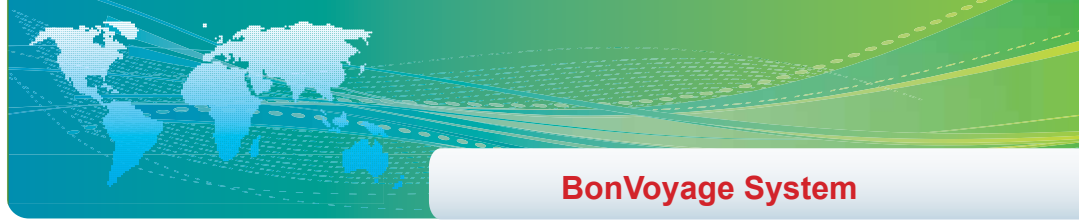




The Fleet Optimization Experts



BonVoyage System



BonVoyage System for On-board and Around-the-Clock Optimum Ship-Routing Information

AWT's BonVoyage System (BVS) is an icon-driven graphical marine voyage optimization system that provides on-board and around-the-clock weather-routing information. This sophisticated yet user-friendly system is both comprehensive and cost effective, making it an indispensable operational tool.

Benefits of BonVoyage System:

- Allows Captains to optimize their voyage
- Offers 16-day forecasts twice a day
- Provides convenient shipboard interaction and use with easy-to-use format

Voyage Optimization

Calculate least time, fuel or cost

Using your on-board computer, BVS provides the most current data to the ship by email in a highly compressed format to minimize communication costs. This data is then used to generate color-enhanced maps and graphics that allow the ship's Master to easily view and interpret potential problem areas in advance. BVS will even suggest an optimized route. For example, the Captain can calculate the least time or the least fuel track with the optimization function of BVS. For certain requirements (e.g., if the vessel's thrust is assisted by a sail), the Captain can even calculate the least cost track. Both weather-induced constraints and no-go zones can be set to account for the special requirements of each particular voyage.

“BVS is a helpful tool in route planning and in enhancing ship's safety by avoiding bad weather conditions. And in the midst of skyrocketing oil prices, BVS is a big aid in saving bunkers.”

*– Capt. Chou Chi Tang,
The Cape Australia,
U-Ming Marine
Transport Corporation*



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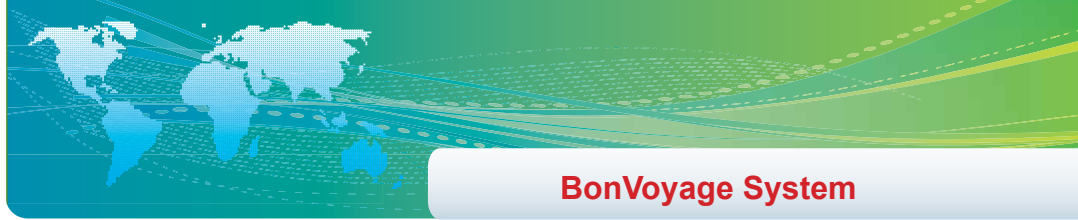
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Data Delivery

Customized, fast and easy to read

With the latest version of BVS, Captains now have the capability to customize their data delivery schedules, forecast regions and parameters with an easy-to-use interface. The data is delivered through email, and the file sizes have been reduced by 50%–70% compared to previous versions for faster transmission.

Environmental Modeling and Data

Forecasting storm strength and effects

AWT leads the field with experienced meteorologists using data from numerous sources. Starting with a global weather model, AWT enhances the pressure and wind data by integrating information from specialized tropical cyclone forecasts. This enables AWT to take the full strength and circulation of a storm into account. Adjustments are made to the model output to better reflect various other effects, including monsoon winds, increased cold-air winds and the increase in winds near developing mid-latitude storms. Over this improved data, AWT runs a proprietary wave model in order to calculate the most accurate wave forecast available.

Resonance Alerts

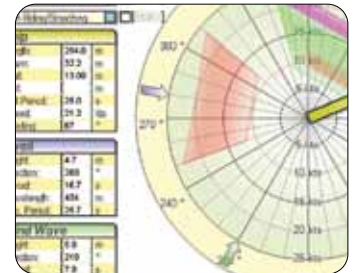
Avert heavy-weather damage

BVS's new resonance feature is a valuable tactical tool that can be used to calculate the potential for severe rolling of the vessel and will display warning symbols along the track where these motions are forecast to occur. The Captain can call up the resonance chart display along the track where the warnings are firing, and the chart will graphically display the areas where heavy motions are most likely. It then gives an indication on which headings and/or speeds could be used to avoid these areas, thereby minimizing the potential of heavy-weather damage.

Naval Coastal Ocean Model (NCOM) Currents

Accurate currents for efficient voyages

BVS has integrated the latest technology in ocean currents. Users can download the NCOM current data daily in high resolution. This data is far superior for making routing decisions when compared to the monthly pilot chart currents available from most sources. This data allows Captains to fine tune their voyages to maximize the effects of the current, enabling significant savings in time and fuel even on shorter or coastal voyages.



Resonance Alert



NCOM Currents