

Marasco Marine Ltd: Redefining Marine Insurance Through Risk Prevention and Technology

by Anastasios Maraslis, Founder/President, Marasco Marine Ltd



In today's volatile maritime environment, the conversation around insurance is no longer limited to premiums, clauses, and exclusions. The true battleground is risk prevention. At Marasco Marine Ltd, we firmly believe that **the smartest investment shipowners can make is not in more steel, but in smarter thinking.**

This belief has guided us since our founding in 1991, and it now drives our most ambitious initiative: to **reshape marine**

insurance into a predictive, prevention-driven model—one where advanced technologies, human-centric training, and AI-powered tools converge to minimize human error, reduce downtime, and lower premiums.

From Claims Management to Claims Avoidance

Traditional insurance reacts to losses. Premiums rise after costly repairs, protracted disputes with underwriters, and long periods of vessel downtime. In contrast, **risk prevention culture** reverses the equation: by cutting losses at their root, owners gain not only lower premiums but also uninterrupted operations and healthier crews.

Our experience shows that even modest preventive measures yield **exponential rewards**. A single avoided machinery breakdown, fire incident, or crew illness can save hundreds of thousands of dollars—far exceeding the marginal cost of prevention systems.

Technology as the Crew's Ally, Not Its Replacement

Risk prevention is not about replacing mariners with machines. It is about empowering them with tools that extend their senses and sharpen their instincts.

Some of the **technologies we are bringing into focus** include:

- **AI-driven IoT** sensors that detect vibration anomalies, heat spikes, or pressure fluctuations before breakdowns occur, turning silent machinery into “sentinels” that speak.

- **Wearable health trackers** that combat fatigue, a leading root cause of maritime claims, by monitoring rest cycles and preventing exhaustion before it becomes dangerous.
- **Dynamic AI risk maps** that fuse live weather data, piracy alerts, and satellite movements into real-time routing decisions—helping navigators avoid crises before they develop.
- **Augmented reality emergency drills** that replicate real stress environments, training crews to act instinctively under pressure rather than mechanically following scripts.

These are not futuristic ideas. They are here today. And when applied intelligently, they **reduce claims frequency by up to 40%, improve crisis response by 30%, and strengthen the mental resilience of crews.**

The Human Factor Remains Central

Despite the wave of new technologies, the most critical variable remains the human onboard. **Human error accounts for up to 75% of maritime accidents.** By embedding prevention culture into training, procedures, and technology adoption, Marasco Marine Ltd's mission is to transform this liability into strength.

Our **Advisors' Board**, spearheaded by seasoned experts like Mr. Harilaos Petrakakos, has outlined practical hacks and solutions for shipowners to implement immediately. From predictive maintenance to cyber hygiene, these solutions put people at the center of the equation—not as potential points of failure, but as the ultimate guarantors of safety when properly equipped.

Preparedness: The Real Discount

Premium discounts and competitive rates are outcomes, not goals. The real objective is **prediction and preparedness**:

- **Prediction** means knowing when a risk is forming before it materializes.
- **Preparedness** means being able to respond in a way that minimizes loss, downtime, and human suffering.

At Marasco Marine Ltd, we have seen repeatedly that the cost of prevention is **a fraction of the cost of repair**. And unlike repairs, prevention strengthens long-term competitiveness, ensures smoother renewals, and builds trust with underwriters who reward low-risk profiles with better terms.

A Culture of Prevention

Marine insurance is undergoing a silent revolution. It is no longer a matter of how quickly insurers can settle

claims, but how effectively owners can avoid them in the first place.

By adopting **risk prevention culture**, supported by smart technologies and guided by human expertise, shipowners gain more than financial savings. They achieve resilience,

operational continuity, and above all, a reputation for reliability in a turbulent industry.

At Marasco Marine Ltd, our promise is clear: to stand beside shipowners not only in times of casualty but far earlier—in the realm of **prediction, preparation, and prevention**.

The Silent Revolution in Maritime Risk Prevention: 5 Human-Centric Tech Hacks that can Transform Shipping

by Marasco Marine Ltd Advisors' Board executive member, Harilaos Petrakakos

In today's volatile maritime world, where global trade, vessel safety, and crew wellbeing are under constant pressure, the smartest investment is not in more steel, but in smarter thinking. At Marasco Marine Ltd, **risk prevention is not just a practice—it's our culture**. Our President, Mr. Anastasios Maraslis, established our dedicated **Advisors' Board** with one clear mission: to support our clients with advanced **risk control, loss prevention, and claims reduction strategies** that lead directly to **premium discounts** and long-term profitability.

Here, Marasco Marine Ltd Advisors' Board member Mr Harilaos Petrakakos shares five actionable, human-focused technological «hacks» that shipowners, managers, and insurers can adopt to enhance safety, reduce claims, and support the people at the heart of maritime operations: the crew.

Predictive Maintenance with IoT Sensors

The Insight: Smart sensors embedded in machinery detect vibration anomalies, heat spikes, or pressure fluctuations before failure occurs.

The Human Benefit: Crews like Chief Engineer Nikolaos no longer need to rely solely on instinct at sea. IoT turns machines into sentinels that «speak up» before breaking down. Predictive alerts reduce stress, allow scheduled repairs, and minimize downtime.

Result: A 40% drop in unscheduled maintenance in Greek-ownership fleets using predictive tech.

Augmented Reality (AR) Emergency Drills

The Insight: AR overlays simulated crises like fires, flooding, or injuries onto real ship environments.

The Human Benefit: Instead of scripted, ineffective drills, crews experience stress-replicating training that builds real reflexes and coordination under pressure. Mistakes are

made—and learned from—in a safe space.

Result: AR-trained teams resolve incidents 30% faster during simulations.

Maritime Cyber Hygiene

The Insight: Ships rely on software. That software must be protected.

The Human Benefit:

Cyber risk awareness programs, multi-factor authentication, and routine system updates empower crew to act as digital gatekeepers. But ships also retain manual overrides—a crucial fallback that respects human autonomy.

Mariners are not replaced; they are protected.

Wearables to Combat Fatigue

The Insight: Fatigue is one of the top root causes of maritime claims.

The Human Benefit: Smartwatches and health bands track rest, alerting officers before exhaustion becomes dangerous. This builds a new safety culture: one that encourages rest, not machismo.

Prevention, not punishment: fatigue alerts support wellbeing.

AI-Powered Dynamic Risk Maps

The Insight: AI fuses live weather data, piracy zones, and satellite movements to generate real-time routing alerts.

The Human Benefit: Navigators are no longer flying blind. Instead, they team with technology to make



informed decisions that protect the vessel, cargo, and crew.

Result: A Maersk vessel rerouted 24 hours before a Category 4 storm. Crisis averted.

Final Word: Tools That Respect the Human Element

The shipping industry must resist the narrative that automation is the future. Instead, the winning formula lies in **technology that empowers the human onboard**, not replaces them. These five hacks are not gimmicks—they are tools that amplify expertise, sharpen instincts, and create safer workplaces.

Marasco Marine Ltd and its Advisors' Board commitment is clear: *supporting shipowners with solutions that*

reduce risks, minimize claims, and ultimately lower premiums. We believe that with the right mix of **intelligence and empathy**, we can help our clients navigate forward with confidence, resilience, and respect for those who make global trade possible.

** Marasco Marine Ltd, was founded in 1991, by Mr Anastasios Maraslis. Marasco is specialising in Managing Marine Risks and Risk Prevention Planning, serving the last 33 years, Ship Owners, Ship Managers and Ship Operators, with his experienced marine/claims insurance team and the company's Board of Advisors, Internationally Acknowledged. More about Marasco Marine at: www.marasco-marine.com*