

Voyage Insights / *by Ascenz Marorka*

Voyage decisions you can trust

By combining state-of-the-art voyage optimization software with continuous oversight from our seasoned officers and maritime experts, GTT Marine supports safer, more efficient and reliable voyages - before, during and after each passage.

Alternative Route

Min Fuel: ▼11 % 2,013 nm US\$ 241.8k



Optimized Voyages, Backed by Maritime Experts

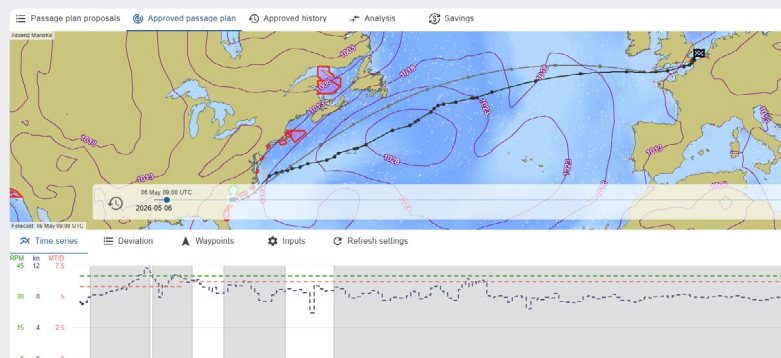
GTT Marine delivers an advanced voyage optimization software, available as standalone or complemented by expert support from our Fleet Performance Centres. Together, they enable shipowners and operators to plan, monitor and continuously improve voyage performance.

Voyage Optimization Software

The solution delivers vessel-specific route and speed recommendations based on high-resolution weather forecasts, physical performance models, and vessel-specific digital twins. It supports both pre-voyage planning and in-voyage optimization, while ensuring navigational and environmental compliance.

Key Capabilities

- **Multi-objective Optimization:** Distance, Time, Fuel, CO₂ or Overall Cost
- **Weather-aware Routing:** Proactive avoidance of adverse and severe weather
- **Seakeeping Analysis:** Predicts vessel motions to reduce risks such as synchronous and parametric rolling, surfing, and broaching
- **Operational & Regulatory Constraints:** ENC data, TSS, ECAs, no-go areas, vessel limits
- **Dynamic Voyage Updates:** Re-optimization from actual position as conditions evolve
- **Container Loss Prevention (CLP):** Includes lashing calculations to reduce the risk of container loss
- **Passage Planning Support & ECDIS Compatibility:** Route export/import
- **Post-voyage Analysis:** Comparing planned vs actual performance, including fuel and emissions
- **WAPS Routing:** Optimized routes for wind-assisted vessels



Key Benefits

- Optimization of safety, efficiency and compliance through route and speed adaptation to evolving weather conditions.
- Reduction of fuel consumption and emissions combined with improved schedule reliability via weather-aware ETA management.
- Adherence to navigational and environmental regulations, with actionable fuel and cost savings insights supporting both operational and commercial decision-making.

Fleet Performance Centres

GTT Marine's Fleet Performance Centres combine advanced voyage optimization technology with continuous support from experienced mariners and shore-based experts located across Europe, Asia, and the Americas. Acting as an extension of onboard and onshore teams, the service provides continuous voyage monitoring, validation of routing and speed recommendations, and proactive support as weather and operational conditions evolve.

By combining real-time oversight with expert maritime judgement, GTT Marine helps shipowners and operators improve operational confidence, strengthen safety, and respond more effectively to changing voyage conditions. The service supports closer alignment between vessels and shore teams while fully respecting onboard authority and decision-making throughout the voyage.

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