



# Ship Routing

## *Getting You There Safely and Efficiently*

### **Optimum Route**

Our experienced staff of weather routing experts will recommend the optimum route taking into account analysis of all variables, including the weather, currents, vessel type, age, stability, cargo, speed, etc. StormGeo uses its proprietary application, Ship Route Optimization System—the most sophisticated weather routing tool available today.

### **Safety and Fuel Efficiency**

The combination of experienced ship routing staff and most sophisticated tools ensures the highest probability of a safe and efficient voyage. StormGeo has developed a ship routing system using artificial intelligence with an extensive alarm system that continuously monitors the vessels and alerts the Route Analyst when action is needed. The alerts are prioritized so the analyst can quickly address those vessels that need our help the most. These alarms cover all facets of the voyage from administrative details, data quality, vessel and voyage to performance and safety. Examples are:

- Potential of encountering freak waves, tropical cyclones and explosive deepening storms
- Probability of putting sensitive cargo at risk

StormGeo is the only shore-based ship routing company to use vessel and voyage specific severe motion alerts based on the vessel size, draft, stability, speed, heading and wave conditions. These alerts provide both strategic and tactical guidance to our experienced Route Analysts when evaluating a vessel's route. The alerts show where severe motions are most likely to occur at a specific time along the route, and give an indication on which headings and/or speeds could be used to avoid these areas thereby minimizing the potential of heavy weather damage. These types of alarms allow StormGeo to find the optimal route while keeping the crew, vessel and cargo safe.

### **Experienced, Full-Service Ship Routing Support**

Our offices are staffed with experts in forecasting, forensic meteorology, oceanography, computer science and voyage planning. Because ships are on the job 24-hours a day, every day during a voyage, StormGeo provides ship operators and masters 24-hour support year round. The services provided by StormGeo include interactions with shipping company offices, initial routing messages for shipmasters, continuous monitoring of the vessel's progress and issuance of voyage performance reports.



StormGeo routing teams are established to promote ship-type expertise by aligning our professional staff with the shipping industry, with our staff working in team specializing in the major ship types.

StormGeo has extensive experience and data to help plan your voyage ahead of time and to support the speed and consumption claims for routed and un-routed voyages.

**Numerous Sources of Environmental Information for the Best Data**

- State-of-the-art oceanic and atmospheric modeling
- Sophisticated and precise satellite remote sensing instrumentation
- Direct, surface-based environmental observations
- Hybrid Coordinate Ocean Model (HYCOM) current data with tidal streams

**Combining Meteorology with Actual Ship Response**

Ship routing demands an understanding of the complex relationship between the science of meteorology and the science of naval architecture ship-response algorithms. Voyage analysis that defines the exact relationship between the actual weather encountered and the true effect on speed of advance of any specific vessel requires considerable skill and experience. Industry-renowned scientists in this specialized science head the StormGeo voyage analysis group.