

OCTOPUS - Onboard Part of ABB's Advisory Systems

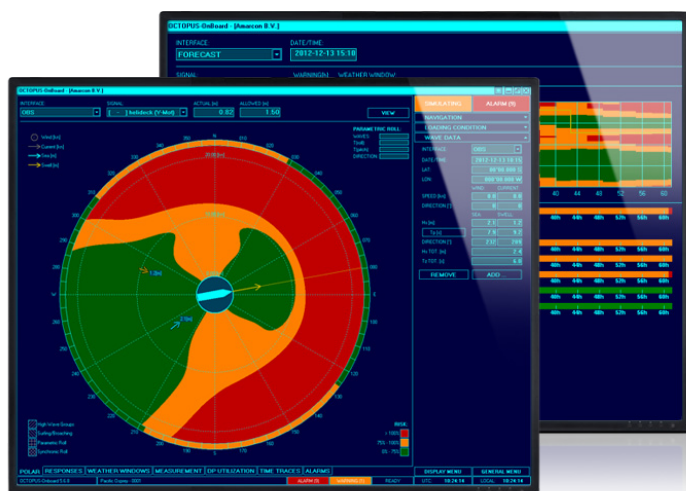
OCTOPUS Advisory Suite is a comprehensive motion monitoring, forecasting and decision-support toolkit which improves availability and safety of sea-going vessels during weather-sensitive operations. OCTOPUS is developed by Amarcon, a fully owned subsidiary of ABB, and is the industry leader in vessel motion prediction solutions.



Dockwise Vanguard

OCTOPUS-Onboard - motion monitoring & forecasting

OCTOPUS-Onboard simplifies the main tasks of the officer on watch, providing clear advice for the operating crew on how to navigate safely through heavy weather. OCTOPUS offers a simple user interface to advise users on safe speeds, headings and operating windows, avoiding the dangers of rolling, slamming or parametric roll. OCTOPUS gathers information about the vessel, the route or operational plan, the loading conditions, vessel-specific limitations and the weather. It uses this data to provide advice on maximizing operability, whilst guaranteeing the safety of vessel, crew and cargo. Enhancing the crew's awareness will extend the lifetime of the vessel, thereby reducing the total cost of ownership and giving a better return on investment.



OCTOPUS carries out continuous monitoring, simulation and forecasting of the ship's responses and performance.

Portable OCTOPUS-Onboard system

OCTOPUS-Onboard is also available in a lease construction. This way a temporarily and important heavy cargo transportation project can be monitored and the master of the vessel can profit from the full functionality of OCTOPUS-Onboard. The lease set-up is often used within heavy cargo transport companies to avoid severe conditions during transit and to measure and monitor critical motions and accelerations of vessel and cargo.

Typical OCTOPUS-Onboard vessel segments

- Offshore construction vessels (windmill installation, cable/pipe laying, drilling, dredging)
- Offshore supply vessels
- Heavy lift cargo & Multi-Purpose Heavy lift vessels
- LNG Carriers
- Container vessels

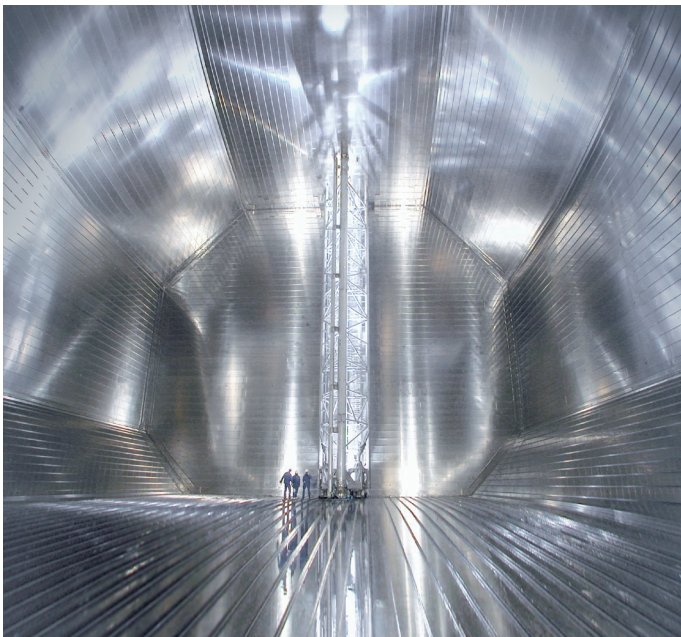
References

“With the OCTOPUS Motion Monitoring and Decision Support system, the Master and officers have a powerful tool to plan and execute the transport of heavy cargo.”

Jan de Jonge, Dockwise.

Sloshing prevention for LNG vessels

The sloshing advisory function is an advanced module within OCTOPUS-Onboard providing warning of the risk of sloshing in LNG vessels. It provides advice to the crew so that the optimum route without risk for sloshing can be chosen and time savings can be achieved. The crew is given precise information as to how to stay within the set limits and avoid the risk of sloshing and consequential damages. This is calculated by combining the motion measurements or forecasts with GTT model test results for determination of sloshing criteria. GTT (Gaztransport & Technigaz) specializes in designing and licensing the construction of cryogenic LNG storage tanks for the shipbuilding industry. Sloshing can cause damages to the LNG membrane tanks resulting in long downtime for the repairs. The OCTOPUS sloshing advice is a must for all LNG vessels to ensure safety and availability of the vessel at all times.



Amarcon and GTT deliver technology that prevents sloshing onboard LNG Carriers.

DP Capability Forecasting

For vessels equipped with a Dynamic Positioning system, OCTOPUS provides a DP capability function which gives offshore vessels the possibility to make optimum use of a safe time-window for their weather-sensitive operations. A forecast is given as to whether or not the vessel is capable of maintaining her position and heading in changing environmental and weather conditions, hours and days ahead. This leads to maximized workability and more productive hours during operations where the DP system is used. The calculations are based on the thruster properties in combination with measured environmental conditions and weather forecasts which are an integral part of OCTOPUS.



Jumbo Javelin

For more information, please contact

Amarcon BV
Korenstraat 37
7722 RS Dalfsen
Netherlands
www.amarcon.com
amarcon.sales@nl.abb.com
Phone: +31-529 436876
Fax: +31-529 436842

Power and productivity
for a better world™

