Web-Service of Transocean Voyage Routing & Planning
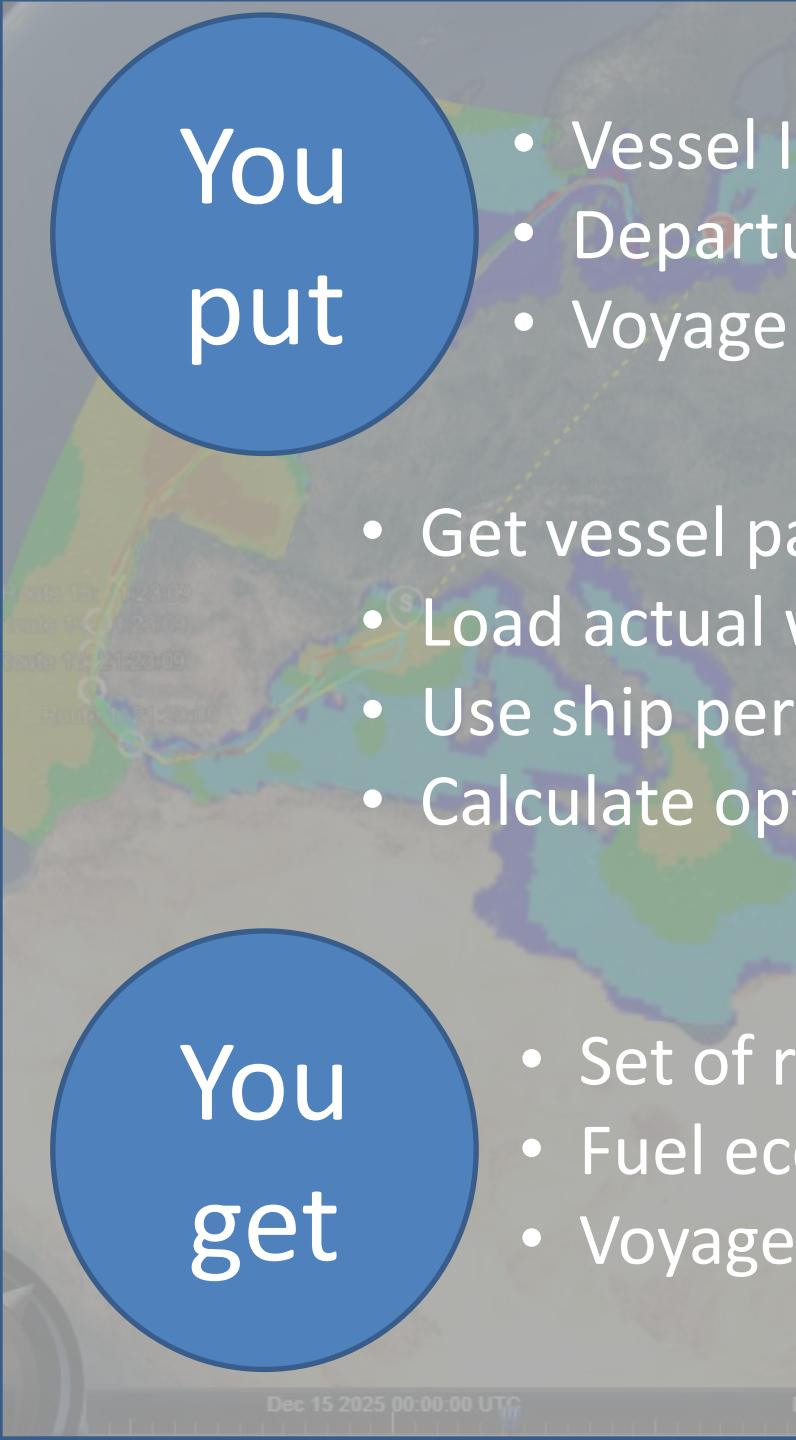
You put

- Vessel IMO
- Departure & Destination point
- Voyage objectives & constraints

We do

- Get vessel parameters from DB
- Load actual weather forecasts
- Use ship performance model
- Calculate optimal route

You get

- Set of recommended routes (path & power)
- Fuel economy & Emission decrease
- Voyage cost preview & Optimal route plan

Dec 15 2025 00:00:00 UTC

Effortless Onboarding with Minimal Data Requirements

Start routing instantly using nothing more than an IMO number. Our platform automatically retrieves all needed vessel parameters—dimensions, achievable speed, deadweight, draft, fuel and power characteristics, and more. With a built-in database of over **107,000 vessels** across all major categories (tankers, gas carriers, bulkers, container ships, general cargo vessels, etc.), sourced from trusted classification societies, your voyage is ready for optimization in seconds.

High-Fidelity Marine Weather Forecasts

Leverage free, industry-trusted forecasts from ECMWF, Copernicus Marine Toolbox, NOAA, and other global providers. **Wind**, **wave**, **ice**, and **bathymetry** data are seamlessly integrated into our routing engine, enabling real-time, geographically precise prediction of ship performance. Both global and regional forecast datasets are fully supported.

| Vessel | Voyage | Weather | Routes |

Weather display

Weather data type:

Depth

Wind
Wave
Depth

Interpolated display

Depth

Wave

Baltic DataSet

Global DataSet

Mediterranean DataSet

Route [1,1]9133

CESIUM ion
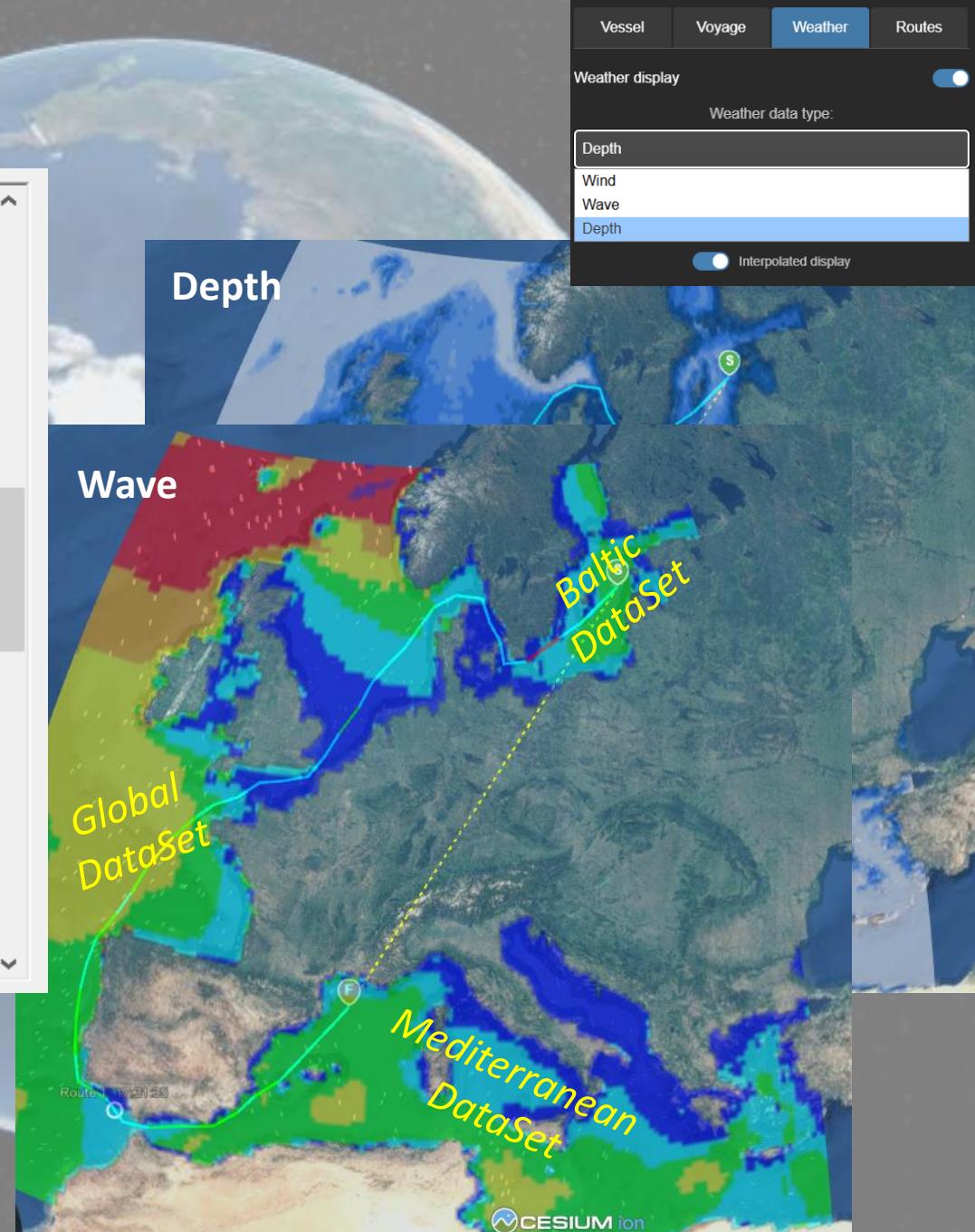
Advanced Ship Performance Model

Our proprietary **ship performance model** accounts for the full spectrum of environmental influences on **resistance**, **fuel consumption**, and **seaworthiness**. Apply customizable environmental constraints to tailor each voyage to specific operational, regulatory, or safety requirements.

Seaworthiness constraint (best practice) curve

Theoretical resistance curves


Avoiding storm area
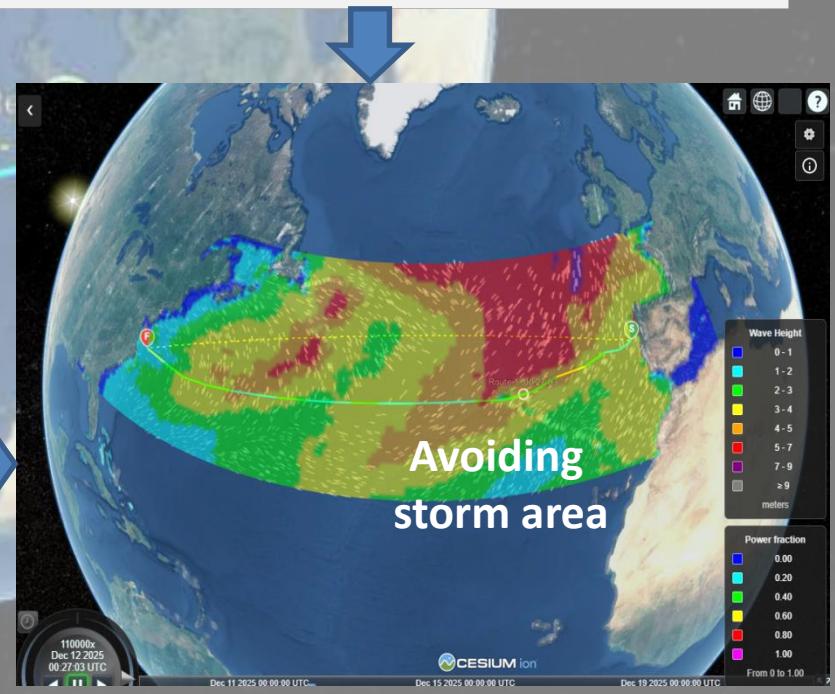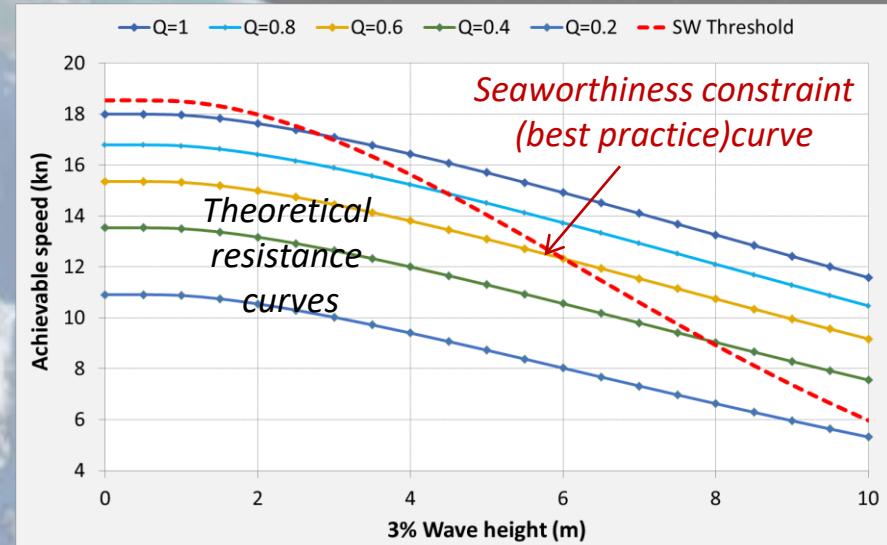
Truly Optimal Routing & Power Management

Simultaneously determine the optimal route **trajectory** and **power level** of ship movement. Optimize for fixed schedules or free departure/arrival windows. The system intelligently balances parameters to produce results that are both operationally robust and economically sound.
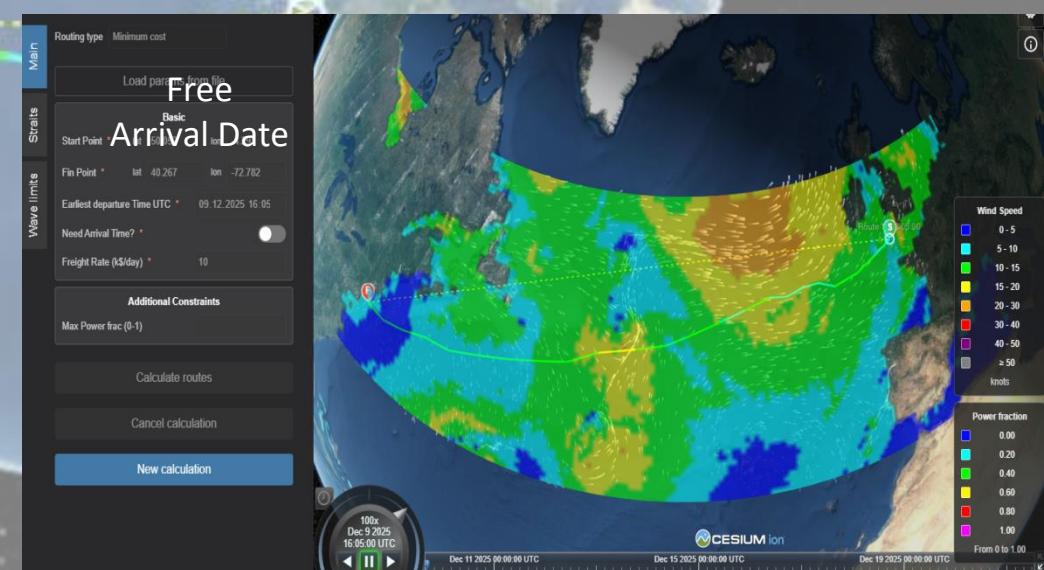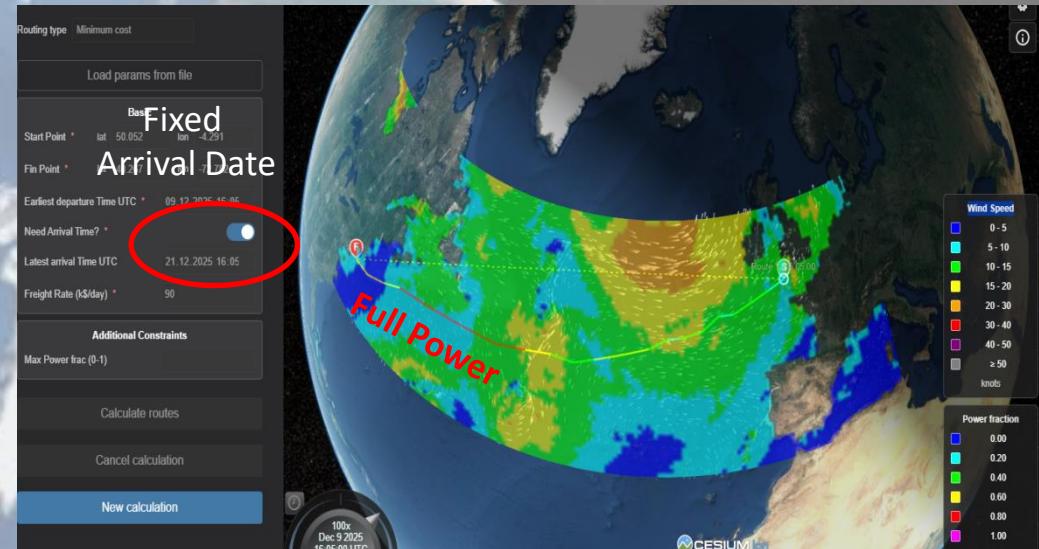
Multi-Criteria Optimization for Real-World Economics

Select your priority **objective—time**, **fuel**, or **distance***. In turn, integrated **economic score** includes freight rates, fuel prices, lateness penalties, emissions fees, ancillary port expenses, and more. Make decisions based on total voyage economics, not isolated metrics.

Fastest way

Fuel Economy
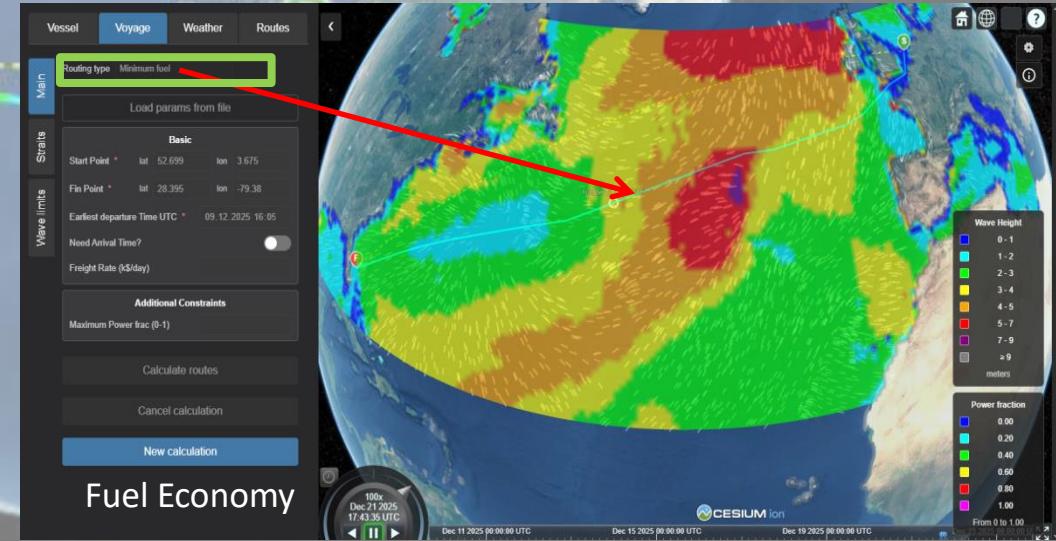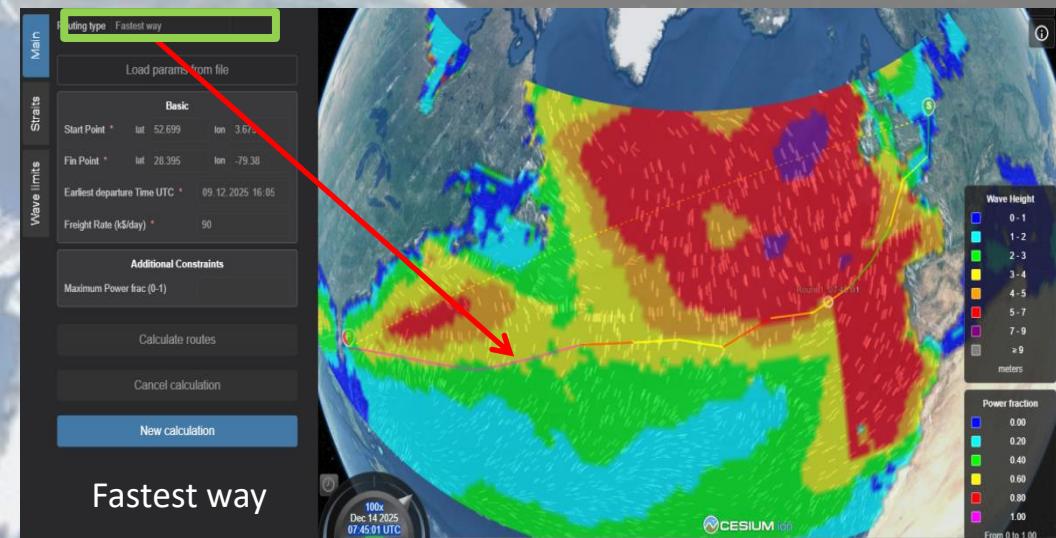
Clear Strategic Choice Through Alternative Routes

Receive **multiple** optimized route **scenarios** complete with detailed breakdowns, **emission** estimates, and visual playback tools. Compare alternatives side-by-side to make the most informed strategic decision.

Vessel			Voyage		Weather		Routes	

Route Variants

Show all	Hide all

№	Show	Duration (h)	Distance (nm)	Total cost (k$)	Freight (k$)	Fuel cost (k$)	Fuel cons (t)	Extra fee (k$)	Start Date	Finish Date	Emissions (t) co2	ch4	n2o
10		255	3 141,50	786,45	637,50	148,95	331	0	12.12.2025, 17:05	23.12.2025, 08:05	1 061	0,020	0,050
9		270	2 917	796,48	675	121,48	270	-0,00	12.12.2025, 17:05	23.12.2025, 23:05	865	0,016	0,040
8		285	2 921,20	823,19	712,50	110,69	246	-0,00	12.12.2025, 17:05	24.12.2025, 14:05	789	0,015	0,037
7		300	2 938,70	853,17	750	103,17	229,30	-0,00	12.12.2025, 17:05	25.12.2025, 05:05	735	0,014	0,034
6		315	2 927,10	883,62	787,50	96,12	213,60	-0,00	12.12.2025, 17:05	25.12.2025, 20:05	685	0,013	0,032
5		330	2 923,60	916,07	825	91,07	202,40	0	12.12.2025, 17:05	26.12.2025, 11:05	649	0,012	0,030
4		345	2 921,30	948,28	862,50	85,78	190,60	-0,00	12.12.2025, 17:05	27.12.2025, 02:05	611	0,011	0,029
3		360	2 920,80	980,64	900	80,64	179,20	0	12.12.2025, 17:05	27.12.2025, 17:05	575	0,011	0,027
2		375	2 930,90	1 016,10	937,50	78,60	174,70	0,00	12.12.2025, 17:05	28.12.2025, 08:05	560	0,010	0,026
1		390	2 927,50	1 052,66	975	77,66	172,60	0,00	12.12.2025, 17:05	28.12.2025, 23:05	553	0,010	0,026

Time scale
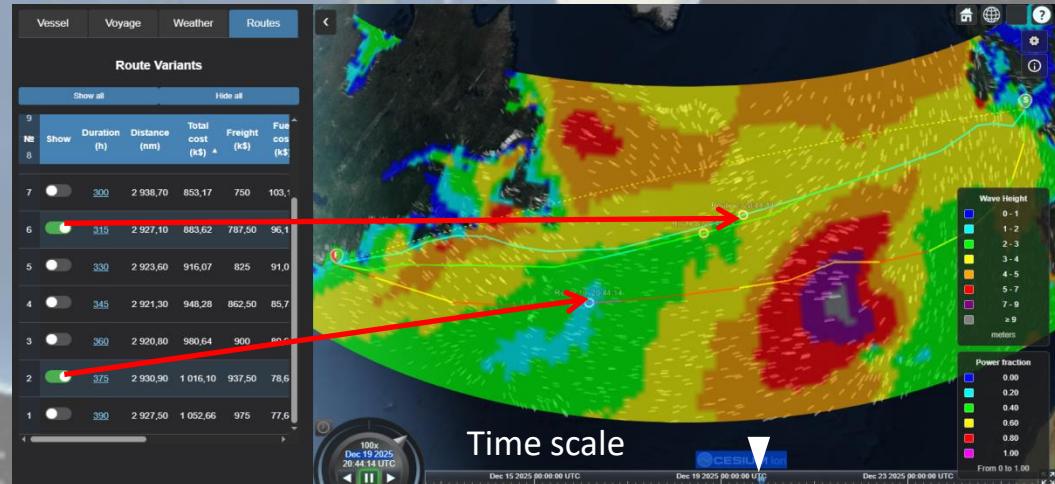
Built-In Handling of Restrictions & Additional Costs

Account for **canal tolls, strait queue delays**[*], appointed **passage time slots**, and other **operational constraints.** Evaluate key route tradeoffs—such as Suez vs. Cape of Good Hope—instantly and with full benefit transparency.
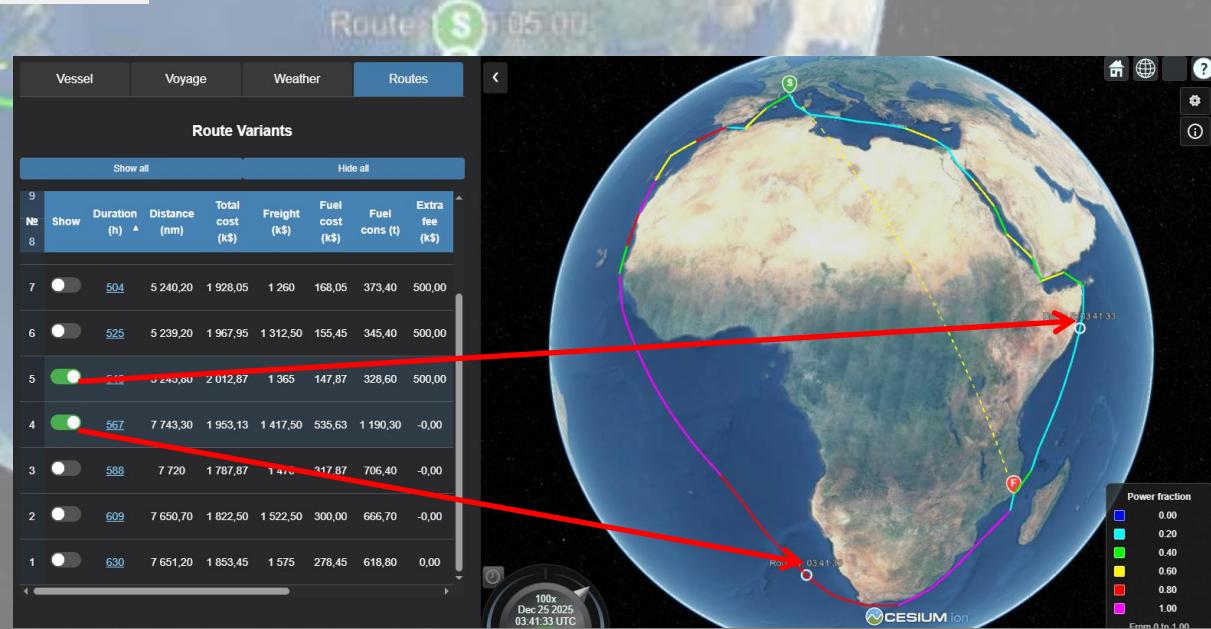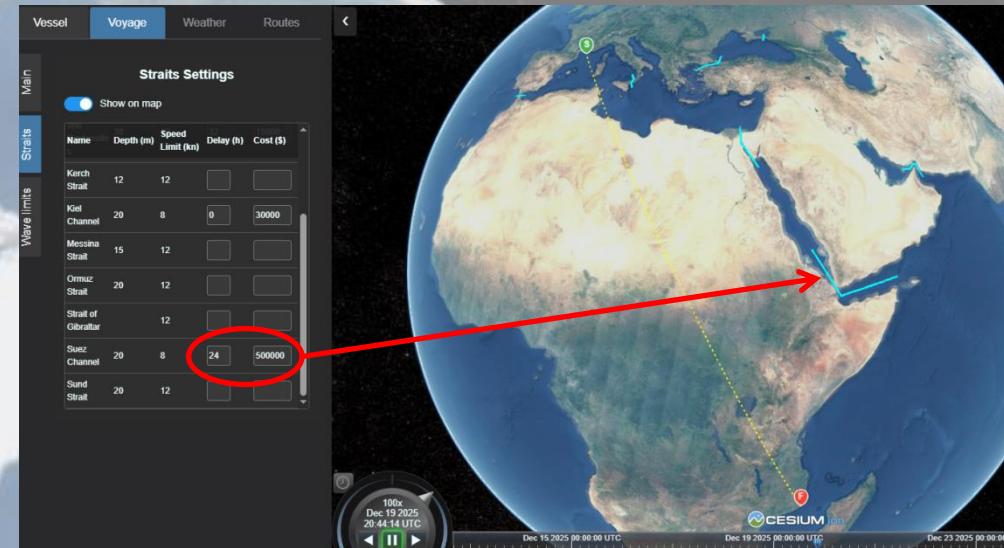
Ice Routing for Ice-Class Vessels Navigation in Polar Regions

Navigate **ice** and **mixed**-conditions routes with confidence. The service proposes routes with propulsion configuration for **double-acting ships** (bow- or stern-forward movement*) to ensure the safest and most efficient voyage through challenging Arctic environments.

Ice Equivalent Thickness
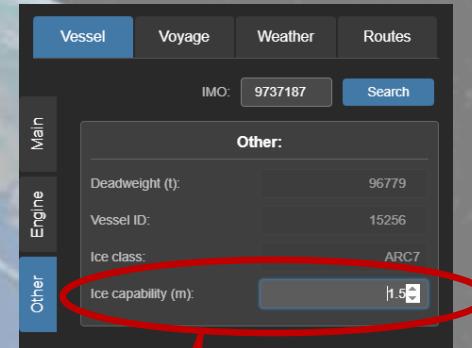
Add-ons & Settings

- **Visualization** of **route search process** and weather dynamics

- **Waypoint** detailing of selected route

- GUI customization (globe/map view, weather tiles…)

- Calculator of voyage economics*

- Calculator of ship performance model*

Route 11 Statistics

Power Histogram

Wave Polar Diagram

Power and Speed over Time (UTC)
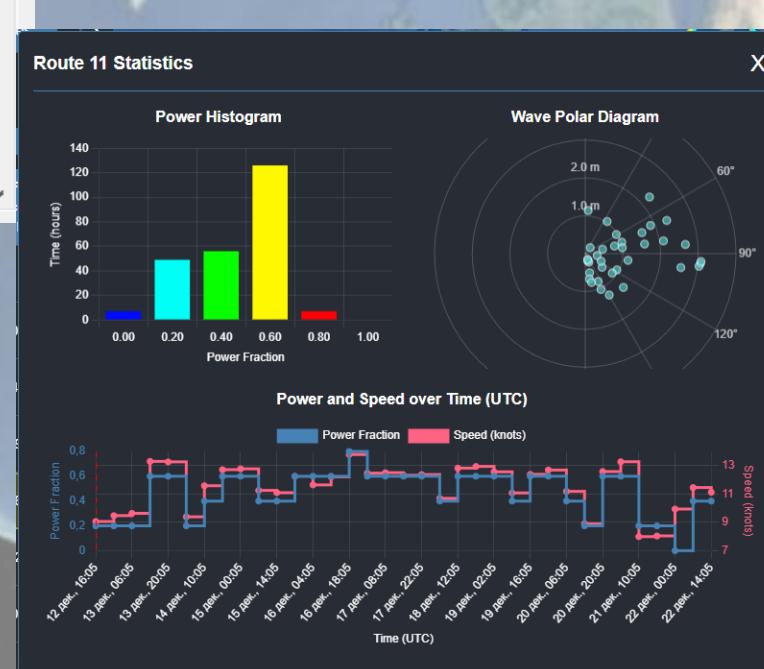
Web-service features

- Load-depending **dynamic scaling** in cloud

- Guest mode and personal account* (saved ships and routes)

- Demo routes form current AIS data ("voyage of the day") *

- Feedback on bugs and improvements. Open-access development plan with the ability to vote on task and fixes priorities*

- **Free access**
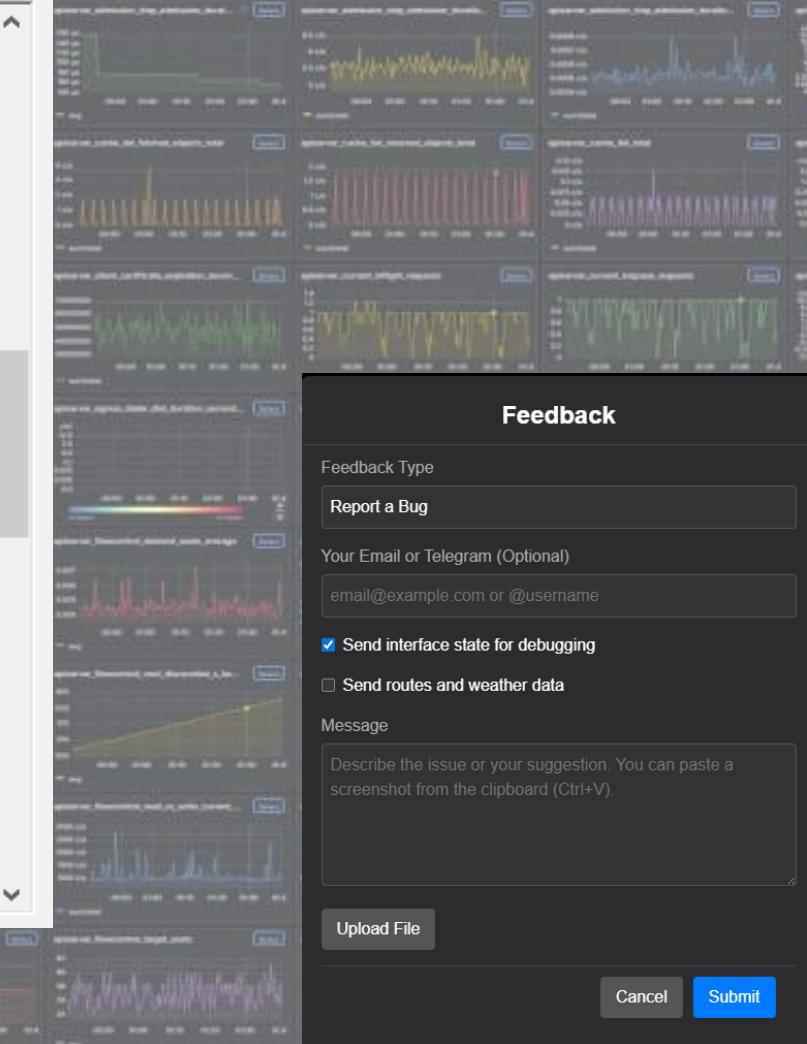
Feedback

Feedback Type

Report a Bug

Your Email or Telegram (Optional)

email@example.com or @username

☑ Send interface state for debugging
☐ Send routes and weather data

Message

Describe the issue or your suggestion. You can paste a screenshot from the clipboard (Ctrl+V).

Upload File

Cancel   Submit