



Sea Traders S.A. : Safer Navigation Through Congested Waters and GPS Spoofing



July 2026

5

Vessels installed

246K+

Nautical miles sailed

7K+

Navigational events analyzed

53%*

Reduction in close-encounter events in open waters

14%*

Increase in average minimum distance in open waters

9/10

Net Promoter Score returned by Sea Traders masters

*Analysis of Sea Traders vessels operating with Orca AI from Jan 2025 to Nov 2025

In the waters off Asia, small wooden fishing boats carry no AIS transponder and barely register on Radar. In the Strait of Hormuz, GPS signals are deliberately falsified. Sea Traders S.A. vessels trade through both – and the people responsible for avoiding collisions are navigating in conditions where the tools they've always relied on, leave gaps. In 2024, Sea Traders decided to close those gaps

The Customer

Sea Traders: Five Decades of Safety-First Dry Bulk Shipping

Sea Traders S.A., founded in 1974 and based in Greece, is part of the Procopiou group of companies. It operates a fleet of 27 vessels, 26 bulk carriers and 1 containership, and manages navigation alongside Prominence Maritime, which runs 4 bulk carriers within the same group.

Across five decades of operation, Sea Traders has built a reputation for reliability and operational discipline, holding its fleet to a standard of zero tolerance for accidents, pollution, complaints, and security incidents.

The Need

Strengthening Navigation Resilience in Congested Waters

Sea Traders' vessels trade through some of the most demanding waters in the world, and the company set out to give bridge teams more support in the moments when traditional equipment leaves gaps:

- **Non-AIS traffic in congested waters.** Small wooden fishing boats, nets, and buoys in Asian waters often carry no AIS signal and can be missed by Radar, leaving officers to identify them by eye in heavy traffic.
- **Low-visibility navigation.** Fog, heavy rain, night-time light pollution in port approaches, and sun glare reduce what the watch can see.
- **GPS spoofing and unreliable AIS.** In regions such as the Strait of Hormuz, the Arabian Gulf, and the Red Sea, positioning signals can be deliberately falsified and AIS distorted, and electronic systems that follow spoofed data can drift from a vessel's actual position.
- **Watchkeeping load and a widening experience gap.** Extended watches, crew shortages, and changing experience levels place a continuous demand on bridge teams, and a newer officer needs the same baseline of awareness as the master before.

“

Our crews are operating in a new reality, and we cannot expect traditional practices alone to carry the additional burden. Our responsibility is to understand what bridge teams need in real operations and help them navigate with greater clarity and confidence.”

Panos Kourkountis, Technical Director, Sea Traders S.A.

The Solution for the Crew

A Second Set of Eyes for the Officer of the Watch

Sea Traders began its partnership with Orca AI in September 2024, installing the platform across 5 vessels.

On the bridge, the SeaPod was installed alongside Radar and ECDIS, giving the watch a continuous visual reference that detects and prioritizes targets, including wooden fishing boats without AIS, dark vessels, buoys or small crafts.

By focusing attention on the highest-risk targets, Sea Traders' officers are able to assess developing encounters earlier and act with more margin in congested waters.

The thermal view extends that into night navigation and low visibility, reducing the strain of sustained watchkeeping.

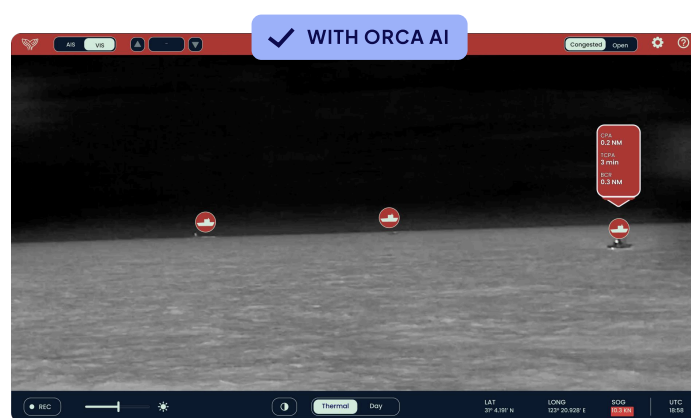
“

I can say it's helpful, especially during heavy traffic, and especially in Asia where there's a lot of fishing boats – even more so during nighttime.”

Capt Alamgir Bacha, Master, Agios Sostis



Approaching coastal waters in the Eastern China Sea. On the standard view (left), small fishing vessels are lost in backscatter and glare; Orca AI's SeaPod's thermal view (right) surfaces them for the bridge team.



Navigating through GPS Spoofing and AIS Disruptions

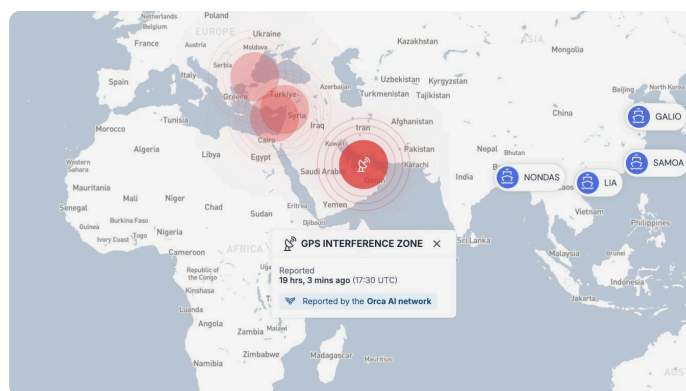
GPS spoofing moved from edge case to operational reality over the past year. When positioning signals degrade, Orca AI's SeaPod gives the bridge a reference that does not depend on GPS or AIS.

When sudden jumps in a vessel's reported position indicate unreliable navigation data, Orca AI alerts the crew and switches to a camera-only visual mode alongside radar, continuing to detect, prioritize, and estimate the bearing and distance of surrounding targets from live imagery.

“

Orca AI helps us correlate the targets. When the AIS is not reliable, you compare what the instruments tell you with what the cameras actually see. It's very effective at night, in clutter, or during signal spoofing.”

Captain Sanju Singh, Master, Samoa



GPS interference zones along Sea Traders' routes, seen in FleetView. The shore team can see where positioning signals are unreliable and brief crews before they transit those areas.

The Solution for the Office

Fleet-level Safety Performance Oversight

Sea Traders office teams use FleetView, Orca AI's shore-side platform, to move from vessel-level reporting to a continuous, fleet-wide view of navigation performance.

Masters and teams ashore review real-time operations through a shared interface, including close encounters, COLREGs compliance, and SOG compliance across vessels and regions. With that access, the office is now part of the bridge ending the previous disconnect.

FleetView Event Analysis supports formal investigations alongside the vessel's Voyage Data Recorder (VDR) and ECDIS playback by providing classified, time-stamped playback of the event and LiveView recordings, giving investigators a clearer picture of the event and what appeared on the bridge in real time.

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We see what our vessels see now. When something happens, we review it with the crew and improve together. That's what changed our safety culture.”

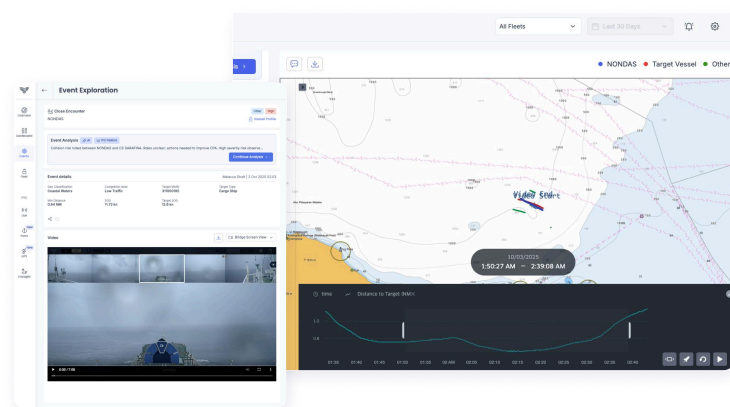
Captain Nestoras Grigoropoulos, HSSQE Manager and DPA, Sea Traders S.A. and Prominence Maritime

Building Adoption Through Training and Feedback

Adoption is something Sea Traders maintains, not assumes. Each month the office sends every vessel its own results, benchmarked against the fleet.

Rather than training on a fixed schedule, it runs training when the data calls for it, after a crew change or when a vessel's engagement drops, using event playback in safety meetings instead of generic material.

The benchmarking adds a healthy edge of professional pride that keeps platform engagement high, and a consistent baseline carries across crew rotations so new joiners align quickly.



FleetView event analysis of a close encounter with a cargo vessel in the Malacca Strait, giving the shore team time-stamped playback to review the situation.

When Near Misses Went Up, Sea Traders Saw it as Progress

In the early months of deployment, reported near-miss events increased. Rather than raising alarm, Sea Traders' team read it as confirmation that events were finally being captured and reviewed – a sign that the safety reporting culture was shifting from reactive to proactive.

Accountability now runs in both directions. Crews know the office can see how each voyage is navigated, and the office holds itself to acting on what it sees.

When a close encounter occurs, the team shares the footage and asks the vessel to investigate alongside them, focused on what to improve rather than who to blame.



Fleet engagement across 5 vessels. Fleet engagement measures how consistently bridge teams use Orca AI's SeaPod during navigation. Use peaks in coastal waters and continues in open water, showing it is becoming part of routine watchkeeping behaviour.

The Results

Operational Safety Improvements Across the Fleet

Over 2025, across 5 vessels the fleet recorded a 53% reduction in close-encounter events in open waters and a 14% increase in the average minimum distance its vessels kept from other traffic.

On the bridge, developing situations are spotted earlier, course and speed adjustments are smaller and more timely, and passing margins hold more consistently through congested transits and port approaches.

Ashore, Sea Traders' teams point to stronger SMS and COLREG compliance.

Sea Traders' masters returned an average score of 9 out of 10.

Their feedback centered on day-to-day watchkeeping: picking up fishing boats and small craft in congested Asian waters, keeping the picture at night through the thermal view, and helping newer officers reach a confident assessment sooner.

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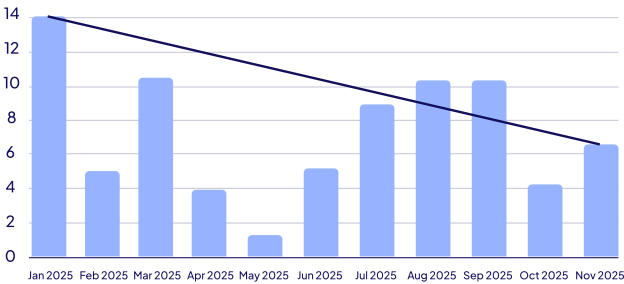
Every accident carries a cost far beyond the repair: the ship, the cargo, the crew, the company's name. When you weigh that against what prevention costs, safety becomes the soundest investment a shipowner can make.”

Panos Kourkountis, Technical Director, Sea Traders S.A.

Close Encounter Events: Open Waters

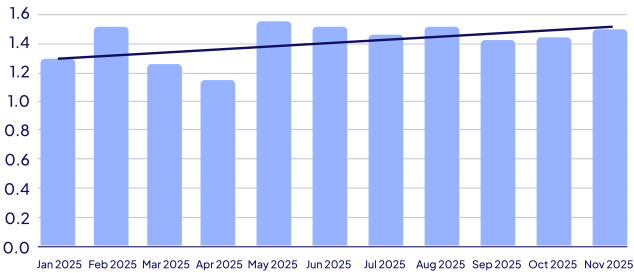
↓ 53%

Close Encounter Events per 1000NM



↑ 14%

Average Minimum Distance



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Safety is paramount. Orca AI helps our crews make better decisions, improve situational awareness, and navigate difficult environments with less stress, while also supporting operational efficiency.”

Captain Nestoras Grigoropoulos, HSSQE Manager and DPA, Sea Traders S.A. and Prominence Maritime

▶ [Watch Video](#)

ABOUT ORCA AI

Orca AI is the leading maritime operations platform utilizing artificial intelligence and computer vision to drive navigational safety and efficiency. The Orca AI platform enables crews to make data-driven decisions in congested waters or low-visibility conditions, while fleet managers gain insights into fleet performance.

Orca AI powered the world's first commercial autonomous voyage in 2022 in partnership with Designing the Future of Full Autonomous Ships (DFFAS) and The Nippon Foundation.

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