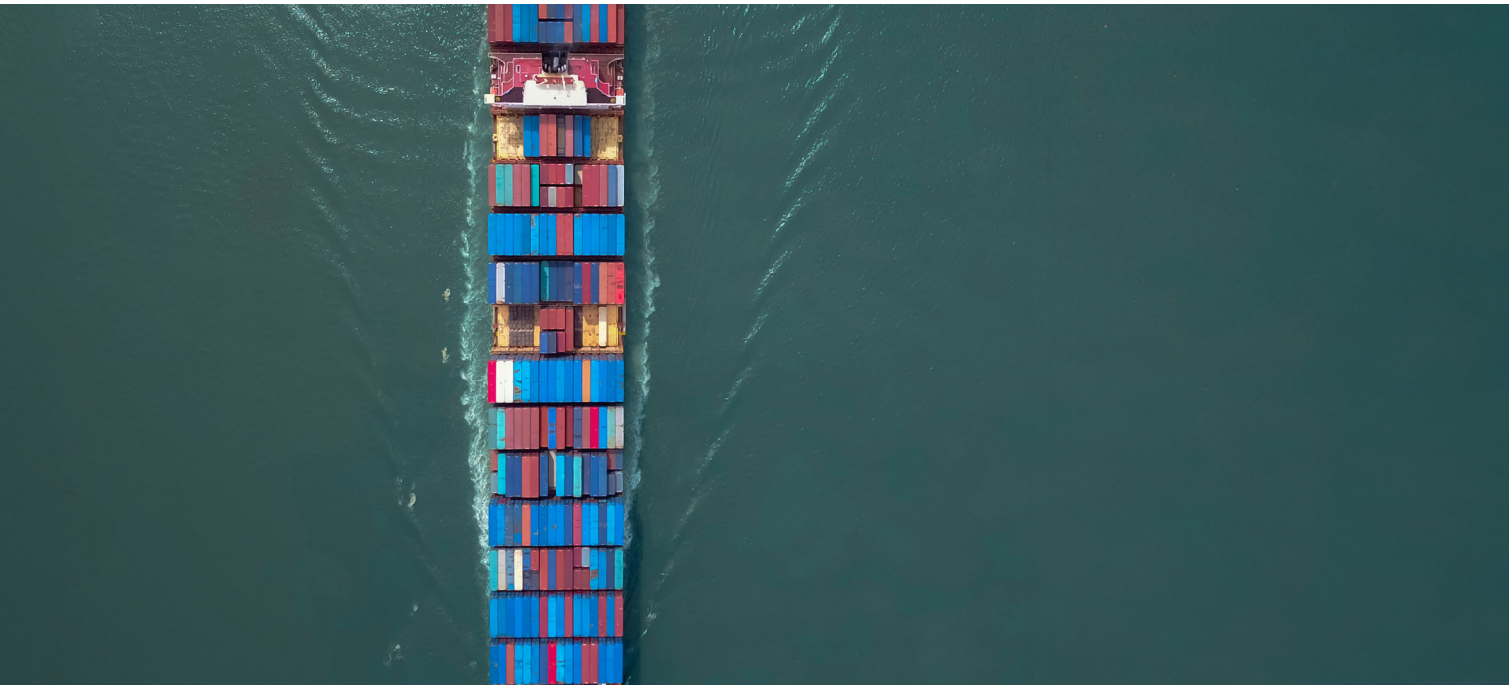
ABB ABILITY™ SPOS

Optimize ship motion response with the SPOS Seakeeping Ship Motions module



SPOS's integrated Seakeeping Ship Motion module is a powerful add-on that empowers you to optimize your route calculations, factoring in impacts of motion for your specific vessels.

ABB Ability™ SPOS - Ship Performance Optimization System, Seakeeping is compatible with the ABB Ability™ OCTOPUS - Marine Advisory System. OCTOPUS Onboard combines wave measurements, weather forecasts, and navigation data with the ship's characteristics, loading conditions, and motion sensor measurements.

Together, SPOS and OCTOPUS deliver the highest level of accuracy in both predicted and real-time voyage motion optimization.

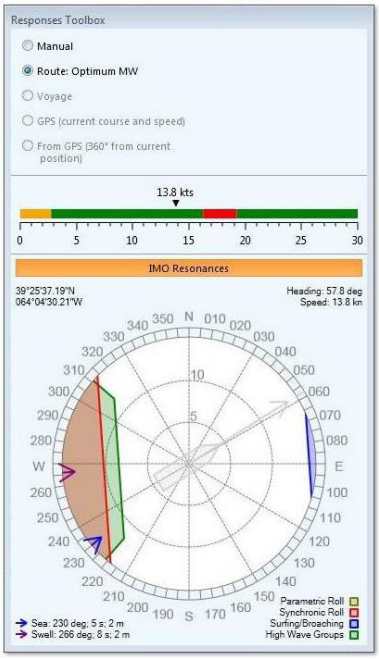
Why choose SPOS Seakeeping?
SPOS Seakeeping delivers tailored, vessel-specific routing advice and is the only established solution to offer both voyage performance and fully-integrated on-board ship motion optimization. Not only is SPOS Seakeeping the master of forecasted vessel response and resonances, the add-on module provides tools to help you make decisions in course changes (direction and speed insights) to safely escape motion occurrences.

What does SPOS Seakeeping offer?
You can define vessel loading conditions and motion threshold values in SPOS Seakeeping, including for any vertical or horizontal ship movements, degrees, accelerations, seasickness, and more. It includes all translations and rotations, which can be defined by virtual sensors and combined for any given location on the vessel, completed with International Maritime Organization (IMO) parametric, synchronous roll, broaching, and high wave resonances. To provide enhanced visualization, it shows the forecast motion values in chart form, and both the chart and polar diagram can display where motions will likely exceed your threshold values.

With SPOS Seakeeping, you can:

- Reduce container loss
- Add more cargo
- Save up to 1.5% on fuel costs

As part of the route optimization process, SPOS Seakeeping calculates motions and ensures that the optimized route will avoid areas exceeding the maximum threshold. When connected to a GPS, it can also provide real-time motion information, as well as speed and direction insights to help crews avoid specific motion risks along the calculated route.



SPOS Seakeeping's polar diagram.

Easy to set-up, the module offers predefined responses and delivers the most probable values for complicated concerns, such as roll damping measurements. The only required input is known ship characteristics, like type, dimensions, draft, and loading conditions. You can even connect to your digital loading files to ensure exact inputs.

What are its key benefits?

- Greater situational awareness by combining motion and weather forecast mapping.
- Enhanced performance through vessel-specific route optimization that incorporates the ship's individual characteristics.
- Faster, more confident decisions by offering both route and ship motion calculations in one place.
- A high degree of flexibility with multiple options to define responses, motions, velocity, and acceleration for any spot on the vessel or its loadings.
- Timely insights with predicted motions based on the current position, speed, and course over the ground when used with a GPS connection.
- Address issues more quickly with fast calculations for different routes and motion maximums.
- Better evaluate the impact of your voyage plan's parameters with the option to be alerted to or avoid certain motions.
- See the bigger picture by displaying attention/risk zones on the map and animating them through time.
- Maximize the value of your investment by easily pairing it with the OCTOPUS Onboard solution.

Learn more

To learn more about SPOS, please visit: URL

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