 4G. SeaData uses little data: a normal page load is comparable to opening a news website.

Words you will see everywhere

Word	What it means in plain language
AIS	The radio signal every larger vessel sends with its position. SeaData uses it to know where your vessel is. No AIS means SeaData does not know where you are.
MMSI	The 9-digit number that identifies your vessel in AIS.
Hs	Significant wave height, in metres. Roughly the average height of the highest third of the waves: what an experienced sailor would call 'the wave height'.
Tp	Peak period, in seconds: the time between the waves that carry the most energy. Long periods (10 s and more) mean swell.
Swell / wind sea	Swell is long waves made far away. Wind sea is the short, steep waves made by the local wind. Together they make the total sea.
Model	A computer weather forecast, for example HARMONIE, ECMWF or CMEMS. SeaData shows many; the best one for your position always stands at the top or on the left.
UTC	World time. Every time in SeaData is UTC , not your local time. The Netherlands is UTC + 1 h in winter and UTC + 2 h in summer.
kn, m/s, Bft	Speed units. 1 m/s is about 2 knots. Bft is the Beaufort scale (wind force 0 to 12).

Colours mean the same thing on every screen

Colour	Meaning
Green	Good: fresh data, workable, within the limit.
Orange / amber	Take care: close to a limit, or data getting old.
Red	Not good: over a limit, not workable, or data missing or too old.
Grey	No data. SeaData never fills a gap with a guess: grey means 'we do not know'.

Important. SeaData is **supporting information, not a navigation aid**. Always check against official charts, tide tables and notices to mariners. The decision to sail or to work always stays with the master.

CHAPTER 2

2. Your account and logging in

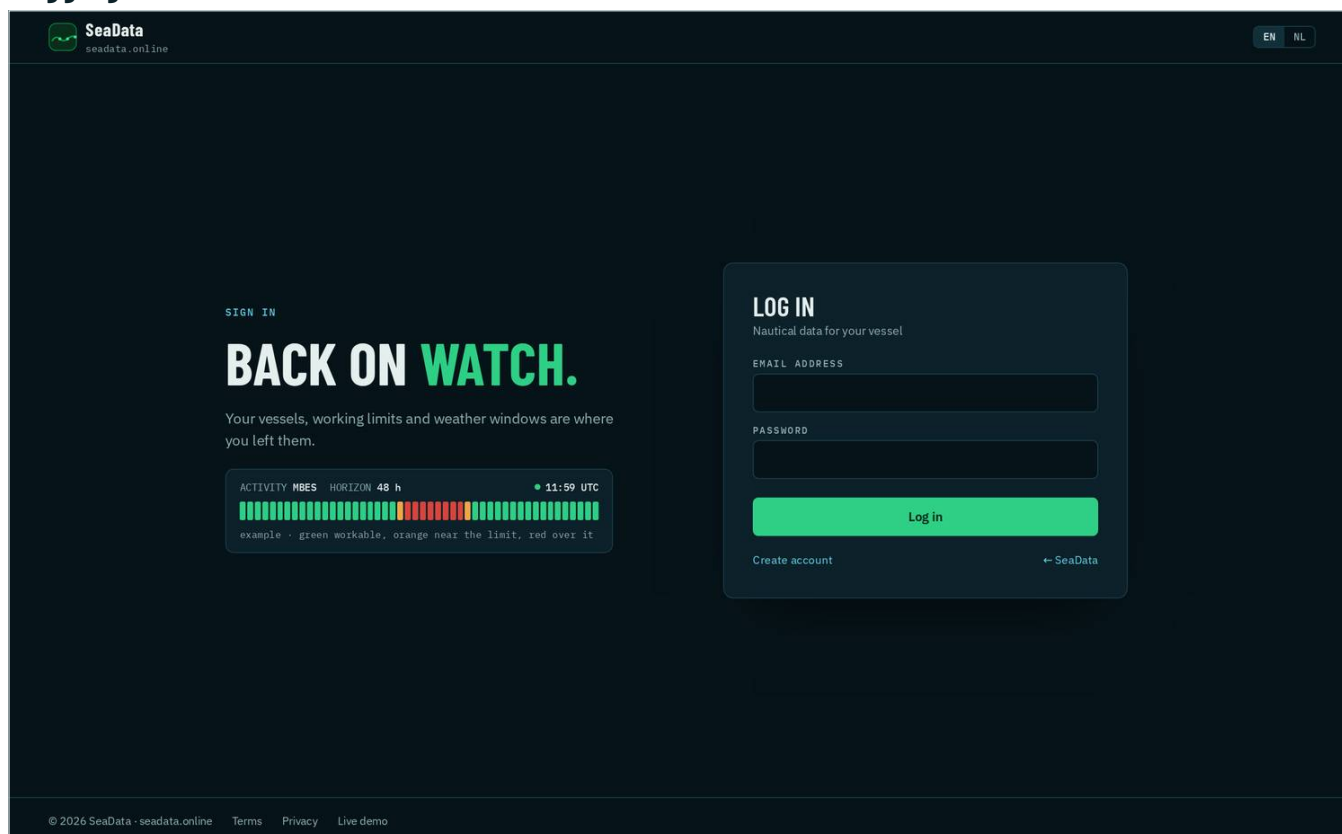
How to get an account, log in for the first time, and what the different account types can do.

Requesting an account

- 1 Go to seadata.online and click [Create account](#) (under the login box) or [Request an account](#) on the front page.
- 2 Fill in your e-mail address, name, company or vessel and the other questions, and send the form.
- 3 You receive an e-mail to **verify your e-mail address**. Click the link in that mail.
- 4 SeaData checks every request by hand. When your account is approved, you receive a second e-mail. From that moment you can log in. The approval mail also has the links to the Quick Start and to this manual.

Tip. Mail not arriving? Look in your spam or junk folder first. Company mail filters sometimes hold mails with links. You can always write to info@seadata.online.

Logging in



The login page. Type the e-mail address and password from your welcome mail and click Log in.

- 1 Open seadata.online and click [Login](#).
- 2 Type your e-mail address and your password.
- 3 Click [Log in](#). The map opens on your vessel.

If your account uses two-factor login, SeaData then asks for the code from your authenticator app.

Account types

The type of your account decides how many vessels you can follow and how freely you can change them. **Workability is included in every type.**

Type	Vessels	Changing a vessel	Own chart position	Viewers
Single	1	straight away	no	no
Fleet standard	5	slot on hold for 7 days	no	no
Fleet+	3	straight away	yes	yes
Fleet admin	5	straight away	yes	yes

Viewers are extra logins that can only look, for crew, office or client. They are explained in chapter 21.

Trying SeaData without an account

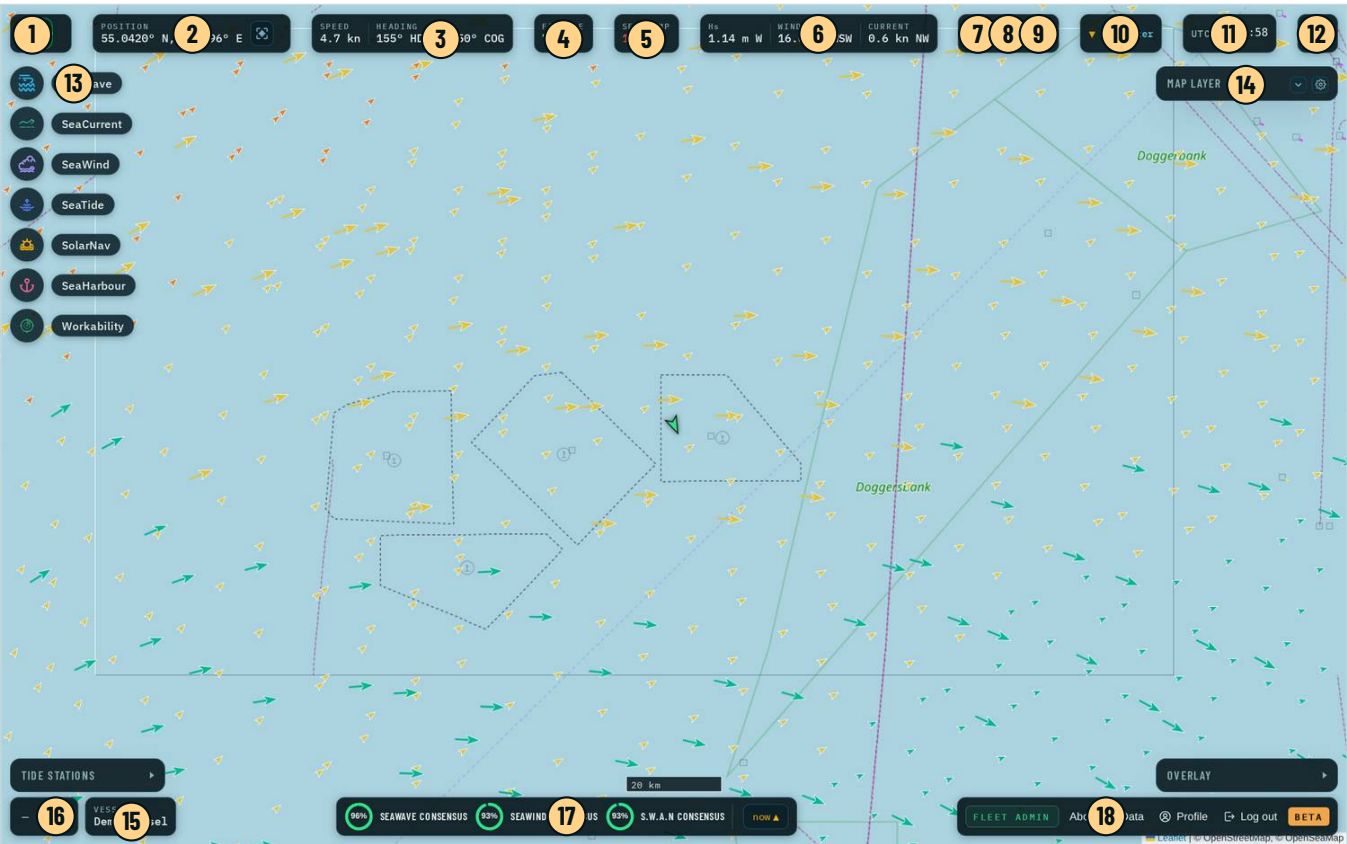
Without logging in you can open the demo: **Try it** in the bottom bar lets you enter an MMSI and see that vessel as your own for half an hour (only for a vessel we currently receive on AIS). The Workability tab then shows a Demo vessel at a fixed position in the North Sea.

CHAPTER 3

3. The main screen

After logging in you always land on the map. Everything in SeaData starts here.

The chart fills the whole screen. Everything else floats on top of it: the **top bar** with the most important numbers, the **side tabs** on the left that open the detailed screens, **Map layer** at the top right, **Tide stations** at the bottom left, **Overlay** at the bottom right and the **bottom bar**.



The main screen of SeaData with the most important parts numbered.

- 1** SeaData logo and fleet picker: choose which vessel you look at.
- 2** Position of the vessel (from AIS or from the vessel itself).

- 10** Tide: rising or falling at your position.
- 11** The clock in UTC.

3	Speed, heading (HDG) and course over ground (COG).	12	Eye: Overview , all conditions on one card.
4	Fix age : how old the position is. Always look at this.	13	Side tabs: the detailed screens (SeaWave, SeaCurrent ...).
5	Sea temperature at your position.	14	Map layer: base map and extra layers.
6	Waves (Hs), wind and current at your position, right now.	15	The active vessel.
7	? : the built-in help and Ask about SeaData.	16	Bullseye: choose your own spot on the chart.
8	Clock: Data status , how fresh every data source is.	17	Consensus rings: do the models agree?
9	Cog: your settings (units, language, your vessel).	18	About SeaData, Profile and Log out.

The top bar



The top bar close up.
The top bar always shows the situation **at your vessel, right now**. From left to right:

Part	What it shows
Position	Where your vessel is, in the format you chose under the cog. The small crosshair next to it moves the chart back to your vessel.
Speed / Heading	Speed over ground, the heading (where the bow points, HDG) and the course over ground (where the vessel actually goes, COG). The difference between HDG and COG is your drift.
Fix age	How old the position is. See the box below.
Sea temp	Sea surface temperature at your position.
Hs / Wind / Current	Wave height, wind and current at your position now, with their direction. You can switch this block off under the cog.
? · Clock · Cog	Help, Data status and Settings (chapter 4).
Tide	Whether the tide is rising or falling at your position.
UTC	The clock. All times in SeaData are UTC.
Eye	Overview: waves, wind, tide and current on one card (chapter 4).

Fix age. Fix age is not a detail. The colour warns you: green under 30 seconds, yellow under 5 minutes, orange under 15 minutes, red beyond that. After 40 minutes the vessel is no longer drawn on the chart at all. That is on purpose: drawing a vessel at an old position suggests a certainty that is not there. If it says stale or no AIS, there is no usable position.

The bottom bar



1	The active vessel.	3	Consensus rings and the time button (now, +3 h ...).
2	Bullseye: pick your own position on the chart (Fleet+ and Fleet admin).	4	About SeaData, Profile, Log out.

The three **consensus rings** show in one number how well the models agree at your position: SeaWave consensus (waves), SeaWind consensus (wind) and S.W.A.N consensus (the local SWAN wave model against the average of the others). A full, green ring means the models tell the same story; a low number means they disagree, so the forecast is less certain. The button with the arrow next to them picks the moment: **now**, +3 h, +6 h, +9 h or +12 h.

Choosing your vessel and your start vessel

- 1 Click the vessel name at the top left, or the **VESSEL** box in the bottom bar. The list of vessels of your account opens.
- 2 Click a vessel to look at it. The chart and every screen now follow that vessel.
- 3 Click the **star** ☆ behind a vessel to make it your **start vessel**. SeaData then always opens on that vessel. The start vessel also gets extras: its data is kept ready in the background so every screen opens at once, and (depending on your account) its History is stored every hour (chapter 18).

Choosing your own position on the chart

On Fleet+ and Fleet admin accounts the **bullseye** button in the bottom bar lets you pick any spot on the chart instead of following your vessel. The button turns yellow and the chart shows a yellow ChartPos: manual position, not a vessel position warning. Everything you see then applies to that spot. Click the bullseye again to follow your vessel.

Tip. Planning a job at a location where the vessel is not yet? Put the bullseye on the location and open Workability or Contract: you see the forecast for the job site.

CHAPTER 4

4. Overview, Data status, Settings and Help

The four buttons at the top right give you a quick look, show how fresh the data is, hold your personal settings and open the help.

Overview: the eye button



Overview: waves, wind, tide, a polar and current on one card.

Overview is the fastest way to see the conditions at your vessel. It shows WAVE, WIND, TIDE, a polar and CURRENT, each with the value now and a small chart from 6 hours back to 24 hours ahead.

- 1 Click the **eye** at the far right of the top bar.
- 2 Read the big numbers: these are the consensus (average) of all models for your position.
- 3 The small charts show the single best model, because an average flattens the peaks.

- 4 In the polar, wind (blue), waves (yellow) and current (orange) point **inwards**, from where they come. Your heading (solid red) and course over ground (dashed red) point outwards.
- 5 Click the eye again to close Overview.

Data status: the clock button

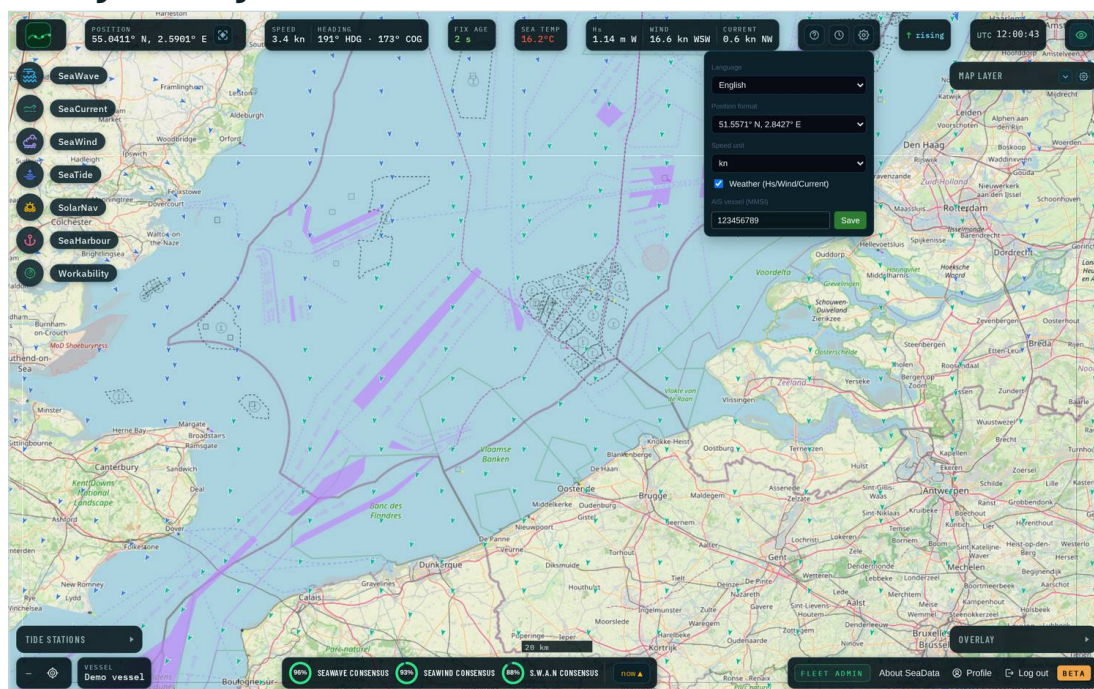


Data status: one ring per data source.

Every source SeaData uses has a ring here, grouped as Wave, Wind, Current, Tide, Observations and Radar. A ring is one refresh cycle: **full and green** just after a new model run arrived, **draining towards red** as the cycle runs out. Red also means missing or overdue.

Tip. Something looks strange on a screen? Open Data status first. If the source of that screen is red, the problem is the data supplier, not you.

Settings: the cog button

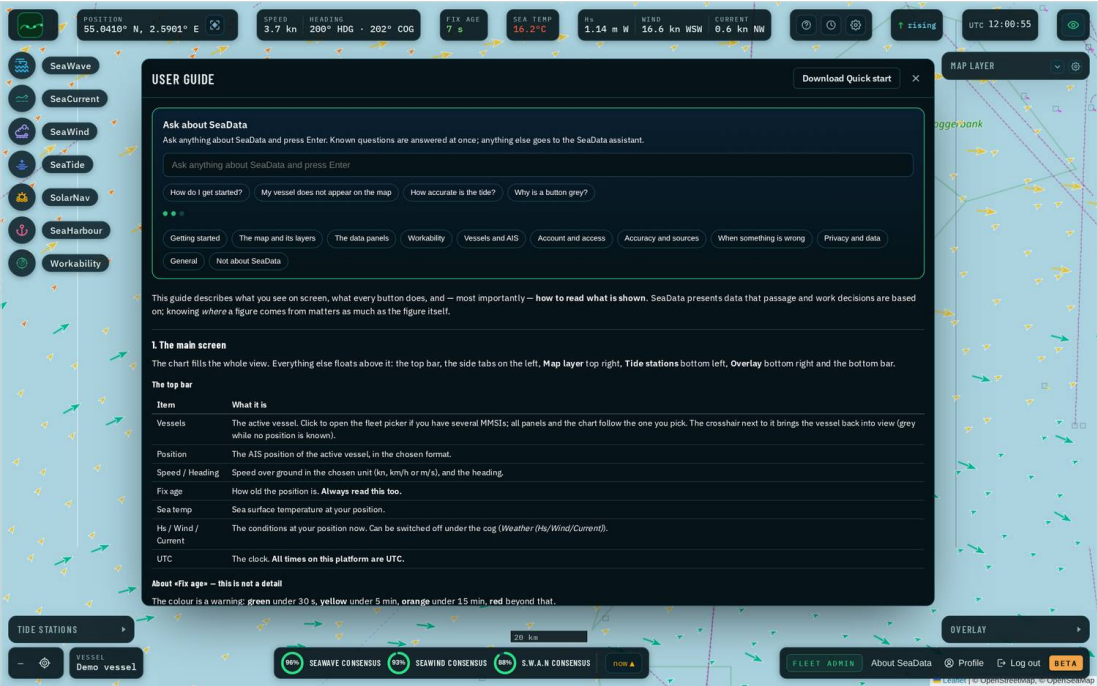


The settings under the cog.

Under the cog you choose how SeaData shows things. Your choices are remembered on this computer.

Setting	What it does
Language	The language of the screens.
Position format	Degrees with decimals, or degrees and minutes.
Speed unit	kn, km/h or m/s.
Weather (Hs/Wind/Current)	Show or hide the weather block in the top bar.
AIS vessel (MMSI)	The vessel SeaData follows when you have none selected.

Help: the ? button



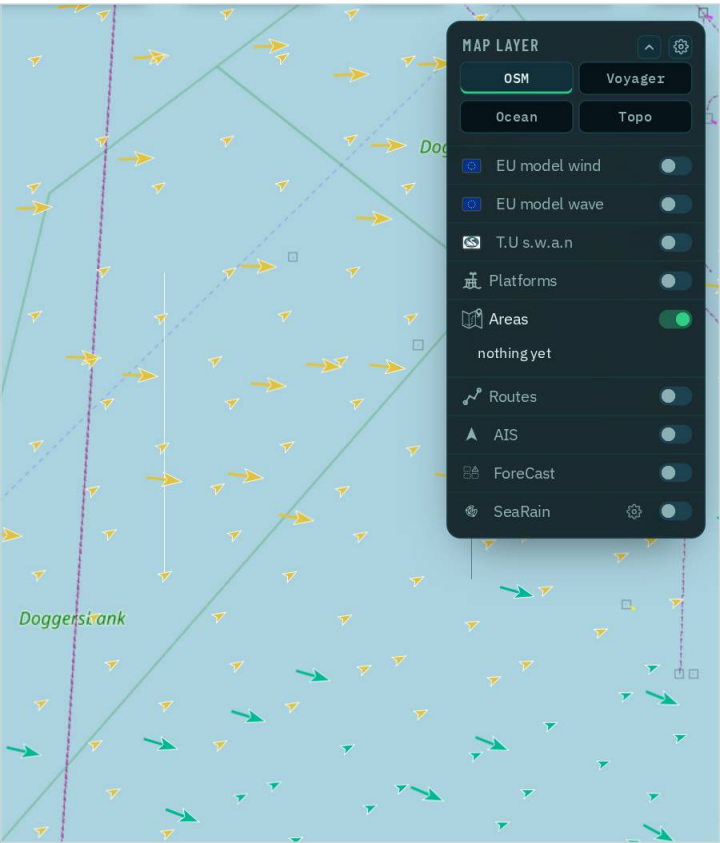
The built-in help with the Ask about SeaData box on top.
The ? opens the help that is built into SeaData. On top is the box **Ask about SeaData**: type your question in normal words (for example why is my vessel not on the map) and press Enter. SeaData answers from its help texts; if it cannot, the question goes to the SeaData helpdesk. The button **Download Quick start** gives you the short five-page guide.

CHAPTER 5

5. The map controls

Map layer, Platforms, Tide stations, Overlay and the three switches AIS, ForeCast and SeaRain decide what is drawn on the chart.

Map layer (top right)



Map layer opened with its dropdown arrow.
Click the small arrow next to **MAP LAYER** to open it. The dropdown chooses the base map; the switches underneath add layers.

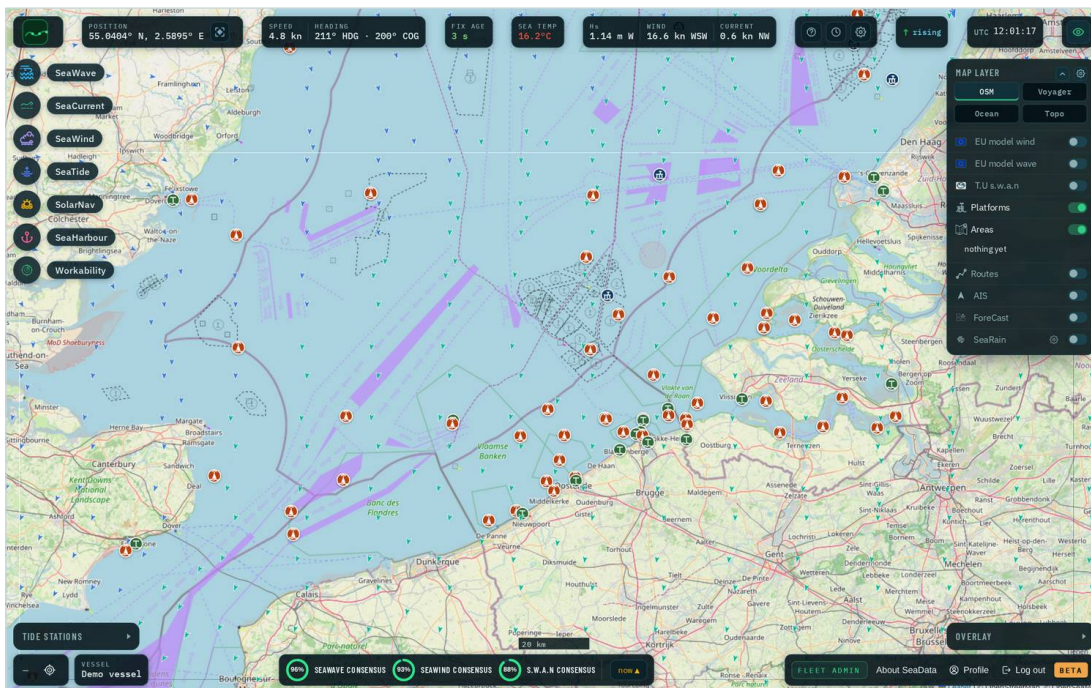
Base map	Good for
OSM	The default map (OpenStreetMap).
Voyager	A calmer, lighter map.
Ocean	A sea-oriented map. Works up to zoom 13.
Topo	Land with height lines. Works up to zoom 17.

The sea marks of OpenSeaMap (buoys, fairways, lights) are always drawn on top.

Switch	What it shows
EU model wind / EU model wave	Which weather or wave model covers which area. Only one of the two can be on.
Asia	The data boxes for Taiwan and Japan.
Typhoon	The current typhoon track, cone and wind circle (Asia, in season).
T.U.s.w.a.n	Where the SWAN wave model can run.
IOC Tidal data	Sea level stations of the IOC network.
Platforms	Measuring stations at sea with their latest readings (see below).
Areas	Your own points and shapes, uploaded under Profile › Areas (chapter 21).
Routes	The routes you made in Transit (chapter 15).

Watch out. Zoomed in and the map is empty? Some base maps stop at a certain zoom level (Ocean at 13, Topo at 17). Choose OSM or zoom out a little.

Platforms: measurements at sea



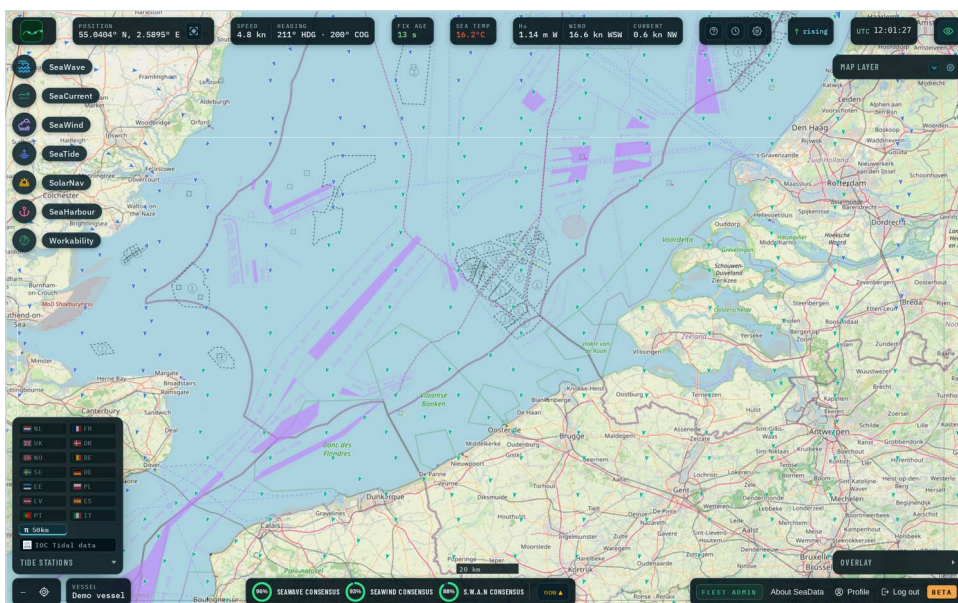
The Platforms layer: fixed measuring stations with their latest reading.

Platforms shows every fixed measuring station at sea (platforms, buoys and masts) with its latest wave, wind, current and visibility reading. **Hover** over a station for the key readings; **click** it for every source at that spot with all its values. The layer refreshes every 10 minutes while it is on.

Tip. These are **measurements**, not forecasts. Compare them with the forecast: if the buoy next to you measures 2 m and the models say 1 m, trust your eyes and the buoy.

Watch out. Every value keeps its own time. A buoy that stopped reporting keeps showing its last value, so always read the time next to it.

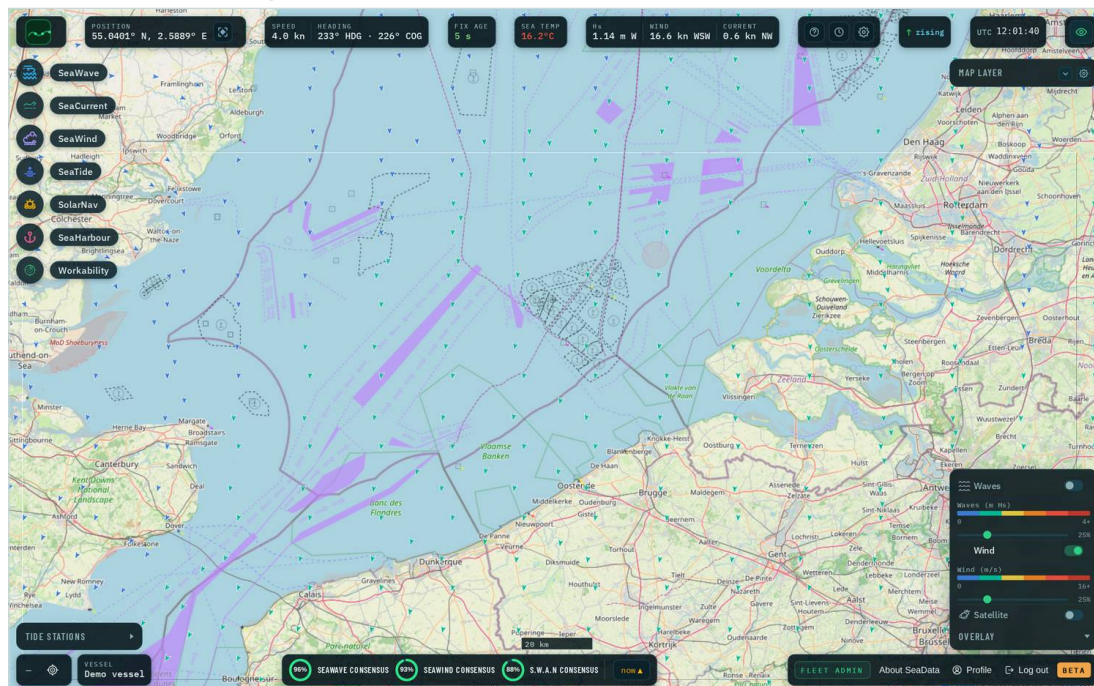
Tide stations (bottom left)



Tide stations: one flag per country, and π 50km.

One flag per country switches its tide and measuring stations on or off. **π 50km** is on by default: it shows every station within 50 km of your vessel. Click a station for its details; hover for a short summary.

Overlay (bottom right): waves and wind on the chart



Overlay with Waves switched on: arrows coloured by wave height.

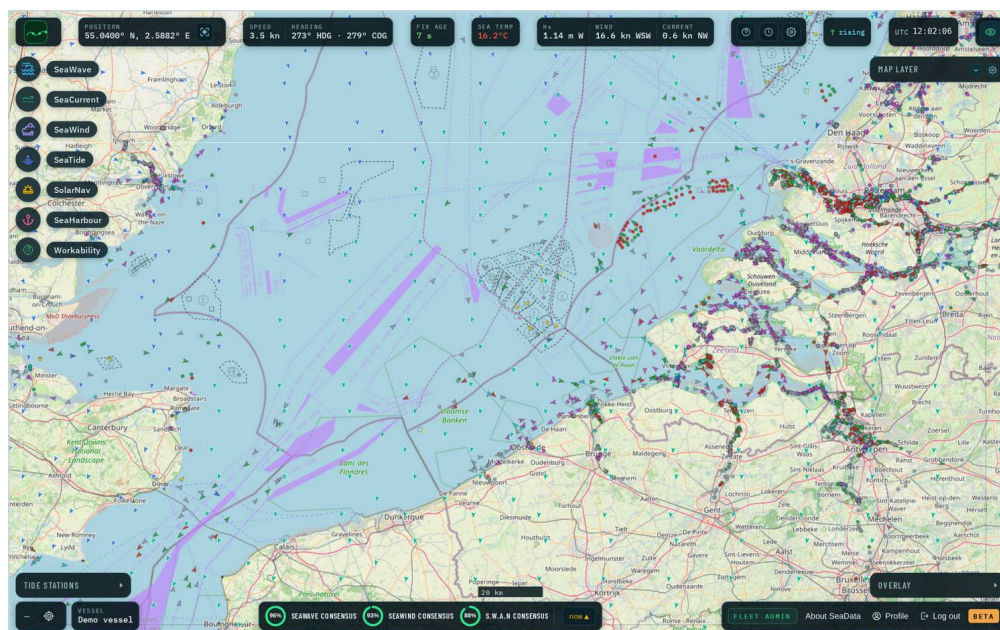
Waves draws wave arrows coloured by wave height: blue below 0.5 m, green 0.5–1 m, yellow 1–2 m, orange 2–3 m, red 3–4 m and dark red above 4 m. **Wind** draws streamlines coloured by wind speed with the isobars (air pressure lines) in hPa. The slider under each legend sets how many arrows are drawn.

Satellite shows **measured** wave height and wind from satellites over the last 24 hours. Only where a satellite passed there is something; bright dots are recent, faint dots are up to a day old.

Tip. The chart feels slow when zooming? Switch Waves and Wind off, or move their sliders to the left. These are the heaviest layers.

AIS, ForeCast and SeaRain: three switches

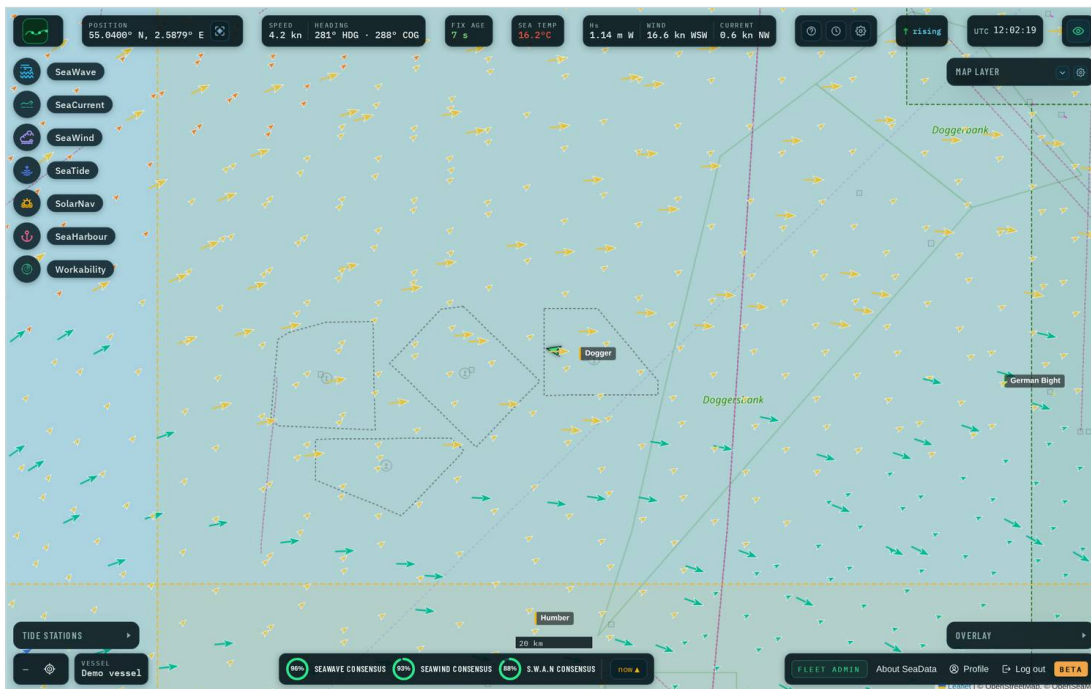
The last three side tabs do not open a screen: they switch a layer on the chart on and off.



AIS switched on: other vessels on the chart.

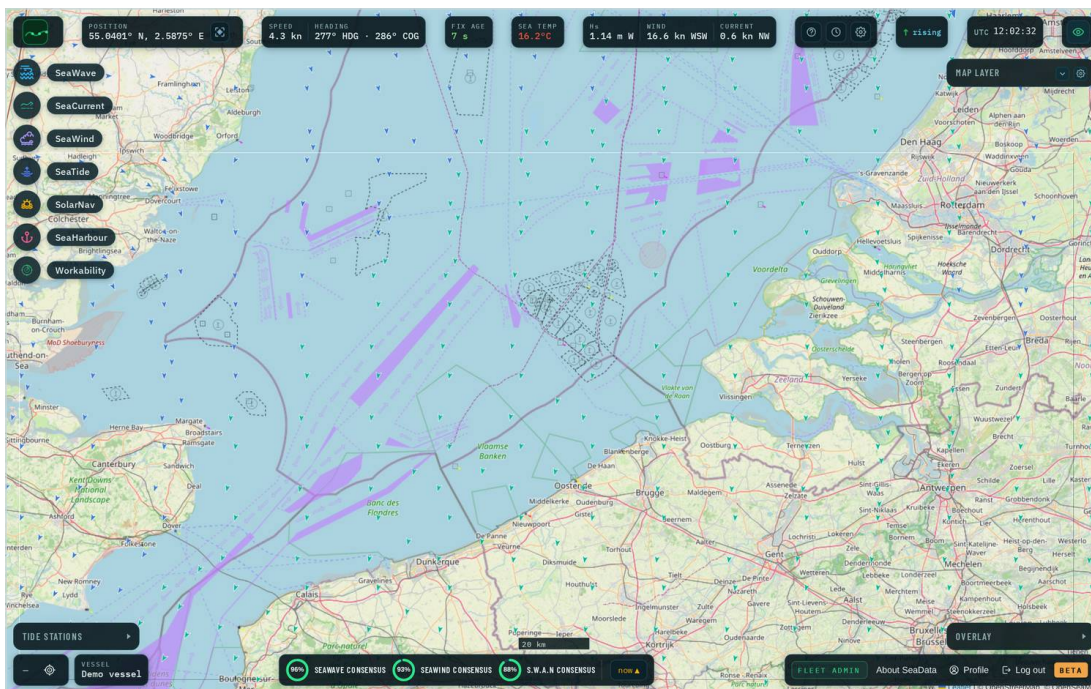
AIS shows other vessels. Zoomed out you only see your own fleet; zoom in to see every vessel in view. Colours follow the vessel type; a purple diamond is a navigation aid (AtoN).

Watch out. AIS is incomplete and delayed. It is **not suitable** for collision avoidance.



ForeCast: the warning areas of the national weather services.

ForeCast puts the sea areas of the national weather services on the chart (KNMI, Météo-France, AEMET, IPMA). Click an area to read that service's bulletin.



SeaRain switched on. It was dry when this screenshot was made, so no rain is drawn; showers appear as coloured patches.

SeaRain shows rain and showers. The small cog in the tab opens its settings: the region (Europe, Asia or World), the quality, **storm cells** (circles around heavy showers with gusts and poor visibility) and the satellite cloud image. Radar only reaches a few hundred km from the coast; on the open ocean choose World.

CHAPTER 6

6. SeaWave: waves

Everything about the waves at your position: every wave model, the best three, the satellite check and the local SWAN calculation.

Click [SeaWave](#) in the side tabs. The screen opens over the chart; ← [Back](#) at the top right closes it again.



SeaWave, tab Models.

- 1 Time window: how far ahead the charts go (6 to 72 hours).
- 2 Sub-tabs: Models, Online and S.W.A.N.

- 3 Graphics, Tables or DPR.
- 4 Back to the map.

How to read this screen

- 1 The headline** says it in one sentence, for example Hs 1.0 m now, peak 1.7 m at 22:00 tomorrow. This is the average of the best 3 models for your position.
- 2 The five tiles** give the numbers now: total wave height, wind sea, swell, peak period and direction. Spread under each number shows how far the models are apart.
- 3 Models, ranked** (left) lists every wave model that covers your position, best first. The three above the dashed line make the numbers in the tiles. Click a model to see its details.
- 4 Hs · all models** shows every model as a line. The yellow now line is the current time; the shaded band is the spread of the top 3. White diamonds are satellite measurements.
- 5 Components** splits the waves of the chosen model into wind sea and swell, with the peak period on the right axis and the direction as arrows underneath.
- 6 Checked against satellites** shows how well each model matched real satellite measurements over the last 7 days. The lower the RMSE, the closer the model was to reality.

Tip. All models tell the same story (small spread)? Then the forecast is reliable. Big spread? Then plan with the higher values.

Tables and DPR



SeaWave, Tables: the numbers per hour.

Tables gives the same information as numbers per hour. **DPR** gives the three-hourly values of today from the best model, the way you copy them into a Daily Progress Report.

S.W.A.N: a wave calculation at your vessel

The screenshot shows the SEAWAVE S.W.A.N interface. At the top, there are tabs for 6h, 12h, 24h, 48h (selected), and 72h. A 'Back' button is on the right. Below the tabs, the location is given as 55.040 N 2.587 E. The main heading says 'Hs 1.1 m now, peak 1.8 m at 22:00 tomorrow.' followed by 'Average of the best 3 models for this position · next 48 h · UTC'. Below this are tabs for MODELS, ONLINE, and S.W.A.N (selected). A status bar shows 'Partial result' and details: 'Tile noordzee_x007_k005_x005_y004', 'Boundary Ww3 4km (Hs 0.90 m)', 'Computed 2 min ago · From cache', and a 'Recalculate' button. A warning message states: 'SWAN reported warnings · Converged: 100.0% (required 98%) · 3 iterations · ** WARNING : Differences in wave height at the boundary'. A summary line reads: 'SWAN at your position: Hs 0.92 m against 1.13 m for the best 3 models now (-0.21 m)'. The results are organized into six panels: WAVE HEIGHT, PERIODS, DIRECTION, WAVE SHAPE, BOTTOM · BREAKING, and WATER · DEPTH.

WAVE HEIGHT	
Hs (significant)	0.92 m
Hs swell	0.00 m

PERIODS	
Peak period (RTp)	6.07 s
Peak period (smooth)	5.92 s
Mean Tm01	4.48 s
Mean Tm02	3.81 s
Mean Tm-1,0	5.13 s
Bottom period	6.92 s

DIRECTION	
Mean direction	289 °
Peak direction	285 °
Directional spread	29.4 °
Peakedness (Qp)	2.78

WAVE SHAPE	
Mean wavelength	22.6 m
Peak wavelength	57.2 m
Steepness	0.04
Benjamin-Feir index	0.28

BOTTOM · BREAKING	
Bottom orbital (rms max)	0.02 m/s
Bottom orbital (rms)	0.01 m/s
Breaking fraction	0.00

WATER · DEPTH	
Depth	31.8 m
Water level	0.00 m
Bottom level	31.8 m

SeaWave, S.W.A.N: the local wave calculation.

SWAN is a wave model that SeaData runs **exactly at your vessel's position**, using the local water depth. It takes the waves of a larger model and calculates what they do on your spot. The result is a list of numbers: wave height and swell, all the periods, directions, wave length and steepness, and the water motion near the seabed.

SWAN runs when you open the page and refreshes every 30 minutes; **Recalculate** starts a fresh run. A traffic light shows whether the run is complete.

Watch out. SWAN runs **one at a time** for all users. If someone else's run is busy you see SWAN queue: waiting for computing power. That is a queue, not a fault: the result follows by itself.

CHAPTER 7

7. SeaCurrent: current

Which way the water flows, how fast, and how that changes over the coming hours.



Tile	What it is
Surge	How much the water level is above (or below) the normal tide.

Watch out. In SeaCurrent every arrow points **to** where the water goes. Wind and waves in SeaData are given as where they come **from**. So a current 'towards 350° N' flows to the north.

The **current rose** draws total, tidal and residual current as arrows together with your heading (HDG) and course (COG). The **3D profile** shows the speed and direction at every depth, from the surface to the seabed, where the model provides it.

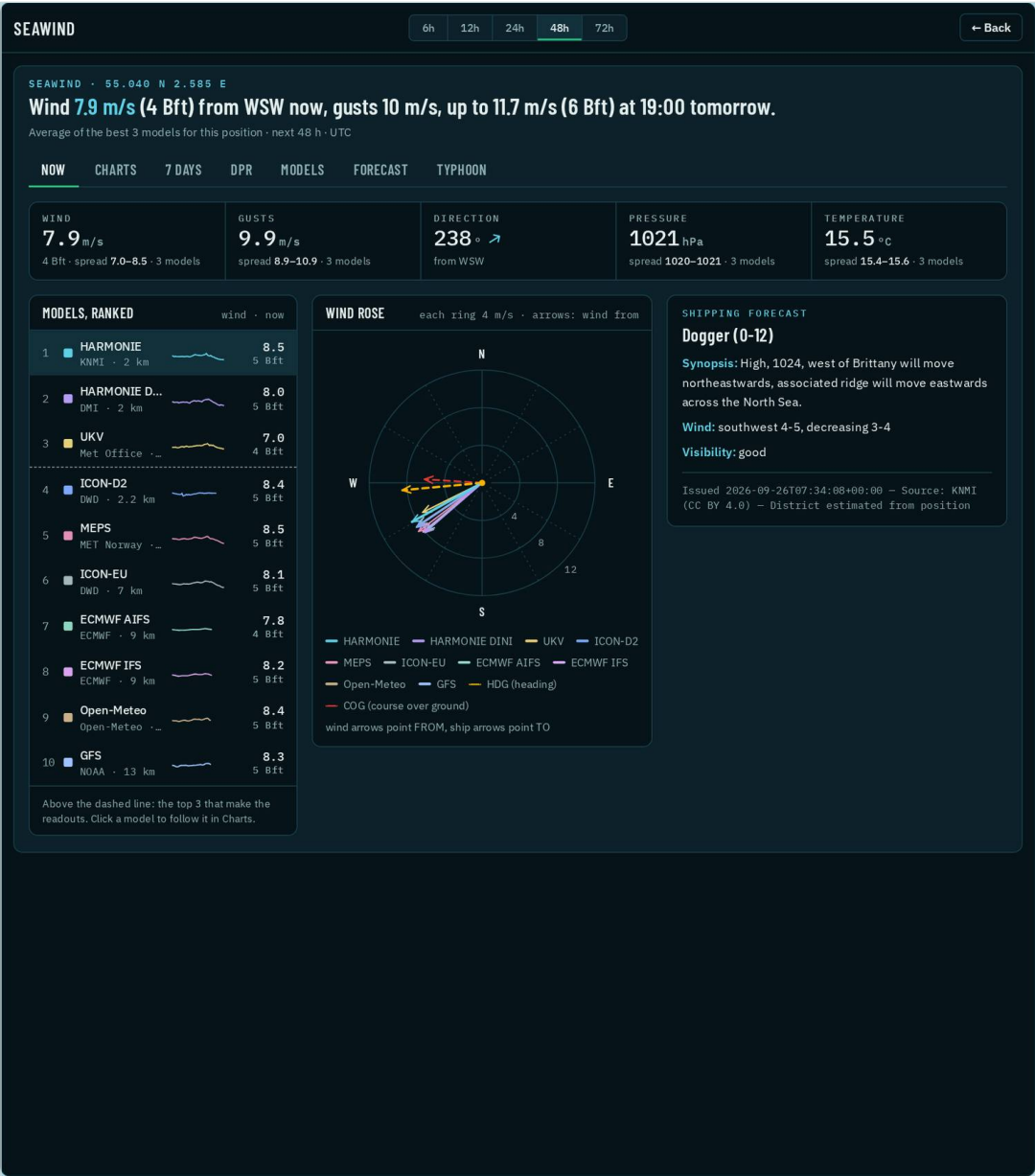
If your supplier sends a weather report by e-mail (chapter 17), its current forecast appears under the models as **Customer forecast**.

PREDICTION gives the current hour by hour; **GRAPHICS** shows it as charts.

CHAPTER 8

8. SeaWind: wind

Wind speed, gusts and direction from up to ten weather models, the shipping forecast and a seven-day outlook.



SeaWind, tab Now.

The headline gives the wind now and the strongest wind in the time window, in m/s and Beaufort. The tiles give wind, gusts, direction, air pressure and temperature.

- Models, ranked** lists every wind model for your position, best first. The top three make the numbers. Each line shows a small curve of the coming hours.
- The **wind rose** draws the wind direction of every model. Wind arrows point **from** where the wind comes; the ship arrows (HDG, COG) point to where the vessel goes.
- Shipping forecast** shows the official forecast text of the weather service for your sea area.



SeaWind, tab Charts: every model as a line.

CHARTS shows wind and gusts of every model over time. Click a model in the list to follow it.

7 DAYS gives a day-by-day outlook for the coming week. **DPR** gives wind, gusts and direction every three hours for your daily report, **MODELS** explains each model, **FORECAST** the shipping forecast and **TYPHOON** the typhoon data for Asia.

Tip. Gusts matter more than the average wind for crane work and small boats. Look at the gust tile and the gust line, not only at the wind.

CHAPTER 9

9. SeaTide: tide

When is high water and low water, and how does the real water level differ from the tide tables?



SeaTide, tab Chart.

The headline gives the tide now and the next high and low water. The tiles give the tide now, the next low water, the next high water, the range between them and the actual water level.

Two kinds of water level

SeaTide shows two groups of sources, and the difference between them is important:

What it is	
Astronomical tide	The tide as the sun and moon make it, like in the tide tables. It contains no effect of wind or air pressure.
Actual water level	The modelled real water level, including the surge from wind and air pressure.

Watch out. In strong winds the actual water level can differ from the tide tables by a metre or more. When the two lines are far apart, there is surge: plan with the actual level.

The two groups also use different reference levels (geoid and MSL), so their heights cannot be compared number for number. The table **Per source** lists every source with its reference, the level now and the next high and low water.

CHAPTER 10

10. SolarNav: space weather, sun and moon

Can solar storms disturb your GPS or satellite link today? And when does the sun rise?



SolarNav, tab Space weather.

Space weather shows how active the sun is. The most important number is the **Kp index** (0 to 9): below 4 is quiet, 5 and higher is a geomagnetic storm that can disturb GNSS (GPS, DGPS) and satellite communication. The NOAA scales (G, S, R, from 0 to 5) say the same in three categories. **Impact on navigation** translates it for your position: green means no effect.

SOLARNAV

← Back

SPACE WEATHERINTERFERENCESUN & MOON

SUN

Dawn05:05

Sunrise05:42

Solar noon11:41

Sunset17:38

Dusk18:14

Day length11u 55m

MOON

Phase● Volle maan

Illumination99 %

7 DAYS

DAY	RISE	SET	LENGTH	MOON	ILLUM.
za 26 sep	05:42	17:38	11u 55m	● Volle maan	99%
zo 27 sep	05:44	17:35	11u 50m	● Afnemende maan	95%
ma 28 sep	05:46	17:33	11u 46m	● Afnemende maan	87%
di 29 sep	05:48	17:30	11u 41m	● Afnemende maan	80%
wo 30 sep	05:50	17:27	11u 37m	● Afnemende maan	73%
do 1 okt	05:52	17:25	11u 33m	● Afnemende maan	65%
vr 2 okt	05:54	17:22	11u 28m	● Afnemende maan	58%

SolarNav, tab Sun & Moon.

Sun & Moon gives dawn, sunrise, noon, sunset, dusk, the length of the day and the moon phase for your position, with a seven-day table. **Interference** shows a map of GNSS interference (jamming).

Tip. Survey work with high GNSS accuracy? Check the Kp index before the start of the shift. A high Kp explains sudden jumps in your positioning.

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CHAPTER 11

11. SeaHarbour: ports

Port information for every sea port nearby, and the tide in the ports.

SEAHarBOUR

← Back

PORT INFO

TIDE PORTS

Search port, country or UN/LOCODE...

All areas

LOA 50 m

Draft — m

1319 of 1319 ports

☐ Fuel

☐ Water

☐ Tugs

☐ Ro-Ro

☐ Medical

PORT	COUNTRY	DIST.	MAX LOA	DEPTH	SIZE
Bridlington GB BRT	United Kingdom	112 nm	—	3.4 m	Very S
Scarborough GB SCA	United Kingdom	113 nm	—	4.9 m	Very S
Whitby GB WTB	United Kingdom	116 nm	—	4.9 m	Small
Kingston Upon Hull GB HUL	United Kingdom	127 nm	—	9.4 m	Mediu
Grimsby GB GSY	United Kingdom	128 nm	—	6.4 m	Mediu
Immingham GB IMM	United Kingdom	129 nm	—	12.5 m	Mediu
Teesport GB TEE	United Kingdom	131 nm	—	14.0 m	Large
Hartlepool GB HTP	United Kingdom	132 nm	—	15.5 m	Small
Seaham GB SEA	United Kingdom	135 nm	—	6.4 m	Small
Sunderland GB SUN	United Kingdom	136 nm	—	6.4 m	Mediu
Tynemouth GB TYM	United Kingdom	137 nm	—	7.9 m	Mediu
Blyth GB BLY	United Kingdom	140 nm	—	7.9 m	Mediu
Goole GB GOO	United Kingdom	144 nm	—	4.9 m	Small
Howdendyke GB HDD	United Kingdom	144 nm	—	3.4 m	Very S
Den Helder NL DHR	Netherlands	147 nm	—	7.9 m	Small
Great Yarmouth GB GTY	United Kingdom	149 nm	—	3.4 m	Small
Harlingen NL HAR	Netherlands	150 nm	—	3.4 m	Very S
Boston GB BOS	United Kingdom	155 nm	—	4.9 m	Small
Lowestoft GB LOW	United Kingdom	156 nm	—	6.0 m	Small
King's Lynn GB KLN	United Kingdom	158 nm	—	4.9 m	Small
Berwick-Upon-Tweed GB BWK	United Kingdom	162 nm	—	4.9 m	Very S

Bridlington

United Kingdom · England East Coast

UN/LOCODE GB BRT · 54°05.0'N 0°11.0'W · 112 nm away

Very Small harbour

Coastal (Breakwater)

Shelter: Good

No maximum vessel length published. Listed as suitable for 50 m based on depth (3.4 m).

LIMITS

Max LOA

—

Max beam

—

Max draft

—

Channel depth

1.8 m

Cargo pier depth

3.4 m

Anchorage depth

9.4 m

Tidal range

4.0 m

REPAIRS AND CHARTS

Repairs

Limited

Railway

Small

Chart

37059

NAVEAREA

I

ENTRANCE RESTRICTIONS

✓ Tide

✗ Heavy swell

✗ Ice

✓ Other

NAVIGATION

✗ Pilotage compulsory

✓ Pilotage available

✓ Pilotage advisable

✗ Tugs assistance

✗ Tugs salvage

✓ Good holding ground

ARRIVAL

✓ ETA message

✓ First port of entry

✓ Pratique

✓ Sanitation

✓ Quarantine other

COMMUNICATIONS

✓ Telephone

✓ Telefax

✓ Radio

✓ Airport

✓ Rail

FACILITIES

✓ Wharves

CRANES AND LIFTS

✓ Fixed cranes

✓ Mobile cranes

✓ Lifts 0-24 t

SERVICES

✓ Electricity

✓ Electrical repair

✓ Medical facilities

✓ Garbage disposal

✗ Dirty ballast

SUPPLIES

✓ Potable water

✓ Fuel oil

✓ Deck supplies

✓ Engine supplies

OpenSeaMap ↗

Sailing Directions Pub. 192 (Enroute) - North Sea ↗

Source: NGA World Port Index (Pub. 150), 2026-09-16. Depth = deepest of channel, cargo pier and max. draft. Distances in nautical miles from your position.

Not for navigation. Always check the port authority, Sailing Directions and official charts.

SeaHarbour, tab Port info.

1

The list shows every sea port that a vessel of 50 m or more can use, nearest first, with the distance in nautical miles.

2

Type in the search box to find a port by name, country or UN/LOCODE.

3

Fill in your **LOA** (length) and **Draft** to see only ports that fit your vessel.

4

Tick **Fuel**, **Water**, **Tugs**, **Ro-Ro** or **Medical** to see only ports with that service.

5

Click a port: on the right you see its limits, depths, entrance restrictions, pilotage, facilities and supplies. ✓ means yes, ✗ means no.

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Watch out. Unknown stays unknown: if the World Port Index does not give a value, you see a dash, never a 0 or 'no'. Always check the port's own information before you plan an arrival.

SEA HARBOUR

← Back

PORT INFO

TIDE PORTS

Search port or country...

☐ measured stations only

361 van 361 havens

PORT	COUNTRY	DISTANCE	SOURCE	NOW	NEXT HW	NEXT LW
A12 platform	NL	86 km	RWS meet	—	—	—
Scarborough	UK	209 km	gemeten	+0.57	14:09	20:19
Whitby	UK	214 km	gemeten	+0.75	13:49	19:59
Whitby	UK	214 km	UK meet	—	—	—
Grimsby	UK	237 km	gemeten	-0.76	15:39	21:49
Hull	UK	238 km	model	-0.65	15:39	21:09
Immingham	UK	238 km	gemeten	-0.76	15:39	21:49
Immingham	UK	238 km	UK meet	—	—	—
Cromer	UK	249 km	gemeten	-1.09	16:49	22:39
Cromer	UK	249 km	UK meet	—	—	—
Terschelling, North Sea	NL	252 km	RWS meet	—	—	—
Sunderland	UK	253 km	gemeten	+1.00	13:19	19:29
West-Terschelling	NL	253 km	gemeten	-0.83	17:59	23:59
North Shields (Tyne)	UK	256 km	gemeten	+1.00	13:19	19:29
North Shields	UK	256 km	UK meet	—	—	—
Texel Oudeschild	NL	267 km	gemeten	-0.46	16:39	22:59
Den Helder	NL	271 km	RWS	-0.68	18:00	00:50

measured

tide gauge (TICON-4 / GESLA-4)

model

FES2022 ocean model, less accurate in ports and rivers

Heights relative to mean sea level (MSL). All times UTC.

SeaHarbour, tab Tide ports.

TIDE PORTS lists the tide ports with the level now and the next high and low water. measured is a real tide gauge; model is calculated and less accurate inside ports and rivers.

CHAPTER 12

12. Workability: introduction and your vessel

Workability answers the question: what can this vessel do at this spot, in this weather? Before the answers mean anything, SeaData needs to know your vessel.

Click **Workability** in the side tabs. Along the top you see its sub-tabs, in the order you normally use them:

Sub-tab	What it is for	Chapter
Workability	The polar: motions and station keeping on every heading.	13
Contract	Per activity and per hour: within the contract limits?	14
Transit	The weather along a route you plan to sail.	15
Reporting	The weather report you send to your client.	16
External weather	The forecast your own weather supplier sends.	17
History	What the weather and the vessel were like on an earlier date.	18
Vessel Online	What the vessel itself measures and sends.	19
Vessel	Your vessel: drawing, data, thrusters.	12
Limits	The motion limits the polar is coloured against.	12
How it works	Where every number comes from.	20

At the far right of the sub-tabs is **VESSEL**: the vessel profile you work with. The star ★ marks your preferred profile.

The Demo vessel

Every account gets a **Demo vessel** once: an example ship with a drawing, so you see a full result straight away. It is yours: change it into your own ship, rename it or delete it.

Vessel: telling SeaData about your ship

WORKABILITY

← Back

WORKABILITY CONTRACT TRANSIT REPORTING EXTERNAL WEATHER HISTORY VESSEL ONLINE **VESSEL** LIMITS HOW IT WORKS

VESSEL

★ Demo vessel · Design draught ▾

2D CONFIG

Save Delete Upload stability booklet (PDF) ☒ Preferred vessel

Opens first after a refresh. One vessel at a time.

Loaded Demo vessel - Design draught

Step 1 - Required

Without these five nothing can be calculated. Everything else may stay empty - then the rule of thumb for the vessel type is used.

Profile name

Demo vessel

what is this?

Vessel type

Survey / research vessel - large ▾

sets every rule of thumb

what is this?

Lpp m

49.89

length between perpendiculars

what is this?

Beam B m

9

moulded, at the waterline

what is this?

Draught T m

2.5

mean, in the working condition

what is this?

Working speed kn

3

0 = stationary / DP. Above 0 the station keeping numbers still appear, with a caveat.

what is this?

Step 2 - Stability booklet

Six values from the stability booklet. GM weighs heaviest: it drives the roll period and therefore the whole polar.

Loading condition

Design draught

several per profile

what is this?

Displacement t

531.2

replaces the calculated value

what is this?

Block coefficient Cb

0.46

0.5 tug ... 0.85 dredger

what is this?

GM (this loading) m

1.5

heaviest weighing field

what is this?

Natural roll period s

6

one stopwatch measurement

what is this?

Moulded depth D m

4.4

baseline to the main deck

what is this?

Freeboard m

1.9

green water limit + wind area

what is this?

Freeboard at the bow m

estimated

green water at the bow

what is this?

Step 3 - Extended - motions

Everything that sharpens chain A. The roll damping is the weakest spot of the theory; a factor 2 in damping is a factor 2 in roll. The working point moved to Vessel > 2D: where you can put it on the drawing instead of working out its distance from the centre of gravity yourself.

kxx m

estimated

roll radius of gyration, in metres

what is this?

kyy m

estimated

pitch radius of gyration, in metres

what is this?

Roll damping % crit

estimated

from a roll decay test or use the tick boxes

what is this?

Bilge keels

☐

what is this?

Anti-roll tank

☐

what is this?

Fin stabilisers

☐

what is this?

Awp or Cwp m² / -

estimated

heave stiffness

what is this?

Step 4 - Station keeping (DP)

Only meaningful at working speed 0. Without these fields chain B is skipped and the polar shows motions only. The thrusters themselves are on Vessel > 2D: where a unit sits is what decides how much heading it can hold, and that is easier to place on a drawing than to type as a lever arm.

DP class

DP1 ▾

none / DP1 / DP2 / DP3

Wind area frontal m²

125.1

B x (freeboard + 6) if empty

Wind area lateral m²

277.5

Lpp x (freeboard + 4) if empty

Wind area centroid height m

2.82

above waterline

Underwater lateral area m²

estimated

Lpp x T if empty

Vessel > Config: the vessel data in four steps.

Open **Vessel** and then the inner tab **CONFIG**. You fill in the data in four steps. **Step 1 is enough to start**; every next step makes the answers better and the confidence higher.

Step	What you enter
1 Required	Profile name, vessel type, length (Lpp), beam, draught, working speed.
2 Stability booklet	Values from the stability booklet (GM, KG ...).
3 Extended – motions	Extra data for the motion calculation.
4 Station keeping (DP)	Thrusters and their power.

Tip. Not sure what a field means? Every field has a small **what is this?** link that explains it.

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WORKABILITY CONTRACT TRANSIT REPORTING EXTERNAL WEATHER HISTORY VESSEL ONLINE **VESSEL** LIMITS HOW IT WORKS

VESSEL ★ Demo vessel · Design draught ▾

20 CONFIG

You place things in the **top view** and the **side view** — two orthographic windows at the same scale, one above the other, where a click resolves to exactly one number — on the outline of the standard hull, or on your own drawing once you upload one below. Positions go the way a general arrangement gives them: **y** along the ship from the stern, **x** across it from the centreline (+ starboard) and **z** from the deck (+ up), all from the zero point 0,0,0 at stern, centreline and deck.

YOUR DRAWING

Demo vessel ▾

Top view (DXF) **Side view (DXF)** **Name**

Choose File No file chosen Choose File No file chosen from the file name

Upload drawing Top, side or both, max 5 MB each. Nothing is built from it: the lines are only placed in ship coordinates.

TOP VIEW CLICK PLACES **Thruster** CoG Working point

TOP VIEW x across, + starboard BOW

A click moves the selected unit across and along; with nothing selected it adds a unit. The dashed line is the waterline at your draught.

SIDE VIEW CLICK PLACES **Thruster** CoG Working point

SIDE VIEW from starboard, z above the baseline BOW

Seen from starboard. A click sets the **height** (and the position along) of the selected unit, the working point or the centre of gravity. The shaded band is below the waterline.

— Tunnel across the ship only — Azimuth any direction — Azimuth, reversed any direction, less thrust — Main propeller along the ship only — Voith Schneider cycloidal, any direction

— Rudder in DP across only, at the rudder stock — Gill jet any direction — Other point draft marks and the like — drawn, never computed

— Zero point 0,0,0 stern, centreline, deck — everything is measured from here — Centre of gravity every lever arm starts here — Working point the calculation point for the motions — the CoG when empty

— Waterline at the draught you entered — Second waterline the other loading condition, reference only — Roll axis transverse acceleration measured from here

Vessel > 2D: top view and side view.

The inner tab **2D** shows your vessel from above and from the side. Choose what a click places (**Thruster**, **CoG** or **Working point**) and click in the drawing. All positions are measured from the zero point 0,0,0: at the stern, on the centreline, at deck height. You can also upload your own general arrangement as a DXF drawing (top view, side view or both, max 5 MB each).

The **working point** is the place where the work is done, for example the crane tip or the moonpool. Motions and accelerations are calculated there. Leave it empty and SeaData uses the centre of gravity.

Limits: what is still acceptable

WORKABILITY

WORKABILITY

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LIMITS

HOW IT WORKS

VESSEL

★ Demo vessel · Design draught

PRESET

SeaData defaults (strict)

Choosing a preset fills in the values below; adjust any of them afterwards. What stands in the table is what the polar is computed against.

• SeaData defaults (strict) — The values from ONDZ section 4, read as significant amplitude. Twice as strict as NORDFORSK.

• NORDFORSK - intellectual work (bridge, survey) — Karppinen (1987) 3 deg and 0.10 g RMS, converted to significant amplitude (x2).

• NORDFORSK - heavy manual work (deck, crane) — Karppinen (1987) 4 deg and 0.15 g RMS, converted to significant amplitude (x2). The transverse limit is the same 0.24 g as the lighter preset: NORDFORSK sets that one per vessel class, not per kind of work.

These are the limits the polar is coloured against: green below 0.8 of the limit, amber to 1.0, red above. The defaults for roll and vertical acceleration coincide with the NORDFORSK (1987) category "intellectual work" - bridge and survey work. Deck work and crane work sit at "heavy manual work": 0.15 g and 4 degrees.

LIMIT	UNIT	VALUE	USUAL RANGE
Roll significant what is this?	deg	12	2.0 - 5.0
Pitch significant what is this?	deg	4	1.0 - 3.0
Heave at working point what is this?	m	1.0	0.5 - 1.5
Transverse acceleration what is this?	g	0.24	0.1 - 0.3
Vertical acceleration what is this?	g	0.1	0.05 - 0.15
Hs ceiling what is this?	m	2.5	0.5 - 6.0
Green water at the bow what is this?	per wave	0.05	0.01 - 0.1
Slamming at the bow what is this?	per wave	0.03	0.01 - 0.05
Thrust utilisation what is this?	%	80.0	50.0 - 100.0

STATISTIC

Significant (x 1.0)

Limits: the motion limits for the polar.

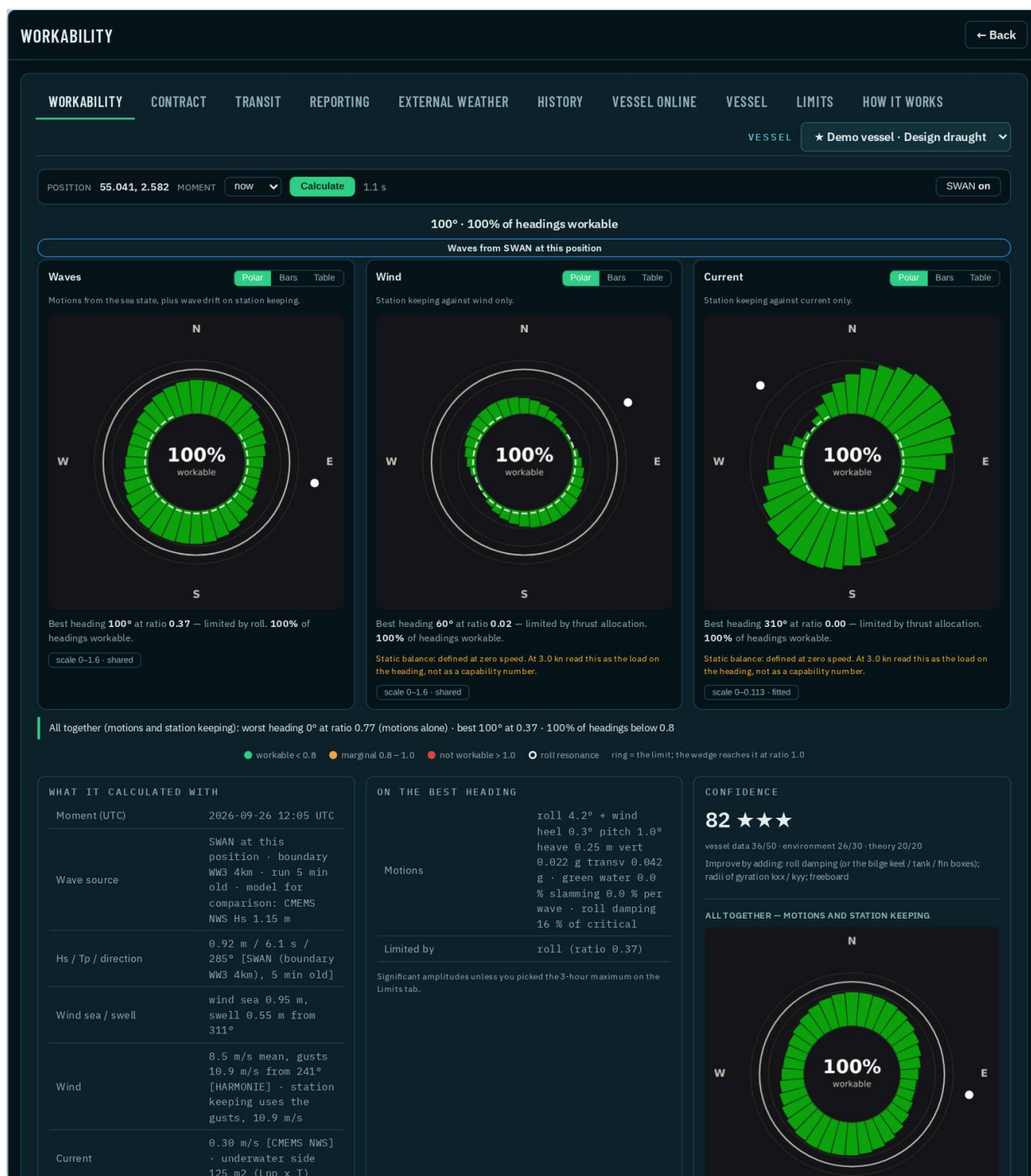
Limits holds what is still acceptable for the work: roll, pitch, heave at the working point, accelerations, a maximum wave height, green water and slamming at the bow, and thrust utilisation. A **PRESET** fills them in for you (SeaData defaults, NORDFORSK intellectual work, NORDFORSK heavy manual work); you can change any value afterwards. The column Usual range helps you choose.

Watch out. These **motion** limits are used by the polar (chapter 13). The **contract** limits for Hs, wind, current and visibility are set separately in Contract (chapter 14).

CHAPTER 13

13. Workability: the polar

On which heading can the vessel work best right now, and what limits it?



Workability after pressing Calculate.

- 1 Check the **position** at the top left: it is your vessel, or your bullseye spot.
- 2 Choose the **moment**: now, or up to 24 hours ahead.
- 3 Click **Calculate**. SeaData takes waves, wind and current from the same sources as SeaWave, SeaWind and SeaCurrent, and calculates the vessel's motions on every heading.
- 4 Read the **headline**: it gives the best heading.
- 5 Read the **polar**: every direction around the vessel has a colour. **Green** is workable (below 0.8 of the limit), **amber** is marginal (0.8 to 1.0), **red** is not workable (above the limit). The ring is the limit.

The cards underneath explain the answer:

Card	What it tells you
What it calculated with	Every input: moment, wave source, Hs, Tp, direction, wind, current, calculation point. Check these first if an answer surprises you.
On the best heading	The motions on the best heading and which limit is the binding one.
Confidence	How much you can trust the answer, scored from the vessel data (50), the environment (30) and the theory (20), with what would improve it.

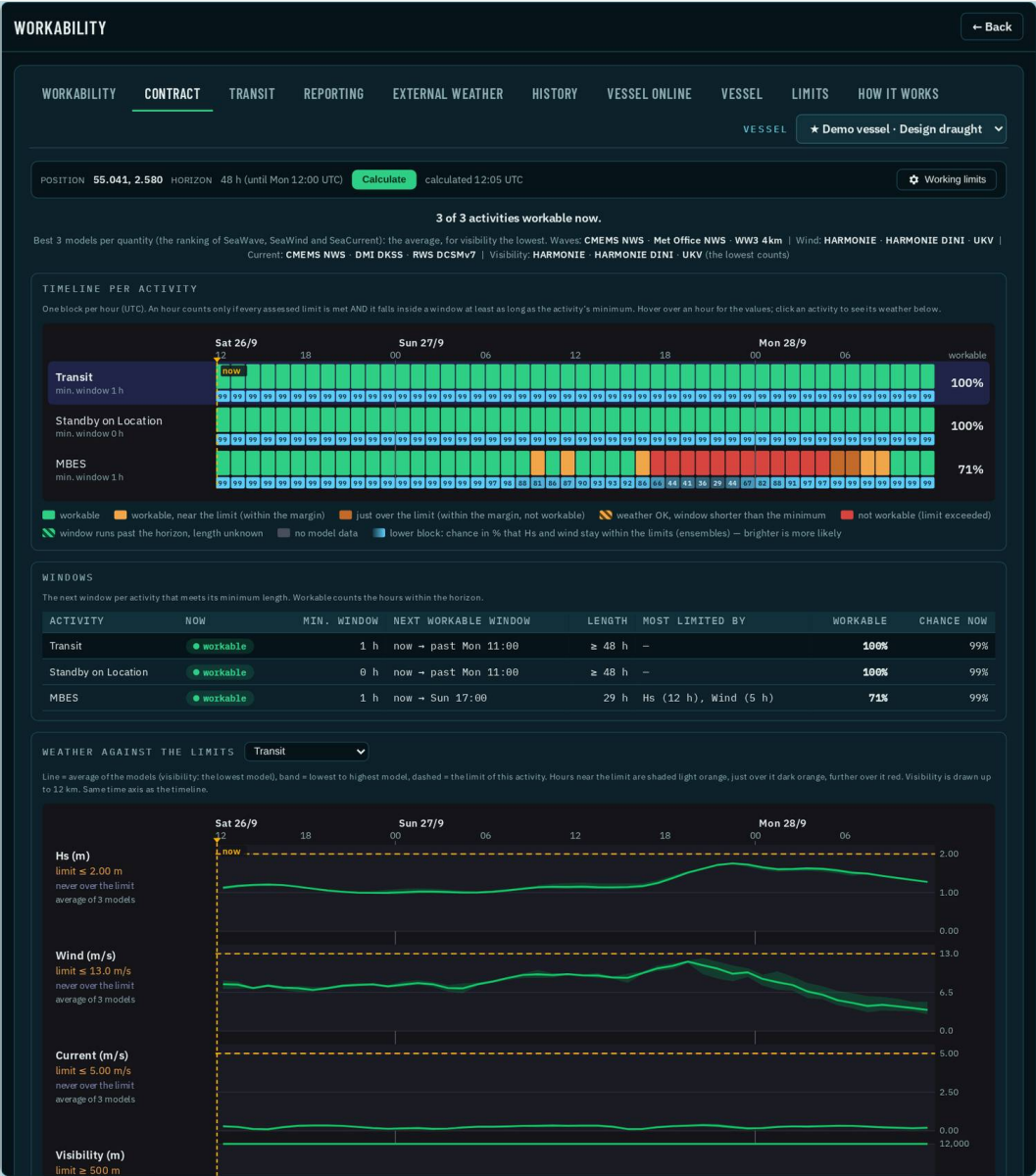
SWAN on (right of Calculate): with SWAN on, now uses a SWAN run at your position; later moments use the best wave model. The line under the headline always says which source was used and why.

Watch out. Workability is a planning aid based on theory and forecasts. It does not replace the master's judgement, the vessel's own operating limits or the contract.

CHAPTER 14

14. Contract: can we work according to contract?

Per activity and per hour, up to 48 hours ahead: is the weather within the contract limits, and for long enough?



Contract: timeline per activity, windows and weather against the limits.

Step 1: set your working limits

- 1 Click the cog **Working limits** at the top right.
- 2 The table Working limit for safe 24h vessel operations on site opens. Each row is an activity (for example Transit, Standby on Location, MBES survey, Crane).
- 3 Per activity fill in the maximum Hs, wind and current, the minimum visibility and the **Min. window**: how many hours in a row the weather must be good.
- 4 Set the **Near-limit margin** (default 10 %): how close to a limit an hour turns orange.
- 5 Click **Save and recalculate**.

Watch out. Until you save your own limits, SeaData uses **example limits** and shows an orange Example limits bar. Set your own before you rely on the result.

Step 2: read the result

Click **Calculate**. The headline says how many activities are workable now and when the next window opens for the others.

- 1 **Timeline per activity**: one block per hour (UTC). Hover over an hour to see the values; click an activity to see its weather below. The small cyan number under each block is the chance (in %) that Hs and wind stay within the limits.
- 2 **Windows**: per activity the next window that is long enough, how long it lasts, what limits it most and the percentage of workable hours.
- 3 **Weather against the limits**: per quantity a line (the average of the models), a band (lowest to highest model) and the dashed limit.

Colour	Meaning
Green	Workable.
Light orange	Workable, but close to a limit (within the margin).
Dark orange	Just over a limit (within the margin): not workable.
Red	Not workable: limit exceeded.
Amber stripes	Weather OK, but the window is shorter than the minimum.
Green stripes	The window runs past the horizon; its length is not yet known.
Grey	No model data. Never silently approved.

How SeaData decides: for wave height and wind it takes the **average of the best 3 models**; for current the average of the current models; for **visibility the lowest model**, because fog is local and one model seeing it is enough to stop work.

Tip. The chance (the cyan number) does not change the colour. It tells you how firm the answer is: a green hour with a low chance is a green hour to keep an eye on.

CHAPTER 15

15. Transit: the weather along your route

Plan a passage and see whether the weather along the route stays within your limits.

WORKABILITY ← Back

WORKABILITY CONTRACT **TRANSIT** REPORTING EXTERNAL WEATHER HISTORY VESSEL ONLINE VESSEL LIMITS HOW IT WORKS

VESSEL **★ Demo vessel · Design draught**

FROM vessel (AIS, 0h00 old) 55°02.5'N 02°34.8'E · SOG 4.1 kn · COG 332.4° · on Route 1 at 3.5 of 372.7 nm · next WP1 · 0.1 nm off track SET SPEED KN THROUGH WATER LIMITS

Transit OFF TRACK NM **Calculate** Waypoints on the map ☐ Reverse route Upload route Saved

Route 1 369 nm to go of 373 · 25 Sep 09:09 UTC × **+ Add a route**

No route for Demo vessel yet

Press Waypoints on the map, click the track you intend to sail, and press Calculate. Wave, wind and current come from the same sources as the SeaWave, SeaWind and SeaCurrent tabs; the limits come from Contract.

Transit: route, speed and limits.

- 1 Click **Waypoints on the map** and click the track you intend to sail on the chart, waypoint by waypoint. Finish the route. You can also **Upload route** (GPX, or a list of coordinates).
- 2 Fill in your speed through the water under **SET SPEED**.
- 3 Choose the activity whose limits apply (for example Transit) and the allowed **OFF TRACK** distance.
- 4 Click **Calculate**. SeaData calculates when you are where along the route and checks the forecast at each point against the limits from Contract.

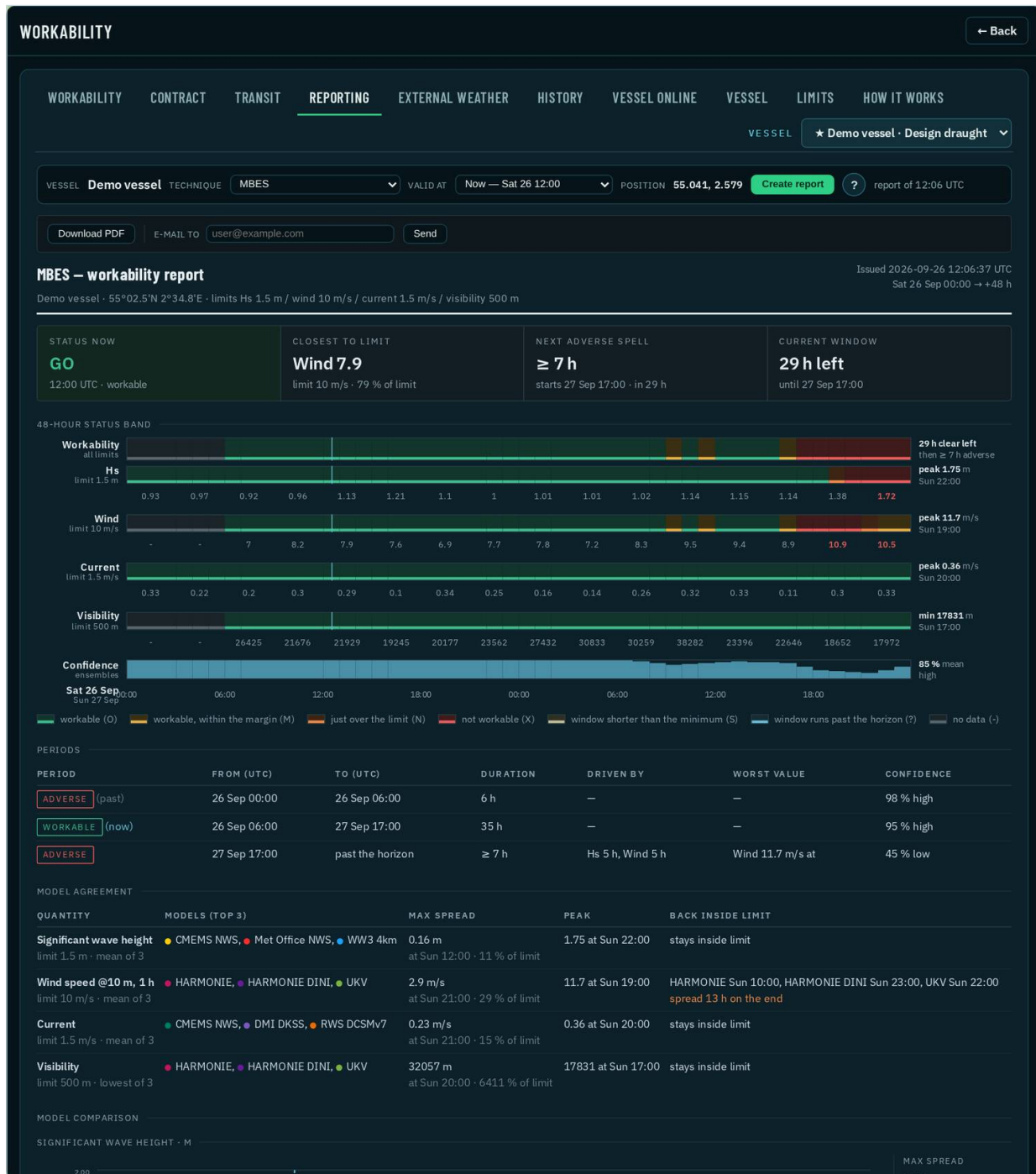
The top line shows where your vessel is compared with the route: how far along it, the next waypoint and how far off track. You can keep up to three routes (+ [Add a route](#)); the cross on a route tab removes it. [Reverse route](#) sails it the other way.

Watch out. Transit needs a position. Without AIS from your vessel, it does not calculate.

CHAPTER 16

16. Reporting: the weather report you send

Turn the Contract answer into a report for your client: on screen, as PDF or by e-mail.



Reporting: the report for one activity.

- 1 Choose the **TECHNIQUE** (the activity from your contract table).
- 2 Leave **VALID AT** on Now, or choose a three-hour moment later in the day.

- Click **Create report**. The report covers the running day and the next day, always from 00:00 UTC.
- Click **Download PDF** for a printable version, or type an e-mail address and click **Send** to mail it with the PDF attached.

The report tells you what is over the limit and by how much, which quantity is the binding one, how long the bad weather lasts, when work can resume and how far the models disagree. It contains a status band per quantity, a meteogram per quantity with every model as its own line, a limit ladder (everything as a percentage of its limit) and the confidence from the ensemble forecasts.

Tip. A report is a snapshot of the forecast at that moment. The issue time is in the header. Later model runs do not change a report you already sent.

You can send at most ten reports per account per hour.

CHAPTER 17

17. External weather: your own supplier's forecast

Many projects get a forecast from a weather company (DTN, StormGeo, Infoplaza). SeaData can read it and show it next to the models.

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HOW IT WORKS

VESSEL

★ Demo vessel · Design draught ▼

VESSEL

Demo vessel

POSITION

55.042, 2.579

Choose File

No file chosen

Read this PDF

Refresh

5 file(s) read, 5 for this position

Receive by e-mail

Send the supplier's PDF to weather@wx.seadata.online from one of the addresses below. Mail from any other address is not stored.

user@example.com x

user@example.com x

user@example.com

Add sender

Your box holds at most 10 reports (the oldest is removed), each for 72 hours, at most 2 MB per PDF. This counts for uploads too.

Upload or e-mail the forecast your supplier sends

DTN, StormGeo and Infoplaza are read from the text layer of the PDF: the forecast table, the units and the time zone are taken from the document itself and converted to metres, m/s and UTC. You see here exactly what we read before it is used anywhere.

A forecast is only data for this vessel if the position in the document lies within 50 km of it. Between 50 and 100 km it is plotted here with a warning and its distance, but it cannot be released and is used nowhere else in SeaData. Further than 100 km, or no position, and it is read (DPR and PDF work) but not plotted.

Nothing is used until you press Use in SeaData. Until then it stays on this screen and appears nowhere else.

■ IPC-08h00-25SEP

Project site

in use

09:25 12h04

Stop using

PDF

Remove

Issued

2026-09-25 08:06:00 UTC

Covers

09-25 00:00 to 09-29 23:00 UTC, 120 points

Position

55.039, 2.580

0.3 km from the vessel

Quantity	Points	Min	Max	Unit
Significant wave height				not in this report
Wind speed @10 m, 1 h				not in this report
Current	120	0.00	0.50	m/s
Visibility				not in this report
Residual current	120	0.00	0.20	m/s
Tidal current	120	0.00	0.40	m/s
Sea level above LAT	120	0.22	1.93	m

■ STG-04h00-26SEP-PRJPS

Project site Project Site

in use

09-26 06h08

DPR

Stop using

PDF

Remove

Issued

2026-09-26 04:35:00 UTC

Covers

09-26 06:00 to 09-29 12:00 UTC, 23 points

Position

55.022, 2.711

8.7 km from the vessel

Quantity	Points	Min	Max	Unit
Significant wave height	23	0.60	1.20	m
Wind speed @10 m, 1 h	23	1.00	9.00	m/s
Current	23	0.05	0.41	m/s
Visibility	23	6000	10000	m

■ STG-04h00-26SEP-OD

OSP PRJ

in use

09-26 06h08

DPR

Stop using

PDF

Remove

Issued

2026-09-26 04:35:00 UTC

Covers

09-26 05:00 to 10-03 00:00 UTC, 50 points

Position

55.022, 2.711

8.7 km from the vessel

Quantity	Points	Min	Max	Unit
Significant wave height	50	0.60	1.40	m
Wind speed @10 m, 1 h	50	1.00	10.00	m/s
Current				not in this report
Visibility	50	6000	10000	m

■ IPZ-06h00-26SEP

Deme Offshore - Project site project Site

in use

09-26 06h08

DPR

Stop using

PDF

Remove

Issued

2026-09-26 06:00:00 UTC

Covers

09-26 06:00 to 10-01 18:00 UTC, 35 points

Position

55.039, 2.580

0.3 km from the vessel

Quantity	Points	Min	Max	Unit
----------	--------	-----	-----	------

External weather: the reports received from your supplier.

- 1
- Upload the supplier's PDF here, or forward it by e-mail to **weather@wx.seadata.online** from a sender address you have added in External weather.
- 2
- SeaData reads the numbers from the table in the PDF and shows them.
- 3
- Check what was read, then click **Use in SeaData**. From then on the forecast appears as an extra line in the Reporting meteograms and in SeaCurrent.

Rule	
Box	At most 10 reports; the oldest is removed. Each is kept for 72 hours.
Size	At most 2 MB per PDF, at most 5 PDFs per e-mail.
Distance	Up to 50 km from the vessel it can be used; 50–100 km only plotted with a warning; beyond 100 km read but not plotted.
Refused mail	Mail from an unknown address, without PDF or too large is refused. The reason is in Profile > Notifications.

Watch out. External weather never changes the go / no-go. SeaData never runs anything from a PDF or e-mail: only the numbers in the table are read.

CHAPTER 18

18. History: look back at any moment or period

What were the weather and the vessel like last Tuesday at 14:00? History shows it, with the go / no-go of that moment.

Every full hour SeaData stores the conditions at your **start vessel** (the one with the star): waves, wind, current, water level, SWAN, visibility, the vessel itself (speed, heading, roll, pitch, heave) and the contract limits in force at that hour. How long it is kept depends on your account: none, 1 day, 7 days, 30 days or 1 year.

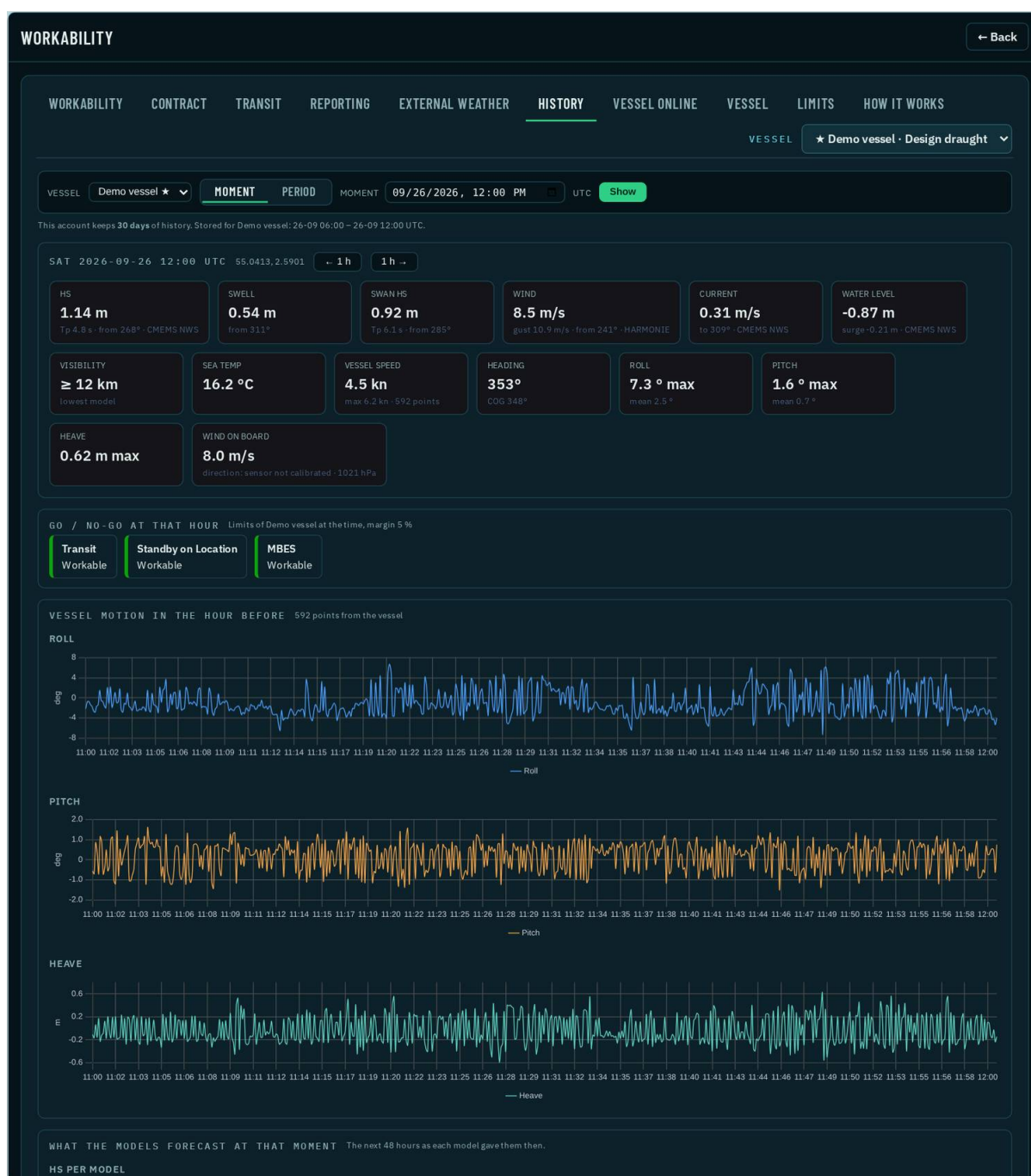


History, Period: tiles, the go / no-go band and the charts.

A period

- 1 Choose the vessel at **VESSEL** (the start vessel has a ★).
- 2 Keep **Period** selected and fill in **From** and **To** (UTC), or click **24 h**, **7 d**, **30 d** or **All**.
- 3 Click **Show**.
- 4 Read the **tiles**: the maximum wave height, wind, gust, current, roll and pitch in the period with the time it happened, and the percentage of workable hours per activity.
- 5 Read the **go / no-go band**: one row per activity, one block per hour, in the Contract colours, judged against the limits that were in force **at that time**.
- 6 Scroll down for the charts: waves, wind, current and water level, visibility, roll, pitch, heave, speed and heading. Choose an activity at **Limit lines** **of** to draw its limits in the charts.
- 7 Click **CSV** to download all hours as a spreadsheet.

One moment



History, Moment: everything about one hour.

Click an hour in the band, or choose **Moment** and a date and time. You then see every value of that hour, the go / no-go per activity with the limits of that time, the roll, pitch and heave measured in the hour before, and what the models forecast at that moment for the next 48 hours. ← 1 h and 1 h → step through the hours.

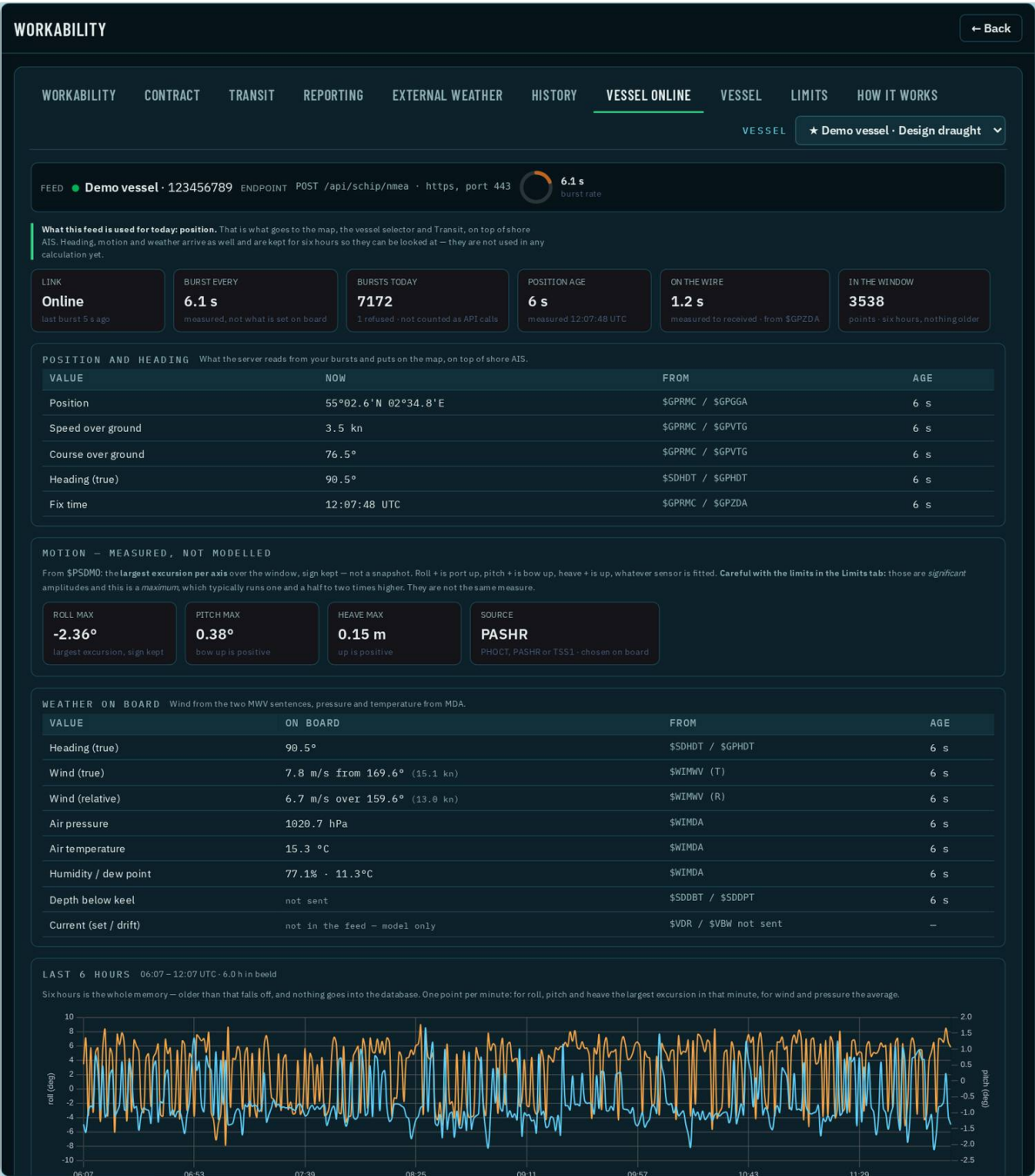
Watch out. History only exists from the moment it was switched on for your account, and only for the start vessel. When you change the star, storing stops for the old vessel; its history stays available until the storage period runs out.

Tip. Wind on board is shown with the note sensor not calibrated until the wind sensor of your vessel has been calibrated. Until then only the wind speed is shown, not the direction.

CHAPTER 19

19. Vessel Online: what the vessel itself sends

Everything else in SeaData is a forecast. Vessel Online is the other direction: what the vessel's own instruments measure.



A small program on board, **SeaData.exe**, listens to the ship's NMEA network and sends what it hears to SeaData about every six seconds over ordinary https (port 443). It only sends: nothing has to be opened on board and nothing is sent back.

Setting it up

- 1 Go to [Profile](#) > [API](#). Copy your **API key** and download **SeaData.exe**.
- 2 Install SeaData.exe on a computer on board that is connected to the NMEA network (GPS, gyro, motion sensor, weather station).
- 3 Enter the API key in SeaData.exe.
- 4 In [Profile](#) > [Vessels](#), tick **Position via SeaData.exe** for this vessel. Without that tick SeaData refuses the data, on purpose.
- 5 Open Vessel Online: the ring at the top fills with every message that arrives.

What you see

Block	What it shows
Feed	Whether the link is alive, how often a message arrives and how many today.
Position and heading	Position, speed, course and gyro heading from the vessel. This replaces shore AIS on the map, because the vessel knows its own position best.
Motion	Roll, pitch and heave: the largest movement per axis over the last window.
Weather on board	Wind (true and relative), air pressure, temperature, humidity.
Last 6 hours	Charts of the motion and the wind. Six hours is the whole memory.
Last burst received	The raw lines exactly as they came in (for technicians).
Refused bursts	Messages SeaData could not use, with the reason.

Tip. Vessel Online keeps your vessel on the map where shore AIS does not reach, and updates it every six seconds instead of every few minutes.

CHAPTER 20

20. How it works

The last Workability sub-tab explains the calculations and lists every source.

WORKABILITY

← Back

WORKABILITYCONTRACTTRANSITREPORTINGEXTERNAL WEATHERHISTORYVESSEL ONLINEVESSELLIMITS**HOW IT WORKS**

VESSEL★ Demo vessel · Design draught

What happens between pressing Calculate and the polar appearing, where every number comes from, and where you should not trust it.

1. What this screen answers
2. Two chains under one polar
3. From five fields to a whole ship
4. Chain A - the motions
5. Chain B - station keeping
6. The calculation point
7. The top view, and the two sets of axes
8. Height, and the acceleration you feel sideways
9. The hull outline and your own drawing
10. Significant or RMS - the factor two that bites
11. The three plots, three views each
12. Where the weather comes from
13. External weather from your supplier
14. The confidence score
15. Where not to trust it
16. Sources

1

What this screen answers

You give five things - vessel type, length, beam, draught, working speed - and press Calculate. The module takes the waves, wind and current for your position and the chosen hour, works out for 36 headings how the vessel sits, and colours each heading green, amber or red. Anything you did not fill in is estimated from the vessel type table and labelled as estimated.

There is no threshold at the front door: the module answers on five fields. What it will not do is hide how much of that answer it made up itself - that is what the confidence score is for, and every field you add replaces an estimate with a fact.

2

Two chains under one polar

There are two ways the work can stop, and they have nothing to do with each other.

- CHAIN A - MOTIONS. Does the vessel roll, pitch and heave too much to work? This is about the PEOPLE and the EQUIPMENT: a multibeam that stops measuring, a crane that can no longer be operated, a deck you can no longer stand on.
- CHAIN B - STATION KEEPING. Can the vessel hold position and heading at all? This is about the SHIP: enough thrust against wind, current and wave drift.

Per heading the polar takes the WORSE of the two. A vessel that lies perfectly still but drifts off is no use to you, and neither is one that holds position perfectly while nobody can work.

ratio = max(chain A, chain B)

< 0.8greenworkable

0.8 - 1.0ambermarginal

> 1.0rednot workable

Every sector also carries its LIMITER: which quantity closed it down - roll, pitch, heave, acceleration, Hs, or thrust in sway, surge or yaw. That is the most useful number on the screen, because it is the one you can act on: a different heading, a different working point, or waiting for the swell to turn rather than for the wind to drop.

3

From five fields to a whole ship

Whatever you leave empty is filled in from the vessel type table. Your input always wins, and the module remembers per field which of the two it used.

QUANTITY	IF YOU LEAVE IT EMPTY
Cb	midpoint of the range for the vessel type

How it works: the calculation chains and their sources.

Open this tab when you want to know **why** a number is what it is: which theory is used for the motions, what station keeping assumes, where every input comes from and where the theory stops being reliable (for example very large waves compared to the vessel, or following seas).

CHAPTER 21

21. Your Profile

Your account, API key, vessels, map areas, viewers and notifications.

Click [Profile](#) at the bottom right of the map. ← [SeaData](#) brings you back to the map.

Account

ACCOUNTAPIVESSELSAREASVIEWERSNOTIFICATIONS

Account

E-mailuser@example.com

StatusVerified

Profile

NameJane Smith

Company / vesselSeaData

Role (optional)Operations manager

Country (optional)Netherlands

Phone (optional)+44 20 0000 0000

Type of use (optional)Survey

Sailing / work area (optional)North Sea

Save

Logout

← SeaData

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Profile > Account.
Your e-mail address, status and your profile details (name, company or vessel, role, country, phone). Change them and click [Save](#).

API

[ACCOUNT](#) [API](#) [VESSELS](#) [AREAS](#) [VIEWERS](#) [NOTIFICATIONS](#)

API key

API-key

sd_live_0000EXAMPLE0000KEY

New API key

Program on board

SeaData.exe runs on a pc on board, listens to the vessel's NMEA network and sends what it hears every six seconds: position, speed and course, heading from the gyro, roll, pitch and heave, wind, air pressure and temperature. Over ordinary https on port 443, outbound only - nothing has to be opened up on board. REQUIRED: put the key above in ship_config.ini and tick the vessel under Vessels at 'Position via SeaData.exe'; without that tick the server refuses the data. The vessel then reports its own position, which replaces shore AIS where no station is listening: every six seconds instead of every few minutes, and with data AIS does not carry. You can watch it arrive in Workability, tab Vessel Online.

Download SeaData.exe

Log out

← SeaData

SeaData Account Platform · seadata.online

Profile > API: your API key and SeaData.exe.

Your **API key** and the download of **SeaData.exe** (chapter 19). Treat the key like a password: whoever has it can send data for your vessels.

Vessels

ACCOUNT
API
VESSELS
AREAS
VIEWERS
NOTIFICATIONS

Fleet (AIS)

Import your fleet and tick the vessels to be tracked. Only ticked vessels are requested. Tick "API" for a vessel that reports its own position with SeaData.exe on board - that position then takes priority, with AIS reception kept as a fallback. You find the program on the API tab.

Import fleet list (Excel .xlsx)

Choose File
No file chosen
Import

Columns: Vessel, IMO, MMSI, Type. The list REPLACES what is there now; all vessels come in as inactive. Up to 5 vessels.

	NAME	MMSI	IMO	TYPE	API	
☒	Demo vessel	123456789	1234567	Survey Vessel	☒	✕

Select all

Deselect all

Save

1 of 1 active

MMSI (9 digits)

Name (optional)

Add vessel

Clear whole list

Logout
← SeaData

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Profile › Vessels: the vessels of your account.

- 1 Type the **MMSI** (9 digits) and a name, and click **Add vessel**.
- 2 Many vessels? Use **Import fleet list (Excel .xlsx)** with the columns Vessel, IMO, MMSI and Type.
- 3 To change a vessel: remove it with the cross and add the new MMSI. A vessel cannot be edited. On a Fleet standard account the slot is then on hold for 7 days.
- 4 Tick **Position via SeaData.exe** for vessels that run SeaData.exe on board.

Areas

[ACCOUNT](#) [API](#) [VESSELS](#) [AREAS](#) [VIEWERS](#) [NOTIFICATIONS](#)

Areas

Your own points on the chart. File: TXT or CSV, comma separated, with X = easting, Y = northing, Z = depth. A fourth column may hold a name. Choose the UTM zone the coordinates are in.

[POINTS](#) [SHP](#) [KML](#)

No points yet.

File

Choose File No file chosen

UTM zone

UTM 31 North (0..6)

Colour

Read file

20 of 20 slots free.

Or enter one yourself:

X (easting)	Y (northing)	Z (depth)	Name	UTM	Colour
				UTM 31 North (0..6)	

Add

[Logout](#) [← SeaData](#)

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Profile > Areas: your own points and shapes on the map.

Upload your own points and shapes, for example a wind farm, a work area or turbine positions. Points as TXT or CSV, shapes as SHP or KML. They appear on the map under [Map layer > Areas](#), where you can switch each one on or off.

Viewers

The screenshot shows the 'Viewers' tab in the SeaData Account Platform. At the top, there are navigation tabs: ACCOUNT, API, VESSELS, AREAS, VIEWERS (highlighted), and NOTIFICATIONS. Below the tabs, the 'Viewers' section is titled. It contains a descriptive paragraph about viewer permissions. Below the text is a table with columns: EMAIL, NAME, STATUS, LAST SIGN-IN, and two action buttons: Block and Remove. The table shows one viewer with email 'user@example.com', name 'Bridge', status 'active', and last sign-in '2026-09-26 04:47'. Below the table, there are input fields for 'email' and 'name (optional)', followed by two buttons: 'Add & download PDF' and 'Add & mail PDF'. A note below these fields states: 'SeaData makes the password. It is only in the PDF - download it or have it mailed to the viewer from request-accounts@seadata.online. The password cannot be changed; if it is lost, remove the viewer and add it again.' At the bottom left is a 'Log out' link, and at the bottom right is a '← SeaData' link. The footer of the interface reads 'SeaData Account Platform · seadata.online'.

Viewers

A viewer signs in with their own email and password and sees your account: the map, your start vessel (the star), the weather tabs, Workability as you last calculated it, and Reporting with Download PDF. A viewer cannot change, upload or calculate anything, and has no Profile. Block or remove a viewer here; if this account is blocked or removed, its viewers stop working too.

EMAIL	NAME	STATUS	LAST SIGN-IN	
user@example.com	Bridge	active	2026-09-26 04:47	Block Remove

[Add & download PDF](#)
[Add & mail PDF](#)

SeaData makes the password. It is only in the PDF - download it or have it mailed to the viewer from request-accounts@seadata.online. The password cannot be changed; if it is lost, remove the viewer and add it again.

[Log out](#) [← SeaData](#)

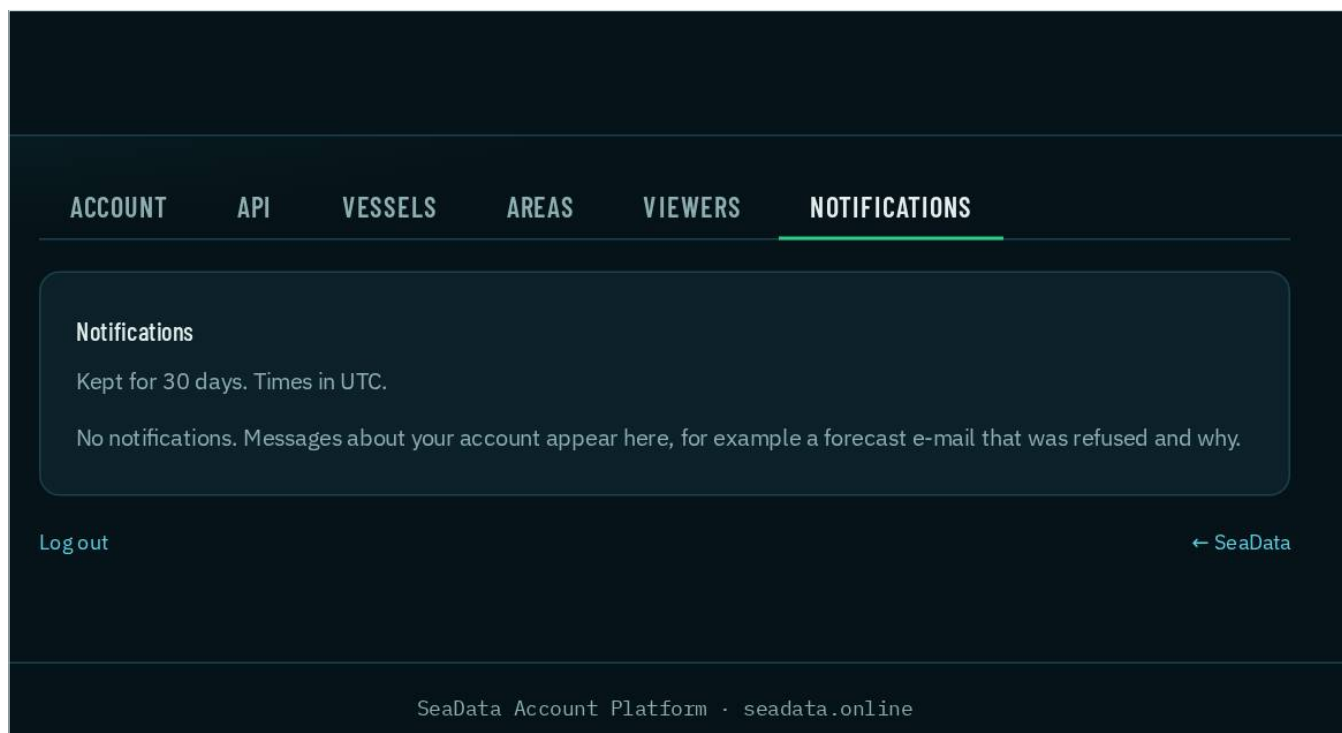
SeaData Account Platform · seadata.online

Profile › Viewers: view-only logins.

On Fleet+ and Fleet admin accounts you can give crew, office staff or your client a **view-only login**. A viewer sees your vessels and the results, but cannot change anything, cannot see your working-limit settings and cannot upload or mail.

- 1 Type the viewer's e-mail address.
- 2 Click **Add & download PDF** to get a PDF with the login details to hand over, or **Add & mail PDF** to send it straight to the viewer.
- 3 The password is made by SeaData and is only in that PDF. Lost it? Remove the viewer and add it again.
- 4 Block or remove a viewer at any time; they are logged out within 30 seconds.

Notifications



Profile › Notifications.

Messages from SeaData about your account, for example a weather e-mail that was refused and why.

CHAPTER 22

22. How SeaData picks the best model

Why is one model on top and another at the bottom? And why does the order change while you sail?

In SeaWave, SeaWind and SeaCurrent the models are never in a fixed order: the model at the top fits your position best. SeaData uses three rules:

- 1 **A model that does not cover your position is left out.** Showing nothing is better than a guess.
- 2 **Finer is better.** A model with 2 km grid cells sees more detail than one with 13 km.
- 3 **Close to its edge is worse.** Near the edge of its area a model is driven by a coarser model, not by its own physics. Within 25 km of the edge its score is made three times worse, between 25 and 50 km one and a half times.

Each model states the reason for its place, for example well inside its domain (180 km) or only 12 km from its domain edge. Workability, Contract and Reporting use the same order.

Tip. If the top model differs a lot from the others, read its reason. If it sits close to its edge, take it with a pinch of salt.

Measured, official or computed

Badge	Meaning
measured	A real measurement from a station or buoy.
official	The prediction of the hydrographic service itself.
computed	SeaData's own calculation from a tide model.

Official sources come before SeaData's own calculation. Differences between models are shown, never smoothed away: if models disagree, the forecast is uncertain, and you are entitled to see that.

CHAPTER 23

23. Troubleshooting

Something does not look right? Find what you see in the left column.

What you see	Likely cause and what to do
Position stays empty	No AIS reception for that MMSI, or the position is too old. Check the MMSI under Profile › Vessels.
Vessel gone from the chart	The position is older than 40 minutes and is deliberately not drawn. Check Fix age.
Data is for the wrong place	No vessel set, or the bullseye is on. SeaData then uses a fixed spot or your chosen spot.
Chart stutters when zooming	Switch Waves and Wind off under Overlay, or move their sliders to the left.
Empty map when zooming in	The base map has a zoom limit. Choose OSM.
Few AIS vessels	Zoomed out you only see your own fleet. Zoom in.
Tide differs from the tables	The astronomical tide has no surge. Compare with the actual water level in SeaTide.
No rain on the chart	Switch SeaRain on and check its region; radar does not reach the open ocean, choose World.
No tide stations	π 50km is on and there are none within 50 km. Switch it off and use the flags.
SWAN keeps waiting	Another SWAN run is busy. The result follows by itself.
Contract says Not assessed	No model covers that quantity at this position; that limit is not applied.
Orange 'Example limits' bar	You have not saved your own working limits yet (chapter 14).
A source looks wrong	Open Data status (the clock). Red means the supplier is late, not a fault on your side.
History tab is missing	History is not included in your account, or no vessel has the star. Ask SeaData.

Still stuck? Use [Ask about SeaData](#) under the ? button, or write to info@seadata.online. Tell us your account e-mail, the vessel and a screenshot.

CHAPTER 24

24. Glossary

The words and abbreviations used in SeaData, in plain language.

Term	Meaning
AIS	Automatic Identification System: the radio signal with a vessel's position.
API key	Your personal code that lets SeaData.exe send data for your vessels.
Astronomical tide	The tide from sun and moon only, without wind or air pressure.
Beaufort (Bft)	Wind force scale from 0 (calm) to 12 (hurricane).
CoG	Centre of gravity of the vessel. In the top bar: Course over Ground.
Consensus	How well the models agree with each other.
DP	Dynamic positioning: keeping station with thrusters.
DPR	Daily Progress Report.
Ensemble	A set of forecasts from the same model with small changes; the spread shows the uncertainty.
Fix age	How old the vessel position is.
GNSS	Satellite positioning: GPS, Galileo, GLONASS, BeiDou.
Gust	A short peak in the wind, stronger than the average.
HDG	Heading: where the bow points.
Heave	The up-and-down movement of the vessel.
Hs	Significant wave height.
Kp index	Measure of geomagnetic activity from 0 to 9.
LOA	Length over all of the vessel.
Lpp	Length between perpendiculars.
MMSI	The 9-digit number of the vessel in AIS.
Model	A computer forecast of the weather or the sea.
NMEA	The standard language ship instruments use to talk to each other.
Pitch	The vessel rocking bow up / bow down.
Roll	The vessel rocking from side to side.
Slack water	The moment the tidal current is weakest, before it turns.
Surge	The rise or fall of the water level caused by wind and air pressure.
SWAN	A wave model that SeaData runs at your own position using the local depth.
Swell	Long waves made by wind far away.
Tp	Peak wave period in seconds.
UTC	World time; every time in SeaData is UTC.
Viewer	A view-only login made by a Fleet+ or Fleet admin account.
Wind sea	Short waves made by the local wind.
Window	A period in which the weather stays within the limits long enough to work.
Working point	The place on the vessel where the work is done; motions are calculated there.

CHAPTER 25

25. Disclaimer and contact

SeaData is **supporting information, not a navigation aid**.

- 1

Always check against official sources: charts, tide tables and notices to mariners.
- 2

Astronomical tides contain no surge from wind or air pressure.
- 3

AIS is incomplete and delayed and is not suitable for collision avoidance.
- 4

Workability, Contract, Transit and Reporting are model-based estimates; the decision to sail or to work always stays with the vessel.
- 5

SeaData accepts no liability for the use of this data. The full terms and the attribution of every data source are on the website.

Contact

Questions about using SeaData	The ? button › Ask about SeaData, or info@seadata.online
Sales and account types	sales@seadata.online
Weather reports from your supplier	weather@wx.seadata.online (chapter 17)
Website	https://seadata.online
This manual	https://seadata.online/static/SeaData_User_Manual.pdf